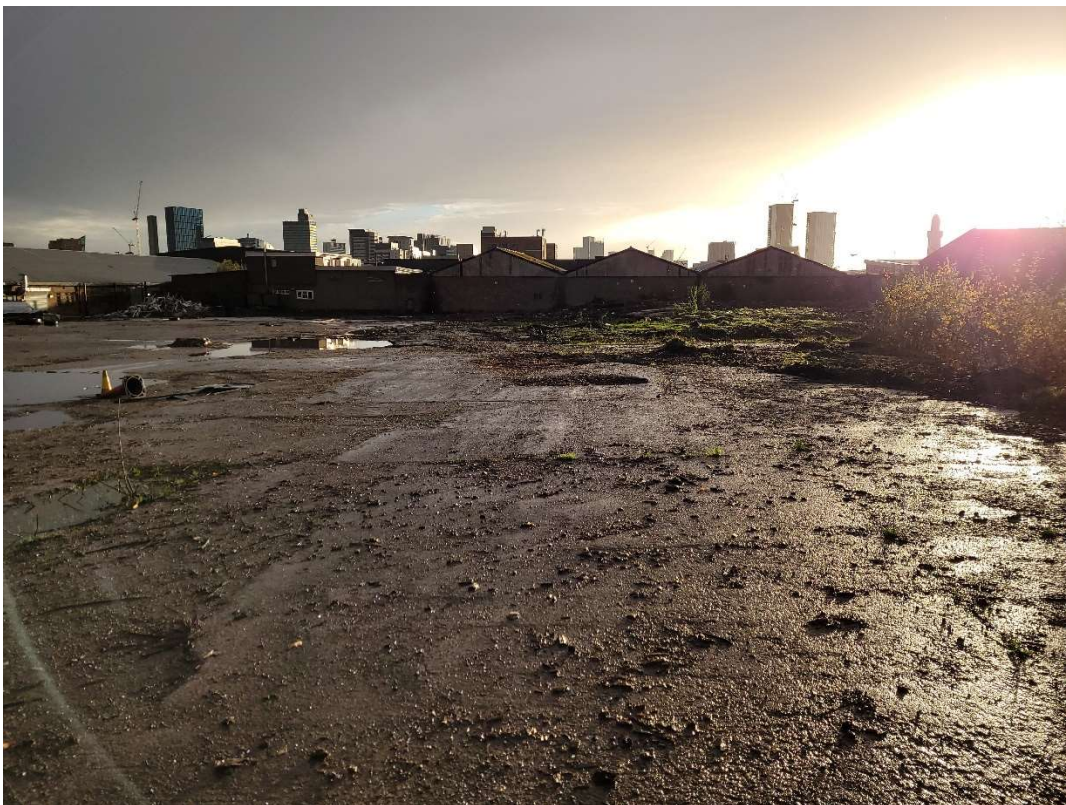


28th March 2023

Elizabeth Street

Construction Environmental Management Plan



Construction Environmental Management Plan for the Works:

The Project:

The project comprises Construction of 8No. industrial units of various floor areas including access roads, car parking and heavy goods vehicle turning circles.

Initial enabling works will also include the demolition of an existing building with some Asbestos containing materials, the isolation and lowering of existing services about the main entrance and existing building, ground stabilisation to all new building footprint and the installation of retaining walls along areas of the site boundary.

The Site Location:

The site is located off Elizabeth Street, Cheetham Hill. Manchester. M8 8JJ.
The site area is shown below.



The Client is:

Kier Property Development Ltd
81 Fountain Street
Manchester
M2 2EE
Telephone: 161 4513677 Email:

The Principle Designer

RPP Management Ltd
Blenwood Court
451 Cleckheaton Road
Low Moor
Bradford
DD12 0NY
Telephone: 01274 693622

The Principle Contractor & Site Contact:

Triton Construction Ltd
Andy Gaskell – Contract Manager
Telephone: 07984 157 090
Email: a.gaskell@tritonconstruction.co.uk

Preconstruction Activities:

We have listed below some key preconstruction activities/risks to be considered. The list is not exhaustive and would be developed in line with the Project Risk Register.

- Meeting the Client and his Project Manager to review the works, site compound area, cabin location, temporary roads, access routes, scaffold and hoarding lines, mobile crane locations, permits, licences, and skips.
- Risk of environmental harm to the surrounding properties/drains/highways.
- Possible UXO risk; UXO Stage 1, 2 and 3 risk assessment and report to be undertaken.
- Installation of a new combined drain connection off site – Water Industry Act Section 106.
- Review the control of vibration, noise, and air quality/dust control.
- Working around live services.
- Producing a Traffic Management Plan – approvals, permits, licenses loading out, deliveries, skip location, avoiding congestion, access routes, emergency vehicle access, pedestrian, and vehicle segregation, refuse collection and the like and Highways Act Section 278
- Produce a Fire Assessment and associated Fire Plans.
- Complete the Project Construction Health, Safety and Environmental Plan.
- Check with the surrounding building owners/occupiers and Highways Inspector if there are any planned building works or road closers.
- Consideration of the use of Local labour and suppliers.
- Put in place a Planning Matrix, Building Control Matrix.
- Issue the Information Release Schedule, Design Schedule, Subcontract and Material Procurement Schedules.
- Appoint the Temporary Works designer and produce the TW schedule and designs.
- Carryout Drainage surveys.
- Check the existing Topo level and manhole levels.
- Undertake Dimensional surveys and M+E surveys.
- Submit Building Control Approval documents and review and answer Building Control queries.
- Carryout early SBEM's, and the like.

- Location of compound and car parking for staff, operatives and visitors.
- Ensuring the public are not put at risk and maintaining safe access around the outside of the site boundary.

Design Review

A design assessment & value engineering review is one of the most important functions in the early stages of any project.

At Triton we take this upfront role very seriously, by allocating a dedicated Design Manager to oversee the design process. In conjunction with the design team, we review and propose alternative construction methods, choice of materials, building systems, sequencing, layouts and practical buildability to ensure that as many issues or problems are resolved upfront, to facilitate a smooth-running build process.

We also understand that not every detail will be resolved at day one and that is the reason we continue with the design input & work closely with the client and design team throughout the build. This ensures that all avenues are investigated and assessed for suitability, from new systems of work, new products, alternative materials and build methods, to achieve maximum value for our clients.

As most of our workload originates from either recommendation or negotiation, it is paramount that we offer an exceptional level of service and delivery.

We will work closely with the Client and Design team to achieve a safe, high quality and cost-effective scheme.

Our design manager Steve Atherton would control and monitor the whole process from design through construction and to completion to ensure the team achieves the end goal.

An Information Required Schedule will be issued at the commencement of the works and then individual 'Request for Information' sheets will be issued for specific design information.

Construction Programme:

Our summary construction programme for the works is appended to this document.

The anticipated start date is May 2023

The anticipated completion date is June 2024

The date of first occupation is TBC

Our construction programme fully details the procurement, build sequence of all units and the new access to the site, along with the critical path, testing/commissioning and snagging of the works.

