

Orchard Hill SEN & AP Schools



Construction Management & Logistics Plan

Revision History

Revision	Purpose	Date	Author
Rev 1	Planning Submission	03.06.2019	Mike Elliott
Rev 2	Condition Discharge	20.08.2020	Mike Elliott
Rev 3	Condition Discharge	23.10.2020	Mike Elliott



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SECTION 1 - INTRODUCTION

Objectives of this Plan

The Construction Management and Logistics Plan is not confined simply to the activities occurring on this project.

The mandated logistics strategy will clearly set out the guiding principles to be followed in order to ensure alignment by all stakeholders and to aid the production of detailed (Lean & Agile) logistics plans. These plans must cover operational logistics requirements such as site accommodation, waste, security and temporary services, as well as material logistics requirements such as stores, material flows to / from site, delivery scheduling and tracking.

Logistics strategy planning will be considered over the whole project life cycle to ensure that the agreed logistics plans fully support and underpin the project goals.

As such the logistics strategy will manage all partners in a supply chain, extending beyond the boundaries of Laing O'Rourke.

The Logistics Strategy sets the guiding principles, driving forces and ingrained attitudes that aid in achieving objectives by coordinating goals, plans and policies between Laing O'Rourke, its partners and key stakeholders such as clients and local authorities.

The Logistics Strategy will also be aligned to the Project Execution Plan (PEP) which has the primary purpose of communicating to stakeholders how the requirements of the project will be delivered. It also provides a record at each stage of the project lifecycle of the agreed project strategy and a basis to measure and manage change.

This plan seeks to manage highway impacts in accordance with Policy DMHB 11, DMT2 and DME14 of the Hillingdon Local Plan: Part Two - Development Management Policies (2020).

Policy Context

Consideration and reference will always be given to relevant policies stipulated by authorities and local planning conditions, which include TfL and Hillingdon.

Additional policies referenced:

Construction Logistics and Cyclist Safety (CLOCS)

The Transport Research Laboratory published the 'Construction Logistics and Cyclist Safety' (CLOCS) report in February 2013. CLOCS aims at achieving a visionary change in the way the construction industry manages work-related road risk. This is being achieved through three industry-led work streams:

- Improving vehicle safety through design and manufacture of safer new vehicles and
- appropriate safety equipment for existing vehicles
- Addressing the safety imbalance in the construction industry by ensuring road safety is
- considered as important as health and safety on-site
- Encouraging wider adoption of best practice across the construction logistics industry by
- developing a common national standard and a new norm

CLOCS has developed the "CLOCS Standard for Construction Logistics: Managing work-related

road risk” which has become a common standard for use by the construction logistics industry. Implemented by construction clients through contracts, it provides a framework that enables ownership in managing road risk which can be adhered in a consistent way by fleet operators.

[Tfl Construction Logistics Plan Guidance \(2017\)](#)

This guidance document seeks to ensure that CLPs are developed of a high quality are produced to minimise the impact of construction logistics on the road network. The document provides detailed advice on writing each section of a CLP, from policy through to planned measures.

It is noted that well-planned construction logistics will reduce:

- Environmental impact: Lower vehicle emissions and noise levels
- Road risk: Improving the safety of road users
- Congestion: Reduced vehicle trips, particularly in peak periods
- Cost: Efficient working practices and reduced deliveries

[The Mayor's Transport Strategy \(2018\)](#)

The Mayor's Draft Transport Strategy includes targets to reduce construction traffic within central London by 5% by 2020. Proposals 16 and 17 outlines TfL's aims to work collaboratively with the freight industry and businesses to produce a more efficient and safer servicing and delivery network within London. This is proposed as being achieved through incorporation of consolidation centres within CLPs and rescheduling of construction deliveries away from peak periods.

SECTION 2 – CONTEXT, CONSIDERATIONS & CHALLENGES

Site Context

The school site is located in Yiewsley, West Drayton, approximately 4.1 km east of Slough. It sits within a residential setting, with predominantly two storey houses surrounding the site to the south and east. To the west it is bounded by Rabbsfarm Primary and to the north by parkland. The site access is from Falling Lane to the south. The closest major road is A408, linking the site into the centre of West Drayton, where there is a train station with links east into central London, and towards Reading and beyond to the west. There are several bus routes in the area linking commuters into West Drayton and towards Heathrow to the south. The U1, U3 and U5 bus routes pass the site to the south, on Falling Lane.

The current Young People's Academy is located at 71 Falling Lane, West Drayton UB7 8AB.

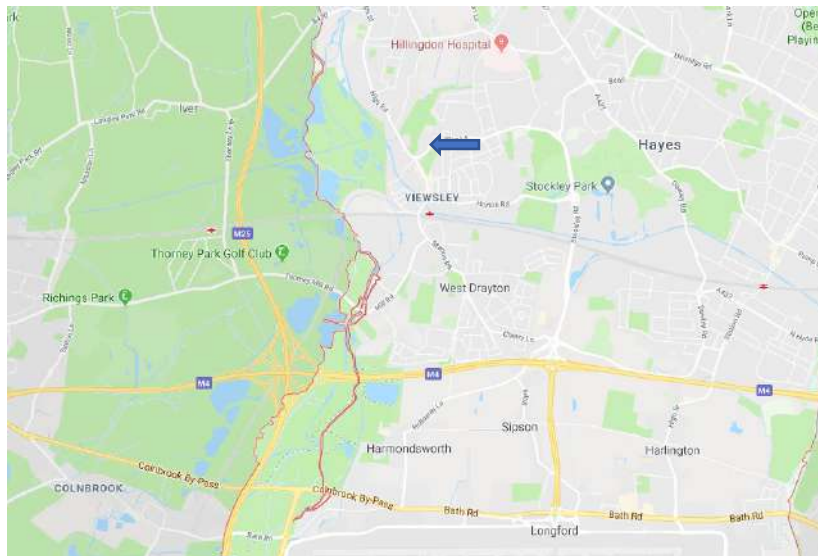


Figure 1 Google map of site location



Figure 2 Google earth aerial view of site boundary

Site Analysis

The site is bounded by residential properties to the south and east, Rabbsfarm Primary School to the west and open land to the north, with access to the site off Falling Lane to south. The site is currently used as a school and comprises a single storey school building located centrally on the site, with five prefabricated classroom buildings located to the west and south west of the main school building. A modern extension is present on the east of the main school building. An asphalt surfaced car park separates the school building from the prefabricated classroom to the south west.

The northern part of the site is comprised of a grassed playing field, with an approximately 1m high mound separating the playing field from the school building and the MUGA to the south.

The access to the current school gives on to Falling Lane to the south east and this access will be maintained for school use only throughout the construction phase.



Figure 3 Entrance to Young People's Academy from Falling Lane

Development Proposal

The new school building is split into two zones. **Young People's Academy (YPA)** and **Young People's Hub (YPH)**. Students, staff and visitors enter each school zone through light and welcoming waiting areas.

The development is for 230 place secondary SEN and all through Alternative Provision. The delivery of the specialist SEN curriculum requires careful refinement of typical teaching and learning spaces, to create the correct atmosphere and promote successful outcomes in SEN students.

The new building will be built whilst the existing school remains in use. On completion of the build, students will move across to the new school, to allow the existing building to be demolished to make way for sports play areas and parking for the new school. Construction works will be phased in sequence, working out from the rear of the site so as not to block the existing access route. Construction will be via a haul road to be constructed adjacent to Rabbsfarm Primary (as per similar access installed to enable the build of that school), to cause less disruption to the running of the existing live Young People's Academy.



The access to the construction site of the new school will be via Philpot's Farm green space accessed off Yiewsley High Street (A408) at 51°30'57.1"N 0°28'30.1"W

A construction access road will be constructed, like that which served the construction of the adjacent Rabbsfarm Primary though extended to the north to service the Orchard Hill site.



Figure 6 Proposed construction haul road through Philpot's Farm – view looking west

This haul road will enable Falling Lane to be kept clear of construction deliveries and allow Laing O'Rourke to control construction traffic flow directly.

The entrance off Yiewsley High Street A408 will be managed by Laing O'Rourke traffic marshals and turning right across the three lanes of traffic approaching the traffic lights at the falling lane junction will be prohibited – see section 7.

Laing O'Rourke will install site offices and welfare facilities from which to manage the project to the north of the site in a secure temporary compound.

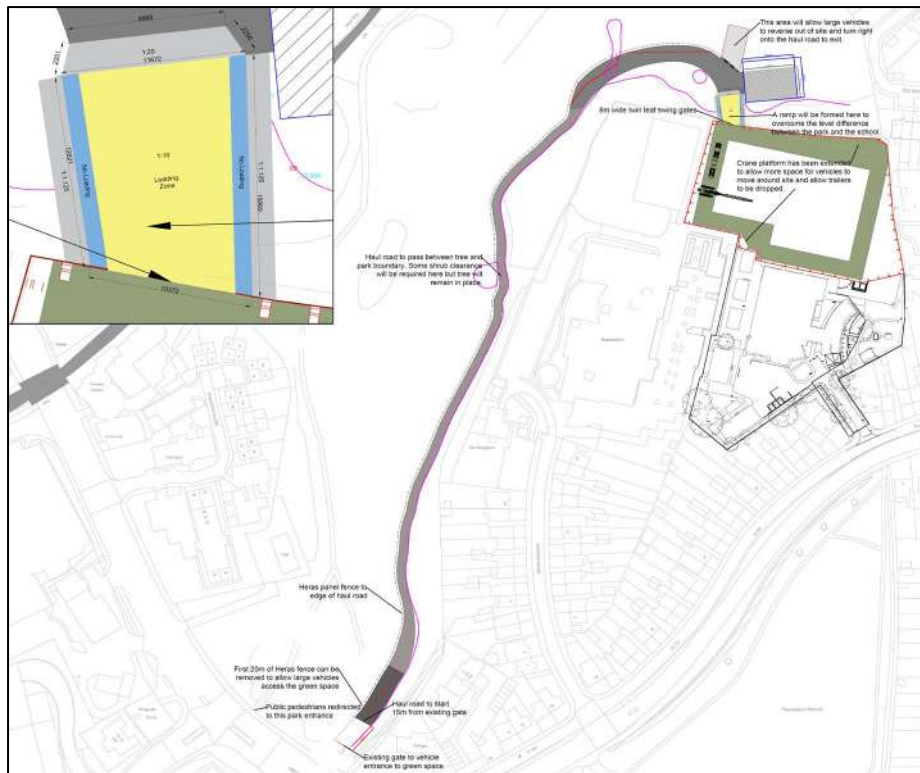


Figure 7 Plan showing haul road and site compound



Figure 8 Indicative model image showing Laing O'Rourke site compound and site entrance



Managing Construction Vehicles & Deliveries

Laing O'Rourke have considered the residential nature of the locality and the requirement to keep the existing school operational and tried wherever possible to minimise the impact of the construction of Orchard Hill on the local community and road network.

The offsite - manufactured solution proposed by Laing O'Rourke to meet the brief of the Department for Education means that there will be less trades on site requiring less deliveries and logistics movements. Many of the components for the new building will be arriving from either:

- Explore Manufacturing, S80 3FD (Structural façade, columns, beams)
- Crown House Manufacturing, B69 4LA (MEP components and plant room)
- Creagh Concrete Products, NG14 7JX (Hollow core planks and precast stairs)

This allows accurate scheduling of deliveries and real time tracking of the same meaning less disruption and unpredictable arrival times.

It is understood that the timely management of deliveries is key to the success of the project and in minimising disruption to local stakeholders.

During the works, weekly logistics planning meetings will be held with all the contractors to ensure their deliveries are scheduled, planned and coordinated to avoid congestion. The project will utilise a Delivery Management System (DMS) for the booking and scheduling of deliveries, which aids visibility of the planned contractors' delivery dates and times, locations of delivery, and offloading facility required.

All deliveries will be controlled by our site management team to prevent congestion from delivery vehicles on the surrounding roads.

No vehicles will be granted access to site unless booked-in and authorised. We will require subcontractors to strictly adhere to a just-in-time delivery methodology for loading out to the respective workface. This protocol will be embedded into the supply chain and trade contractor contract documents and agreed in detail at pre and post-contract meetings.

This process will be managed and coordinated by the DMS; this is a live and interactive system linking the project and the supply chain.

Benefits:

- a) Enabling suppliers to request their preferred time slots and receive confirmation of their allocated slot
- b) Providing greater visibility for all application users
- c) Providing advanced notice to gate personnel and allows for a more efficient flow of site traffic
- d) Facilitating more efficient operations
- e) Enables planning of daily allocation of gate teams, traffic marshals and plant
- f) Preventing congestion on adjacent streets
- g) Provides a detailed record of all deliveries, should follow-up investigations be needed in the unlikely event of a breach in security
- h) All delivery vehicles to be CLOCS & FORS compliant.
- i) Packaging proposals are to ensure that waste is minimal.

Delivery Management

All supply chain contractors will be contractually required to use the project delivery management systems Voyage Control including vehicle tracking, failure to book all vehicle movements using this system will result in transport being denied access to the project.

Voyage Control system takes the guess work out of logistics management, removing the risk of human error and providing Laing O'Rourke and our suppliers with full, real-time visibility of logistics activity.

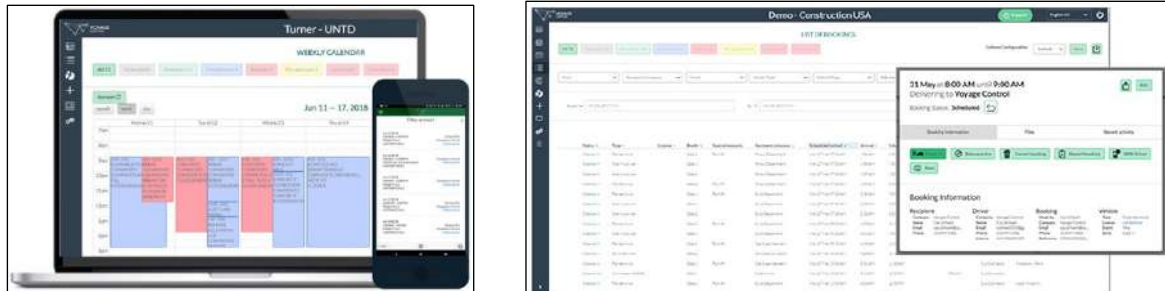


Figure 10 Voyage Control user interface

The automatic, cloud-based scheduling tool can be accessed by any supplier or subcontractor from any web-enabled device. The fully comprehensive and simple booking form allows them to input their required arrival time, time needed for offloading, vehicle type, user type (e.g. concrete or waste) and special requests, such as equipment required for offloading.

Using this information, the system online provides time slots that are really available. This saves the logistics manager the time it would take to ensure availability manually, while still providing the ability to accept or decline – thus maintaining total control of the project.

The automated nature of the system allows a raft of data to be collected and analysed on an ongoing basis. From punctuality to total CO₂, all related data is automatically shown on an easy-to-understand dashboard – with more detailed reports available at the touch of a button. This allows projects to produce highly accurate environmental reports to see their impact in real time.

Delivery Access

Deliveries to site will approach from the north, turning left from the A408 Vehicles exiting site will be restricted to a left turn back on to the A408 to access the main part of Falling Lane and the B467 to get back to the A40 and M25.

Swept path analysis of the turning off the A408 and up and around the haul road has been carried out (see Appendix B).

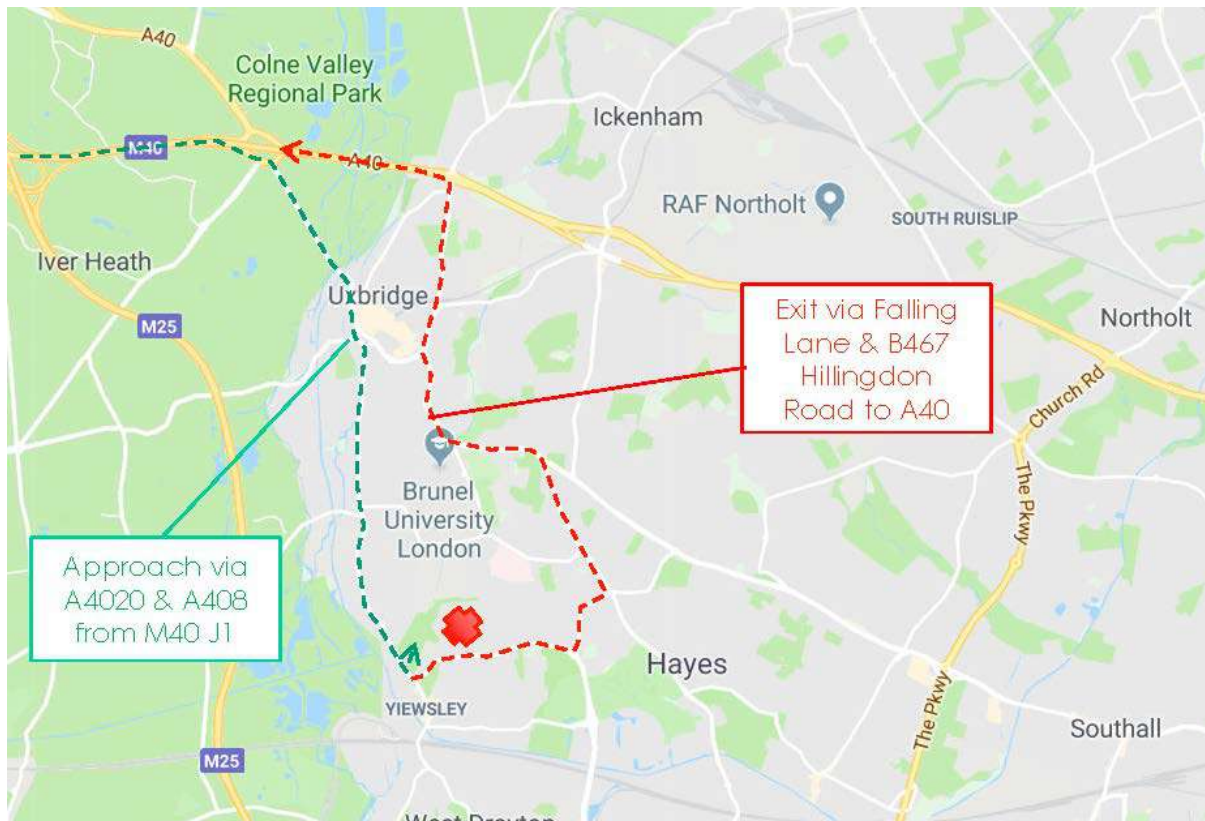


Figure 11 Proposed construction traffic routes to and from site and M25



Figure 12 Explore Manufacturing Route to Site



Figure 13 Crown House Manufacturing Route to Site

Haul Road



Figure 14 Detail at the Haul Road entrance off A408

Northern Approach

The junction of the haul road and the A408 is close to the existing junction of the A408 with Falling Lane heading east and Trout Road heading south west.

