Abraham Moss Library & Leisure Centre
Revision A

CONSTRUCTION MANGEMENT PLAN- METROLINK

15TH DECMBER 2020

1. INTRODUCTION

This Construction Management Plan has been produced to support the planning application for proposed works to the Abraham Moss Library and leisure Centre redevelopment. With specific focus on working near the Abraham Moss Metrolink station and all Metrolink assets in proximity.

This plan details the works that will be enabled by the provision of the Temporary Library and Sports Hall facility which have had previous Planning Applications submitted for works within the Abraham Moss campus. The temporary facility works will be constructed in advance of the works detailed within this construction management plan. The provision of the new temporary facilities will enable the library and sports hall provision to decant out of the existing leisure centre facility, this will then allow for the handover of the building from Manchester city council to Laing O'Rourke (the Main Contractor) to allow for the commencement of asbestos removal and demolition. The clearing of the site footprint will then allow for the construction of the new facility in the same position as the current facility.

The Construction Management Plan has been produced to ensure that all operational constraints and site facilities stay operational throughout the construction period and a public facing phasing plan will be developed.

2. SCOPE OF WORKS

The project consists of the demolition of the existing Abraham moss Library & Leisure Centre and construction of the new Abraham Moss Library and Leisure centre. The works will be completed to Abraham Moss Community Campus, Crescent rd., Crumpsall, M8 5UF

The main activities include:

1. Enabling Works and site hoarding
2. Asbestos Removal
3. Soft strip Demolition
4. Deconstruction and structural demolition
5. Sub structure foundations, lift pit and retaining walls
6. Underground drainage
7. Construction of Pool Tanks
8. Structural Steel frame and Glum-Lam beams
9. Cladding and roofing
10. SFS external walls
11. Pool water testing
12. Render and pool tiling
13. External brick work façade
14. Curtain wall installation
15. Parapet wall and capping
16. Lift installation
17. Mechanical Electrical installations
18. Fit Out activities
19. Sports floor installation
20. FF&E installation
21. Testing and commissioning
22. External hard and soft landscaping works
23. Handover and training

3. INDICATIVE PROGRAMME

The deconstruction and construction programme are anticipated to span approximately 95 weeks commencing in on the 1st March 2021. A full programme for demolition and construction works can be made available on request.

4. PHASING

The works in this Construction Management plan relate to phase 3 of the planning submission for the project. Details of Phase 1 and 2 have been provided previously as part of previous planning applications. These relate to the Temporary sports Hall and the Temporary Library.

The construction programme is divided into the following stages:
Enabling Works

Stage 1 – site set up

- De-cant of current facility into the temporary facilities
- Dilapidation survey will be carried out to the all campus areas affected by construction activity or traffic
- Re arrangement of access road
- Site establishment hoardings and welfare
- Removal of turning circle
- Services and disconnections
- Removal of Entrance barriers and electrical service to turning circle

Stage 2 –Asbestos Removal

- Complete Demolition Asbestos Survey
- Establishment of asbestos contamination unit
- Establish zone by zone asbestos removal enclosures
- Completes soft strip and asbestos removal in line with asbestos survey and site findings
- Complete all asbestos removal until site is fully cleared

Stage 3 – Demolition

- Work with Asbestos Removal company for creating access for asbestos removal works
- Complete remining soft strip demolition post asbestos removal
- Commence structural demolition using High Reach 360 excavators
- Segregation and removal of site waste
- Grubbing up of foundations and existing drainage
- Removal and demolition of existing pool tanks
- Safe deconstruction of pedestrian bridge link between leisure centre and the Abraham Moss Centre
- Complete crush of compliant hardcore material and compact in layers to required levels

Main works

Stage 4 – Substructure and Drainage

- Complete reduced level dig as required to suit design
- Build substrate back to level in line with specification
- Provide working platform for mobile crane
- Install all below slab foul and surface water drainage connections

- Shutter, reinforce and concrete raft slab substructure
- Create pool tank basement substructure in line with foundation design
- Ducting and trenches for new incoming service supplies below slab level Install surface water attenuation tanks
- Install structural steel holding down bolts
- Form lift pit

Stage 5 – Pool Tank Construction

- Erect shuttering to pool tank in line with pour layout strategy
- Install re-enforcement detailing
- Pour concrete to shutters
- Strike formwork and re-erect in new location

Stage 6 – Structural Steel Frame, Glu-Lam beams 1st Floor Structural Slab

- Install structural steel in line with installation sequence and zoning plan
- Install Glu Lam Beams to pool Hall
- Install edge protection and safety netting to 1st floor level
- Install and stud weld metal deck sheets to 1st floor slab
- Install re bar and drainage to 1st floor slab
- Pour concrete and finish to 1st floor slab
- Install secondary steel, roof purlins and structural roof deck to pool hall

Stage 7 – Walls, Cladding and Roofing

- Install cladding rail
- Install Kingspan composite cladding panels
- Install fire barriers and cavity closures in line with fire strategy
- Install SFS, vapor barrier and cement board as per design
- Installation external brick faced to ground floor
- Install netting system, handrail and Haki stair for roof access
- Install composite roof panels, guttering and parapet wall details

Stage 8 - MEP and Fit out

- Mechanical & Electrical horizontal and vertical distribution
- Install poll plant equipment and pipe work
- Install plant equipment to external plant deck
- Install modular plant skids to plant rooms
- Complete Internal partitions along with finishes in line with finishes plan
- 2nd fix mechanical and electrical installation
- Decorations
- Floor screeds and latex installation
- Floor finishes in line with floor finish plan
- Commissioning and testing
- Installation of FF&E
- Installation of blind
- Comms, data and server installation

Stage 9 – External Works

- External service connections
- Hard and soft landscaping
- Street furniture installation

- New road construction
- Paving works
- White lining Planting and tree installation

5. DEMOLITION AND CONSTRUCTION METHODOLOGY

The indicative construction methodology is set out below, best practice methods will always be utilised to minimise the impact on residents and adjacent buildings. Our construction strategy will involve prefabrication of components off site where possible, this will reduce the programme period, minimise deliveries and reduce on site activities, with associated health, safety and quality benefits.

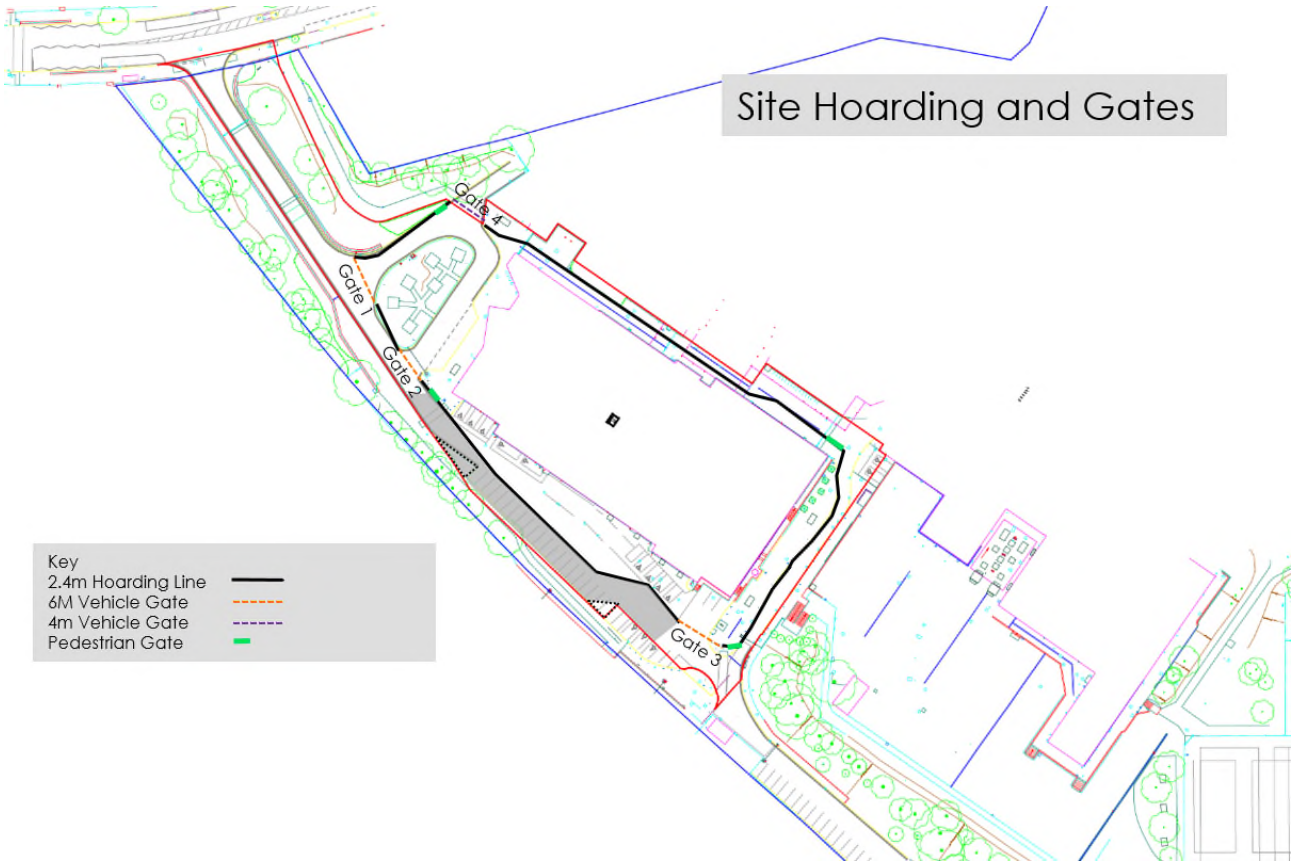
The methodology will be developed in detail when the specialist subcontractors are appointed.