The works will not be phased.

The proposed Hours of working

Triton working hours - Monday to Friday, daytime, 7.30am to 6.30pm

Weekends only if required and only by agreement with the EA/Local Authority.

Out Of Hours work only by agreement with the EA/Local Authority.

Works that are audible at or beyond the site boundary should not occur outside of the Monday to Friday 8.00am to 6.30pm working hours without EA/Local Authority approval.



Community Project and Employment of Local Labour

We will engage with the local community center and provide help and assistance in any reasonable community project - TBC

We will ensure that the employment of local labour and apprentices is provided if possible on this contract.

Risks and Mitigation Measures:

Prior to the commencement of the contract we would produce a Project Risk Register to show the risks we, the Client, the Principal Designer, the design team and key subcontractors can foresee and show the mitigation measures that we would be put in place to eliminate or reduce the risk.

Operational Control Measures:

Triton Project Manager will maintain contact with local residents/businesses in the immediate area so that any concerns on environmental impacts may be addressed at an early stage.

Regular visits from the regulatory authorities will be encouraged so they will be confident that controls are in place and monitoring is being carried out. This will aid the authorities in responding to any enquiries from the public.

A proactive approach will be taken to keep all neighbour's informed. Triton will issue newsletters to local residents/businesses to keep them informed of the progress on site. A sample letter is appended to this document.

We will work closely with our site operatives, visitors and subcontractors to coordinate the construction works, deliveries, visitors and construction personnel to avoid any disruption to the use of the surrounding highways or residential properties.

Access to the Site:

Access to the site for the new building will be off Elizabeth Street. A new site entrance will be formed into the site. The site entrance will be used for both inbound and outbound visitors, staff, construction personnel, plant and delivery vehicles of various sizes from small vans, skip wagons, 8-wheeler wagons to articulated wagons.

Temporary Access Requirements:

No temporary access requirements are required to access the site so a Section 171 agreement is not required.

The site boundary, access point and loading bay areas:

The site boundary, access point and loading bay areas are shown on the site logistic plan below:



As shown on the drawing above, a 2.4m high solid timber (plywood) hoarding will be set along Elizabeth Street to the rear of the public footpath. Steel pedestrian and vehicle gates will be set within this solid hoarding to open inward into our site. Within the site, a secondary set of heras gates will be located at the point of the current site boundary fencing and a further set of gates to access the rear of the neighbours property.

Traffic Management Plan

A banksman will be in attendance to manage construction traffic in and out of the site. A vehicle can drive into the site and the site gates closed. We would off load the vehicle with a forklift, open the gates and let the vehicle drive out then close the gates behind it.

A turning area will be established within the site area but not outside the site.

For Highways on the public highway that exclude Section 278, our proposed traffic management scheme will be submitted to highways for their comments/approval prior to any works commencing. All necessary permits and notifications will be submitted ie Section 50, Section 58, Section 106, requests for a temporary traffic regulation order and the like, prior to the works commencing.

A full detailed Traffic Management Plan will be produced prior to the works commencing. This plan will be implemented, developed and updated on a regular basis in line with the changing construction sequences. The plan will contain details for all the deliveries, crane locations, vehicle/pedestrian routes, emergency vehicle and fire escape routes for works in the site boundary and to the external work areas.

Delivery routes to the site will be suitably sign posted as necessary to minimise local disruption. A schedule of deliveries will be produced and a schedule of key programme dates will be issued and reviewed. These will include noisy working and any essential service shut downs to ensure there is little disruption to the daily running of the surrounding properties.

Care will be taken to ensure that no construction materials spill over on to the road

Traffic routes will be planned and reviewed as the construction works progress. We will ensure that the existing turning areas and pedestrian routes are safe for all parties and that there is an emergency procedure in place, developed and kept up to date during the construction process.

Triton will carefully plan and coordinate all works to ensure that inbound/ outbound deliveries are not impeded.

The key to executing the construction works in a safe manner is by providing a safe environment and promoting safety with the construction personnel, the staff, visitors, the public and the Stakeholders. We will provide banksmen with all vehicles at all times. The banksmen will wear red hard hats, red high visibility vests with the words 'Banksman' displayed across the back of their vests. They will have hand held radios for communication with the site office and each other.

Due to the nature of the confined site entrance, careful consideration of the site logistics will be required with forward planning of deliveries, agreed delivery dates and times for each wagon. We will have to adopt a 'just in time' system, so vehicular movements on and off site for the construction will be carefully controlled.

Clear wayfinder signs and speed restriction signs will be posted along the external roads to guide delivery drivers to the site compound or loading bay area and construction operatives to the external parking areas.

Freight Vehicle Safety Requirements will be implemented on our site.

It is essential that Stakeholders, site visitors and the public do not come into contact with vehicles. Delivery vehicles and construction plant will have to move across roads and near footpaths used by the public, staff, visitors and construction personnel. Young people may not appreciate the

danger created with construction activities and will be particularly vulnerable to the dangers. We will ensure that all vehicles are escorted by a banksman and vehicles are only reversed under the supervision of banksmen. The safety of the public outweighs the need to move vehicles, so where possible vehicle movements will be restricted but when this is not possible the vehicles will be stopped from moving until it is safe to carry on.

Adequate Safety fencing, safety+ wayfinder signage with clear pedestrian routes with anti-trip feet will be provided:



All material and subcontractor orders will contain a directional map to the site. The orders will clearly indicate the site landline number, Project Managers name and mobile phone number and confirmation where the parking is for the construction site.

All deliveries will be planned and coordinated in advance to ensure there is access and safe transportation to the construction site. Where possible deliveries should take place to miss peak traffic times.

Car Parking:

Car parking for site staff, visitors and site personnel will be arranged on site.

Due to the restrictive nature of the site, it means there will be none or few available car parking spaces off site for the duration of the works.

During the first 57 weeks of the programme, we anticipate 10 cars and 5 vans at any one time.