Vehicles approaching this junction from the north along the A408 and wanting to turn left into Falling Lane use a filter lane on the left of the carriageway. There are 3 other lanes – 2 to go straight ahead, 1 to turn right into to Trout Road.

Articulated delivery vehicles approaching from the North to turn left into the haul road will need to swing out the right into the middle lane to make this turn.

Traffic Marshals at the haul road entrance will manage other road users and pedestrians to ensure this turn is made safely, avoiding the danger of other road users continuing up the inside of delivery vehicles turning left. Clear signage will warn other road users of the turn across the filter lane.

For swept path diagrams see Appendix B.

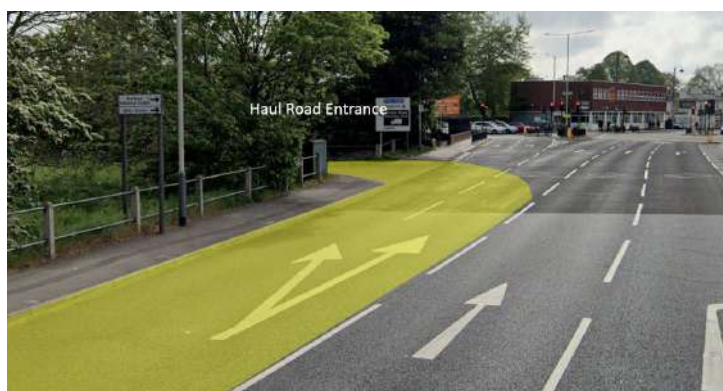


Figure 15 Street view image showing indicative turn zone across filter lane

Traffic Marshalling and Gate Control

There will be a gate staff located at the entrance to haul road from the A408 Yiewsley High Street as well as at the gate into the main site at the other end of the haul road. The gate team will be responsible for the safe passage of delivery vehicles entering and exiting the haul road and main site.

The gate team will communicate by radio, ensuring there is always room for deliveries prior to allowing them up the haul road. We have incorporated a layby waiting area on the haul road to prevent blocking of the filter lane mentioned above. No vehicles will be allowed to wait on the road network.



Figure 16 Haul road plan showing gate team locations and passing zone

Delivery Volumes

Weeks 1-13 Substructure Works

Peak - 50 loads/day: Mainly rigid tipper wagons, refuse and skip lorries

Weeks 13-25 Superstructure

Peak – 10 loads/day: Mainly articulated trailers, refuse and skip lorries

Weeks 25-60 Fit Out

Peak – 20 loads/day: Rigid wagons, vans, refuse/skip lorries with some articulated trailers

Weeks 60- 80 Demolition and Landscaping

Peak – 10 loads/day: rigid tipper wagons and vans

Measures to Prevent Dirt Tracking

Laing O'Rourke are conscious of the impacts on safety and appearance of construction traffic tracking dirt on to surrounding roads and footpaths. In order to prevent this, we will:

- Install a tarmac crane track around the new building so that all plant is tracking on a level and clean surface. This also prevents dirt being brought out of site on tyres.
- Provide a fully tarmac surface to the haul road to prevent construction dirt leaving Philpot's Farm on tyres of vehicles
- Provide a pressure washer at the exit onto Yiewsley High Street (A408) so that in the unlikely event that dirt is tracked down the haul road, the gate staff can wash it off before it reaching the road or footpath network.

Site Hours

Working hours will be **0800 to 1800 Monday to Friday** and **0800 to 1300 on Saturday**.

Work on Sundays will be avoided where possible and only carried out to fit with works avoiding school term time or abnormal loads.

Management of Out of Hours Deliveries

Abnormal loads will be received and removed from the project as detailed by the transport constraints imposed by the metropolitan police. A Section 61 variation will be obtained in advance and local stakeholders informed.

Contact with the existing school will be closely maintained and any sensitive or critical periods acknowledged with work activities planned appropriately where possible.

Travel to Site

Driving to site will be discouraged in favour of public transport. Pedestrian access is to be along the haul road to discourage disturbance to surrounding neighbours.

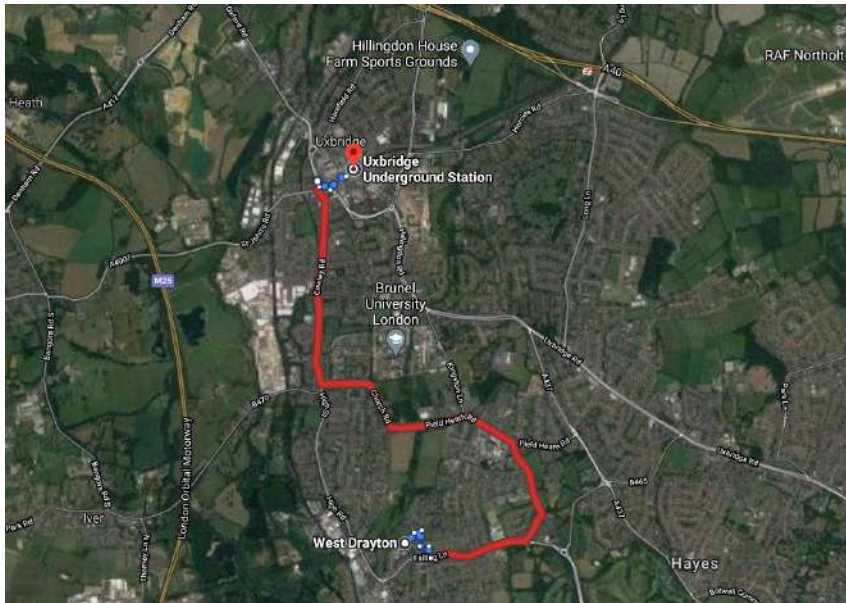


Figure 17 Travel from Uxbridge Underground Station via U5 Bus – 30 mins

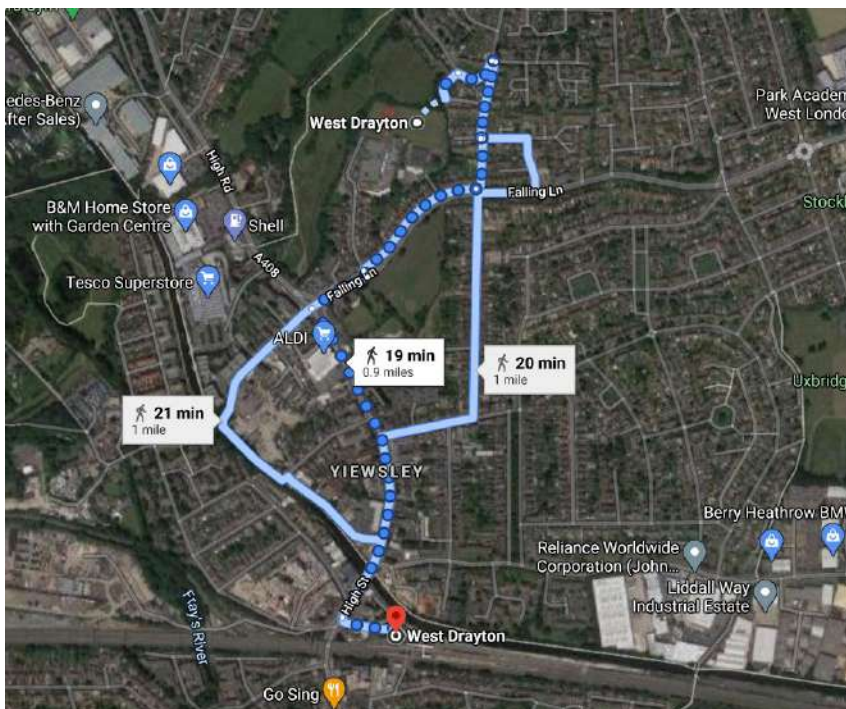


Figure 18 Travel from West Drayton National Rail Station via Yiewsley High St. - 20min walk

There will be some members of the site team who will stay locally during the working week in hotels/lodgings – a likely journey to site is:



Figure 19 Travel from Travelodge London Stockley Park – 30 min walk

Those for whom driving is unavoidable can use the Fairfield road car park in Yiewsley where 9 hours currently costs £6.20.

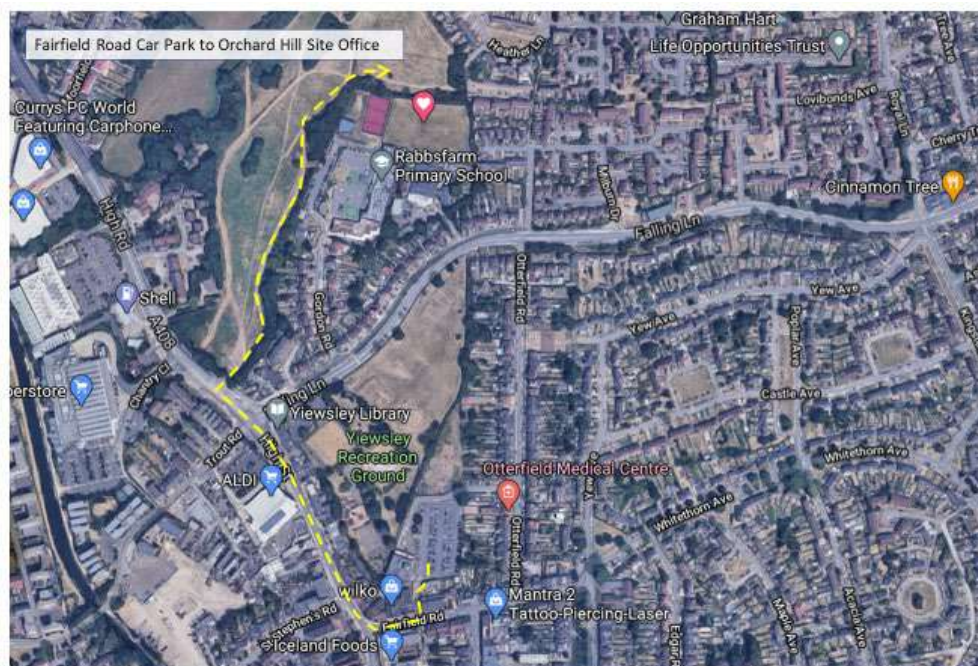


Figure 20 Travel from Fairfield Road Car Park – 15-minute walk

Laing O'Rourke will provide offices for the site team and client alongside drying/changing rooms, canteen with microwaves and fridges, first aid room and toilets:

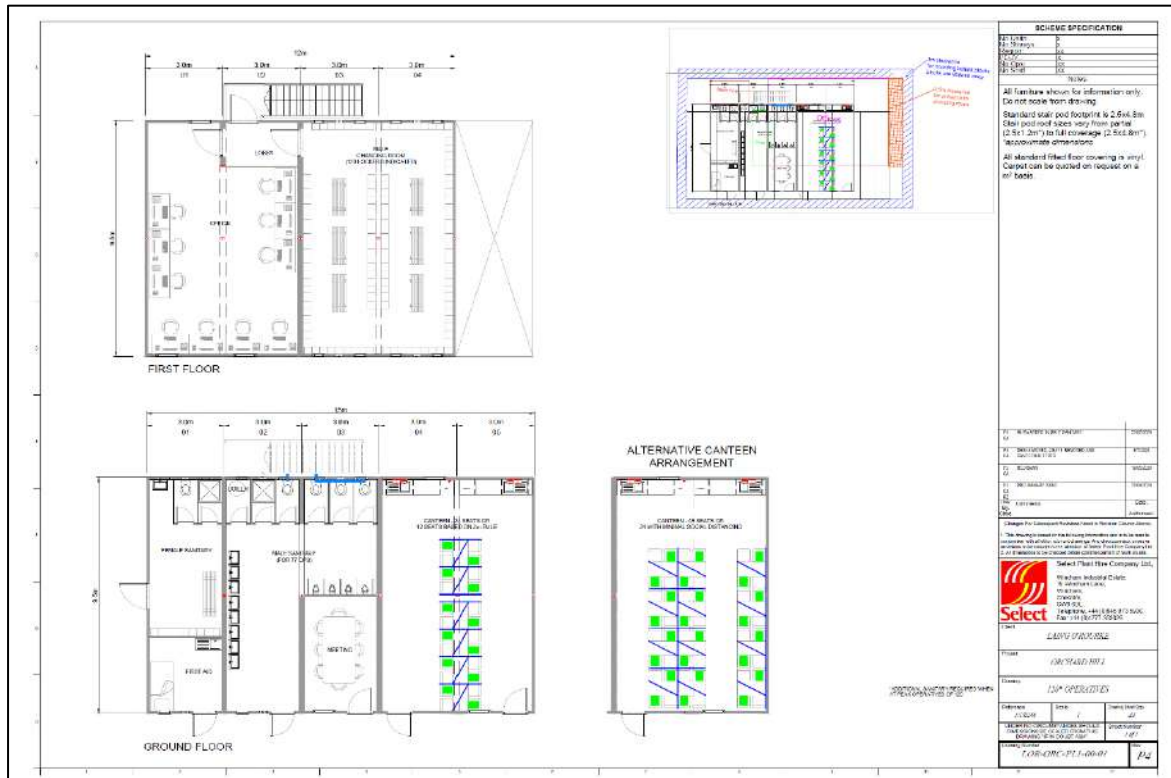


Figure 21 Laing O'Rourke Site Accommodation Layout

Welfare facilities will be made COVID secure in line with PHE guideline and those laid out in 'Site Operating Procedures – Version 6' published by the Construction Leadership Council.



Figure 22 Examples of COVID security measures

Laing O'Rourke now has extensive experience of making workplaces COVID-safe and we will use all of the lessons learned from other projects to ensure Orchard Hill meets the high standards set elsewhere – and government guidance as a minimum.

Site Access and Aurora

Access to site for all personnel is via a facial recognition turnstile system (Aurora) which will be located at the entrance to the site compound and accurately record the arrival and departure time of personnel and visitors on site.



Aurora Turnstile

Movement Around Site

Access to all parts of the site (internal and external) will be in line with Laing O'Rourke Group standard guidance G4 -J Access Routes and COVID-19 Operational Workplace Guidance (attached in Appendix C). These standards ensure safe access at all times.

Access routes will be reviewed at least weekly or as works require to ensure they always remain appropriate and safe.

In general, and notwithstanding the standards mentioned above:

- All main access routes will be pre planned to ensure all pedestrian access routes are segregated and protected from vehicular traffic or plant if possible
- All pedestrian access routes will be clearly identified and delineated.
- Any crossing points over traffic routes will be planned and established to allow control with provision of roadside barriers, warning notices for pedestrians and vehicles, painted crossing points on the road and traffic calming measures considered when planning and designing crossing points and pedestrian routes through sites or workplaces

SECTION 4 – PHASING & PROGRAMME

Key Dates

Haul Road Start – 7th December 2020

Section 1 (New School) Start – 4th January 2021

Section 1 Completion – 28th February 2022

Section 2 (Demolition and Landscaping) Start – 7th March 2022

Section 2 Completion – 12th October 2022

Construction Phasing

The new school building is to be delivered between December 2020 and February 2022, allowing occupation of the new building during half term in that month. There will then be an external phase involving the demolition of the existing school and completion the car parking and external landscaping.

The construction of the new building is split in to 4 ‘pours’ or areas and the flow of work will be East to West.

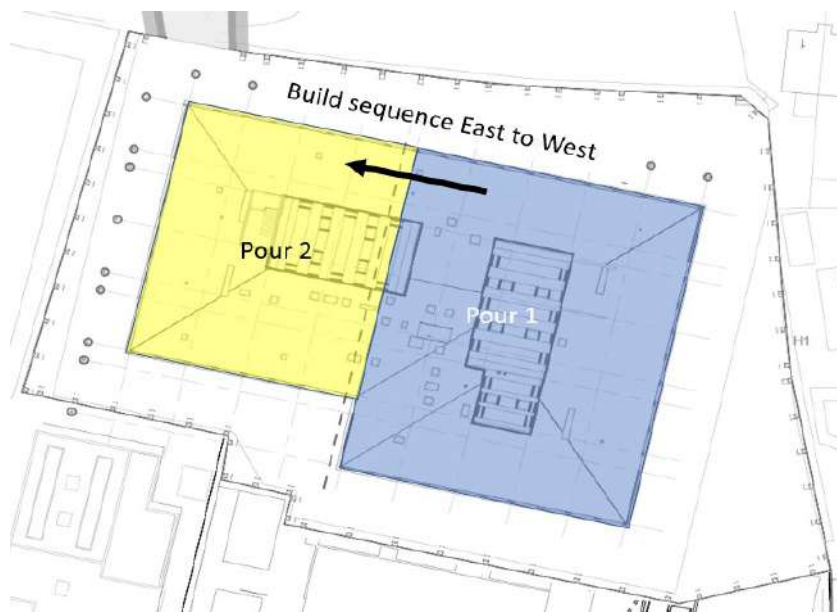


Figure 23 Build sequence

Enabling works

Laing O’Rourke will provide temporary access to site through Philpot’s Farm as described above and in Figure 7. The site compound will be positioned to the northwest – separated from the existing school and residential neighbours.

Site clearance, reduced level dig, imported hardcore for haul road, hard standings and foundations will require increased lorry movements for two weeks.



Figure 24 Weeks 1-5 Enabling Works

Substructure Construction (week 1–11)

Substructure will commence at week 5 with the ground preparation for a crane access track around the perimeter of the school footprint. We have allowed 30 days for 2000m³ bulked excavation with a lorry capacity of 9m³ equalling **eight lorries daily**.



Figure 25 Week 8-19 Substructure

Superstructure Construction (week 12–28)

With area 1 complete, the superstructure will commence:

- Site serviced by two crawler cranes with fly jibs
- Systematic erection of precast concrete
- Superstructure completed in ten weeks
- Roof insulation/membrane completed by week 30
- Package plantroom and air handling units following roof



Figure 26 Superstructure weeks 18-28

Cladding

- Cladding panels installed in parallel with structure
- Precast elevation panels delivered pre-glazed – allowing fit-out progression



Figure 27 Cladding panels installed

Internal Fit Out – MEP Services (week 27–60)

Laing O'Rourke's modularised approach reduces programme and onsite labour. We anticipate a peak workforce of less than 60 – a 50% reduction on traditional methods. This improves site set-up, logistics, health and safety, and disruption. Main runs of corridor and riser services will be modularised where possible, as will over 60% of internal walls.