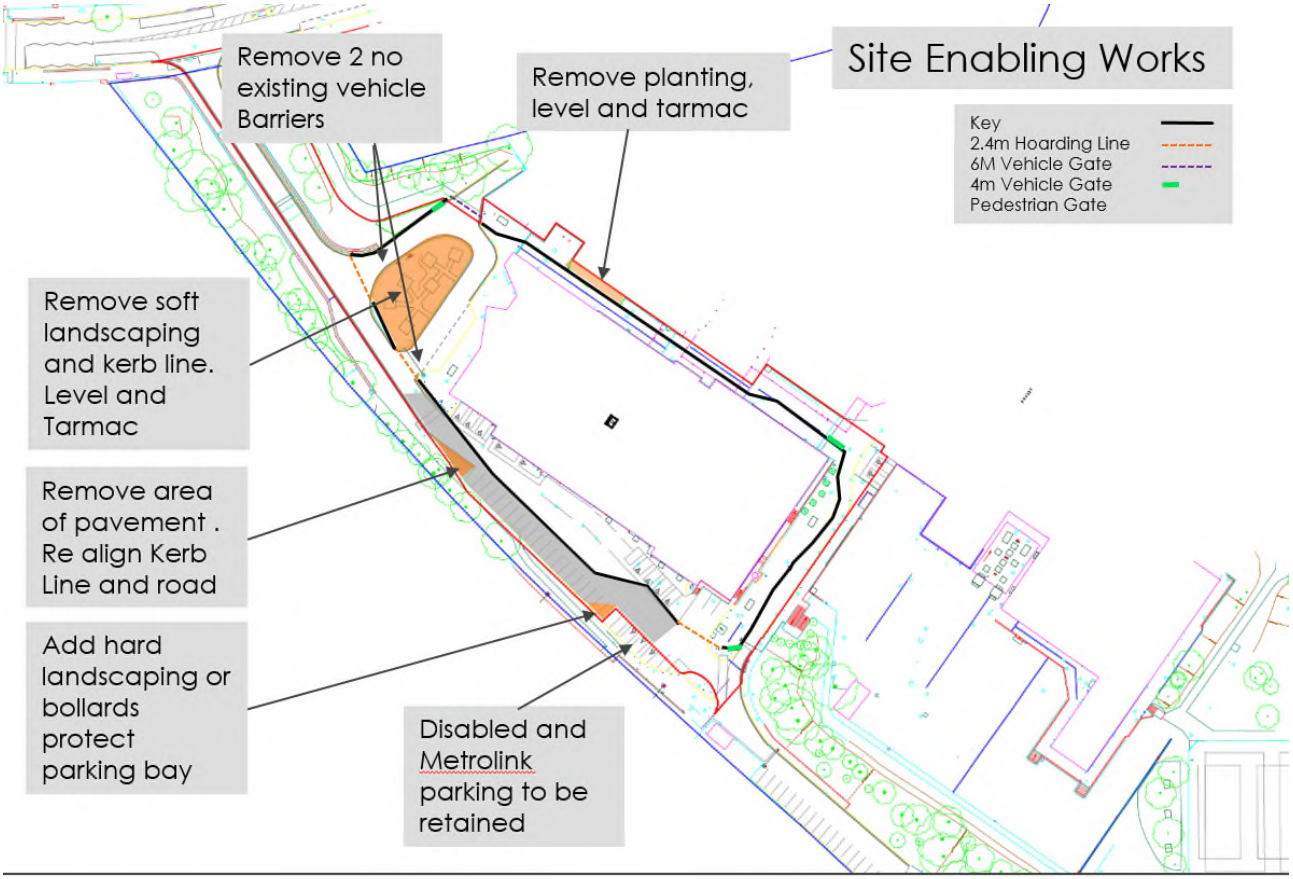
5.1 ENABLING WORKS

STAGE 1 – SITE SET UP

Site establishment – The site offices and welfare, compounds will be positioned as indicated in the logistics plan.

Accommodation/welfare - For the initial activities during the enabling works accommodation will be self-contained starter units that will be situated in the turning circle area immediately in front of the current site access. These will remain in place until the main accommodation is established in the overflow carpark following the completion of the demolition works.




Site Enabling Works
Remove 2 no existing vehicle Barriers
Remove planting, level and tarmac
Key
2.4m Hoarding Line
6M Vehicle Gate
4m Vehicle Gate
Pedestrian Gate
Remove soft landscaping and kerb line. Level and Tarmac
Remove area of pavement . Re align Kerb Line and road
Add hard landscaping or bollards protect parking bay
Disabled and Metrolink parking to be retained

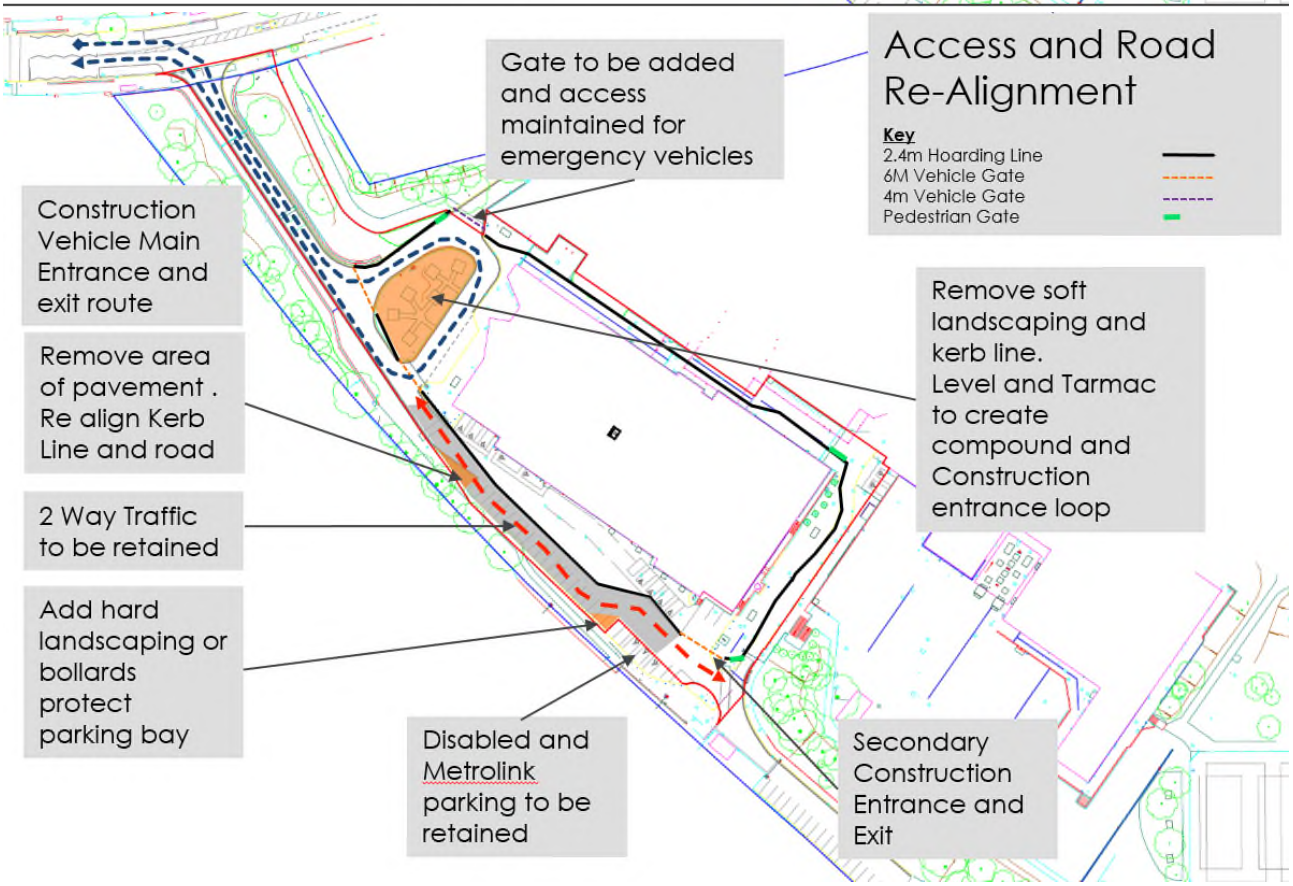

Access and Road Re-Alignment
Key
2.4m Hoarding Line
6M Vehicle Gate
4m Vehicle Gate
Pedestrian Gate
Gate to be added and access maintained for emergency vehicles
Construction Vehicle Main Entrance and exit route
Remove soft landscaping and kerb line. Level and Tarmac to create compound and Construction entrance loop
Remove area of pavement . Re align Kerb Line and road
2 Way Traffic to be retained
Add hard landscaping or bollards protect parking bay
Disabled and Metrolink parking to be retained
Secondary Construction Entrance and Exit