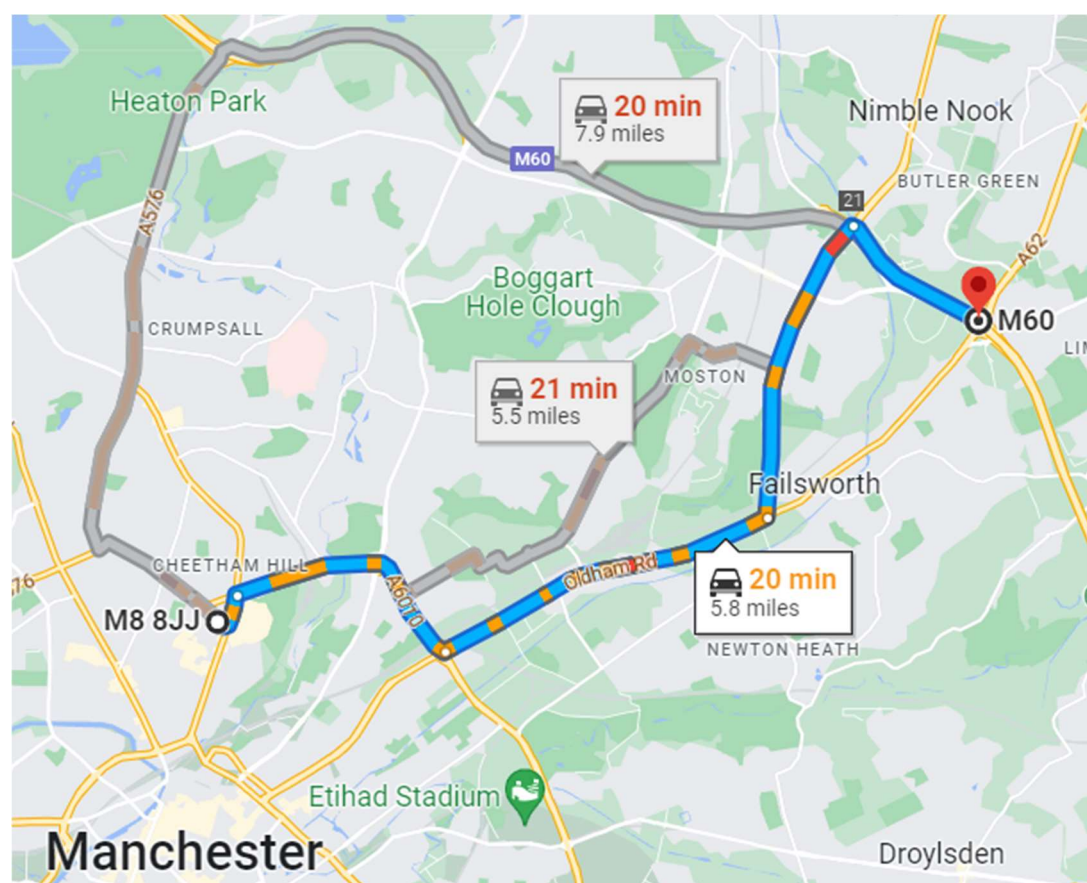
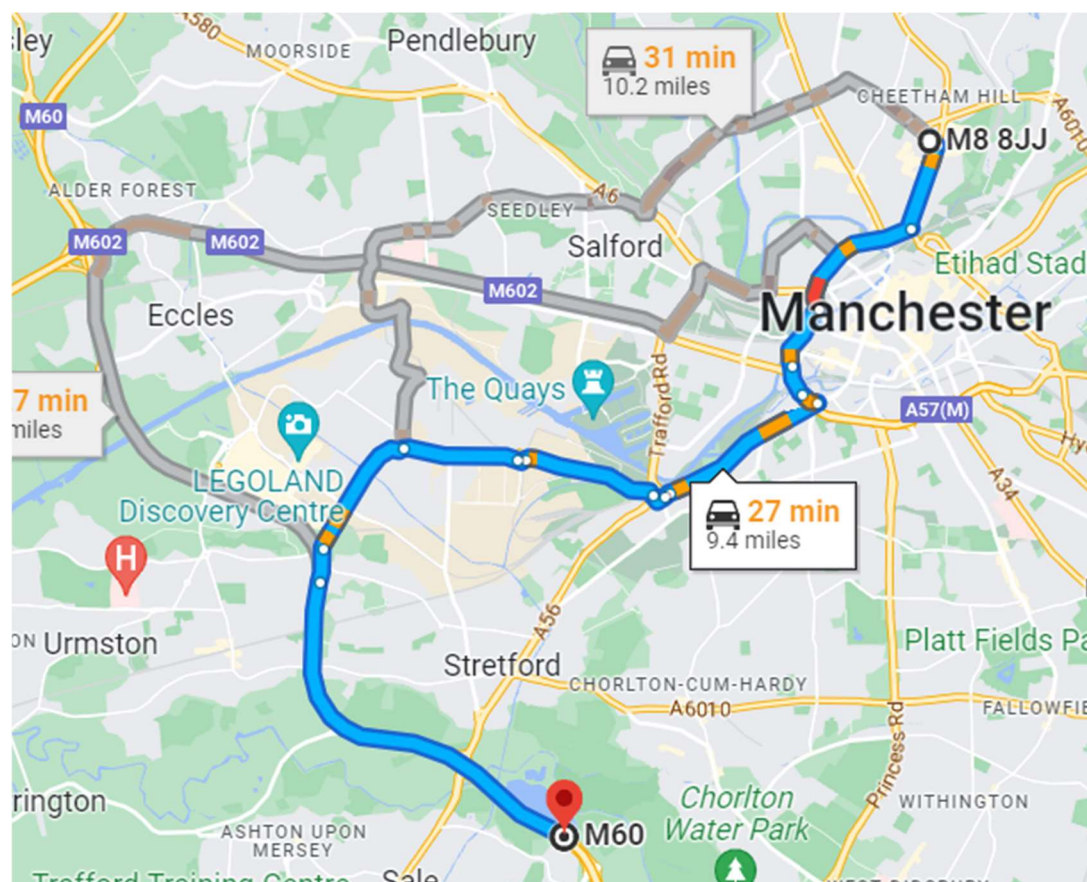
There are public highways around the site where vehicles can be parked but we must ensure we do not obstruct resident access, emergency vehicles or refuse collection vehicles.

Access/Egress Routes to and from the site:

There are several ways to and from site for personnel & delivery vehicle.

The main access will be from the from the M60 & M602.

Nearby mainline railway station and local bus routes.



HGV Loading and Turning Area

It is not envisaged that vehicles will need a turning area outside the site. A full vehicle tracking route will be produced for site delivery wagons.

Environmental Management Measures:

All works will be carried out in accordance with our Environmental Policy, and the Planning Conditions.

Triton operates a Quality and Environmental Management plan accredited and in accordance with the ISO14001 Requirements, which forms part of our ISO9001 Quality Procedures.

Amphibians:

There are no Amphibians on or near the site.

Hedgehogs:

If any hedgehog are found, then it is a legal requirement all work must cease and advice must be sort from an ecologist.

Bats:

If any European protected species of bats are found, then it is a legal requirement all work will cease and advice sort from a licensed specialist.

Badgers:

There are no badgers on or near the site.