Incoming Utilities and Temporary Student Drop-Off (week 40–46)



Figure 28 Incoming services diversions completed during school Easter holiday

Works are sequenced to minimise disruption to school activities – ensuring early availability of incoming utilities. The works will take place out of school hours, with access maintained.

Incoming Utilities

- Gas and water proposed routing at the southeast corner of the site
- Scottish & Southern Electricity Networks (SSEN) electrical supply via Leacroft Close to the east.

Fit-Out Commissioning

- Key hold and inspection points will ensure wall and ceiling void signoffs are recorded. A six-week
- Snagging period is programmed before ceiling tile and loose FFE installation to support quality objectives.
- Progress of fit-out links into the commissioning period – particularly for BMS and fire alarms. Life safety tests and a system proving soak test (seven continuous days) follow.

Temporary drop-off

- In advance of decant, we will take possession of the multi-use games area (MUGA) and provide temporary drop-off.



Figure 29 New school complete and start of decant

Demolition of Young People's Academy and Landscaping (week 71–84)

After decanting old school into new, hoarding will separate the operational new school from the demolition zone. Demolition traffic will be directed to the northwest site entrance and segregated. Works will be sequenced to:

- Maintain drop-off zone
- Maintain staff car park
- Control noise/pollution

After demolition, final landscaping will be completed within site boundaries.



Figure 30 New school operational & start of demolition/landscaping

Final Landscaping, MUGA and All-Weather Pitch

This section of works consists of:

- Site A – west side of new permanent car park/drop-off/access
- Site B – east side of new permanent car park/drop-off/access



Figure 31 Final landscaping and provision of sports facilities

Project Completion 23rd August 2021



Figure 32 Project complete

SECTION 5 – OFFLOADING, DISTRIBUTION, WASTE & CONTROL OF NUISANCE

Cranes

The frame construction will utilise 2 100t crawler cranes with fly jibs to lift precast columns, beams, hollow core planks, twin wall panels, precast stair units and sandwich cladding panels. Cranes will also be used to assist wet concrete works where concrete pumping is not appropriate. These cranes will travel around the 7m wide track that will be formed around the entire footprint of the school. This will be finished in tarmac base course and left low for final finishing with landscaping.

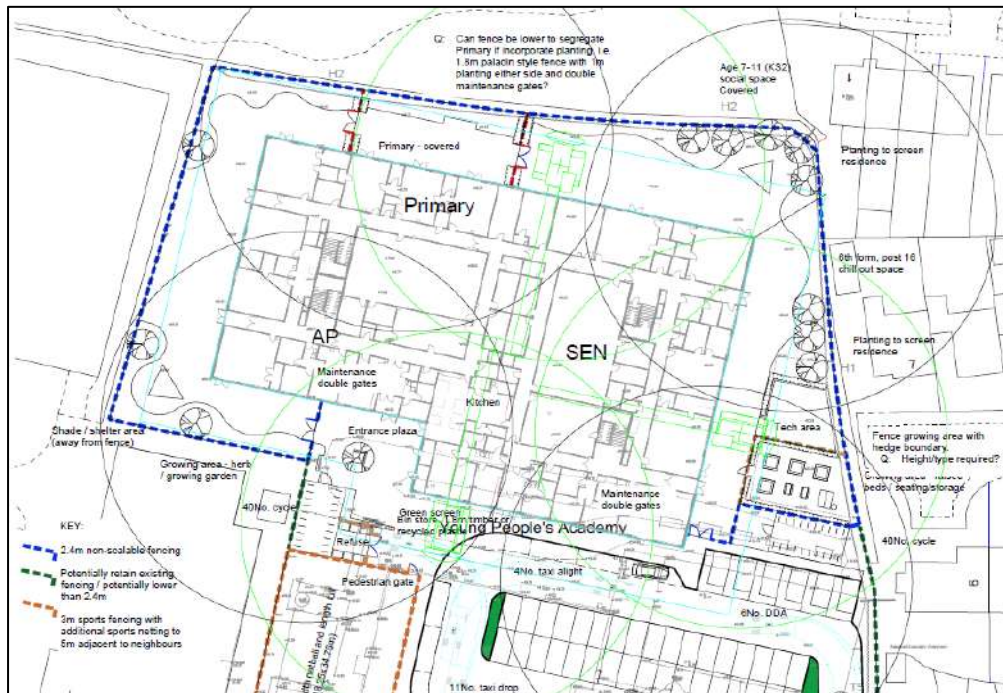


Figure 33 Crane plan with crane working radii



Figure 34 Foundations showing crane track around building footprint



Figure 35 Crawler cranes constructing frame and internal walls (Smart wall)

Loading Out

Loading out will be by 360° forklift (Merlo) onto scaffold loading bays at breaks in cladding which will ultimately be clad using curtain walling. This method will be used to load out MEP modules, plasterboard, pipe work, FF&E, ceilings and other required fit out materials.

Roof steel and decking, rooflights and the modular plant room will require a mobile crane which will be brought in as required. Predicted crane positions are shown in Appendix D.



Figure 36 Offloading and distribution to Level 1 and roof

Materials Storage on Site

- Minimal on-site material storage will be allowed with construction elements and materials brought in 'just in time' wherever possible.
- Where material must be stored on site this will be for limited time and in strictly controlled and clearly labelled storage areas.
- Secure cages will be used for storing COSHH materials and gas bottles
- The Laing O'Rourke Supervisor will be responsible for ensuring materials are stored safely and for the shortest time possible.

Noise Control and Reduction

Nuisance from demolition and construction works is subject to control under The Control of Pollution Act 1974 and all noise generated during such works should be controlled in compliance with British Standard Code of Practice BS 5228: 1984.

A meeting with the EHO at London Borough of Hillingdon is to be arranged prior to work starting to ensure noise and nuisance reduction proposals are acceptable.

Noise Mitigation

The noise impact of the construction phases can be minimised by use of the noise control measures. General principles for the control of noise during the construction works are presented below:

- Appropriate choice of plant and equipment
- Regular plant maintenance to keep plant in good working condition and reduce noise from machinery
- Careful phasing of the proposed operations
- Provision of temporary barriers where works are beyond normal acceptable noise levels

Noise Reduction of Mobile Plant

- The movement of plant onto and around the site will have regard to the normal operating hours of the site and the location of any noise sensitive receptors.
- Audible reversing alarms will be of a type, which whilst ensuring that they give proper warning, have a minimum noise impact external to the site.
- The haul road and routes around the site will be well maintained and avoid steep gradients.
- Earth moving plant to be fitted with sound reduction equipment where possible and manufacturers' enclosure panels to be kept closed.
- Careful phasing of the works will also aid in minimising their impact.
- The site compound is at the back of the site so as to be as far away as possible from noise sensitive locations to assist in minimising sources likely to generate nuisance.
- Close liaison with the occupants of properties within noise sensitive locations will be maintained in order to ensure that they are aware of the timing and duration of activities. This particularly applies to residents of Falling Lane and Coltsfoot Drive to the east of the site and Rabbsfarm Primary School to the West.
- Constant liaison will be maintained with Young People's Academy with regard to noisy works

- Generators to be placed behind site cabins (away from local noise receptors) and use acoustic covers to aid noise reduction
- One way traffic system to be used to reduce annoyance caused by vehicle reversing alarms
- Haul road and crane mat tarmac surfaced to reduce vibration impacts from heavy plant

Control of Dust and Impact on Air Quality

All reasonable measures will be taken to prevent annoyance or inconvenience to residents, road users or pedestrians due to dust or air-borne contaminants due to the construction process. Mitigation measures:

- Tarmac surface to haul road and crane track minimises dust from vehicles
- All deep excavations taking place in winter months
- Full skips to be covered when leaving site
- Full muck/aggregate wagons to be covered when entering and leaving site
- Minimal storage of aggregates/fill materials on site. Where necessary, piles/mounds to be covered with appropriate membrane to prevent airborne dust
- Maximisation of offsite manufactured building elements- structural frame, slabs, facades and internal walls - reduces dusty materials on site
- Where perimeter hoardings are not solid, monarflex or similar sheeting to be used to reduce dust migration from the site
- Water bowsters to be used to suppress dust where necessary
- All cutting and grinding tools to have water dust suppression accessories
- Low VOC products to be promoted where their efficacy is not in contravention of building regulations or client specification
- Plant engines to be switched off when not in use

Lifting

All lifting will be planned and carried out in line with the Laing O'Rourke 'Safe Lifting Operations' document, Provision and Use of Work Equipment Regulations 1998 (PUWER) and Lifting Equipment Regulations 1998 (LOLER).

Resource Management Plan (Site Waste Management Plan)

Waste to be disposed of in skips during construction of sub and superstructure and into bins located in central areas once fit out starts.

All subcontractors are responsible for minimising waste and designing packaging for re-use as a priority, recycling if re-use is not possible. Packaging to be removed from site by subcontractors where possible.

All waste is governed by the following regulations:

The Waste (England and Wales) Regulations 2011 (last amendment SI 2015/1417)
The Hazardous Waste (Wales) Regulations 2005 (last amendment) SI 2015/1417
The Hazardous Waste (England and Wales) Regulations 2005 (last amendment SI 2016 / 336)
The Waste Electrical and Electronic Equipment Regulations 2013 (last amendment SI 2015/1968)

Waste Hierarchy

1. **PREVENTION** of waste
2. If there is waste, **PREPARE FOR RE-USE**
3. Next consider **RECYCLING**
4. If it can't be recycled, then think of **OTHER RECOVERY** (for example, for energy)
5. Last resort – **DISPOSAL** in landfill

Waste will be minimised from design stage, through subcontract procurement and construction.

Design:

- Offsite manufacture means factory standard waste management processes and the ability to design out waste at source
- Smart wall install with the structural frame minimises plasterboard waste on site
- Where plasterboard is required, board sizes to be designed and manufactured to optimise manufactured product and minimise waste
- 70/60/30/0/0 approach – 70% of construction asset delivered via DfMA (offsite manufacture), 60% labour reduction onsite, 30% programme reduction in areas we control, 0% carbon footprint, 0% accident frequency rate

Subcontract Procurement:

- All subcontractors to be aligned with Laing O'Rourke's environmental and sustainability policies (see Appendix E)

Construction

- Materials packaging minimised and taken away by suppliers where possible
- Sustainability and environmental management embedded in construction team culture – project leader's responsibility
- Site waste remaining after the above will be disposed of via segregated, clearly labelled skips and the Laing O'Rourke site logistics supervisor will be responsible for ensuring waste leaves the site in the appropriate skip.
- Signage will comply with the National Colour Coding Scheme – this consistent approach aims to increase recycling. The standard colours for each waste stream are:

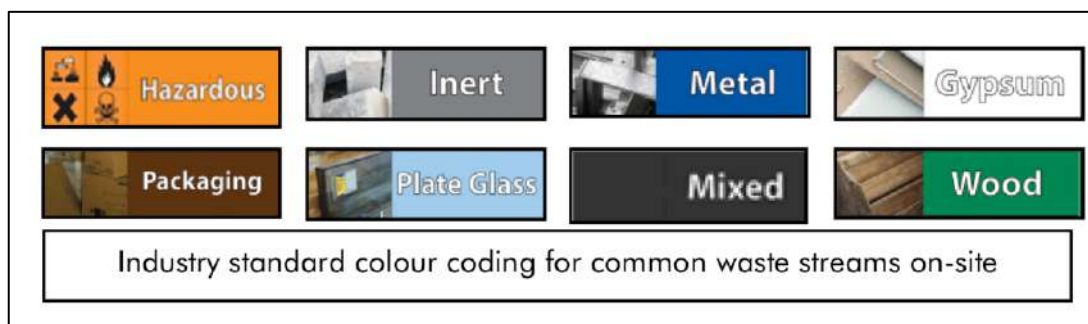


Figure 37 Waste stream colour coding

DO	DON'T
PREVENT ✓ Store materials neatly to avoid damage/loss and keep in packaging until needed (protection). ✓ Think of ways to reduce waste created on site and where appropriate, implement them. PREPARE FOR RE-USE ✓ Keep significant off-cuts for use elsewhere. ✓ Re-use materials until not fit for purpose. ✓ Re-use materials for alternative purposes. RECYCLE ✓ Segregate waste for recycling where possible and store in the correct container until removed from site. ✓ Ensure skips are labelled clearly.	✗ Burn or bury waste – it's illegal. ✗ Leave materials unprotected and where they are likely to be damaged by rain or mud (etc.). ✗ Open new cans/pallets before the ones in use are empty. ✗ Mix different types of waste – it prevents recycling. ✗ Put waste materials into the wrong waste container. ✗ Leave materials at risk from site traffic movements.

Further waste management targets and policies will be in the **Laing O'Rourke Construction Environmental Management Plan**.

SECTION 6 – IMPLEMENTATION & MONITORING

The implementation and monitoring of the Construction Logistics Plan will be responsibility of the project Logistics team.

Constant review of the plan will take place at weekly logistics meetings and daily briefings and at major changes in project scope. This document will be updated accordingly.

APPENDIX A

Laing O'Rourke Health and Safety Policy

HEALTH & SAFETY

Health and safety is a core value at Laing O'Rourke and will not be compromised. We regard safety primarily as an ethical responsibility. We are committed to creating safe working environments and improving long-term health and wellbeing to enhance quality, improve productivity and generate value – assisting in making us the employer of first choice.

This will be achieved by:

- Complying with relevant legislation and other requirements specific to the context of our business and regularly evaluating and reporting on our compliance obligations
- Displaying leadership, passion and commitment at all levels
- Recognising that people, their attitudes and beliefs are central to obtaining excellent health and safety performance
- Recognising positive outcomes and admiring and respecting safe behaviours across the organisation
- Having a well-trained and competent workforce who actively contribute and participate in the safe planning of their workplace tasks
- Empowering people to make sound choices about their own safety and the safety of others by encouraging and supporting them to continually challenge the environment in which they work
- Engaging, supporting and challenging our clients, industry partners and supply chain to raise the standards of safety
- Continually innovating and improving to reduce the potential risks to health and safety
- Using risk resilience, consultation, collaboration, empowerment and leadership at all levels as strong indicators of health and safety performance

We also recognise that continual review and improvement is a key component in ensuring our health and safety processes and standards remain current and effective in ensuring compliance with relevant legislation and regulations. In many cases we enhance these requirements to make Laing O'Rourke the company of first choice for all stakeholders, while challenging and changing the image of construction worldwide.

Everyone working for Laing O'Rourke is required to fully support and promote this policy by complying with the health and safety requirements and duties contained in the Integrated Group Management System (iGMS). We take pride in everyone returning home safely every day.

The Board of Directors of Laing O'Rourke fully endorses this policy.



Sir John Parker GBE
Chairman

APPENDIX B

Swept Path Analysis Diagrams

LAING O'ROURKE LOGISTICS
BRIDGE PLACE 2
ANCHOR BOULEVARD CROSSWAYS,
DARTFORD KENT, DA2 6SN
07384 809411

Client:

Site Location: Orchard Hill

Reference: OHV6-1 Drawn:15/09/2020

Date:	Issue:	Checked:
15/09/2020	01	Signed: Matthew Cox

Job No: 08	Drawing No:01
------------	---------------

Site Measurements:
N/A

Road Type:
N/A

Notes:

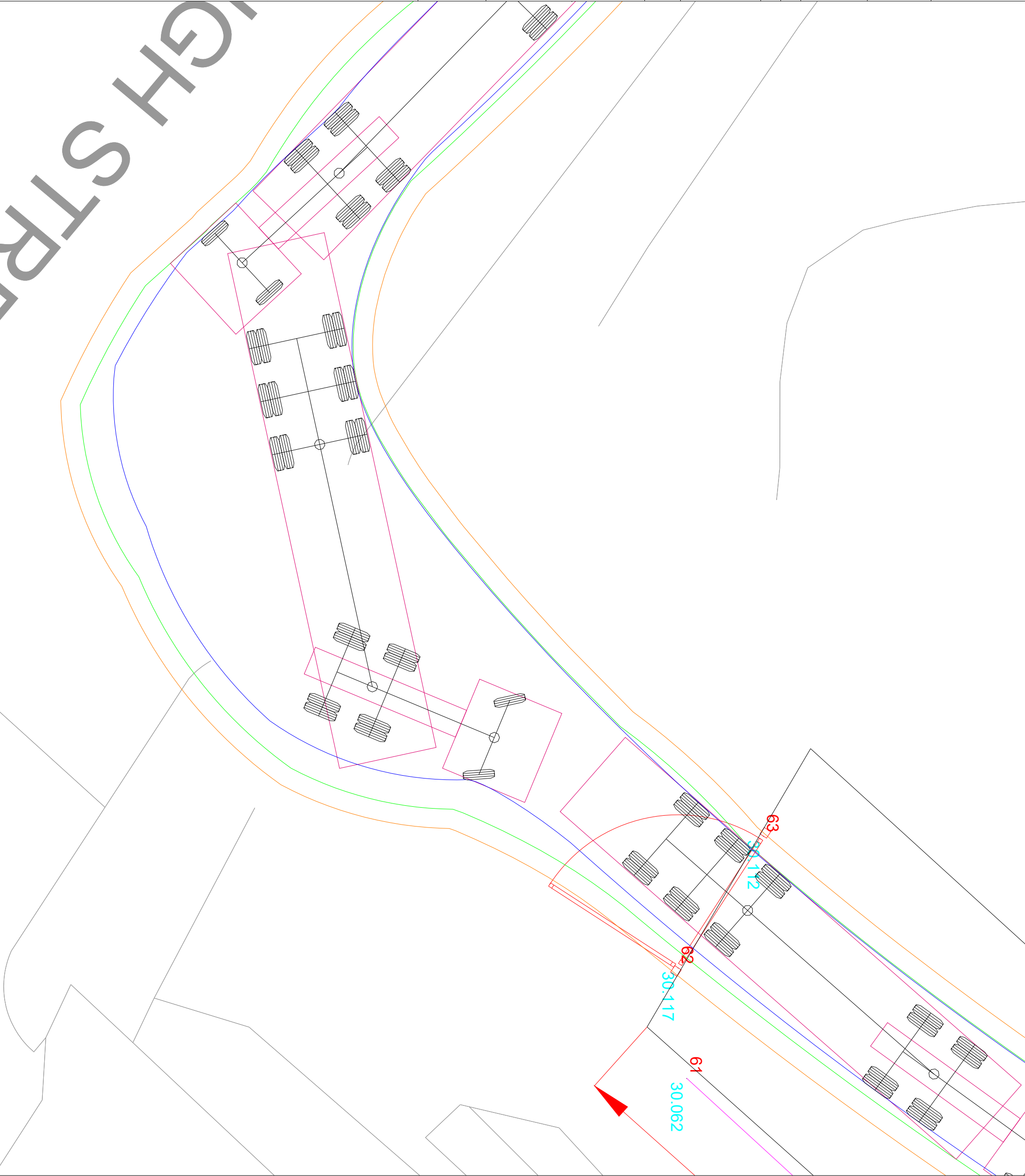
Scale = 1 Drawing unit: 1 Millimeter

Vehicle: Maximum length of an articulated vehicle

Length:16.5m Width:2.55m

The provided Swept path provides an indication as to the tightness of maneuvers.This should not be the sole evidence in determining whether routes are possible, as real life conditions may impact maneuvers.