Image 2 - Starter Unit that will be used during demolition works

5.2 DEMOLITION

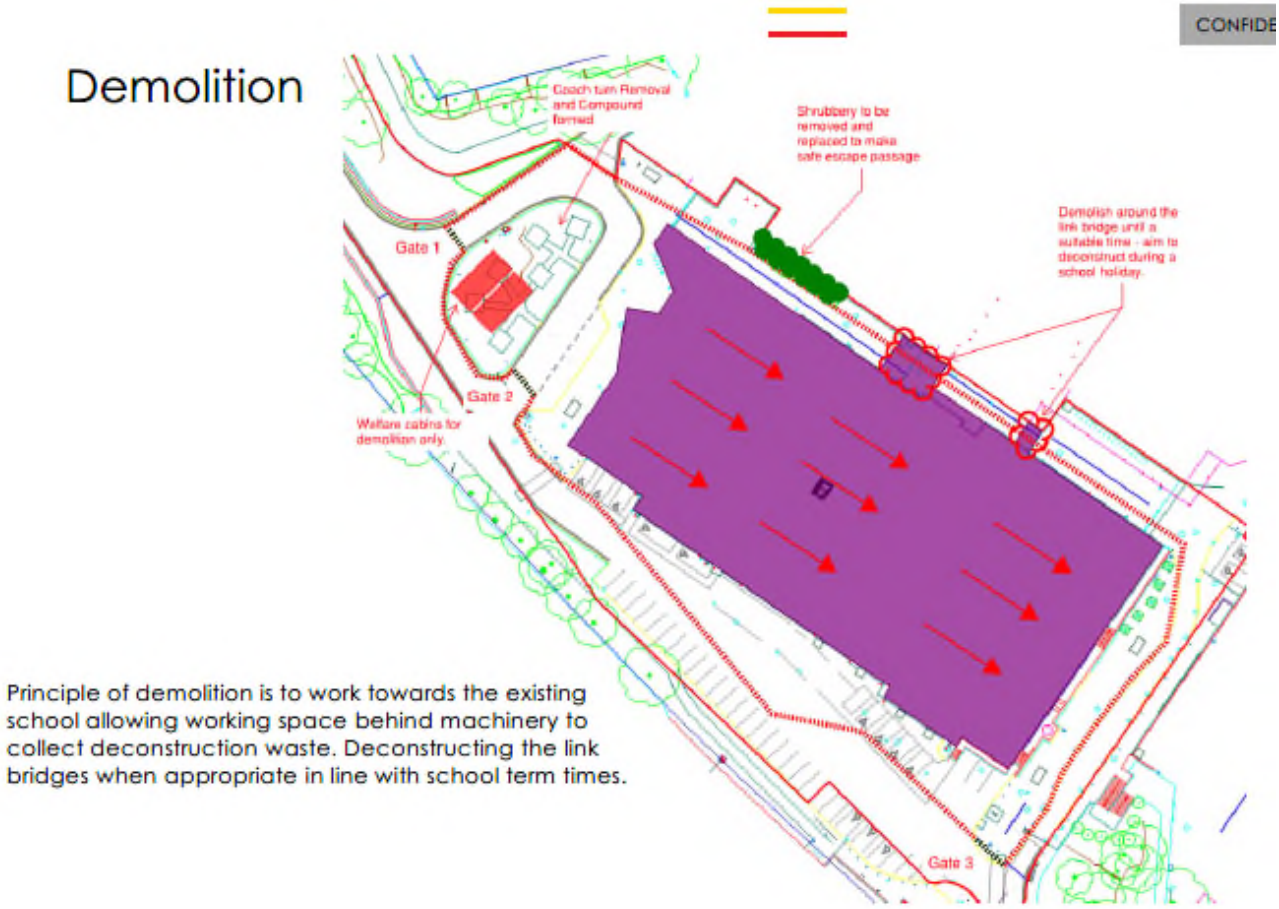
STAGE 2 –ASBESTOS REMOVAL

Due to the nature of the building to be demolished there will be an asbestos removal process before the structural demolition can commence. The Management asbestos survey has been carried and the provision for the asbestos removal works have been established in line with this report. A further pre-demolition intrusive asbestos survey will be completed following the handover of the building to Laing O'Rourke. The demolition contractor will be coordinating all works with the asbestos removal company to ensure conformity and efficiency is found between asbestos removal and demolition soft strip.

A fully qualified and competent asbestos removal company will be used to carry out the works in line with all current guidelines, notice periods and code of practices.

STAGE 3 – DEMOLITION

- Soft strip
  - Pre-soft strip the necessary restricted access arrangements and fire points with appropriate fire extinguishers and warning signage will be implemented
  - The soft stripping of all non-structural elements will involve but not limited to:
    1. Loose, fixed furniture and fixed fittings
    2. Doors
    3. Door frames
    4. Skirting
    5. Lights and fittings
    6. Suspended ceilings
    7. Floor coverings
    8. Removing internal none load bearing walls
  - The removed materials will be transferred to the lower car park level
  - These will then be separated and placed into designated skips for recycling off site
  - The soft strip will be carried out using hand techniques
- Entrance slabs and partitions
- Carpark Entrance MEP and equipment



- Effective segregation of the live carpark and construction activities will be provided in the form of hoardings areas will be full sheeted where noisy or dusty activities occur close to the barriers.

  - Detailed assessments of the likely significant effects on the environment that could result from the demolition and construction works will be considered in the Sub Contractor methodology. However, a summary of potential impacts (without mitigation in place) is presented in Table below.

Potential Demolition and other carpark works impacts to be managed

Topic	Potential Impact and mitigation measures
Noise	Increased road noise levels from vehicles; and Increased noise levels from plant during general demolition and construction works. A 2.4m Solid hoarding around the site perimeter would be used. Noise measurement equipment will be established around key receptor areas

Vibration	Increased vibration levels from vehicles; and Increased vibration levels from plant during demolition and construction works. Cut lines can be used to isolate the passing of vibration Vibration monitoring can be established in key areas
Dust / Local Air Quality	Generation of windblown dust nuisance from ground surfaces, stockpiles, vehicles, workforces and cutting and grinding of materials; and Generation of exhaust emissions from lorries and plant delivering and removing materials including dust and particulates which have the potential to impact upon local air quality. Erect solid screens or barriers around dusty activities. Machinery and dust causing activities are located away from receptors. Fully enclose site where there is high potential for dust production. Avoid site run-off water or mud – wheel washing options if required Keep site fencing, barriers and scaffolding clean using wet methods. Avoidance of stockpiling. Remove materials that have a potential to produce dust from site. Minimise drop heights from conveyors, loading shovels and hoppers etc.
Waste / Sustainability	Waste generation and its appropriate disposal; and Waste will be managed in accordance with a Resource Management Plan (RMP) produced. The SWMP will ensure that the requirements of relevant legislation are met.
Traffic	Traffic congestion caused by Site traffic and an increase in heavy goods vehicle (HGV) movements; Traffic disruptions from abnormal or hazardous loads; and Transfer of mud and material from vehicles onto the public highway creating pollution hazards. Given the size of the site, unpaved road lengths will be minimal and unlikely to support potentially dusty material. Ensure all vehicles switch off engines when stationary. Avoid use of diesel or petrol-powered generators and use mains electricity or battery powered equipment. All vehicles entering/leaving site are covered to prevent escape of materials during transport.
Storage of fuels and construction materials	Accidental spills and discharges to drains which may create pollution hazards. Appropriate COSHH and fuel storage facilities (bunded). Ensure equipment is readily available on site to clean and dry spillages.
Pedestrian access to Site and Surroundings	Disruptions to pedestrian access and routes within the locality of the Site. Diverted routes within the campus will be minimal and will be suitably sign posted and appropriate crossing points provided

Hazardous materials and contaminated land	Exposure of the workforce to hazardous materials and ground contamination. Excavated material will be tested, and appropriate measures taken including good hygiene for the workforce.
Water Quality	Water demand for construction activities and domestic use by the contractor (however, this is anticipated to be low); Generation of domestic foul effluent by contractors. Cabins will be used as temporary accommodation and will be connected to the existing clean water and foul drainage systems maintained.
Water, Resources, Drainage & Flood Risk	Plan excavations and the placement of materials such that surface flow paths will not be blocked or new routes created. The use of cut-off ditches and bunds can be used to safely direct any flows within the site. Control of sediment entering the local combined water sewerage system. Road Sweeping and wheel washing (via a pull along jet wash bowser) for all construction vehicles at the access. The use of traps and cut off trench. Placing static plant such as pumps on spill trays. Spill kits available, limiting where materials are stored.

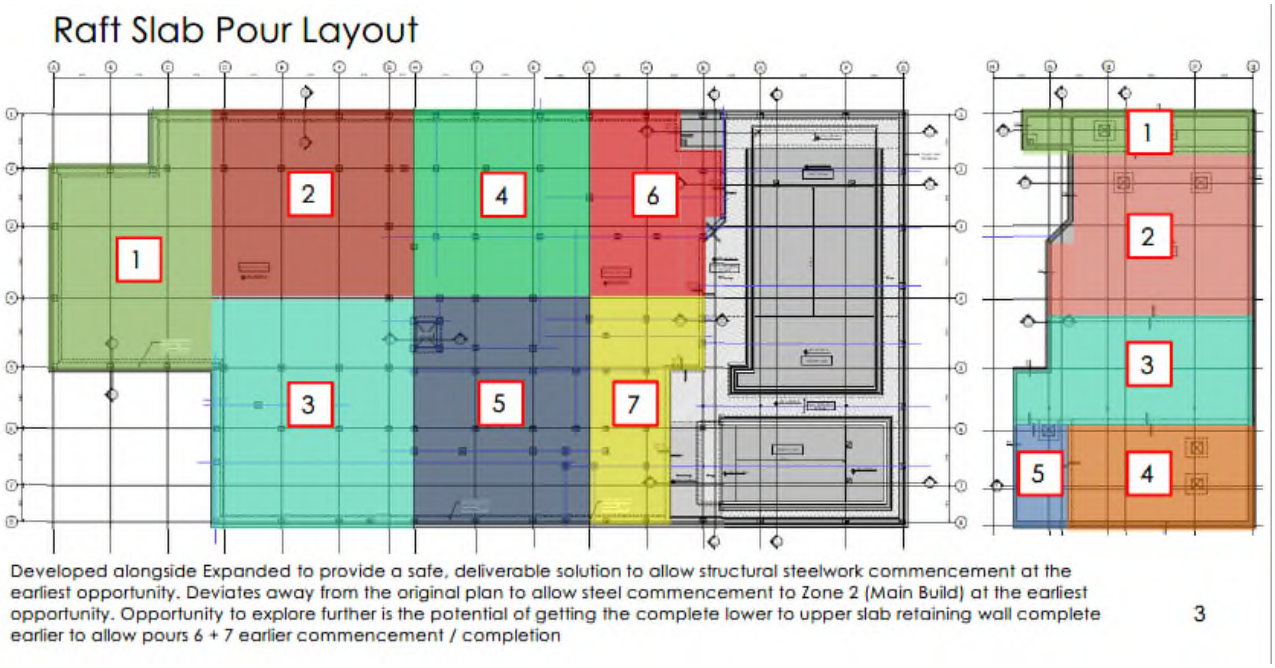
Further mitigation of all these potential impacts will be considered during the development of the detailed demolition and construction methodology.