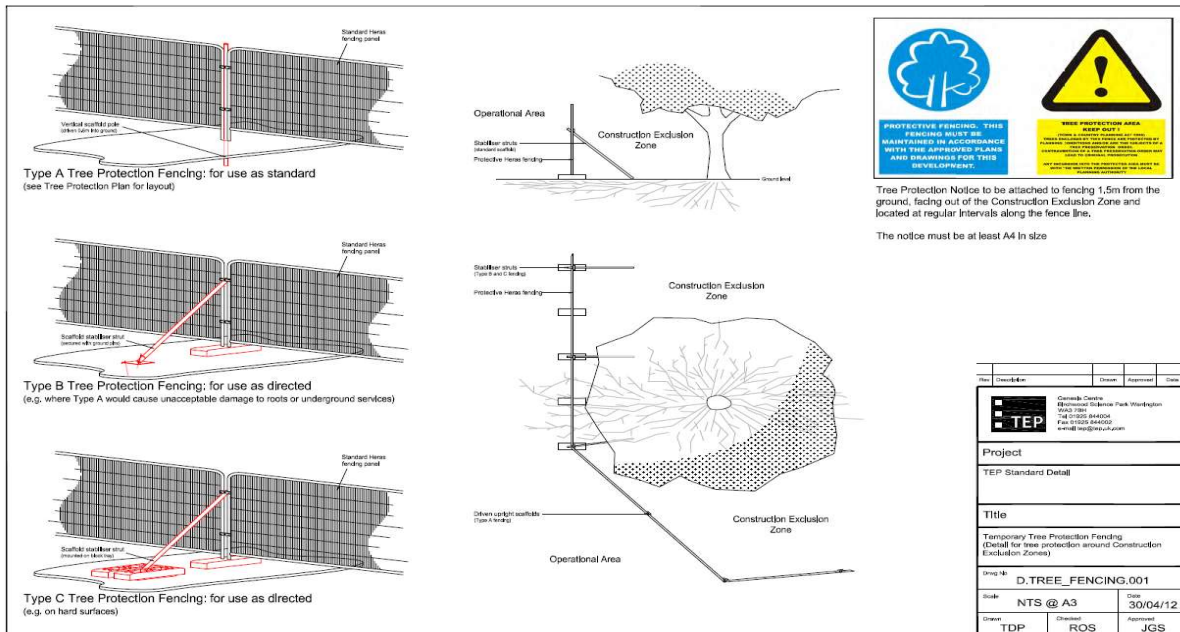
Protection Of Trees and Wildlife:

Ecological Report and Arboricultural Impact Assessment and site walkover of the site have previously been undertaken and the design of the project amended in accordance with their comments.

There are no bats, badgers, amphibians or flora/fauna to be protected.
Several trees have TPO's and these will be protected with temporary tree protection fencing.

Japanese Knotweed

Whilst the site has been cleared of Japanese Knotweed, regular checks will take place by specialist to ensure no further issues arise.



A designated fueling area will be located within the site compound. Environmental spill kits will be located adjacent the construction areas in case an emergency arises. If an emergency arises then works will cease and the EA contacted. All works will require an approved risk assessment and method statement prior to any works commencing.

Groundwater:

We are not expecting any significant perched groundwater during the project.

However, during periods of heavy precipitation, there remains a risk that:

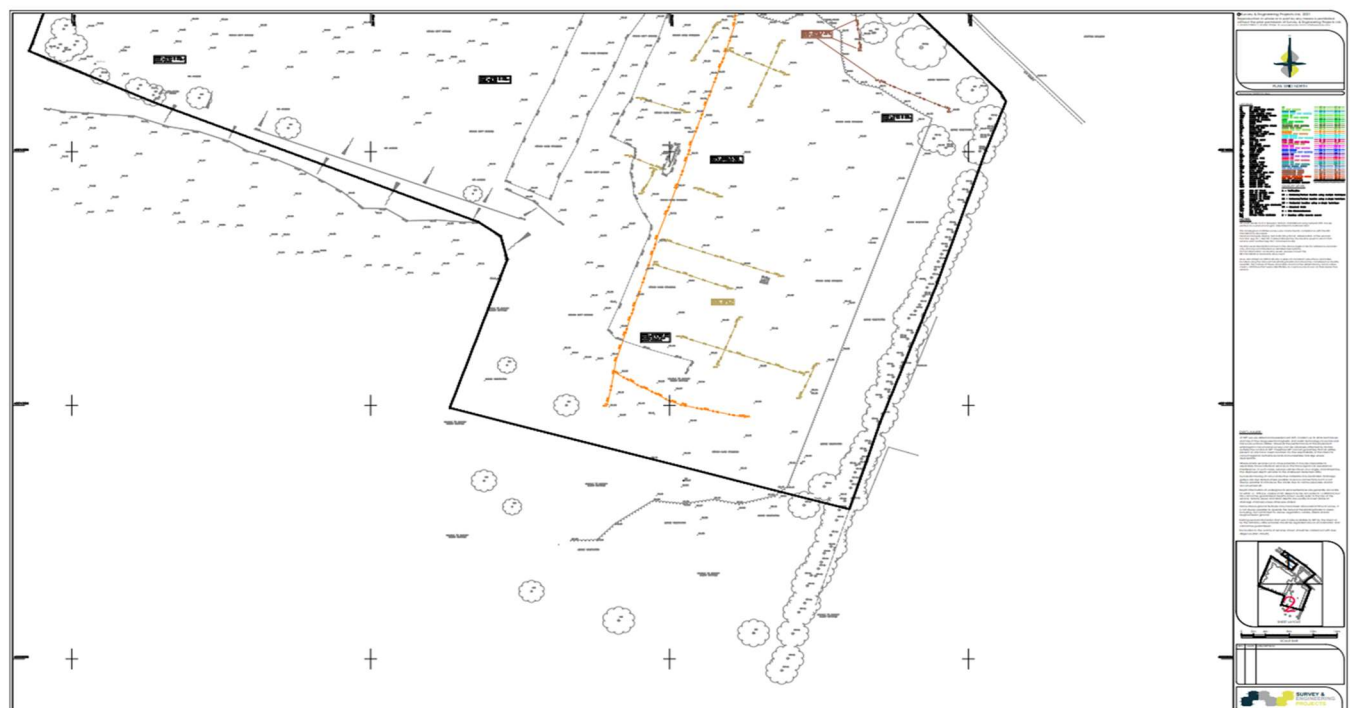
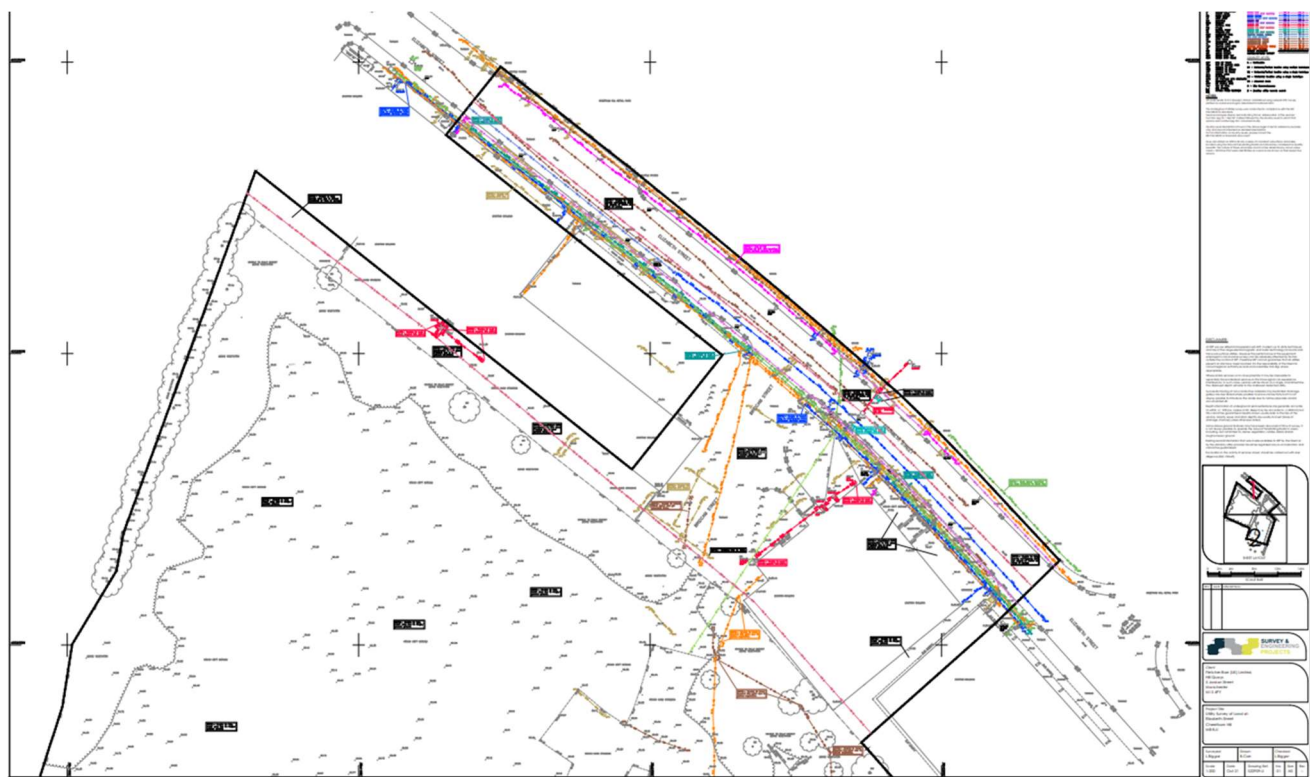
- Excavations may become unstable.
- There is an increase of groundwater behind retaining structures.
- Water may drain freely from engineered slopes / cuttings.
- It has been concluded that the risk to human health from onsite soils is Very Low.
- Risk to groundwater from onsite soils is Low.
- Earthworks are to be undertaken under a CLAIRE Materials Management Plan which will be produced by Triton specialist.