Blue Vehicle Line = Tyre Path
Green Vehicle Line = Body Path
Orange Vehicle Line = 500mm Clearance from the body



KE LOGISTICS

2

EVARD CROSSWAYS,
NT, DA2 6SN

Client:

Site Location: Orchard Hill

Reference: OHV5-1 Drawn:02/07/2020

Date:	Issue:	Checked:
02/07/2020	01	Signed: Matthew Cox

Job No: 08	Drawing No:01
------------	---------------

Site Measurements:
N/A

Road Type:
N/A

Notes:

Scale = 1 Drawing unit: 1 Millimeter

Vehicle: Maximum length of an articulated vehicle

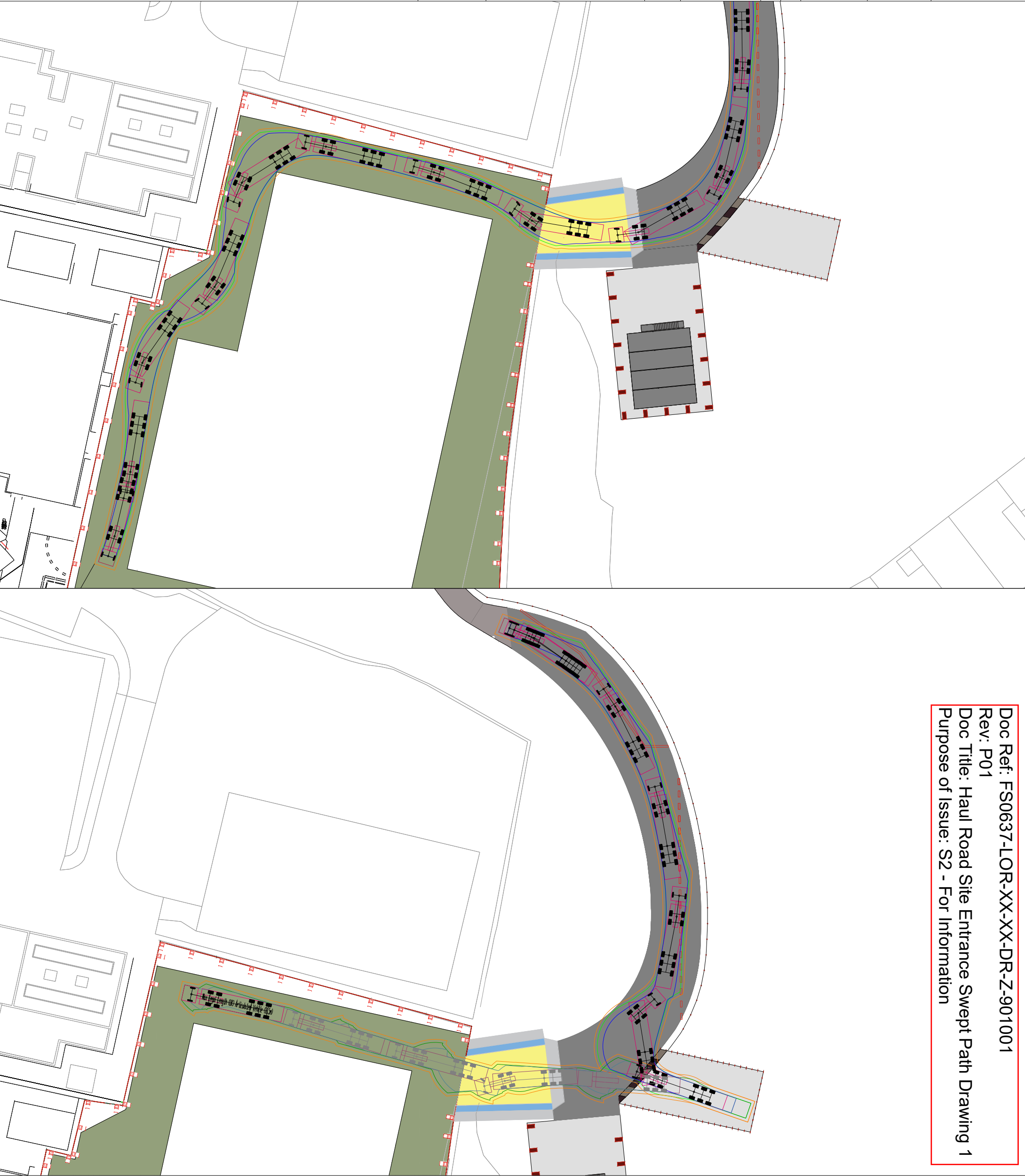
Length:16.5m Width:2.55m

The provided Swept path provides an indication as to the tightness of maneuvers.This should not be the sole evidence in determining whether routes are possible, as real life conditions may impact maneuvers.

Blue Vehicle Line = Tyre Path

Green Vehicle Line = Body Path

Orange Vehicle Line = 500mm Clearance from the body



Doc Ref: FS0637-LOR-XX-XX-DR-Z-901001
Rev: P01
Doc Title: Haul Road Site Entrance Swept Path Drawing 1
Purpose of Issue: S2 - For Information

KE LOGISTICS

2

EVARD CROSSWAYS,

NT, DA2 6SN

Client:

Site Location: Orchard Hill

Reference: OHV5-2 Drawn:02/07/2020

Date:	Issue:	Checked:
02/07/2020	01	Signed: Matthew Cox

Job No: 08	Drawing No:02
------------	---------------

Site Measurements:
N/A

Road Type:
N/A

Notes:

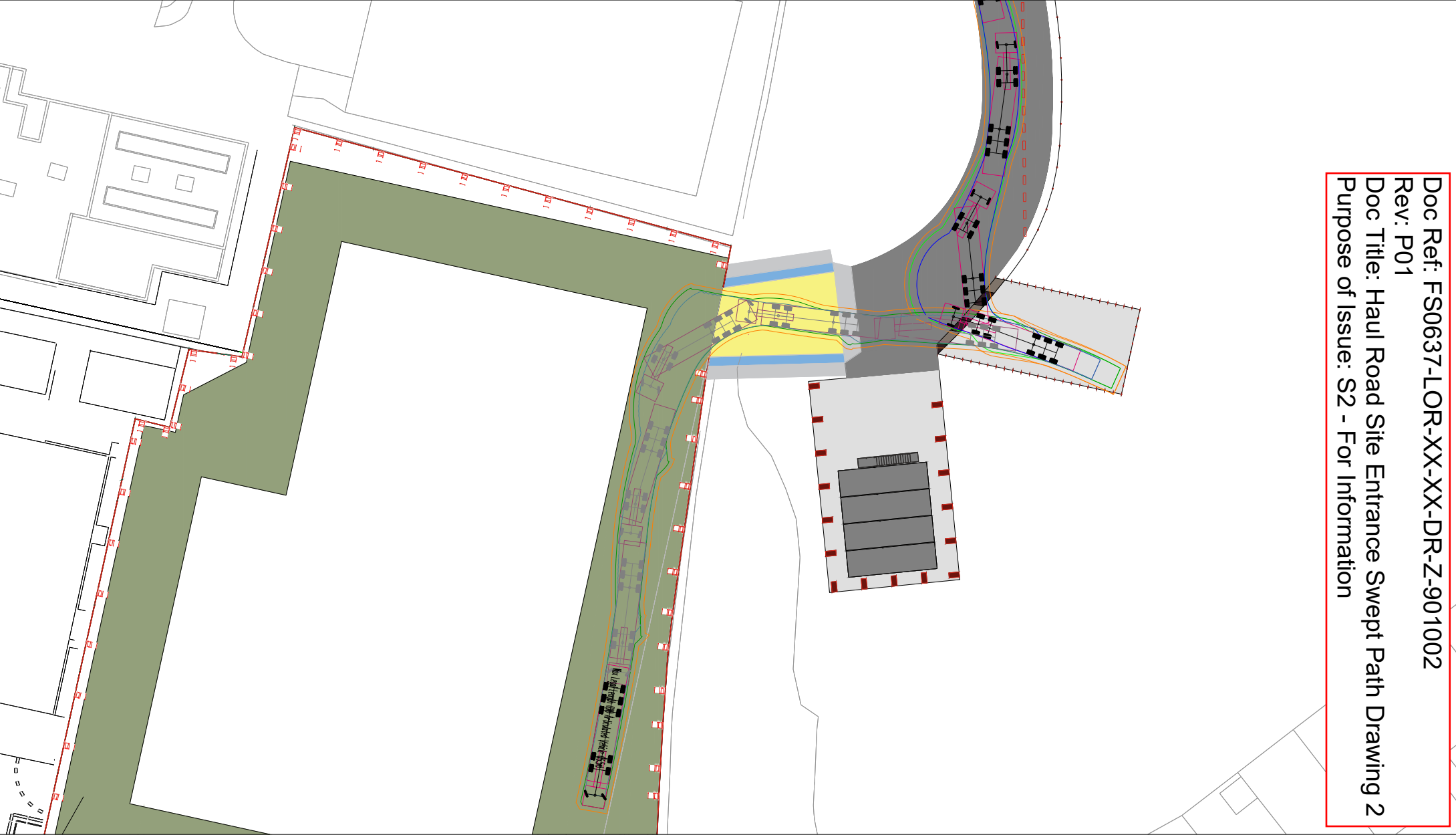
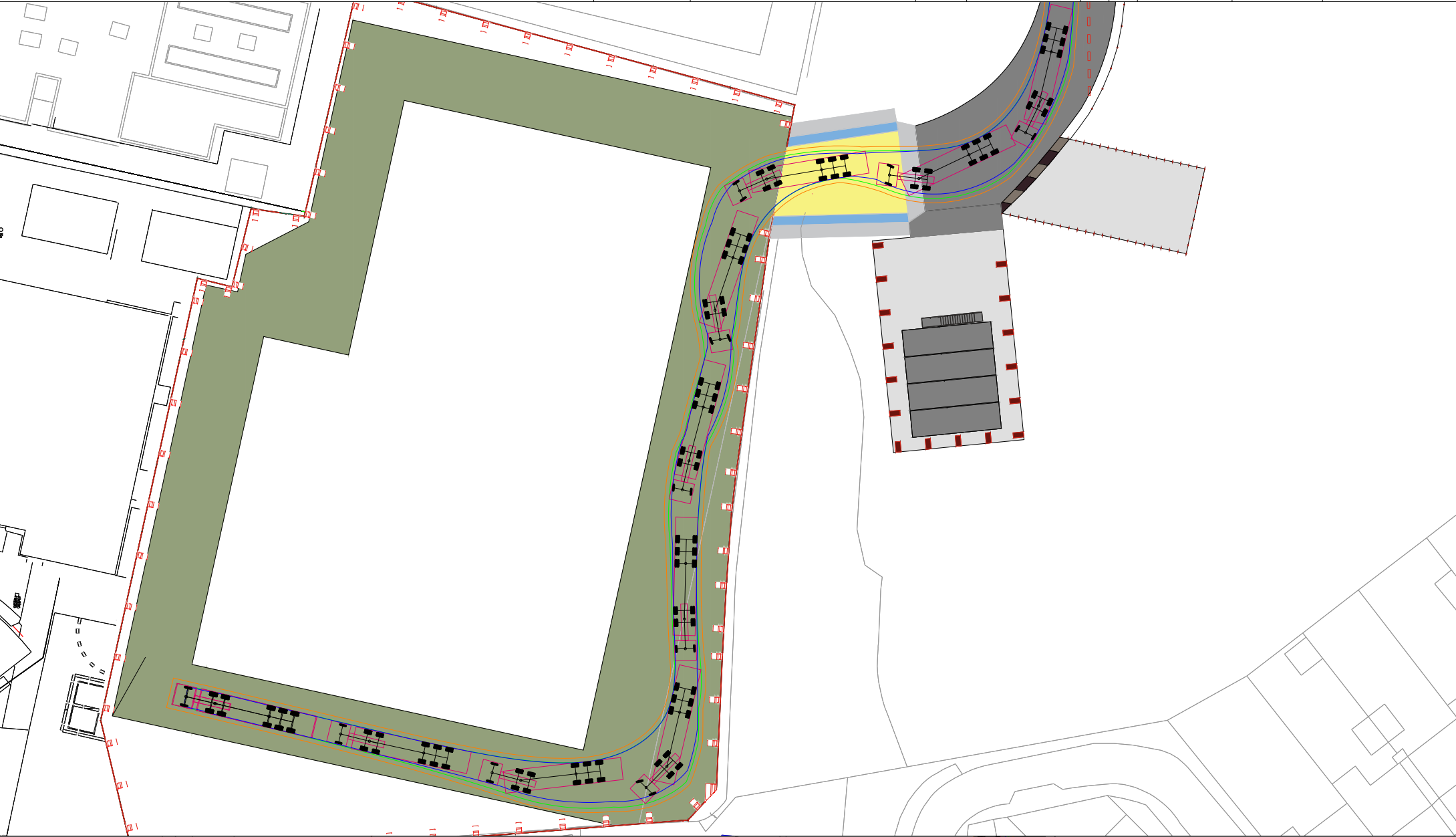
Scale = 1 Drawing unit: 1 Millimeter

Vehicle: Maximum length of an articulated vehicle

Length:16.5m Width:2.55m

The provided Swept path provides an indication as to the tightness of maneuvers.This should not be the sole evidence in determining whether routes are possible, as real life conditions may impact maneuvers.

Blue Vehicle Line = Tyre Path
Green Vehicle Line = Body Path
Orange Vehicle Line = 500mm Clearance from the body



Doc Ref: FS0637-LOR-XX-XX-DR-Z-901002
Rev: P01
Doc Title: Haul Road Site Entrance Swept Path Drawing 2
Purpose of Issue: S2 - For Information

APPENDIX C

Laing O'Rourke COVID Workplace Guidance Document

Coronavirus (COVID-19): Operational Workplace Guidance

Revision 7 – In line with Construction Leadership Council (CLC) Guidance V5 published 04/07/20 and current BuildUK and National Government Guidance

Contents

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Introduction

This document has been developed to provide consistent guidance for the safe operation of Laing O'Rourke workplaces during the Coronavirus (COVID-19) pandemic. It has been produced in strict compliance with the [latest Government advice](#) as well as guidance issued by the Construction Leadership Council (CLC) and Public Health England (PHE).

Additional restrictions in [Scotland](#) and [Wales](#) have also been considered and workplaces should refer to specific and local guidance as necessary.

This document focuses primarily on our operational workplaces; such as Laing O'Rourke construction sites, head offices, manufacturing facilities and depots. However, where appropriate, should be applied across all UK Laing O'Rourke facilities.

The [HSE](#) is the relevant enforcement authority.

Operational planning

Importantly, workplaces must ensure they involve their workforce in the preparation of their COVID-19 risk assessments and workplace action plans. Collective Insights and Planned v Actual Next Gear tools can then be used to ensure they are regularly updated, with the valued input and understanding of the entire team.

Consideration should be given to the following:

- To enable the implementation of appropriate social distancing measures you may need to reduce your site population size by reducing or rescheduling programmed activities to include only essential operations.
- Increasing sanitising regimes across all welfare facilities and areas where there is a risk of cross contamination: handrails, banisters, door handles / push plates, access equipment / routes etc. Ensure that hand-gel and hand-washing facilities are as widespread as possible and fully available to all.
- Restrict all non-essential visitors to site and permit only those authorised.
- Increase the use of signage and markings etc.
 - Floor markings, to indicate 2m distancing when queuing. or where not viable, 1m with risk mitigation after assessment
 - Signage reminding workers not to attend site if they have symptoms of COVID-19 and to follow guidelines.
- Ensure continued competent resource is available to implement the requirements of the Laing O'Rourke Safety Management System. Applying specific focus to higher risk operations of Lifting, Temporary Works, Live Electrical and Mechanical installations, Working at height, Underground services and Confined spaces.
- Ensure adequate levels of supervision and management resources to safely carry out the planned works. The minimum ratio of supervision to operatives is 1:10.
- Consider the availability of emergency response in the event of a serious incident, while appreciating some allowance may have to be made for delayed emergency service response times. All high-risk activities should take this into consideration.
- Remember there must never be less than one first aider to every 50 people on site.
- Stairs should be used in tandem with lifts and hoists. Where lifts or hoists must be used:
 - Lower the passenger capacity per journey to reduce congestion and contact.
 - Regularly clean touchpoints, doors, buttons etc.
 - Increase ventilation in enclosed spaces.
 - Regularly clean the inside of hoists and between use by different operators.
 - Please regularly take the opportunity to inform workforce personnel of all COVID-19 measures necessary to protect public health.

Hand Washing

- Allow and encourage regular breaks to wash hands.
- Provide additional hand washing facilities to supplement the usual welfare facilities.
- Ensure adequate supplies of soap and fresh water are always readily available and kept topped up.
- Provide hand sanitiser (min. 60% alcohol base) if hand washing facilities unavailable.
- Regularly clean the hand washing facilities.
- Provide suitable rubbish bins for hand towels with regular removal and disposal.