Laing O`Rourke will enter early discussions to seek agreement with the demolition contractor to ensure the following methodology is implemented:

- Dust suppression will be undertaken at source
- The building will be dismantled from the top down and in a stepped sequence will always ensure structural stability and reduce noise, dust and vibration.
- All lifting/ crane work will be carried out in accordance with the management of lifting operations and lifting plan by the designated Appointed Person and crane supervisor.
- Noise level monitoring will also be carried out.
- Deconstruction material will be separated at source for recycling
- Deconstruction material will not be allowed to build up, and limited as directed by the structural engineer.
- On completion of the deconstruction activities the exclusion zone will be lifted
- Exiting services diversions- Desk top studies of Utilities have indicated incoming Electricity and Water supplies to deal with ahead of excavation works.
- An efficient wheel washing strategy will be developed with the demolition contractor along with any additional road sweeping requirements to the campus

5.3 MAIN WORKS

STAGE 4 – SUB STRUCTURE AND DRAINAGE



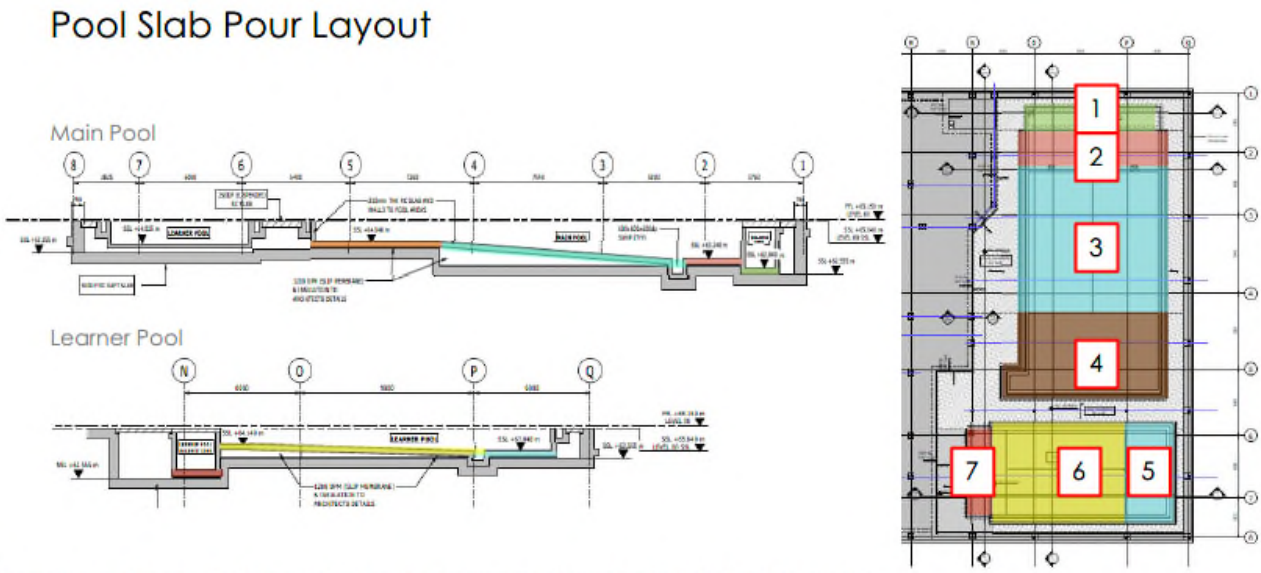
It is essential throughout these substructure activities the roads are kept clear of mud /contamination, therefore vehicles including mechanical excavators and other transported plant and equipment will be clean and free from contaminants prior to delivery and use on site. Transported plant and equipment will be cleaned prior to leaving site with wheel wash facilities (jet wash bowser) to ensure excavated material is not transported onto the highway. The paved/tarmac areas around the site will be kept clean each working day using mechanical sweepers / washers as necessary

All substructure works will be co-ordinated and manged in line with projects Environmental Management plan, Resource management plan and Remediation Strategy.

STAGE 5 POOL TANK CONSTRUCTION

The pool tanks will be constructed using in-situ re-enforced concrete base and walls. This will be contracted by a specialist concrete installation. The phasing of the pool install will be co-ordinated with the raft slab concrete installation and steel work erection to provide clear interfaces and phasing of works. This will be to promote productivity and ensure that health and safety standards are maintained.

The concrete installation contractor will be using Crawler type cranes around the perimeter of the building to manoeuvre the lager amount of re-bar and shutters required for completing the pool installation. This cranage strategy plan will be developed and co-ordinated with LOR to ensure conformity with the site rules and best practice. All cranage will be co-ordinated with site hazards and constraints such as existing facilities and the Metrolink that is on campus.



For maximum efficiency to the pool structure, the programme shows structural steelwork delayed to this area until as late as possible – this means that steelwork to Zone 1 occurs during the construction of the Learner Pool.

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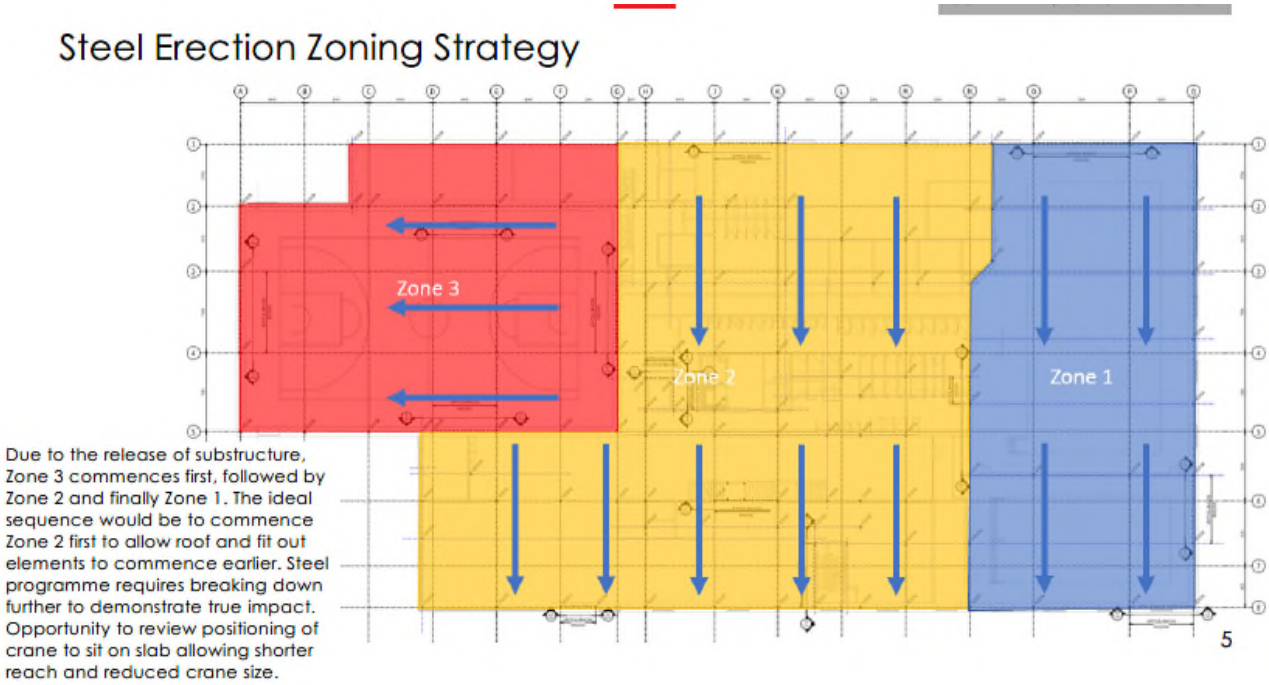
STAGE 6 – STRUCTURAL STEEL,

Structural steel instalation will be completed in a planned erection sequence and method to ensure srtructural stability is maintained at all times. Al steel members will be delivered to site on flat beds and off loaded to a sgregated laydown area in a preselected order.

The direction of erection will be co-ordintaed to suit the projects programme and time constrainst and installation will take place using a mobile crane and "cherry Picker" style elevated platforms for making the ocnnections.