New Drainage Connection and Stats Disconnections.

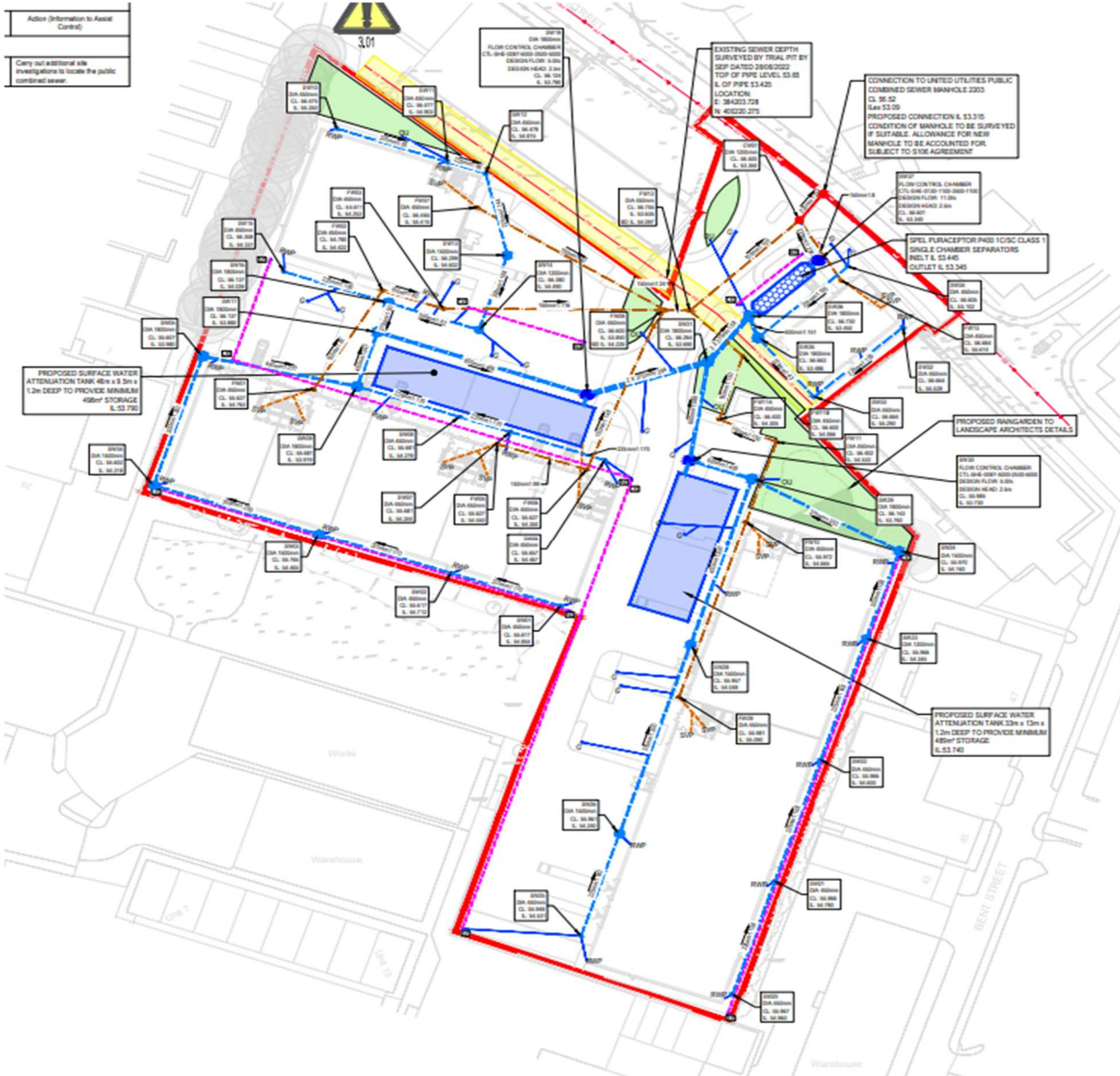
All the Statutory Undertakers will be contacted, and a CAT Scan of the area undertaken to ensure all services are identified and dealt with correctly.

A Section 106 drainage connection application will be submitted and approved. We will submit a Section 50, Opening Up Notice, for these works. A full Road and Traffic Chapter 8 Management scheme will be submitted and approved by Highways.

The existing services on the site are shown below:



The proposed drainage plan is shown below:



Archaeological Brief

It is not envisaged that an Archaeological written scheme of investigation will be required for this project. If significant concentrations of materials are found then further investigation may be required. If this is the case, then we would undertake a programme of archaeological mitigation in the form of a watching brief. This would be undertaken for all site strip, piling, ground works and drainage works.

UXO

No unexploded ordnance (UXO) noted in PCI.

Flood Protection During the Construction Works:

The site is Low Risk. We will review the construction works and ensure we have considered adequate flood defences and escape routes during the different construction phases of the works.