Travel to / from a LOR workplace

Where necessary, people may need to continue to work from home. Otherwise, all personnel must be encouraged to travel to site alone using their own transport and avoid public transport. To help facilitate this, personnel are advised of the following:

- If car sharing is unavoidable, keep the vehicle well ventilated, share the journey with the same individuals and with the minimum number of people.
- If working away from home and lodging at a temporary work address, while travelling to work with those that you co-habit with, sensible precautions around sanitation and distancing should be observed.
- Consider other means of transport e.g. a lift from a family member from the same household or by cycling to work.
- Clean all vehicles regularly inside and out, using gloves and standard cleaning products, with emphasis on handles and other areas regular touch points.
- Where public transport is the only option, avoid use during peak times (05:45 - 7:30 and 16:00 - 17:30) wear your masks and wash your hands thoroughly afterwards.

In addition, LOR workplaces should:

- Provide suitable parking arrangements for additional cars and bicycles.
- Where public transport is the only option, you should consider changing and staggering site hours to reduce congestion on public transport.
- Remind workers that that face coverings are mandatory on all public transport
- Provide facilities such as lockers and showers for workers using other means of transport to avoid public transport (such as cycling)
- Provide hand cleaning facilities at entrances and exits. This should be soap and hot water or hand sanitiser if water is not available.
- Have a plan in place for how someone taken ill in the workplace might make the journey home or be taken home.

Site access & egress points

- Introduce staggered start and finish times to reduce congestion and contact.
- Revise workplace access arrangements to reduce the risk of cross contamination via Aurora booths or biometric systems while still maintaining security measures.
- Introduce hand wash stations at each access and exit point, these should be used by everyone before entering and exiting the workplace.
- Consider and introduce alternative arrangements to keypads and hand scanners
- Regularly clean touch points on scanners, turnstiles, screens and other means of access, particularly during peak flow times.
- Install social distancing signage and floor markings to encourage queue controls.

Driving at work

When travelling at work or between site locations, workers should travel alone. However, if workers have no option but to share a vehicle, then they should follow Government guidance on [working safely from a vehicle](#):

Wherever possible, maintain a 2m distance or, if not possible, 1m with risk mitigation e.g.

- If sharing, try to limit to the same individuals and the minimum number of people.
- Maintain good ventilation by keeping the windows open during the journey.
- Wash their hands for 20 seconds using soap and water, or hand sanitiser if soap and water are not available, before entering and after getting out of the vehicle.
- Regularly clean the vehicle using gloves and standard cleaning products, with emphasis on handles and other surfaces which may be touched regularly.

Avoiding close working when in the workplace (social distancing)

Employers who have people in their offices or onsite should ensure that employees are able to follow [Public Health England guidelines](#) including maintaining an appropriate social distance from each other and washing their hands with soap and water or using an appropriate hand sanitiser, often and for at least 20 seconds.

- Non-essential work that requires close contact between workers must be avoided.
- Works should be re-assessed and planned to minimise contact between workers.
- Workers should be continually reminded of the importance of hand washing, including the optimum 20 second washing procedure, the need for regular breaks for hand washing, and use of anti-bacterial gel if soap and water is not available.
- Government's guidelines on social distancing refer to 'one metre plus' which is defined in Working safely during Coronavirus (Covid-19) – Construction and other outdoor work as "two metres or one metre with risk mitigation where two metres is not viable".

Mitigations could include installing screens, making sure people face away from each other, handwashing facilities, minimising the amount of time spent with people outside your household or bubble, and being outdoors.

If you are not able to work whilst maintaining a 2m distance, or 1m with risk mitigation where 2m is not viable, you should consider whether the activity should continue and, if so, risk assess it using the hierarchy of controls below and against any sector-specific guidance. The results of risk assessments should be shared with the workforce and the COVID compliance [poster](#) displayed in the workplace.

- Non-essential International travel is discouraged with Quarantine rules when returning from all [Higher risk Countries](#) and you will need to follow the [rules for entering the UK](#) including completing passenger locator forms and self-isolation for 14 days. See guidance for [England](#), [Scotland](#), [Wales](#) and [Northern Ireland](#).

Hierarchy of Controls

If you are not able to work whilst maintaining a 2m distance, or if that is not viable, 1m with mitigation, you should consider whether the activity is essential. Where the work is deemed essential, and people need to work closer than 2m, then the task must be specifically risk assessed by applying the following hierarchy of controls illustrated overleaf:

Hierarchy of Controls

Eliminate	To eliminate the COVID-19 risk: - Workers who are unwell with symptoms of COVID-19 or who are not required for essential tasks should not travel to or attend the workplace. - Rearrange tasks to enable them to be done by one person, or by maintaining the desired 2m social distancing measures. - Eliminate tasks that involve working within 2m where possible. - Set up the workplace to physically separate people (i.e. by setting up one ways access routes and using stairs as opposed to lifts or hoists). - Adopt alternative methods and equipment to eliminate worker interface (i.e. via mechanical means).
Reduce	Where the 2m social distancing measures cannot be eliminated, risk mitigation could include the following: - Minimise the frequency and time workers are within 2m of each other. - Minimise the number of workers involved in these tasks. - Require workers to always maintain as much distance as possible. - Lower the number of persons permitted to travel in a lift or hoist to reduce congestion and contact. - Retain records of persons on site to assist NHS Track and Trace as requested. These may be kept via Aurora or log in records.
Isolate	Keep groups of workers that must work within 2m: - Together in teams e.g. (do not change workers within gangs). - In as small gangs as possible. - Away from other work gangs where possible.
Control	Where it is essential to carry out a task when working within 2m: - Introduce an enhanced authorisation process for these activities. - Where face-to-face contact is unavoidable, this should be minimised and Respiratory Protective Equipment (RPE) worn. - Provide additional supervision to monitor and manage compliance. - Remind the workforce regularly of the specific COVID-19 measures that are necessary to protect their health. - Increase ventilation in all rooms and enclosed spaces. - Regularly clean common touchpoints, doors, buttons, handles, vehicle cabs, tools, equipment etc. - Encourage hand washing before and after using any equipment.
Personal Protective Equipment [PPE]	- Where it is not possible to maintain a 2m distance, each activity should be risk assessed and appropriate risk control measures applied. - Re-usable PPE should be thoroughly cleaned after use and not shared. Cleaning guidance is available from all PPE manufacturers. - Workplace guidance should cover responsible disposal of PPE. - Government provides guidance on Face coverings: When to wear one, exemptions etc. and BuildUK also provides guidance but face coverings are now mandatory in site canteens unless seated to eat and drink. - The LOR RPE Guidance should be implemented in all workplaces.

Canteens and rest areas

- Canteens should follow Government guidance in ['Keeping workers and customers safe during COVID-19 in restaurants ... and takeaway services'](#) and use this [Food Standards Agency checklist](#). This means that **Face coverings** must now be worn in canteens, except when seated at a table to eat or drink.
- Public facing catering staff must also wear facial coverings and minimise customer contact and their employer is expected to provide these as part of their health and safety obligations. However, staff may use their own face coverings if they choose.
- Where facilities are not available, encourage people to bring in their own food/drink and provide a space for people to take a break whilst observing social distancing. Where social distancing of 2m is not possible, 1m with risk mitigation such as screens and seating reconfiguration may be considered and assessed.
- Consider increasing the number and / or size of facilities available on site. Projects are also asked to consider the impact of wet weather shelter.
- Measures should be taken to control the number of people in the canteen at any one given time, for example by using signage, floor markings, a rota and staggering breaks.
- The capacity of each canteen or rest area should be clearly assessed and identified, giving clarity on how many people can use it at any one time.
- Where possible, distributors should move to takeaway and away from hot food services to pre-packaged sandwiches etc (more akin to a retail offering).
- Provide hand washing at the entrance to rooms where employees eat or take breaks.
- Move all transactions to contactless and away from cash where possible.
- Frequently clean surfaces that are touched regularly, using standard cleaning products e.g. kettles, refrigerators, microwaves.
- Canteen staff should hand wash for at least 20 secs before and after handling food.
- Enhance the cleaning regimes for all welfare facilities, including changing or drying rooms and toilets. Focusing particularly on door handles, locks and the toilet flush.
- Consider increasing the number or size of facilities available on site if possible.
- Provide sufficient rubbish bins for hand towels with regular removal and disposal.
- Portable toilets should be avoided wherever possible, but where in use these should be cleaned and emptied more frequently.

Cleaning and hygiene

- Enhanced cleaning procedures should be in place across the site particularly in communal areas and on common touch points including:
 - Taps and washing facilities, toilet flushes and seats.
 - Door handles, push plates and handrails on staircases and corridors.
 - Lift and hoist controls, machinery and equipment controls.
 - Food preparation areas, utensils and eating surfaces.
 - Telephone equipment, keyboards, photocopiers and other office equipment.
 - Inside site vehicles and plant [e.g. steering wheels, door handles - particularly those used by multiple drivers and passengers].
- Provide suitable and sufficient rubbish bins, collection and storage points which should be emptied at least daily.

- Encourage increased personal hygiene arrangements through the availability of additional washing facilities.
- Adopt a sanitisation regime that enables cleaning regularly throughout the day.
- All cleaning waste and used PPE/RPE should be safely stored in a secure location, double bagged for at least 72 hours so it can then be put in with the normal waste.
- If storage for at least 72 hours is not appropriate, arrange for collection as a Category B infectious waste either by your local waste collection authority (if they currently collect your waste) or otherwise by a specialist clinical waste contractor. They will supply you with orange clinical waste bags for you to place your bags into so the waste can be sent for appropriate treatment ([See Gov.uk guidance](#))

Site Meetings

- Encourage all meetings where possible to be held via VC / MS Teams / Zoom.
- Only essential participants should be invited physical meetings and the safe carrying capacity of the room should be assessed.
- Consider holding meetings outside in open areas where possible.
- Attendees should always sit at least 2m apart from each other.
- Where possible offices and facilities [incl. meeting rooms] should be kept well ventilated with windows opened to allow air to circulate.

Deliveries and drivers

To help prevent the spread of coronavirus we ask that all drivers who enter our projects and locations of work, take the following measures:

- Vehicle windows should be kept closed and 2m social distancing maintained.
- If the vehicle window does need to be opened, security should stand 2m back.
- Do not share equipment such as tablet devices and pens. Drivers should be asked to complete their own paperwork.
- Where possible, drivers should stay in their vehicles. If they can't, they should wash their hands with soap and water before handling or touching anything.
- Workplaces should consider providing separate welfare facilities for delivery drivers.

Compliance Monitoring and Engagement

To ensure effective implementation of this guidance it is important that the following monitoring and engagement measures are considered:

- All workplaces should schedule time every day to engage with their workforce, communicate any updates in operating procedures and encourage any questions and address any concerns.
- Managers and leaders should continue to make every effort to be visible to their work teams to encourage regular engagement.
- The workplace or Project Leader should sign and display the ['Staying COVID-19 Secure in 2020'](#) poster if they can satisfy its requirements.
- Specific workplace COVID-19 action plans should be printed and posted on an appropriate workplace noticeboard. As part of this, the workforce should be welcomed and encouraged to contribute to the plan.

- The Fatal & Severe Risk (FSR) for COVID-19 [\[iGMS\]](#) should be carried out by project teams and will assist in assessing compliance. Planned vs Actual reviews and Collective Insights should also be carried out by the team, focussing specifically on COVID-19 safe working practices.
- Allocate and encourage all staff, managers, supervisors and engineers to respectfully engage with people in the workplace to remind them of COVID-19 safe working practices, maintaining a 2m safe distance with a reduction to 1m with risk mitigation only where this is not possible, especially where you could predict complacency at:
 - Access points,
 - During Work;
 - During briefings;
 - Canteens,
 - Toilets and Drying Rooms;

Please encourage an open and collaborative approach between all people on site so any issues can be openly discussed and addressed without creating undue stress and conflict during this unsettling time.

Procedure to follow if someone feels ill at work

Employees who feel ill should not travel into work. If an employee develops symptoms (COVID-19 symptoms [click here](#)) or feels ill whilst at work, the following applies:

- They must ensure their manager or supervisor is informed immediately.
- The individual should immediately return home, avoiding the use of public transport and avoid touching anything especially handrails or door handles etc on the way.
- Coughing or sneezing should be into a tissue which is immediately disposed of, or into a sleeve or the crook of their elbow if they don't have a tissue.
- Employees must follow the NHS guidance on [self-isolation](#) whilst at home and not return to work until their period of self-isolation is complete or they have a negative test result.
- Prior to returning to work after recovery from COVID-19, employees should follow [NHS guidelines](#) on ending self-isolation including getting a [COVID-19 test](#) and then also contact their appropriate LOR HC business partner or LOR Workforce manager.

Regarding the workplace where an individual operated when they developed symptoms:

- The workplace should be cleaned following [official guidance](#).
- Public areas where a symptomatic individual has passed through and spent minimal time, such as corridors, but which are not visibly contaminated with body fluids can be cleaned thoroughly as normal.
- All surfaces that the symptomatic person has encountered must be cleaned and disinfected, including objects which are visibly contaminated with body fluids and all potentially contaminated high-contact areas such as bathrooms, door handles, telephones, grab-rails in corridors and stairwells.
- Use disposable cloths or paper towels and disposable mop heads, to clean all hard surfaces, floors, chairs, door handles and sanitary fittings.

COVID-19 Early outbreak management

For one or more confirmed COVID cases in a single location / workplace, please refer to the following [guidance](#) and make contact with your [local health protection team](#) (HPT).

NHS COVID testing (essential worker status)

NHS testing is currently under pressure nationally, however employers can specifically refer [essential workers](#) for testing if they are self-isolating because either they or member(s) of their household have coronavirus symptoms. The details by which to do this can be found [here](#). Importantly, any previous 'key/essential worker status' (that was assigned to teams earlier in the pandemic) may no longer apply, so please speak to your project / workplace leadership team to check as to whether you currently qualify as an 'essential worker'.

The NHS track & trace app / workplace QR codes

To assist in monitoring infection control, if personnel would like to download the [NHS app](#) then they should feel free to do so.

As a company, we request that our teams download an [NHS location QR code](#) for their workplace and display these at their entrances.

As a reminder, if your test is negative, other household members no longer need to self-isolate. If you feel well and no longer have symptoms similar to coronavirus, you can stop self-isolating (unless you have been contacted separately by NHS Test and Trace as a contact of someone who has tested positive).

Workplace entry data

Site entry records will help to identify any persons present in the workplace who may have made contact with an infected person and assist in applying infection control.

Other personal records, such as entry temperature readings must be retained for up to 21 days and provided to the NHS 'Track and Trace' service upon request.

As a reminder, any medically sensitive data in relation to COVID should comply with GDPR protocols and should be treated with suitable confidentiality. The Information Commissioners Office (ICO) provides a [6 key steps](#) guide in relation to data protection and Coronavirus.

Business continuity planning

Workplaces Project leadership teams should carry out continuity planning in order to ensure that their operations are as robust as possible in the event of an outbreak. This is particularly relevant to a project's senior management structure. Working from home, staff rotation and/or physical separation of blue / green teams may be useful considerations in this planning.

Summary

Site specific activities may only be carried out if workplaces satisfy the following conditions:

- The health and safety of our people can be ensured by the implementation of Safe Systems of Work, in line with the LOR iGMS and legislative requirements.
- Workplaces implement the risk control measures in this document and as per current Government, Public Health England and Construction Leadership Council [Guidance](#).
- Project leadership teams should review their arrangements to ensure continuity of operations after any outbreak in their respective offices. e.g. staff rotation and/or physical constant separation of a blue and a green team.

As the COVID-19 pandemic situation develops, we will continue to monitor the advice from these bodies and issue further updates as necessary.

USEFUL LINKS & DEFINITIONS

It is important to understand the following guidelines by which workers should or should not travel to work as outlined below:

Social distancing

Workers in the construction industry should follow the guidance on [Staying alert and safe \(social distancing\)](#). Where they cannot work from home, they must follow the [Staying safe outside your home guidance](#) while travelling to and from work and while at work.

Track and Trace and Self-isolation

Aurora or other entry control data must be retained and provided to NHS 'Track and Chase' on request to identify all persons in the workplace on any specific day.

Anyone who has been contacted by the [NHS Test and Trace Service](#), has a high temperature or a new persistent cough or is within 14 days of the day when the first member of their household showed symptoms of COVID-19, should not come to site, but must follow the guidance on [self-isolation](#).

Clinically vulnerable people

The latest Government [guidance](#) suggests that clinically vulnerable people should still keep their social interactions low. If clinically vulnerable individuals cannot work from home, suitable roles on site should be discussed with their line manager, enabling them to maintain social distancing at all times. Particular attention should also be paid to people who live with clinically extremely vulnerable individuals.

Persons defined on medical grounds as extremely vulnerable

There is a further category of people with serious underlying health conditions who are clinically extremely vulnerable, meaning they are at a very high risk of severe illness from

coronavirus. People who are clinically extremely vulnerable should have received a letter telling them that they are in this group or been told by their GP.

Severity, history or treatment levels will also affect who is in the group. The latest GOV.UK guidance is given here '[Guidance on shielding and protecting people who are clinically extremely vulnerable from COVID-19](#)'.

If you are clinically extremely vulnerable, you no longer need to follow the previous shielding advice and can go to work as long as the workplace is COVID secure, but you should still continue working from home wherever possible. You are advised to keep your overall social interactions low while keeping 2m distance (or 1m + other precautions) and washing hands frequently as before. Guidance in [Scotland](#) and [Wales](#) around the highest risk groups is slightly different.

We have previously requested that the clinically extremely vulnerable make themselves known to their line managers, who should then arrange a medical assessment with our service provider Optima under a management referral. Click or refer to the iGMS for a copy of the [management referral form](#). Following this medical, an individual workplace risk assessment should be carried out by both the team, and the individual concerned, to ensure specific controls are put in place to safeguard the individual. Click or refer to the iGMS to download a copy of the [checklist and risk assessment template](#).

If someone falls ill

If someone develops a high temperature or a persistent cough at work, they should:

- Ensure their manager or supervisor is informed immediately.
- Safely return home as soon as possible.
- Avoid touching anything.
- Cough or sneeze into a tissue and put it in a bin, or if they do not have tissues, cough and sneeze into the crook of their elbow.

They must then follow the guidance on [self-isolation](#) and not return to work until they have received a negative test result or, in the event of a positive test result, their period of self-isolation has been completed.