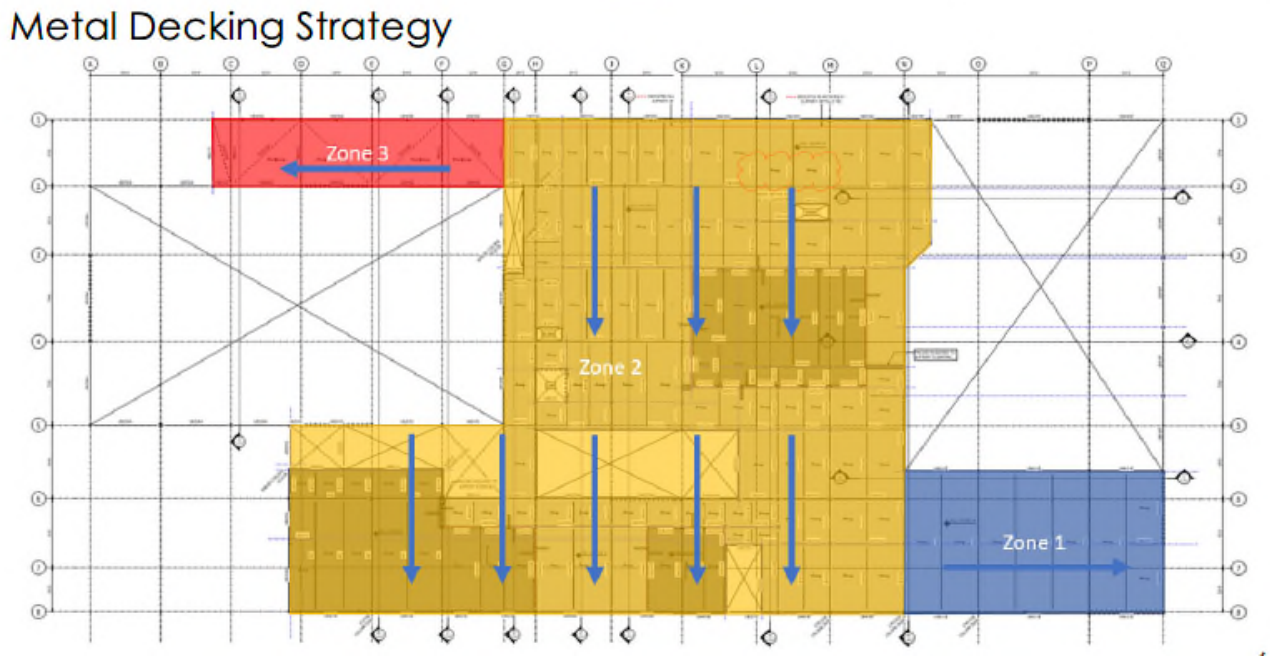
Due to the release of substructure, Zone 3 commences first, followed by Zone 2 and finally Zone 1. The ideal sequence would be to commence Zone 2 first to allow roof and fit out elements to commence earlier. Steel programme requires breaking down further to demonstrate true impact. Opportunity to review positioning of crane to sit on slab allowing shorter reach and reduced crane size.

5

Glu-lam beams will also be installed in this manner by the steel contractor over the swimming pool area. After the required process of steel is erected the 1st floor slab can be loaded out with strucural decking ready for the installation of re-enforcement bars and structural concrete.

6.1 Cranage Startegy

The steel work contractor will install the structural frame using Mobile cranes positioned on the new concrete slab or in close proximity to the perimeter of th ebuilding. A fully co-ordinated crane managetment plane will be developed with all sub contractors requiring any form of lifting during construction. Laing O'Rourke will have a designated Appointed person for all lifting who will work with all sub-contract lifts to ensure conformity with site onstraints including lifting in close proximity to existing facilities and the metrolink

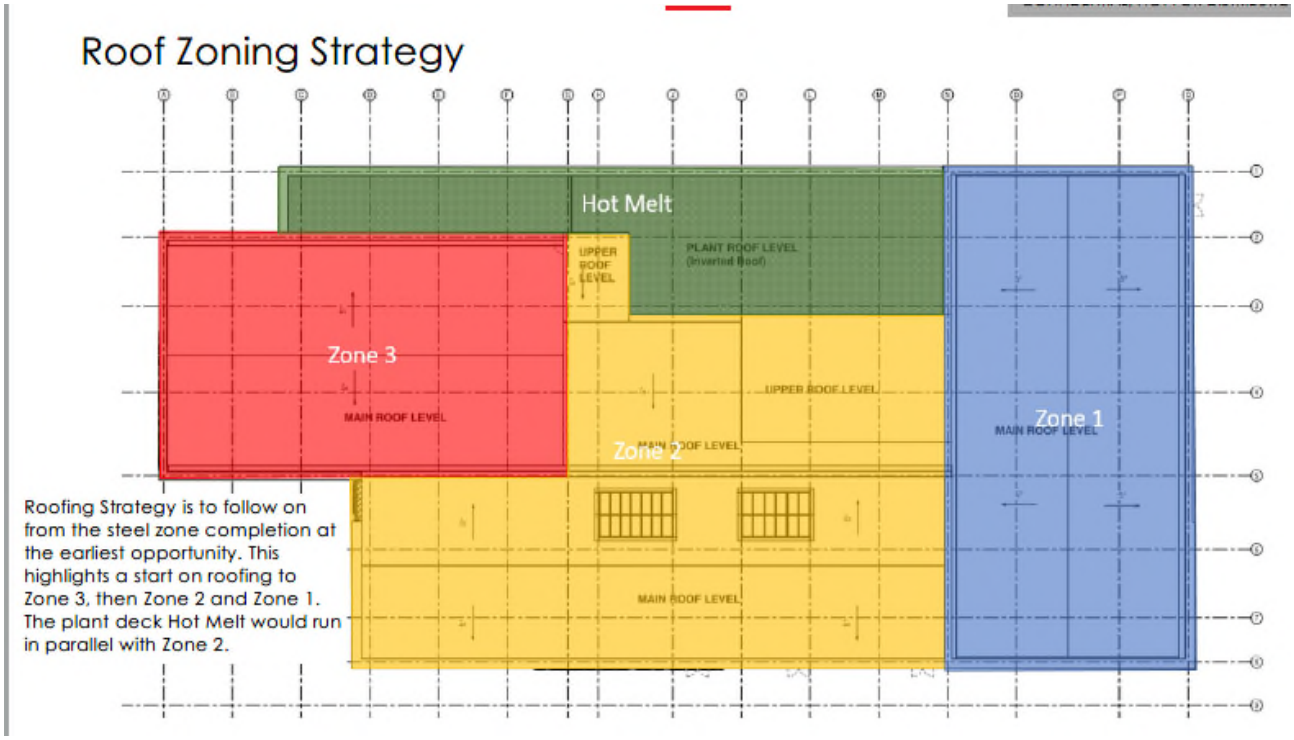


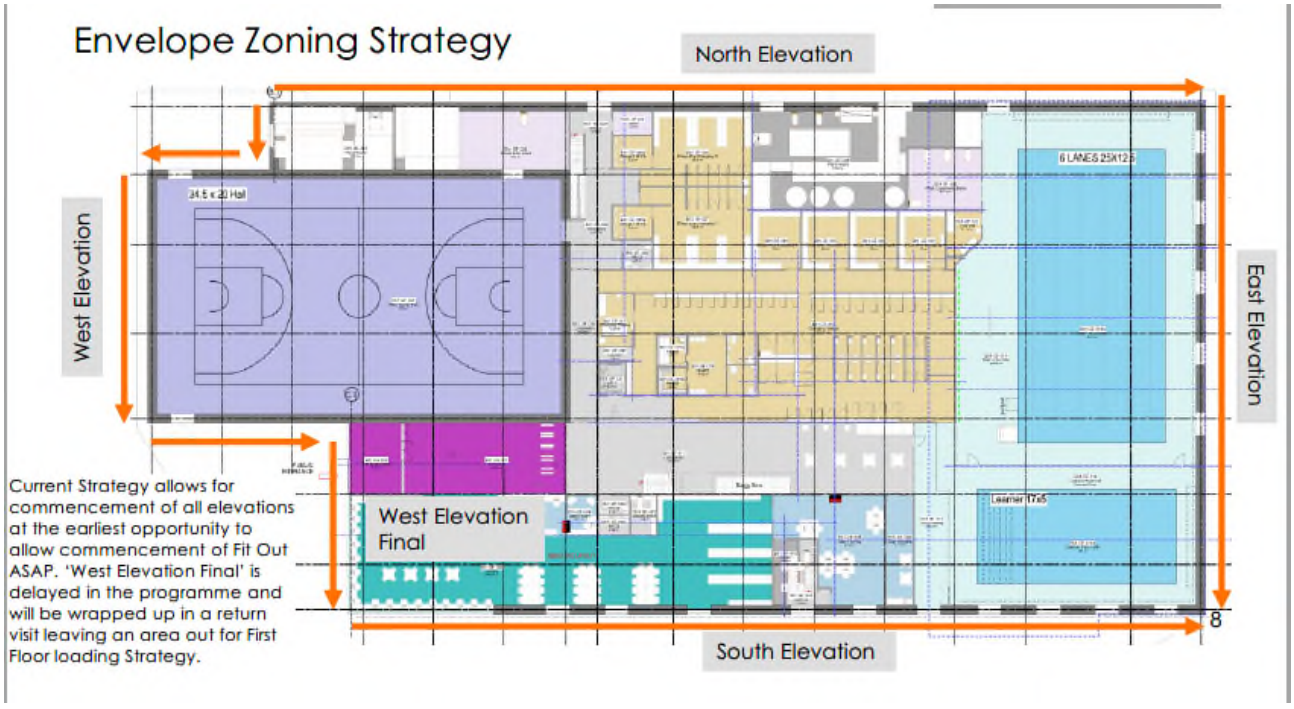
STAGE 7 – CLADDING AND ROOFING WORKS

The cladding and roofing works will consist of:

- Kingspan composite cladding panels

All installed from MEWPS with attendant telehandler or forklift to handle the heavy panels as required