Fire Prevention:

Triton will complete a fire risk assessment and ensure that this is reviewed as the construction works progress. No smoking will be permitted within the site confines and no burning of any materials will take place. Waste and storage will be kept to a minimum to ensure the fire loading is as low as possible. Hot works will only be carried out under a 'hot works' permit, which will be signed off daily and Triton will always have a nominated Fire Marshall on site.

We have a duty to prevent personal injury or death and damage to the Works or other property from fire. So, we will comply with Joint Code of Practice 'Fire Prevention on Construction Sites', published by the Construction Confederation and The Fire Protection Association (The 'Joint Fire Code').

The Fire and Emergency procedures will include the site-specific safety induction, training and instruction of staff, operatives and visitors, the location of the assembly point, instructions on what to do in an emergency, the identification of fire points, alarms and firefighting equipment and also any special arrangements for the evacuation of high risk areas.

Other key elements to cover in the plans are the position of site cabins/welfare, a location plan of the fire points, emergency access routes for emergency vehicles and the location of existing fire escapes from the new Respite Building. All fire routes must be clearly marked, maintained and kept unobstructed at all times.

All escape routes will be adequately lit and safety signs positioned to direct all personnel to a point of safety. All access routes will be cleaned, maintained and kept clear of all debris. As the works progress the emergency routes may change to suit the works.

The use of VHF radios will be used to aid communication between the site offices, compound, site areas, loading bay area, crane driver and the banksmen.

The site will be a no smoking zone, but we will provide a discreet designated smoking shelter taking into account the considerate contractor's scheme and legislative requirements.

Precautions to be Taken to Ensure the Safety of the General Public:

HSG 151 Protecting the Public –Your Next Move:

The Law says you must conduct your business without putting members of the public at risk. This includes the public and other workers who may be affected by your work.

The construction site requires measures to manage access through defined boundaries and steps to exclude unauthorised people.

Safety signage will be position around the site and to the site entrance to warn both delivery drivers and pedestrians of the dangers.

We will arrange to call into local schools, if deemed necessary, to give a safety talk on the site works and the dangers.

Site Waste Management:

A site waste management plan will be implemented and monitored throughout the construction period.

Skips will be covered and kept on site.

Where possible waste will be segregated into separate skips on site for plasterboard, wood, hardcore, and general waste.

Hazard waste drums will be provided on-site for subcontractors to dispose of their hazardous waste. The drums will be collected and replaced by a specialist waste company.

Temporary Site Lighting:

Temporary site lighting will be required to the pedestrian walkways, the compound and within the new building area. Site lighting will be from flood lights fixed to the outside of the cabins and new building. These lights will be on PIR controllers and timers. They will be located with their heads angled downwards to ensure the surrounding properties are not affected by high lux levels of light. The pedestrian walkway lighting will be at low level and be in the form of strip lighting. Lighting within the building will be provided by strip lighting and will be turned off at the end of the working day by the security guard.

Site boundaries:

The site boundaries will be defined physically by suitable solid timber and/or heras fencing. The type of fencing will reflect the nature of the site and its surroundings.

Determining the boundary is an important aspect of managing public risk.

We will consider planning what form the perimeter will take, provide the fencing and maintaining the fencing.

Questions asked will be:

What is the nature and type of the construction work?

How heavily populated is the area is?

Who will need to visit the site during the work?

Will the site attract children?

What are the site characteristics eg existing site boundaries, location, proximity to other buildings?

Typically, in populated areas, this will mean a two-metre-high small mesh fence or hoarding around the site.

Authorisation:

Triton will take reasonable steps to prevent unauthorised people accessing the site.

People may be authorised to access the whole site or be restricted to certain areas.

We will explain the relevant site rules to authorised people and do a site safety induction.

Where required we will supervise/accompany authorised visitors while they are on site or visiting specific areas.

Hazards causing risk to the public:

Many hazards have the potential to injure members of the public and visitors. Consideration of these risks and whether they exist on this project and how you will manage/mitigate them will be recorded on the Project Risk Register.

Falling objects:

We will make sure objects cannot fall outside the site boundary. eg scaffolds will have toe-boards, brick guards and netting. We may also need fans and/or covered walkways.

Delivery and other site vehicles:

We will ensure pedestrians cannot be struck by vehicles entering or leaving the site. Obstructing the pavement during deliveries may force pedestrians into the road, where they can be struck by other vehicles, so this will be avoided by using a full time banksman.

Temporary pedestrian crossings will be used to guide the public away from the loading area.

Scaffolding and other access equipment:

To prevent people being struck while they are erecting, dismantling and using scaffolding and other access equipment; each subcontractor will have a supervisor who is responsible for the safety of the public and his operatives.

Storing and stacking materials:

We can reduce the risks associated with the storage of materials by storing materials within the site perimeter, preferably in secure compounds or away from the perimeter fencing. Most of the materials will be stored in the car park area.

Openings and excavations:

People can be injured if they fall into excavations, manholes, stairwells or from open floor edges. Adequate safety barriers and safety signage or covers will be used.

Other hazards include:

Slips, trips and falls within pedestrian areas, plant machinery and equipment, hazardous substances, electricity and other energy sources, dust, noise and vibration; and road works. Weekly safety audits will be undertaken to monitor and rectify any issues.

Vulnerable groups:

The elderly, children and people with certain disabilities may need special consideration as they may not fully appreciate the dangers of construction works. Some children are drawn to construction sites as exciting places to play, so we have a duty to do everything we can to keep them out of the site and away from danger.

The following specific steps are particularly relevant to child safety; secure the site adequately when finishing work for the day. Barrier off or cover over excavations and pits. Isolate and immobilise vehicles and plant and if possible, lock them in a compound. Store building materials such as pipes, manhole rings, and cement bags so that they cannot topple or roll over. Remove access ladders from excavations and scaffolds and lock away hazardous substances.

Considerate Contractors Scheme

We will register this project with the Considerate Contractors Scheme and comply with their requirements. The CCS notices and signs will be clearly displayed at the site entrance with Triton point of contact details displayed, the signs will be on the site fencing and in the site cabins.



Working in accordance with the Considerate Contractors Scheme requirements and being audited will focus the site team on achieving a safe site, preventing disruption to the Respite Building and help us deal with the safety of the public.



It is important that the external appearance of the site presents a positive image and that the site is well organized, clean and tidy. Daily inspections of the site boundary and site access roads will ensure that rubbish and debris is quickly spotted and addressed.

Notice boards will be used to communicate the details to the public.

We strive to achieve the highest levels of safety performance and ensure safe systems of works are in place to care for the public, visitors and the site operatives. Consultation with the site operatives, training and good communication help to promote a positive attitude towards safety.

All our staff and operatives have CSCS cards.

Measures to control noise, vibration, the emission of dust and dirt during construction including the deposit of extraneous materials on the highway.

Triton will ensure that noise control complies with the recommendations of BS 5228-1, clause 7.3, to minimize noise levels during the execution of the works. Noise testing will be completed as works commence using the Site Managers noise meter reader and controls will be put in place where noise exceeds 85 dB(A) when measured from the site boundary. Additional controls such as acoustic screens will be used to contain the noise if required. Radios or other audio equipment will be prohibited and Triton will not permit employees to use such equipment whilst on site.