Laing O'Rourke References

Laing O'Rourke (Covid-19) Guidance is available from the [iGMS](#) and particularly the;

- Laing O'Rourke Coronavirus (Covid-19) Workplace Practical Measures
- Laing O'Rourke Coronavirus (Covid-19) Workplace Minimum Standards
- Laing O'Rourke Coronavirus (Covid-19) RPE Guidance
- Laing O'Rourke Coronavirus (Covid-19) FSR Checklist

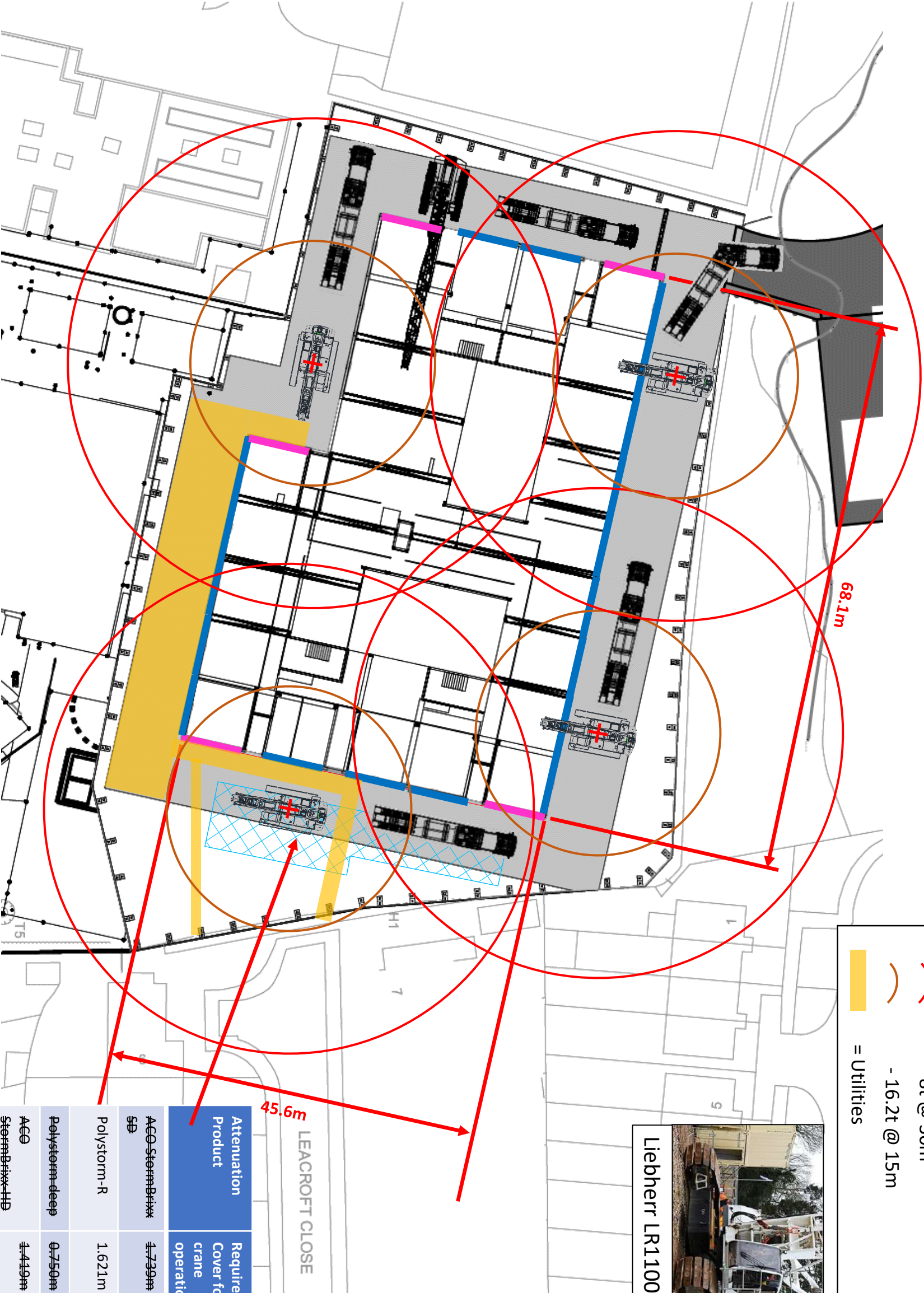
APPENDIX D

Crane Strategy

Orchard Hill – Crane Layout

Date: 31/Jan/2020, Rev 02

Change(s): Updated to suit the latest level and drainage drawings with the crane mat at 31.900mAOD



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= Standard Sandwich Panels (8.01t)

= Solid PC Cladding Panel (16.2t)

Crane Lifting radii:

- 8t @ 30m

- 16.2t @ 15m

= Utilities

Attenuation Product	Required Cover for crane operation	Cost
ACQ Stormfix SB	1.739m	£51k
Polystorm-R	1.621m	£51k
Polystorm-deep	0.750m	£63k
ACQ Stormfix-HB	1.419m	£74k
AND EKKI Timbers, cost = £23.2k		

Orchard Hill – Crane Checks – Lifting of T-Beams



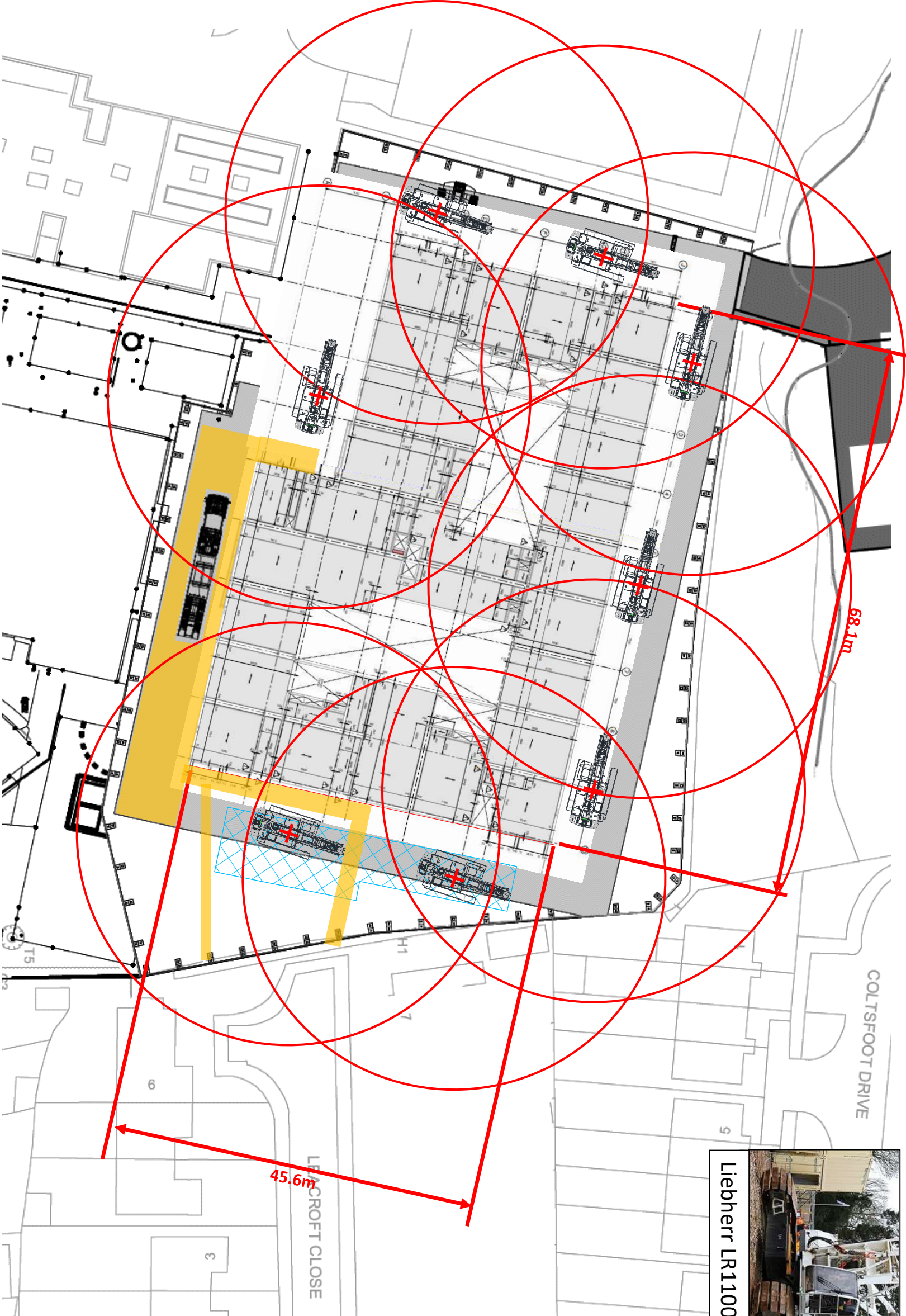
= T-Beams (8.5-9t)

Crane Lifting radii:

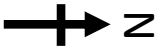
- 10t @ 26m



Liebherr LR1100



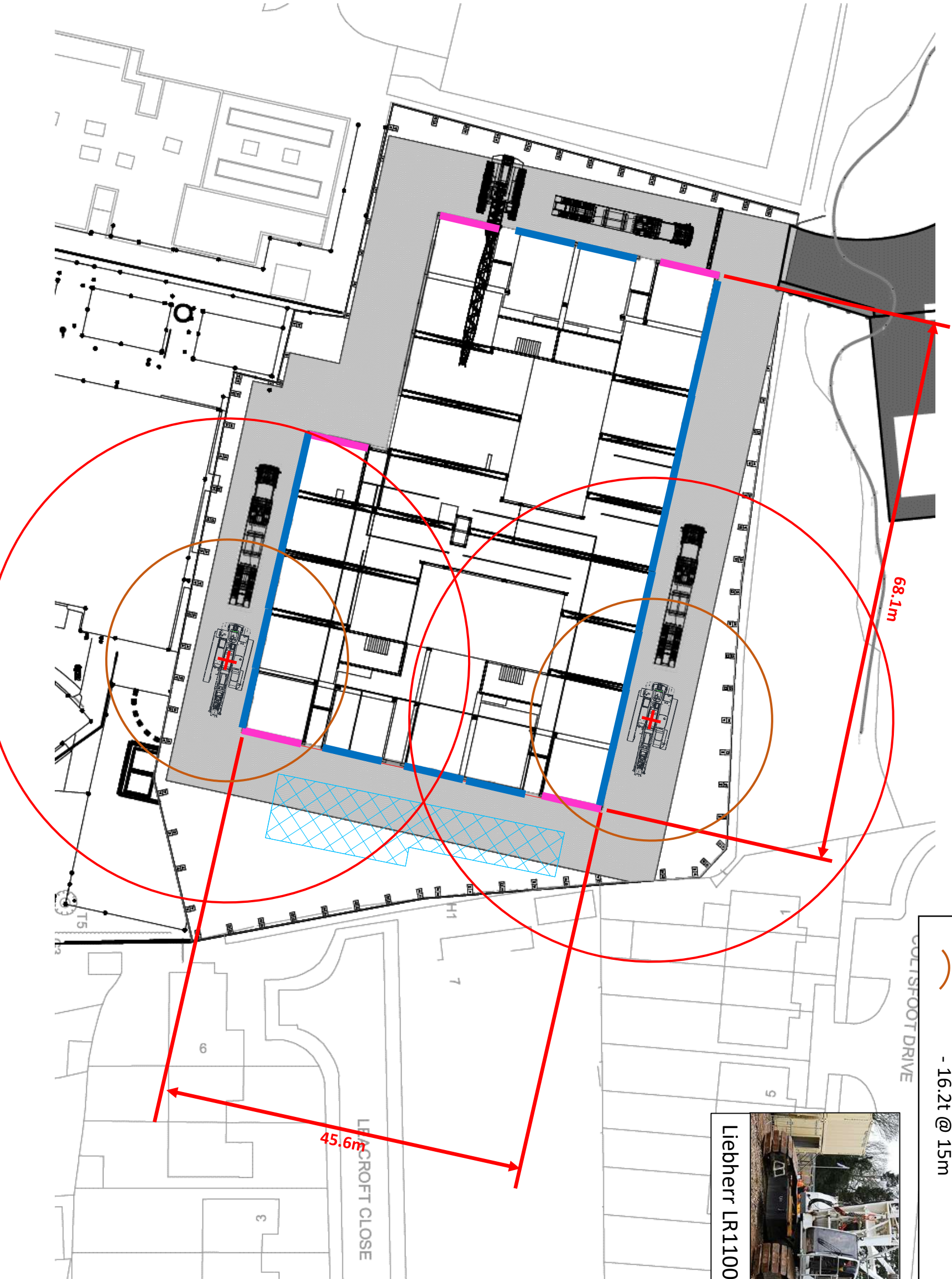
Orchard Hill – Crane Checks – Avoiding Cellular Storage to East Elevation



-  = Standard Sandwich Panels (8.01t)
 -  = Solid PC Cladding Panel (16.2t)
- Crane Lifting radii:
-  - 8t @ 30m
 -  - 16.2t @ 15m



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Orchard Hill – Crane Checks – Installation of Plant Rooms to Roof



 = Mech Plant Room (dry) (12t)

 = Elec Plant Room (6t)

Crane Lifting radii:

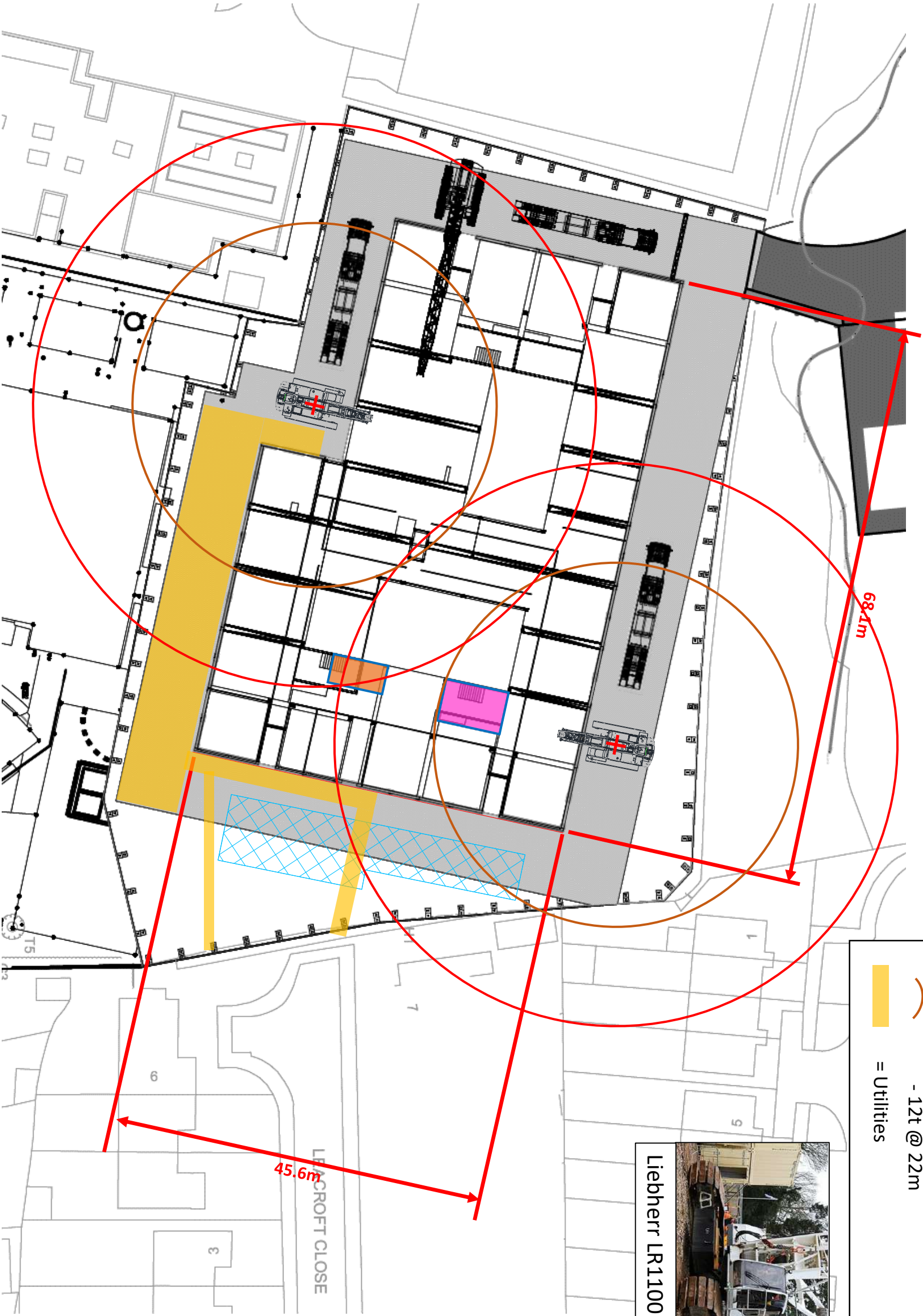
 - 6t @ 34m

 - 12t @ 22m

 = Utilities



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Orchard Hill – Crane Checks – Installation of Risers