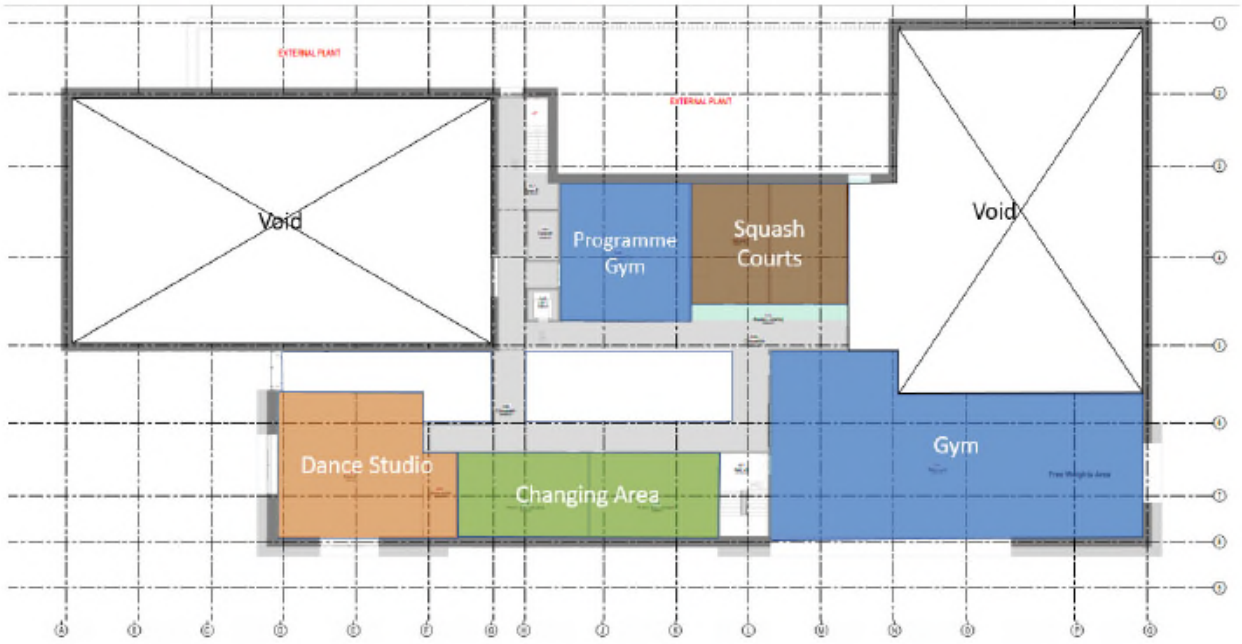


STAGE 8 – MEP AND FIT OUT

The MEP and fit out internally will consist of numerous trades and activities that will be fully co-ordinated by the main contractor to ensure adequate access provision and working room in line with the projects programme and quality requirements. All finishes will be in line with the project finishes plan and organised in line with the below mark ups.

Fit Out – Ground Floor Zoning Strategy

Fit Out – First Floor Zoning Strategy



STAGE 9 – EXTERNAL WORKS

External works including entrance area will commence immediately the adjacent elevation is completed to ensure the new carpark entrance arrangement can function as early as possible and the temporary entrance can be removed.

6 SITE ESTABLISHMENT AND LOGISTICS

SITE TRAFFIC / LOGISTICS MANAGEMENT PLAN

Site establishment and logistics will be detailed in **12**the site Traffic Management plan and the Site Logistics Plan Appendix 2 The following elements will be detailed:

- Management Procedures
- Integration of traffic management
- Access, egress and turning points
- Segregation of vehicles and pedestrians
- Segregation of cars using carpark and construction activities
- Green Travel Plan
- Any other measures to ensure the safe movement of pedestrians and vehicles, both on and off site

The plan will be continually kept under review and amended to reflect the requirements of adjoining campus activity.

SITE LOGISTICS PLAN

The site logistics plan will identify the following information:

- Site Accommodation Location
- Site Access / Egress
- Site Storage
- Site Vehicle Routing
- Hoarding and Segregation Lines

Due to the project needing to pass all construction traffic through the live campus to the temporary facility location All vehicles will be "collected" by a banksman at the point they turn off crescent Rd and marshalled to the construction zone. Just in time deliveries will be planned and delivery times scheduled to avoid busy times on the campus and school drop off traffic. Just in Time delivery will minimise storage on site to reduce the need for a large storage compound. All Plant items will be stored on site, unless not needed where it will be off hired.

All pedestrian Access will be via direct access through the Control Gates and signing process at the site accommodation.

The Logistics plan has been developed to utilise and maintain the public operation of all existing vehicle and pedestrian access routes on the Abraham Moss campus

Figure: Existing Campus Vehicle Access

The Image above is taken from the Transport Assessment that has been developed and submitted for this planning application. This highlights the existing location of access and maintenance routes that will be utilised and maintained throughout the construction period.

Figure: Temporary Facility Logistics plan

The above plan has been developed in line with delivery and construction requirements to create minimum amount of disruption to the live operation of the Abraham Moss Facility.

Figure: Construction Zone and Segregation from School

The above figure shows the working construction zone for the construction of the temporary sports hall and associated store and changing facility. This is located within the informal play area of the Abraham Moss Secondary School. Engagement has taken place between construction partners and the school to agree on procedures of segregation safeguarding and working zones. The above plan utilises the maintenance track access that leads directly from the car park. All delivery vehicles will take this route to access the construction Zone.

The Hoarding line will be 2M in height ballasted hoarding which will always allow for segregation between construction staff and the school. All large deliveries will be planned outside of school hours. Crane lifts as required will be planned outside of school hours and at weekends.

Delivery Routes

When accessing the Campus for large and any abnormal loads a right turn is preferable from Crescent Rd to avoid swinging into the oncoming carriage way. The below graphic shows a preferred route from the local Motorway network.

There is a 16ft bridge on the A576 so that would give a maximum running height of 4.87 which is adequate for all envisaged transport.

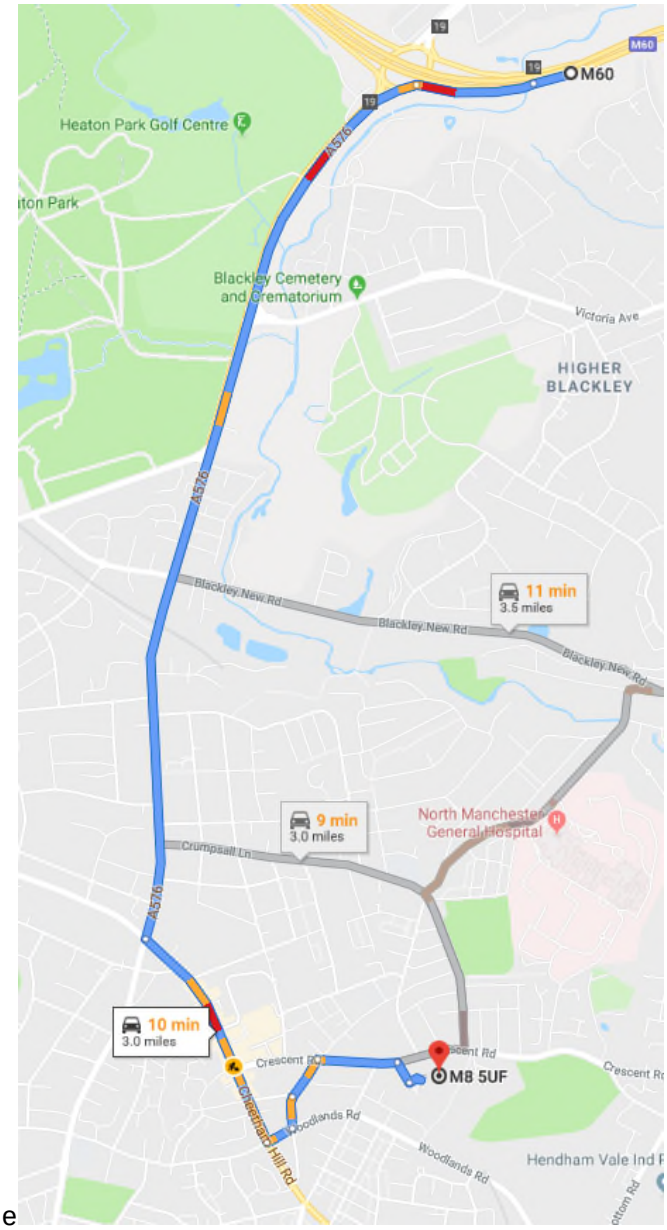
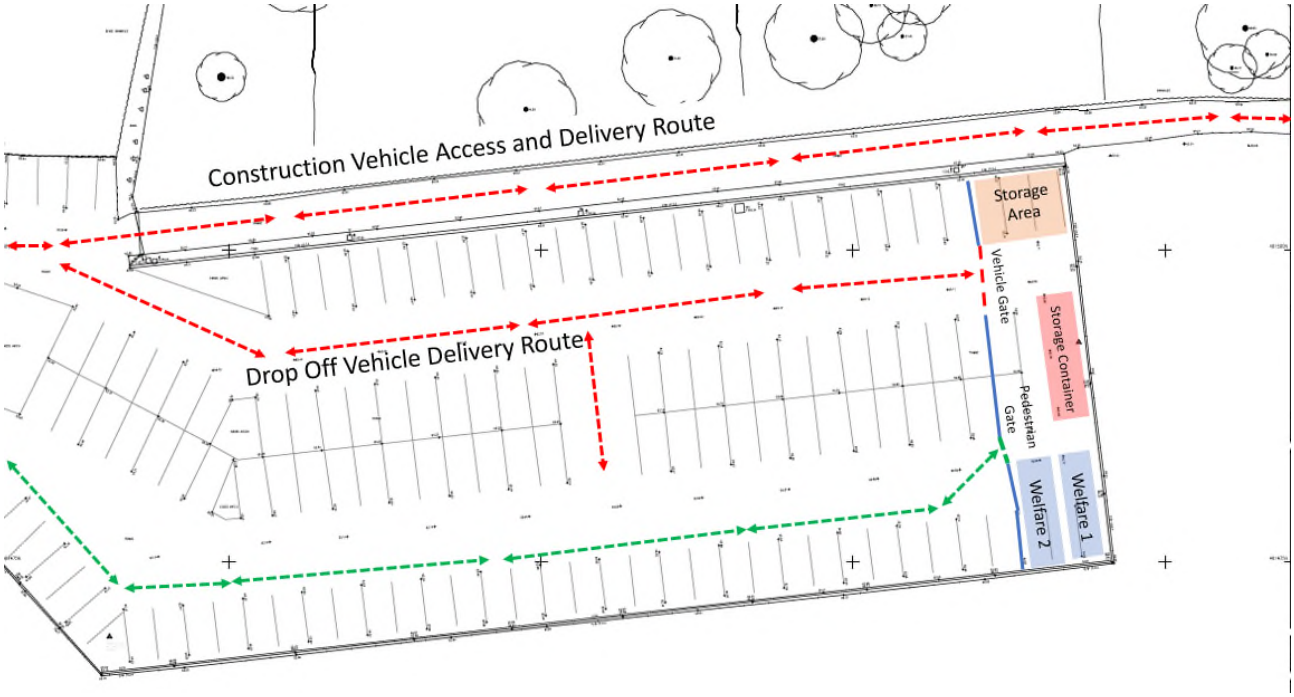