All vehicles and mechanical plant used for the purpose of the Works shall be fitted with noise control devices (silencers, SMART reversing alarms) and shall be maintained in good and efficient works order.

All compressors shall be 'sound reduced' models fitted with properly lined and sealed acoustic covers which shall be kept closed whenever the machines are in use, and all ancillary pneumatic percussions tools shall be fitted with mufflers or silencers of the type recommended by the manufacturers.

Machines in intermittent use shall be shut down in the intervening periods between work or throttled down to a minimum and plant and vehicles started up sequentially rather than all together.

Site activities will be restricted to site working hours approved by Planning/EA.

Triton shall, as far as reasonably practicable, not exceed the vibration dose values as specified in BS 6472-1: 2008. As a minimum, Triton Staff shall take noise readings at the pre-determined locations as required.

In order to mitigate the impact of noise and vibration activities, site specific measures in accordance with Best Practicable Means (BPM) will be implemented and shall include the following:

- Scheduling of construction delivery vehicles to least noise sensitive times of the day.
- Scheduling of construction delivery vehicles to avoid where possible school start/finish times and AM/PM peak traffic periods.
- Time slots for bulk deliveries to ensure that convoys of vehicles do not arrive simultaneously.
- Strict control to prevent temporary parking on the kerbsides in the vicinity of noise sensitive roads in close proximity to the site.
- The use of sufficient clear signage to ensure that construction vehicles use only the designated routes.
- Restrictions on times when construction traffic can use the designated access highway to site.
- A temporary generator will be required for the first 12 weeks of the contract to run the site cabins, security cameras and compound lighting. A temporary electric supply will be installed to replace the generator after 8 weeks. The generator will be fitted with a Silencer and surrounded by an acoustic fence.

Regular communication will be maintained with the local residents/businesses for the entire duration of the works. A phone number and contact person shall be provided and displayed on the site entrance for the public to use out of hours.

A RAMS will be developed for all activities involved in the earthworks/foundations and drainage and these measures will be incorporated in the Works.

All personnel will be reminded of good practice and standards through a series of "Toolbox Talks" and Safety Inductions.

The ground conditions require the foundations to be piles before being excavated and concreted with excavators. This means there will be medium/low levels of vibration to disturb the surrounding properties. Vibration monitoring will not be required due to the construction design and method proposed. Where obstructions are encountered and need to be removed, specific risk assessments and method statements will be put in place prior to these works commencing to clearly detail how the vibration will be mitigated to the normal parameter levels allowed on a construction site.

Fuel Storage and Vehicle Refuelling

Triton will ensure that any fuel required for plant shall be stored in double bunded tanks placed within areas of bunded impermeable surfacing. Refuelling shall be undertaken so that any spillage is collected on a spill tray and disposed off-site. Toolbox talks shall be held by Triton in order to ensure that the operatives are fully aware of correct refuelling procedures.

Environmental spill kits will be available on site for the full duration of the works.

Any spillages shall be reported immediately to the Project Manager, immediately cleaned and cleared in an approved manner and any contaminated sub-soil disposed of in the correct manner.

Dust Control

If material is being removed from site, then this operation shall be undertaken using covered vehicles, to minimise dust liberation.

Dust control measures shall be undertaken to the satisfaction of the Project Manager and EA. Works will be stopped if acceptable measures are not in place or being utilised. Dust control measures will include as a minimum the damping down of the site with water during periods of dry weather and when excavation works are undertaken.

The following monitoring works shall be undertaken by Triton:

- Daily visual recorded in site diary.

- Weekly monitoring of dust sitewide and at receptor locations.
- Occupational dust monitoring at the down-wind boundary of the site, for total inhalable and respirable dust.

Based on a subjective assessment, if dust levels are a nuisance sitewide; especially at the site boundary, then contingency measures for dust control shall be implemented.

Site Start Up Strategy:

Due to the location of the Works, Triton Project Manager to deal with all aspects of the interfaces with Highways and the public. The Project Managers details will be given to all Parties and displayed alongside the Considerate Contractors Scheme Details.

Triton will ensure a 'Letter Drop' to all the surrounding properties is undertaken several weeks prior to the works commencing, this will allow time for people to contact Triton and for us to meet with them to discuss any concerns they may have.

Liaison meetings will be held with the Client, and his Project Manager, stakeholders and other third parties to understand their day to day requirements and that of the construction site. This will be included but not be limited to, delivery/collection times and routes, refuse collection days, fire escape routes, opening times, working hours for the construction site and any out of hours working, if required.

Protective clothing and equipment will be provided and maintain on site for the Client and other visitors to the site.

A self-contained welfare unit will be used until the site cabins are installed.

A secure heras fence will be erected to the compound and site areas with safety, wayfinder, and information signs clearly displayed. The secure fencing will be erected in line with the designated site boundaries and will segregate construction activities and construction traffic from the general public and on-site personnel whilst maintaining full access/egress for the deliveries, staff, refuse collections and visitors.

Pedestrian routes through the construction site will be demarked with Chapter 8 and/or pedestrian barriers.



It is proposed that all contractor parking will be within the compound area opposite the site. Compound areas will be provided for across the site during the construction period. Segregated construction vehicle access routes and pedestrian walkways will be set up and clearly marked.



We will undertake a below ground utility survey of the land adjacent to the existing building and to the temporary access road route to ensure any existing services remain unaffected by the temporary compound/cabin location.

The temporary site compound is for site cabins, welfare facilities and associated plant and for parking our contractor's vehicles.

Site Access, Compound and Parking:

Safe pedestrian and vehicular access, including emergency and refuse collection vehicles, will be maintained at all times.

Any scaffold or windows from the offices, meeting rooms, welfare cabins that can overlook the private resident buildings will be covered to prevent the observation of the clientele.

Our aim is to have an excellent relationship with the Client and local residents which will be maintained throughout the project, we will work with the Client and their requirements and not jeopardise our relationships through inconsiderate, or poorly planned/coordinated activities.

We will discuss logistics, planned deliveries and vehicle movements with the Client and we will provide the Client with a schedule of our planned vehicle movements/ deliveries etc. prior to each of the Client's operational coordination meetings.

The Construction Works:

Our aim as the Principal Contractor is to ensure the project is managed to achieve a target of zero accidents and zero risks to health. Good communication and liaison between the Client, his Project Manager, Triton site personnel and the design team members is critical to the smooth running of the contract. We will hold regular safety and co-ordination meetings with all contractors and sub-contractors working on the site and ensure there is a flow of information between all parties regarding the health and safety on the project.

All personnel wanting to enter the Triton site must have our site safety induction prior to starting work the site.

Construction Health, Safety and Environmental Plan:

The Construction Phase Plan will be presented to the Client no later than two weeks prior to the commencement on site. Works will not start until the Client has confirmed in writing that the Construction Phase Health and Safety Plan is sufficiently advanced for the works to commence.