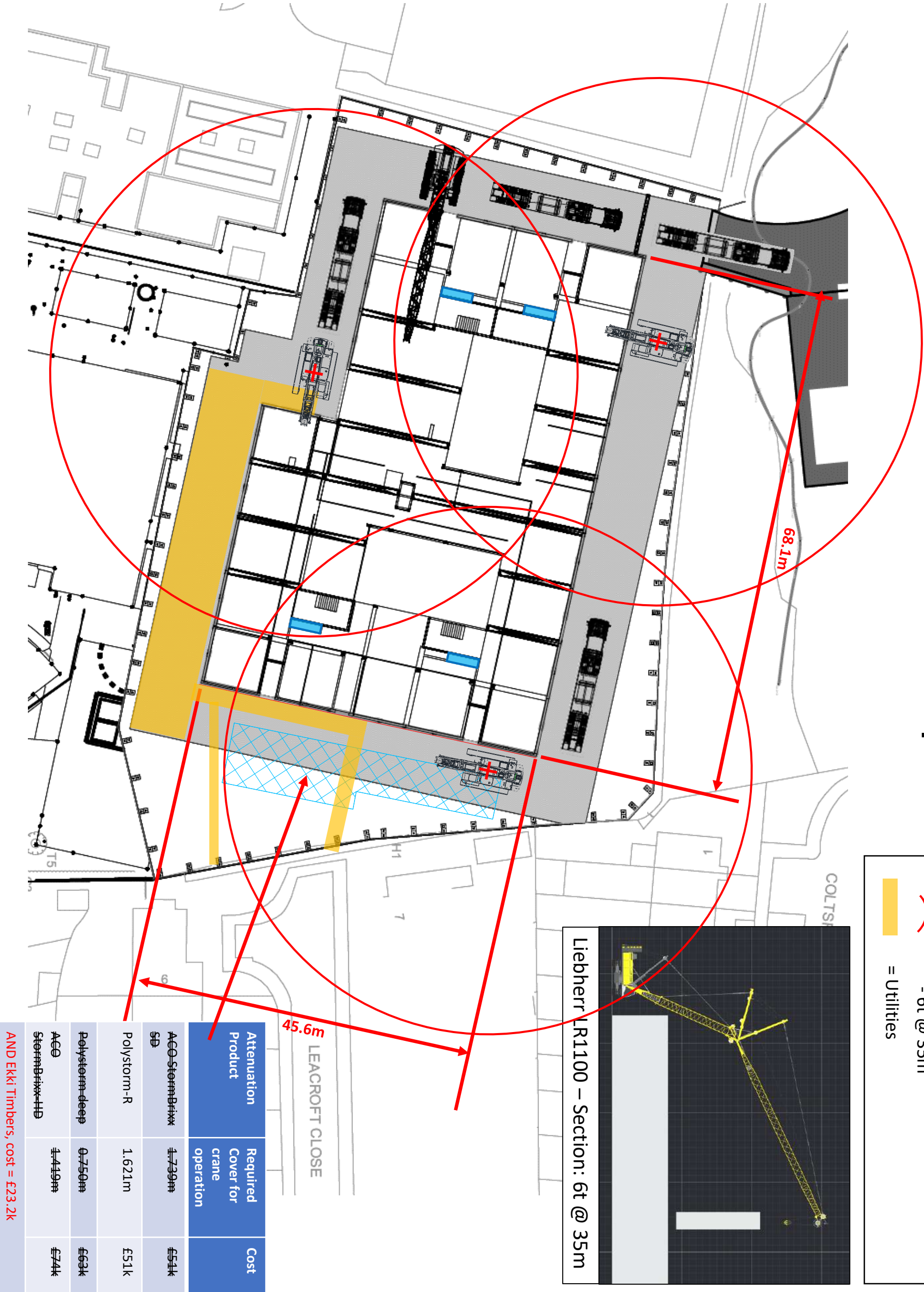
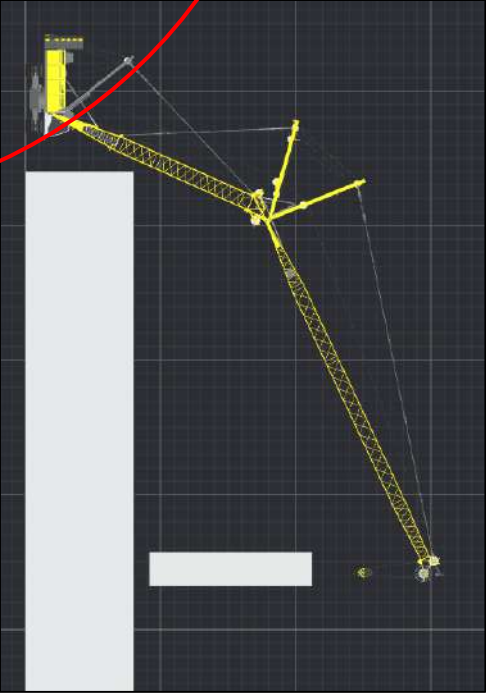


= Risers (12m x 2.5m x 0.75m)(560kg)

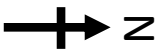
Crane Lifting radii:
- 6t @ 35m

= Utilities

Liebherr LR1100 – Section: 6t @ 35m



Orchard Hill – Crane Checks – Installation of Roof Modules



= Risers (3m x 1.25 x 0.8m)(110kg)

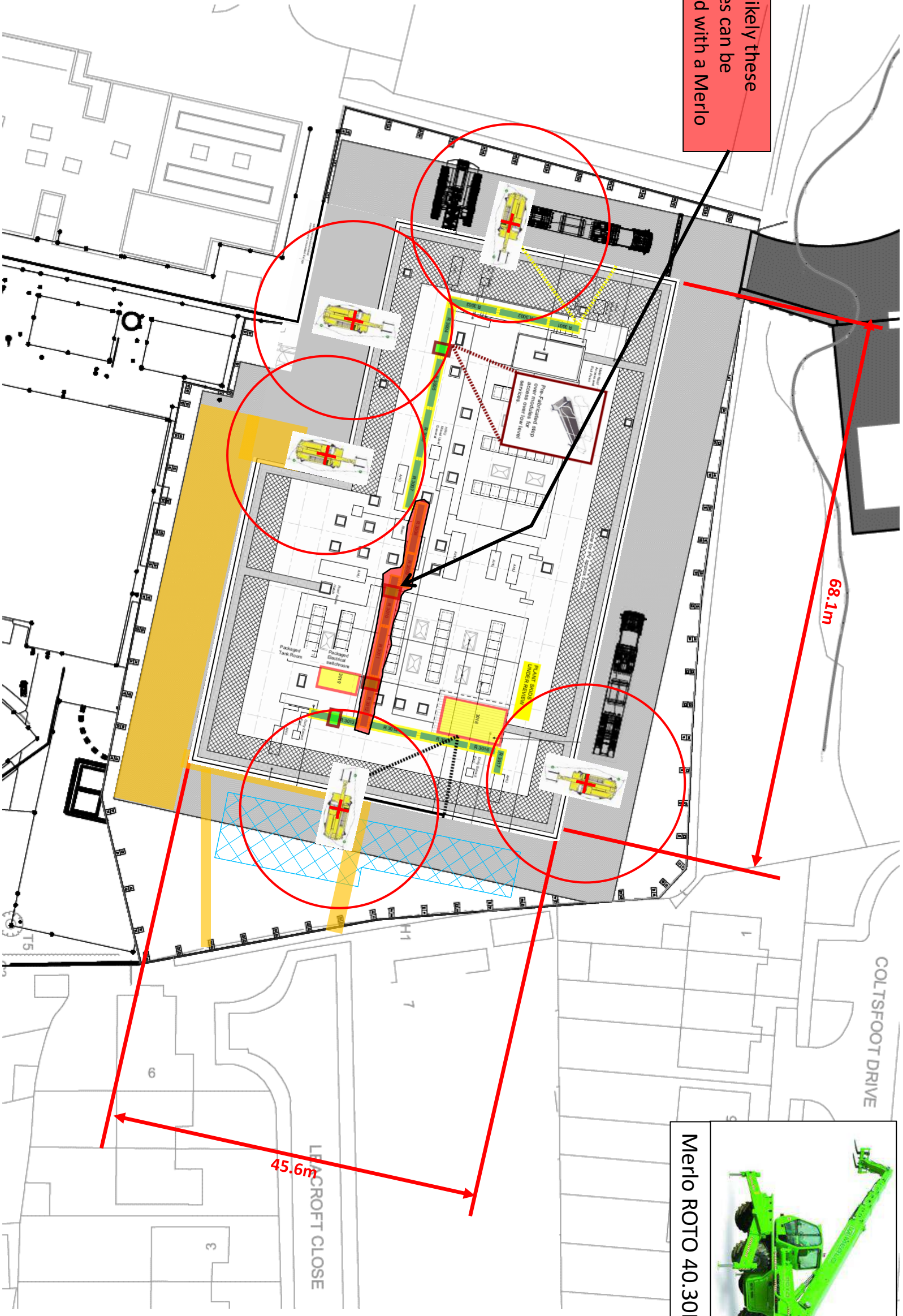
Crane Lifting radii:
- 2.5t @ 12m

= Utilities



Merlo ROTO 40.30MCCS

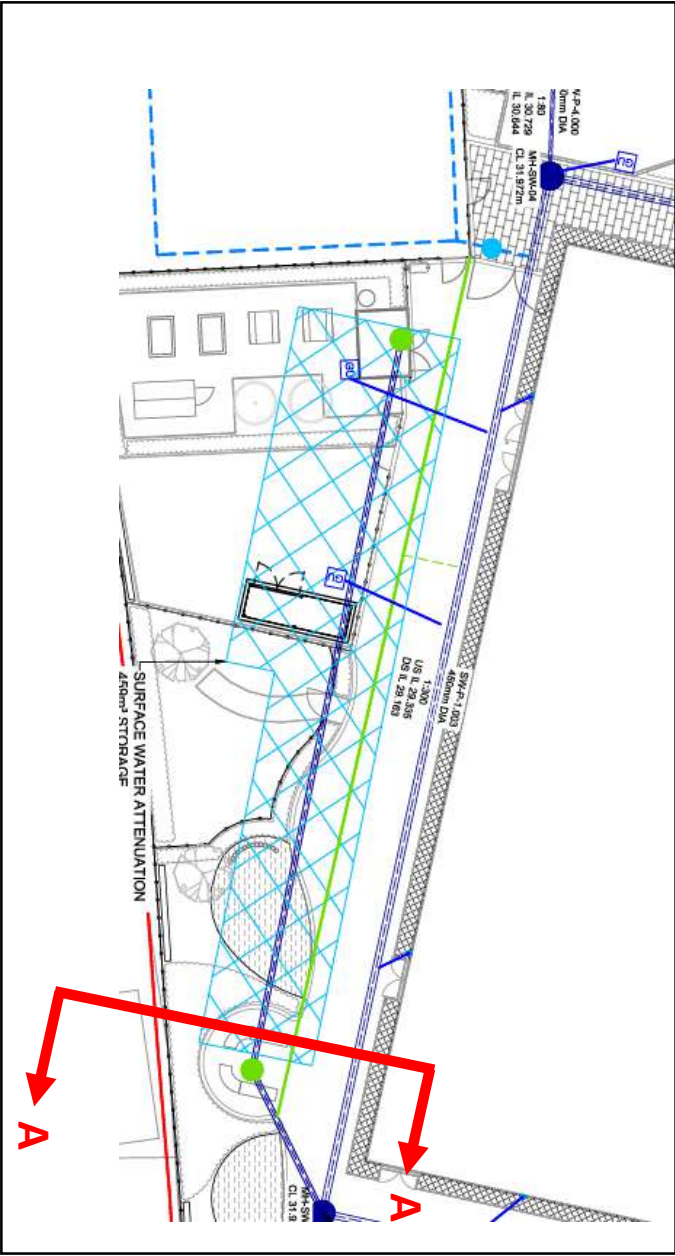
It is unlikely these modules can be installed with a Merlo



Orchard Hill – Cellular Attenuation Excavation

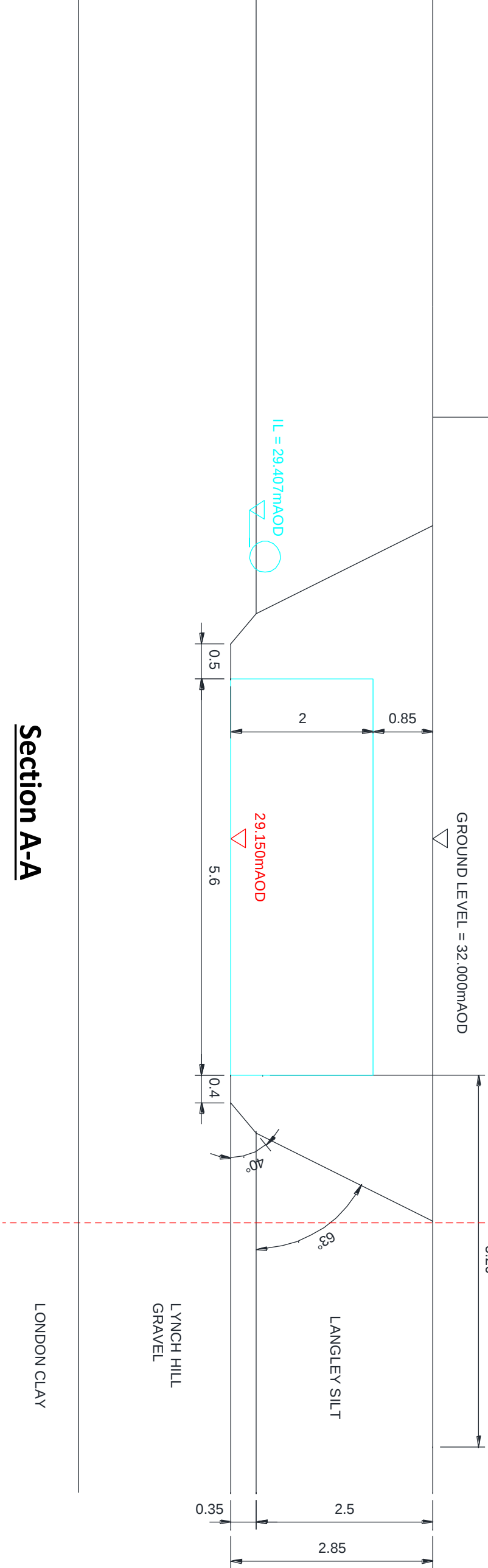
Cellular storage base level of +29.150mAOD as per drainage drawings issued 12/11/2019 (FS0637-ATK-XX-XX-DR-C-921001_P02

ORCHARD HILL
SCHOOL
BUILDING



Note: Batters taken from Orchard Hill EDB013:
- 40deg = 1V : 1.2H
- 63deg = 2V : 1H

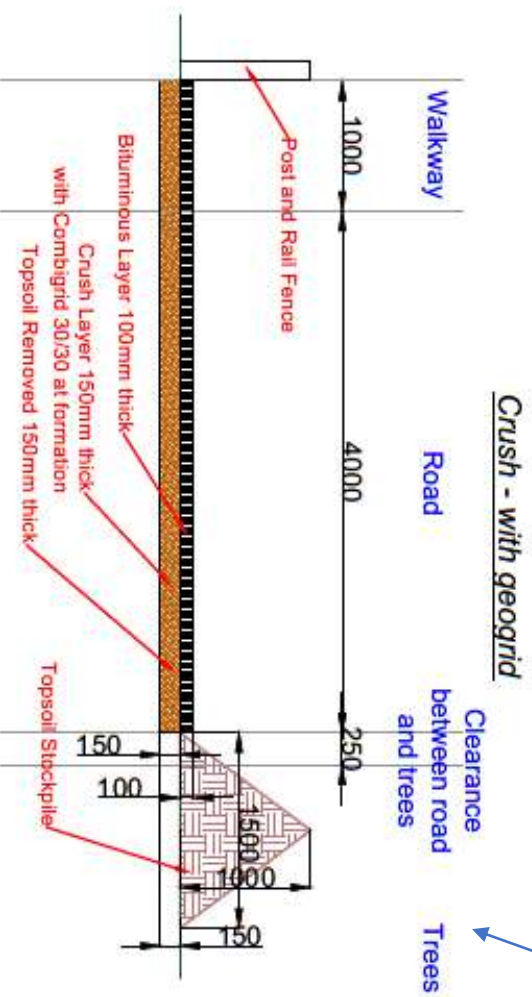
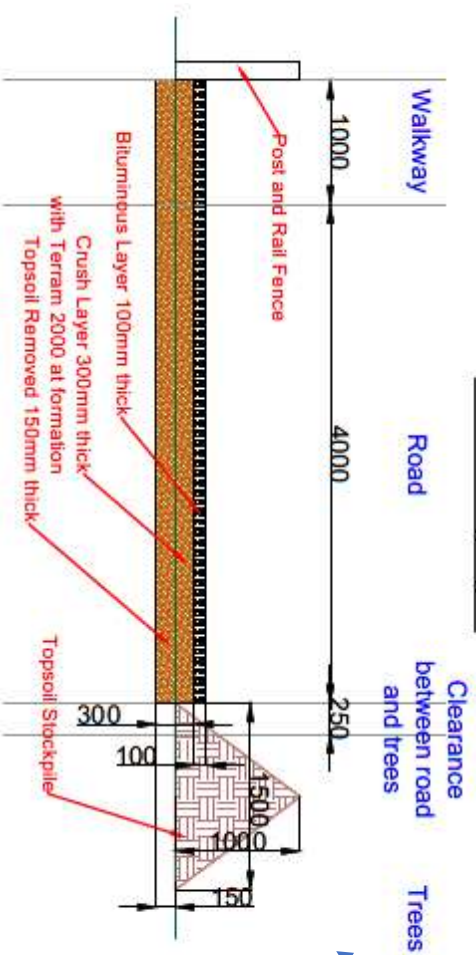
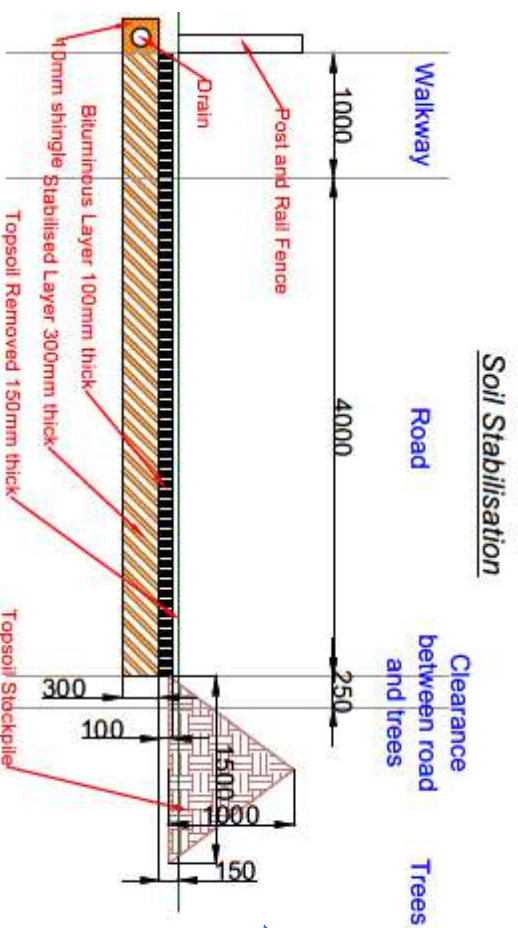
SITE
BOUNDARY



Section A-A

Orchard Hill – Haul Road Options

Information from EDB006 Rev01



Layer Material	Thickness (mm)	Underlain by	Cost (NET)
Stabilised layer to CBR 15%	300	Not required	£141.1k
6F2/6F5 Recycled Stone	300	1 layer geotextile, e.g. Terram 1000	£146.6k
6F2/6F5 Recycled Stone	150	1 layer geotextile-geogrid composition of UTS 30kN/m	£136.3k