FIGURE: Large Vehicle Delivery Route

Site Accommodation and Welfare

Site temporary accommodation during demolition works will consist of welfare facilities, for the personnel on site this will be designed for a peak of approximately 20 operatives and 4 staff including subcontractors. This will be positioned in the compound in the bottom of the overspill carpark in a separate area away from the main construction works barriers with.

FIGURE: Site Accommodation and Compound Location

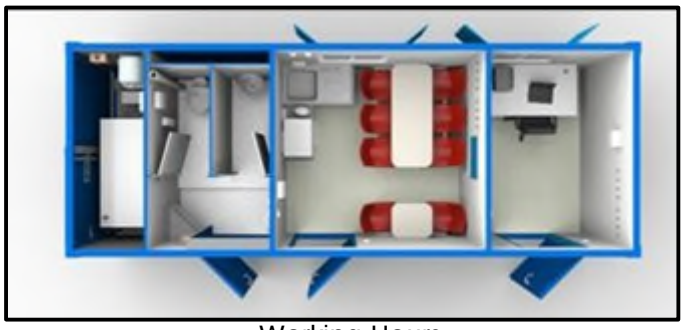


Accommodation/welfare –

For the activities during the demolition and enabling works accommodation will be self-contained starter units will be situated in the existing over spill car park. These will remain in place for the duration of the estimated 26-week construction programme.

For the temporary facilities and the demolition works, Due to lack of services in the area and the short nature of the works welfare units will remain as temporary self-contained units like the below example. These require no permanent power or water connections so minimise the need for any disruption from digging trenches through the carpark. These Units will be serviced as and when required that includes the supply of fuel and water and the emptying of toilets.

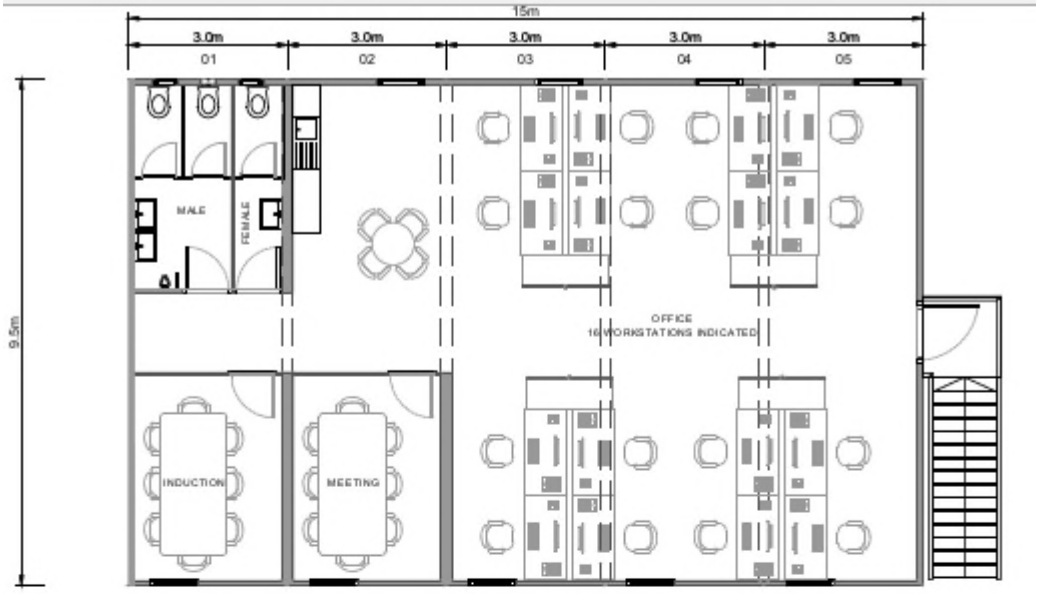
FIGURE: Example Site Welfare



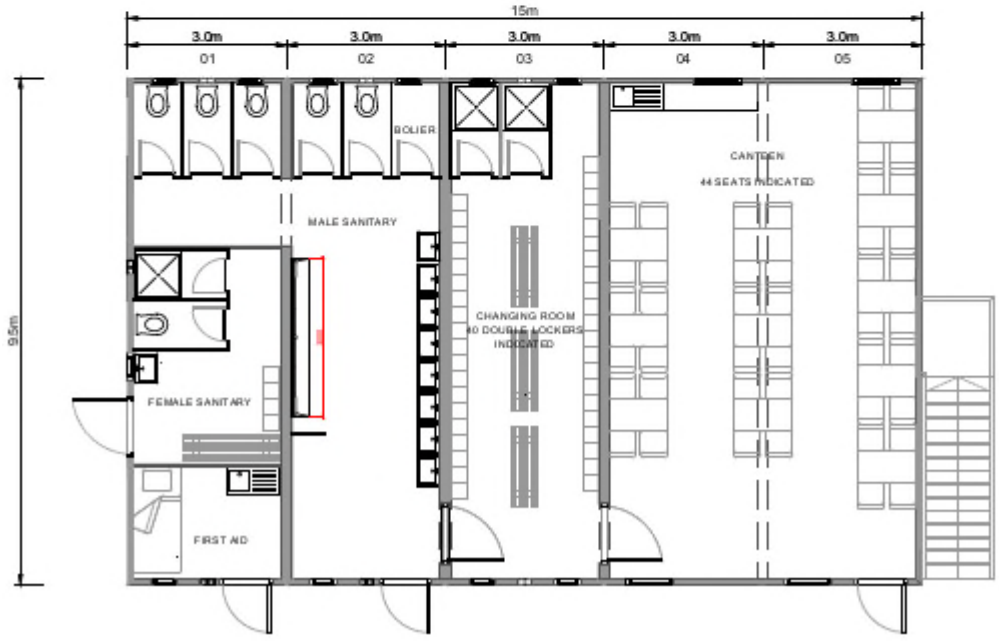
Working Hours

5.5

Proposed example Welfare unit that will be located on site from the start of main construction activities



FIRST FLOOR



GROUND FLOOR

Site Working Hours

The site normal working hours will generally be 7.30am to 6.00pm Monday to Friday and 8.30am to 2.00pm on Saturdays.

No works are planned for Sundays or Bank Holidays.

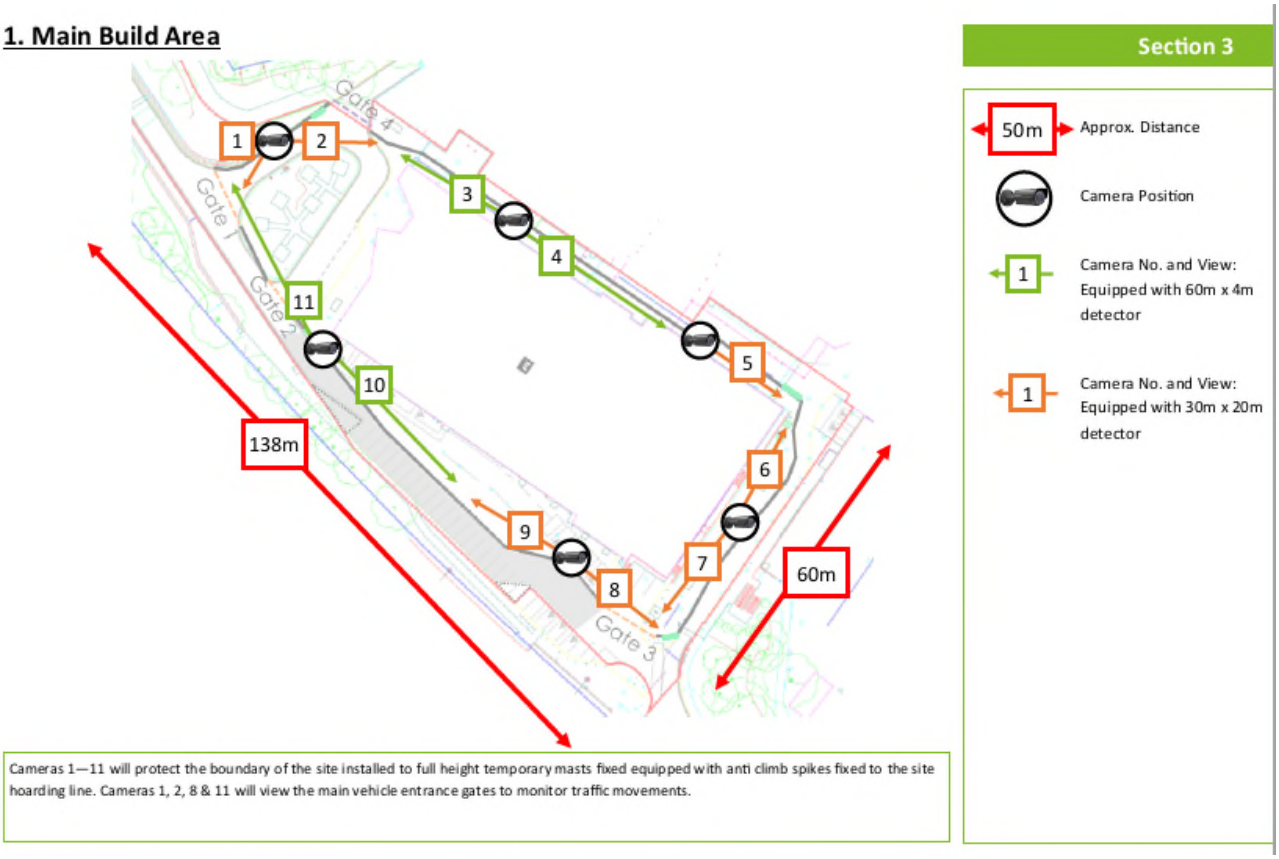
Some work outside of normal working hours will be required at times; this will be agreed with MCC in advance in writing.