Construction Strategy:

The site will be CAT scanned, trial holes excavated to positively locate known services and the invert levels of all the drains will be confirmed.

Clear and safe access will be maintained at all times to the entrance of the new building. They will be maintained with adequate safety fencing and signage being put in place.

Emergency procedures will be relayed to our site personnel and any visiting personnel during the Triton safety induction process.

'No Go' Areas and Authorisation Requirements – Access to any other area outside of the site must be via permission from the Owner, Client, and Triton. All Triton staff and operatives will wear identification PPE when working outside our site boundary area.

A regular site logistic plan will be produced and discussed with all parties in advance of the works commencing.

The sequencing and challenges of the external works is high risk. In summary the key items to be considered and the risks mitigated are:

- Ensuring there is as little disruption to the existing road as possible.
- Working near the public.
- Working alongside Other Clients Contractors.
- Avoidance of trip hazards.
- Crane lifts.
- Pollution of the canal & waterways.
- Secure and safe transportation of operatives, materials, and plant from the compound to work areas.
- Ensuring the public do not come into contact with construction works, excavations, plant or operatives.
- Ensuring there are no 'false' fire alarms and Fire Plans are reviewed as activities on site change.
- Ensuring the public do not gain unauthorised access to the site areas.
- Provision of security cameras and supplemented by man guards when deemed necessary.
- Clear Wayfinder and safety notices.
- Adequate Safety fencing and pedestrian routes.
- Radio communication – this allows one point of contact to deal with any issues safely and swiftly.
- Avoiding damage to the existing aqueduct, footpaths, trees, buildings and car parks.
- Avoiding damage to the existing services/drains.
- Maintaining delivery/collection and all access routes to the adjoining buildings and roads.
- Providing adequate noise, vibration and dust suppression. Use of acoustic screens if required.
- Informing staff and operatives on how to deal with the Public, and visitors.
- Maintain fire escapes and emergency vehicle access routes at all times.
- Clean and tidy work areas and access routes. Provision of road sweepers.
- Out of Hours working to be worked if required.
- Full time supervision of the quality.
- Consideration of Environmental restrictions; noise, vibration, dust and the like.
- A Project Risk Register will be produced, used and reviewed weekly to remove the risks or mitigate them.

Commissioning

All subcontractors are responsible to check and commission their works prior to offering the works for inspection by Triton site staff and our internal Quality Manager.

Once all the systems have been run, tested, commissioned and inspected will they be offered to the Client's consultants to inspect.

A full set of As-Builts and test certificates will be included in the O+M manuals and building logs.

Security

We would provide security cameras with a response team monitoring the site 24/7 when required. If this needs to be supplemented with a 24-hour manned guard to ensure the security of the site/building, plant and materials then we will provide this.

This is a typical remote-control camera that our security subcontractor uses:



Security of the sites will be by means of robust security fencing installed around the construction site and compound. Safety signage, emergency signage, wayfinder signage and considerate constructor's signage will be clearly displayed.

All Triton staff, visitors and construction personnel will wear hi vis vests with a Triton logo or subcontractor company logo on the back.

Site Liaison and Meetings

During the mobilisation period and all during the construction works communication and liaison between all parties will be key to a successful contract. By forming close links with the Client and his Project Manager and surrounding properties/residents, we will get a clear understanding of their concerns, thus allowing us to work with them to avoid any disruptions to their everyday operations and they will get an understanding of the construction process, programme dates and our delivery requirements.

Regular meetings will be held to review the construction programme, key dates and the duration of each construction activity will be discussed and the implications on the surrounding areas of the site can be assessed.

This will allow the risks to be considered, a risk register produced and the preventative controls put in place prior to the works being undertaken on site.

We will ensure that we are aware of any planned events during the construction works. To avoid any interruption to these planned events then good planning and communication is essential. By discussing these events early, we can all work together to understand which construction activities and deliveries are happening and then assess the risks and put in place risk mitigation measures.

It is essential that we comply with all the Health, Safety and Environmental requirements especially whilst working outside our site boundary between the separate site areas. Good programming, communication, RAM's and a knowledge of the surrounding building uses will help prevent any incidents/accidents.

If an incident takes place then the works will cease whilst the incident is investigated and corrective measures introduced so that it cannot happen again.

The Project manager will deal with all enquiries/concerns/incidents. If he is away from the site for holidays/illness then the duty liaison manager available on site. Contact details will be displayed around the site. The Triton Project Manager will hold regular meetings with the Client to ensure a good relationship is achieved and maintained and that any concerns are dealt with quickly. The Project Manager will set up a complaints procedure so complaints can be investigated, and the finding then learnt from and communicated to all parties. The use of feedback questionnaires with regular reviews will be used.

Meetings

Triton would hold a formal regular meeting, where detailed information regarding the forthcoming works schedule can be shared and discussed between all concerned parties.

An agenda will be issued in advance of the meeting, setting out the key items for discussion, including:

- A two weekly programme of works, (updated weekly), along with marked up phasing drawings to be issued and discussed with all attendees.
- A schedule of deliveries / collections.
- Security arrangements / requirements.
- Access Requirements.
- Daytime & Night time activities.
- Directional Signage requirements.
- Concerns or Issues to be raised.
- A review of previous and current actions and activities.

It would be intended that the weekly meetings are recorded by each team member, noting the date, time & location of the meeting, attendees present / absent, items requiring action, by whom and by when. Items agreed and information issued or items discussed.

Daily Liaison

In addition to the formal weekly meeting, Triton will undertake a daily informal meeting, to discuss the day's activities, along with any sensitive works planned for out of hours. Immediate issues and concerns can also be addressed at this time.

Project Team Meetings

We will hold a fortnightly meeting with the whole team, where CPUK Group would provide a contractors report, with an update on programme, progress and any concerns, actions or required information can be discussed.

Contractor Progress Meetings

We will hold a monthly Project progress meeting on site, with the whole team, where Triton would provide a contractor's report, with an update on programme, progress and any concerns, actions or required information can be discussed.

Quality Inspections/ Handover and Aftercare Management

Triton uses a Quality Management System, and we enrol all of our subcontractors and suppliers into achieving a high standard of quality. We hold prestart quality meetings with all our subcontractors before they start on site and we hold 4 weekly quality meetings throughout the contract.

Time has been allocated during and at the end of build sequences to enable the Client/Designers to inspect the works and if necessary, any remedial works will be undertaken immediately. The quality inspections will be progressive to give us all time to inspection/snag out the works prior to handover.

On our construction programme, time has been allocated during and at the end of build sequences to enable the subcontractors, then Triton followed by the Client/Designers to inspect the works and if necessary, any remedial works will be undertaken immediately. The quality inspections will be progressive to give us all time to inspection/snag out the works prior to handover. This will ensure a defects free handover at practical completion.

On Completion of the Works

Triton will co-ordinate the design team, sub-contractors, and their designers to ensure they produce final issue / as build records and drawings, along with sufficient information relating to the design, of the structure, its construction and maintenance, to satisfy the requirements of the Health & Safety file / Operation & maintenance manuals.

Pictures of existing entrance view along Elizabeth Street