**Preferred
option**

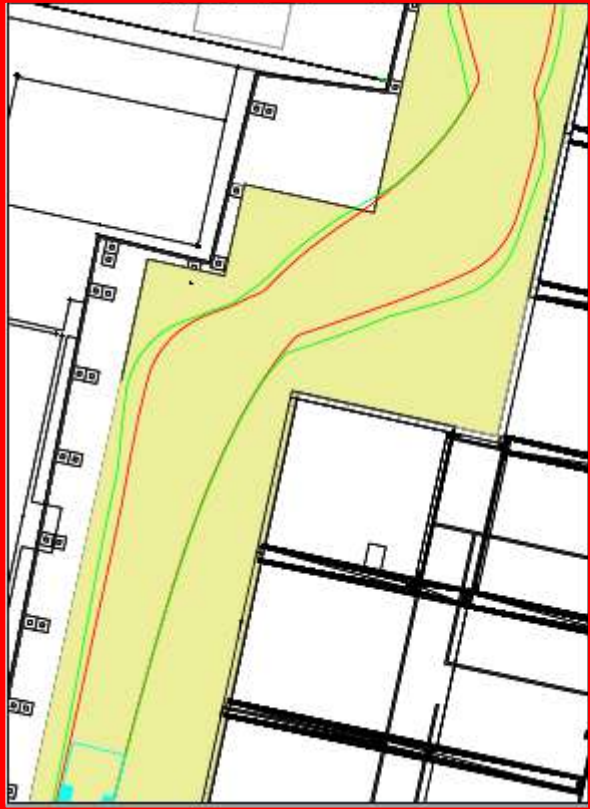
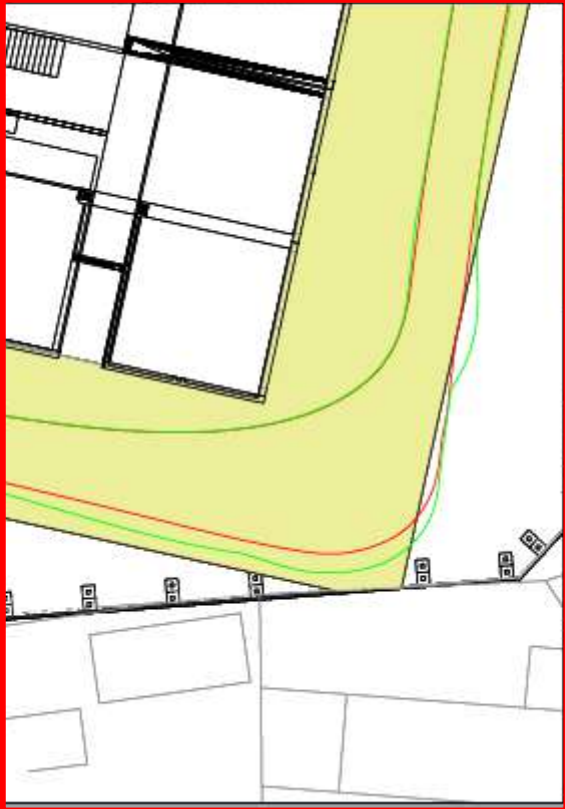
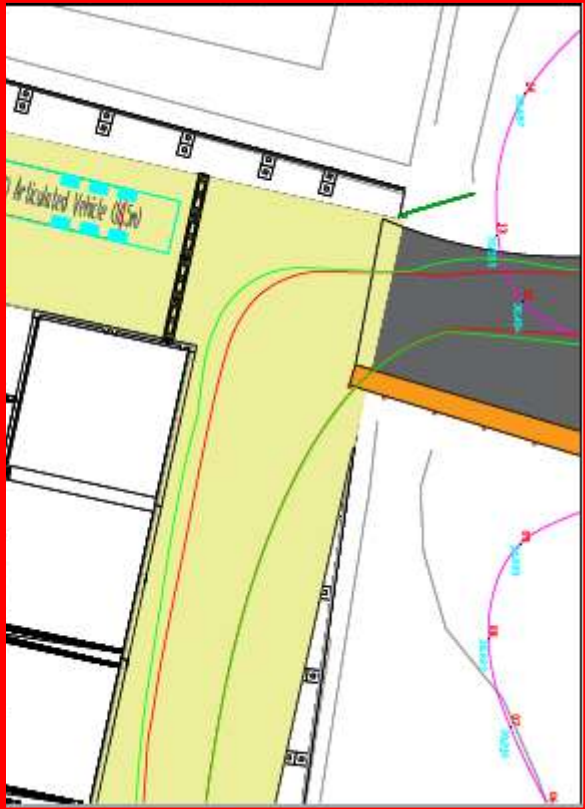


Orchard Hill – Crane Mat Options

Information from EDB006 Rev01

Layer Material	Thickness (mm)	Underlain by
Type 1 Stone	500	1 layer geotextile, e.g. Terram 1000
Type 1 Stone	375	1 layer geotextile-geogrid composite of UTS 30kN/m
Type 1 Stone	325	1 layer geotextile-geogrid composite of UTS 40kN/m
Stabilised Layer to CBR 30%	300	Not required

Options to be priced and preferred option selected



Orchard Hill – Levels Review

Last updated: 31/Jan/2020, Rev 02

2. Formation Level (Excavation depth to formation)
3. FFL (Build up to FFL)
4. Build up
5. (Type 1 thickness)

Recommendation: set Crane Platform at 31.900mAOD



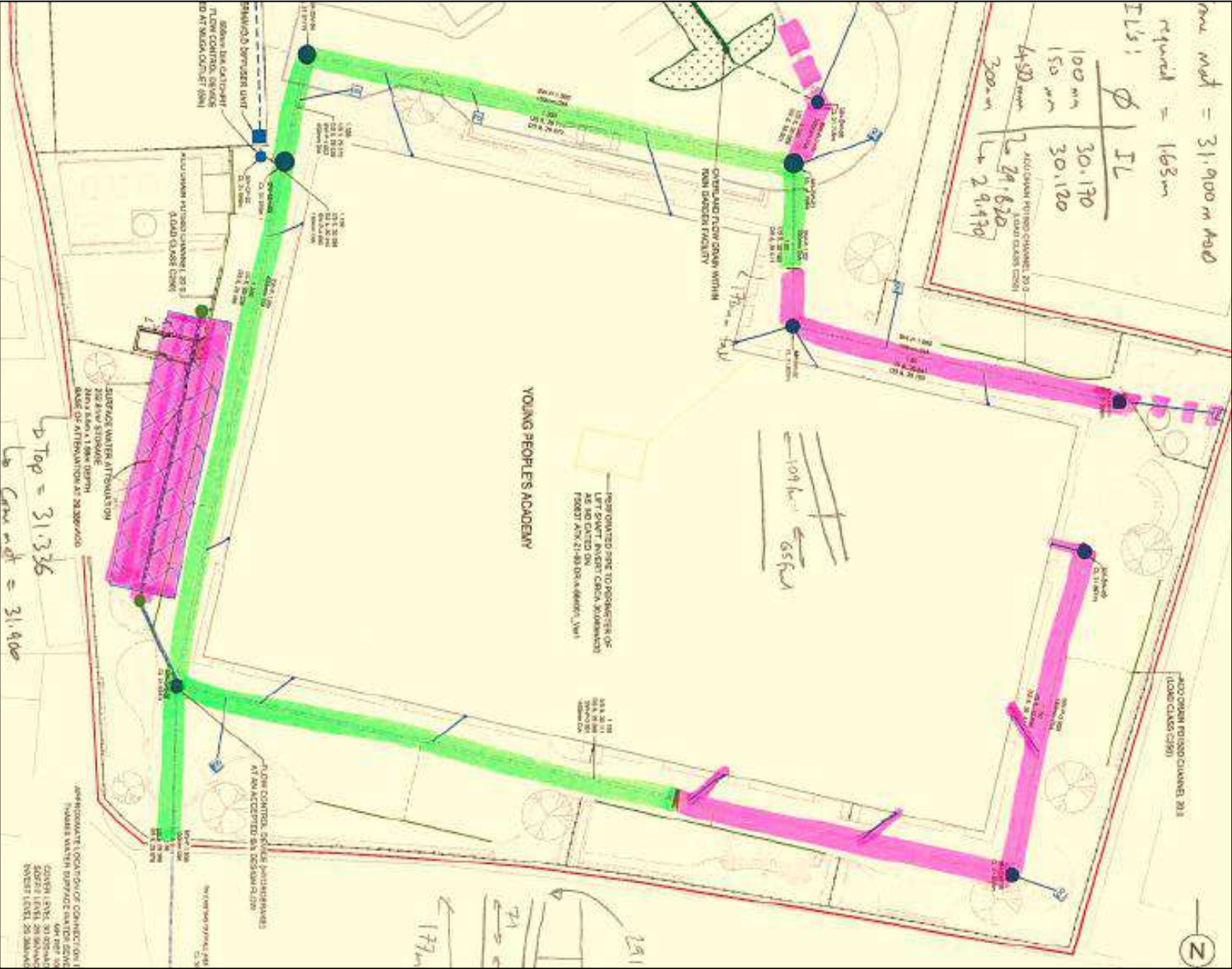
Orchard Hill – Crane Checks – Timber Eeki Mats Required to Protect Drainage

Last updated: 31/Jan/2020, Rev 02

Assuming that the top of Crane mat is 31.900mAOD

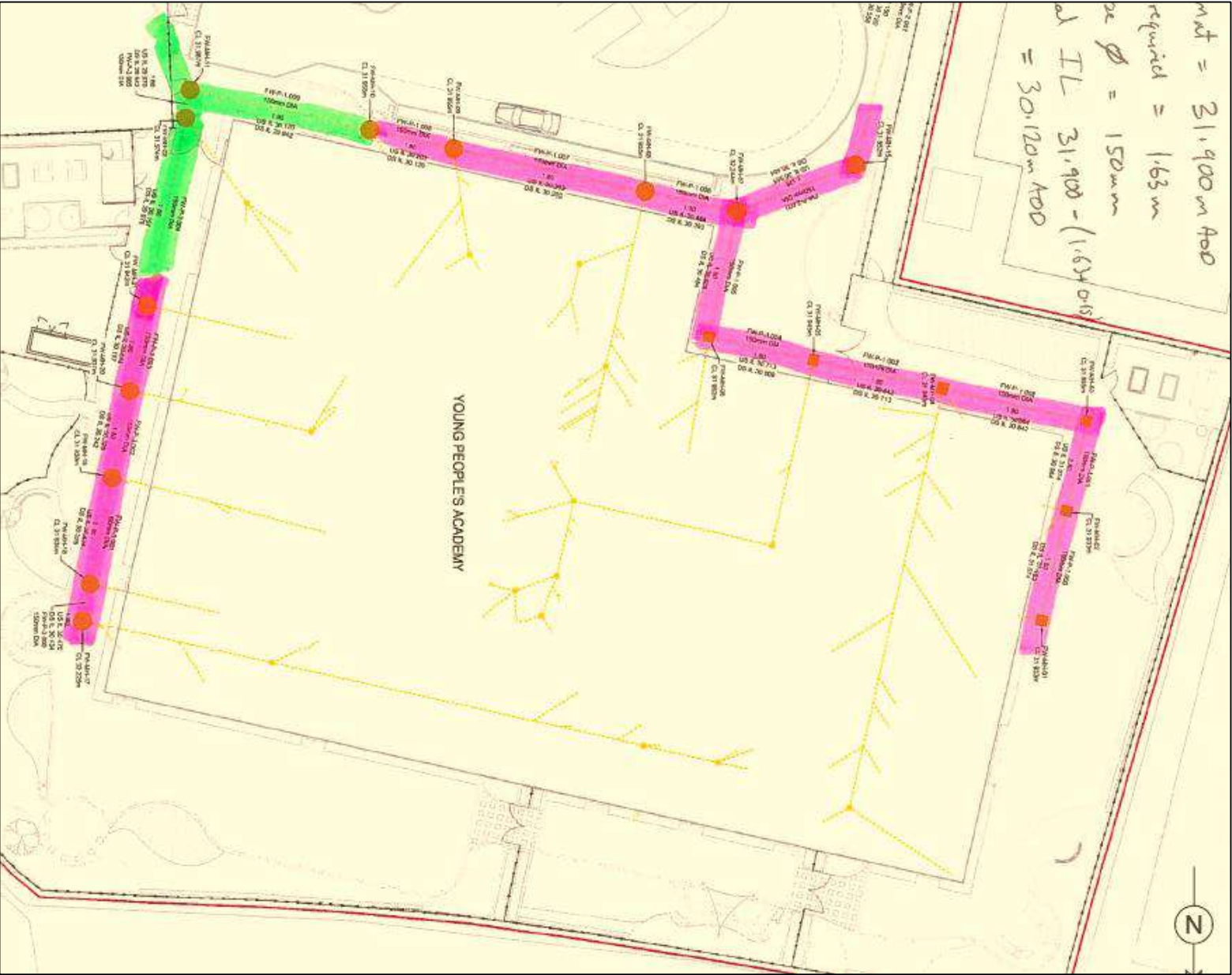
= Crane can track and operate. Cover to pipework is more than 1.63m.

= Crane can track, but for operation must sit on Eeki timber mats.



Surface Water Network

(FS0637-ATK-XX-XX-DR-C-921001)



Foul Water Network

(FS0637-ATK-XX-XX-DR-C-931001_C02)

Orchard Hill – Crane Checks – Timber Eeki Mats Required to Protect Drainage

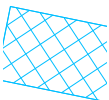
Last updated: 31/Jan/2020, Rev 02



68.1m

45.6m

LEACROFT CLOSE



= Crane can track and operate. Cover to pipework is more than 1.63m.



= Crane can track, but for operation must sit on Eeki timber mats.

= Crane can track, but for operation must sit on Eeki timber mats.

Note: Top of crane mat assumed to be at +31.9mAOD.



Liebherr LR1100

THIS MARK-UP ONLY CONSIDERS DRAINAGE – NO OTHER SERVICES HAVE BEEN CONSIDERED.

Attenuation Product	Required Cover for crane operation	Cost
ACO StormBrix SD	1.739m	£51k
Polystorm-R	1.621m	£51k
Polystorm-deep	0.750m	£63k
ACO StormBrix-HD	1.419m	£74k
AND Eeki Timbers, cost = £23.2k		

APPENDIX E

Environmental & Sustainability Policies

ENVIRONMENTAL & ENERGY

Laing O'Rourke is an engineering enterprise, focused on major construction projects and strategic programmes, delivering certainty for clients from the earliest engagement and throughout the project lifecycle. Through a focus on certainty of delivery we will maintain an enduring and sustainable enterprise.

We are committed to the protection and enhancement of the environment and to a continual improvement of energy performance. High environmental and energy performance is an ongoing priority and is achieved by our actions in line with this policy. This policy sits alongside our Sustainability and Supply Chain policies as part of our global policy framework, underpinned by our Global Code of Conduct.

Our goal is to minimise the negative environmental impacts of our operations and maximise the quality of the built environment for future generations. Through innovation and application of leading practice, we aim to steer the industry to design an environmentally sustainable and high-quality built environment through the whole asset lifecycle.

Our goal will be realised by:

- Demonstrating leadership of our environmental agenda by senior leaders
- Complying with relevant legislation and other requirements specific to the context of our business and regularly evaluating and reporting on our compliance obligations
- Preventing polluting emissions or discharges to the environment
- Proactively minimising environmental impacts, including minimising direct and embodied carbon emissions, and providing energy-efficient / low-carbon assets for our clients
- Continually improving the environmental and energy performance of our activities, products, services and associated management systems through clear objectives, targets and programmes
- Providing sufficient and competent resources and information to achieve our environmental and energy-related objectives and targets
- Exploring opportunities in the sourcing and lifecycle aspects of our products, services and supply chain to reduce carbon emissions, improve energy efficiency and demonstrate positive environmental outcomes
- Exploring opportunities for innovative technologies, products and processes that drive improved environmental outcomes / benefits and energy performance throughout the design, delivery and operation of the assets we build
- Communicating and addressing the risks and opportunities associated with the impacts of our activities, products and services
- Improving resource efficiency by reducing the use of natural resources and reducing waste, maximising resource recovery and diverting the waste we do produce away from landfill sites
- Reducing our water consumption and improving water efficiency in all of our operations
- Engaging our supply chain partners to improve their environmental performance and responsible sourcing of their materials, products and services
- Proactively protecting, preserving and exploring opportunities to enhance biodiversity and land quality
- Enhancing employee understanding of environmental sustainability by stimulating cultural change and providing clear direction
- Maintaining ISO 14001 certification for our principal businesses and progressing further certifications for our products and services as appropriate

The Board of Directors of Laing O'Rourke fully endorses this policy.



Sir John Parker GBE
Chairman

SUSTAINABILITY

Sustainability is about maximising our environmental, economic and socio-economic performance in the interests of the business, our stakeholders and our planet.

Laing O'Rourke is uniquely placed through our private ownership, operating model and value proposition to take a long-term approach to sustainability. This policy sits alongside our Health & Safety, Quality, Environmental & Energy, and Security & Business Resilience policies as part of our global policy framework, underpinned by our Global Code of Conduct.

As an enduring engineering enterprise, we are implementing a strategy which aims to create sustainable growth by meeting the economic, social and environmental challenges of our rapidly changing world.

Achieving sustainability is an integral part of fulfilling our corporate vision. We will continually strive and expect to:

- Create exceptional, long-term sustainable outcomes for all our clients, aligned to their ambitions
- Generate profits to invest in innovation and future success
- Work to the highest ethical, social and environmental standards
- Develop strategies that are informed by and aligned to the UN Sustainable Development Goals
- Achieve industry-leading low-carbon performance, and drive towards achieving net zero carbon
- Innovate to develop the industry's ability to address sustainability challenges
- Develop our people: they are our most important assets
- Attract and retain new people from diverse backgrounds and demographic groups to work in the industry, and for Laing O'Rourke particularly
- Contribute to development of construction skills in our local communities by providing access to apprenticeships and life-long learning aligned to our goals and vision
- Enrich the communities in which we work
- Assess and manage all significant environmental risks
- Engage our supply chain and partners to inspire innovation and to achieve our sustainability targets and objectives
- Be transparent in reporting on strategic targets

Collaboration with clients, supply chain, industry partners, research organisations and other stakeholders is fundamental to how we develop and implement a sustainability strategy.

Our policies are reviewed and updated regularly to be responsive to client needs and the world around us to make Laing O'Rourke the company of first choice for all our stakeholders, while challenging and changing the image of construction worldwide.

The Board of Directors of Laing O'Rourke fully endorses this policy.



Sir John Parker GBE
Chairman