Site Security

Security arrangements will ensure unauthorised access is prevented to the working and compound area at all working times. All staff/operatives will undertake a detailed project specific induction before being issued with access and sign in and out of site daily.

Outside of working hours the site will be monitored by the 24hr manned guard and CCTV that is already present on the Abraham Moss Campus. A full review of existing CCTV cover will be completed and any additional cover that is deemed required reviewed and installed.

Proposed CCTV coverage plan



Site Lighting

There is a good amount of lighting cover to the work area and compound from the existing car park and playground lighting. There may be a requirement for additional lighting within the site boundary to aid with construction works and access to the site. All additional lighting will be LED energy efficient and kept low level and angled to point into the site. Lighting will be switched off outside of working hours.

Site Cranes

The intention is to utilise mobile cranes within the site boundary as the construction requires. These will be contract lifts and completed within LOR guidelines and requirements of the safe operation of lifting. No static cranes will be used during construction, mobile cranes will be used where required and provided by sub-contract packages as required. Main use of cranes will be to install formwork for the concrete installation, erection of the structural frame and the loading out of the roof panels. All lifts will be fully co-ordinated with the campus management team and the school. Out of school hours will be utilised as required to minimise interfaces. Laing O'Rourke will have a dedicated lifting Appointed person who will co-ordinate and approve all lifting plans for the campus to ensure that site hazards and constraints have been effectively considered and

mitigated including the use of cranes in close proximity existing buildings, public interfaces and the Metrolink.

A draft Project lift plan is appended to this report.

Contractor Delivery, Access & Parking Arrangements

The following forms the basis for our Contractors Code of Conduct, relating to access and parking:

- No private vehicles are allowed on site. Contractors' employees (including management and sub-contractors) arriving by car must park in
- In line with the sites Green Travel Plan that will be developed all Managers / Operatives / Subcontractors are actively encouraged to utilise public transport, cycling lanes and park and ride schemes in the area. The site ahs a Metrolink station within the campus so utilisation of the facility should be used as much as possible.
- Contractors works vans shall only be permitted onto site following prior agreement with the Logistics Manager and shall park in designated areas. Contractor works vans parking is only allowed if the vehicle is required to complete the contractor's works. Additional arrangements can be made to allow for loading / unloading of equipment on site.
- Deliveries will be allowed access to the site but are to depart immediately after any unloading has been completed. All unloading is to take place within the designated unloading area as shown within the logistic plan within the appendix.
- Swept Path analysis has been completed for the construction vehicles within campus that can be found within the Transport management plan that is attached to this document as an appendix.
- All deliveries will be co-ordinated by Laing O'Rourke in line with the campus traffic management plan to avoid impact on the Campus. No deliveries will be allowed onto site between 08:00 and 09:00 and 15:00 to 16:00.
- All deliveries will be booked into an allotted time slot before arriving on site to avoid overcrowding of the delivery area and campus roads
- Laing O'Rourke will request all deliveries are a minimum of FORS silver compliant with an additional requirement of CLOCS compliant for larger delivery vehicles.
- No vehicle, plant or materials shall block any access / egress route at any time.
- Transport management plans will be communicated and co-ordinated with all campus stakeholders throughout the construction project.
- LOR operates a zero-tolerance policy towards abuse and aggression. Any instances of abusive or threatening behaviour towards the Logistics Manager / Gate Men / Security will result in refusal of entry and an official report of the abusive conduct sent to the Works Contractor's Head Office.

Wheel Wash Requirements

Site conditions will be monitored throughout all periods of works that could create vehicles leaving site in a manner that could spread mud, dust and debris onto the surrounding campus or road networks.

A wheel washing jet wash station will be established at the site exit gate and will clean all vehicles wheels that are deemed to be unfit to leave the site. Road sweeping will also be employed as required throughout the demolition and construction period but especially at times of increase chance of the spreading of dust onto the highways such as substructure works.

7 HEALTH AND SAFETY

The project will be managed in accordance with the Laing O`Rourke`s Health, Safety and Environmental Management System (SMS) which complies with OHSAS18001 and BSEN 14001.

The principal site document will be the Construction Phase Health Safety and Environmental Plan which will be issued prior to commencement on site.

The Construction Phase Health, Safety and Environmental Plan will include:

- Details of all significant parties involved in the scheme
- Existing Records of the building
- Management Structure and appointments
- Communication strategy
- Arrangements for monitoring H & S performance
- Selection and control of Sub contractors
- First Aid arrangements
- Accident and incident reporting arrangements
- Arrangement for controlling significant site risks
- The Health and Safety File

Other separate documents to this plan will include:

The Site Fire and Emergency Plan

This will Include

- Management procedures to prevent fire
- Management procedures in the event of an emergency

The Management of lifting operations

- Appointments including Appointed Person, Crane coordinators, crane supervisors
- Lifting Plan
- Tower Crane Management
- Mobile Crane Management
- Hoist Management

Health and Safety is an integral part of the planning process for each project. Implementation of the Laing O`Rourke's (LOR) comprehensive Health and Safety System and Procedures will ensure every facet of the construction process is planned, managed, and monitored. This will also ensure compliance with statutory obligations.

Designers and contractors engaged on the project must be competent and adequately resourced. This will be achieved by:

- Completion of prequalification health and safety questionnaires;
- Interviews, to ascertain compliance with their legal duties;
- Review of existing Health and Safety Policies and procedures; and
- Review of their Health and Safety performance and site visits

LOR as Principal Contractor will produce a detailed construction programme based on the current information. The plan will set out the arrangements for managing and monitoring the project. Sub or trade contractors engaged by LOR to carry out works on the project will be issued with this Health and Safety Plan so that they can integrate the project management philosophy into their Health and Safety Plans. The project team will implement the plan assisted by the LOR's Health and Safety Advisors.

As part of the LOR policy all persons on the project will be encouraged to express their views and concerns about Health and Safety. This will be achieved by the formulation of various routes. These include:

- Project Health and Safety committees;
- Safety representatives from each contractor;
- Toolbox talks including a feedback process; and
- Discussion and briefing on method statements and risk assessments.
- General engagement with the workforce

An 'open door' policy will be employed whereby any individuals can discuss Health and Safety issues with any member of the project team. Site notice boards, Tool Box Talks and posters are used to convey environmental, health and safety information to persons on the project.

Where individual contracts are required (for example for waste removal) these will incorporate relevant requirements in respect of environmental controls, based largely on the standard of 'good working practice' as outlined in the Construction Phase Health and Safety plan as well as statutory requirements.

Potential sub-contractors will also be required to demonstrate how they would achieve the provisions of the Construction Phase Health and Safety plan, how targets will be met and how potential effects will be minimised.

Contractors will be required to comply with all provisions of relevant legislation including:

- The Control of Pollution Act, 1974, Part IV;
- The Health and Safety at Work Act, 1974;
- The Clean Air Act, 1993; and
- The Environmental Protection Act, 1990

All trade contractors' method statements and visual task sheets will be required to address the specific issues that may have a disruptive effect on the local community identified in the Construction Phase Health and Safety Plan, including:

- Noise and vibration;
- Local air quality and dust emissions;
- Parking;
- Deliveries;
- Waste management; and
- Operatives' behaviour.

8 ENVIRONMENTAL

The environmental aspects of the project will be managed in accordance with the project Construction Environmental Management Plan, a draft version of this can be found within the appendices.

The environmental controls and mitigation measures to eliminate reduce or offset likely significant adverse environmental effects during the demolition and construction phase are identified below. It is anticipated that these controls would be secured by appropriate planning condition or obligation:

- Preparation of a Construction Environmental Management Plan (CEMP) in line with ISO 14001 which clearly sets out the methods of managing environmental issues for all involved with the demolition and construction works, including supply chain management;
- Requirement to comply with the CEMP included as part of the contract conditions for each element of the work. All contractors tendering for work will be required to demonstrate that their proposals can comply with the content of the CEMP and any conditions or obligations secured through the planning permission;
- In respect of necessary departures from the above, procedures for prior notification to the Council and affected parties would be established;
- Establishing a dedicated point of contact and assigning responsibility to deal with demolition and construction related issues if they arise. This would be a named representative from the construction team;
- Production of a regular newsletter to be circulated to the surrounding neighbours and authorities; and
- Regular dialogue with the local stakeholders and Regulators

The preparation of the CEMP is an established method of managing environmental impacts resulting from demolition and construction works.

The assessment of potential effects of the Proposed Development on water resources will be addressed in the Environmental Risk Assessment. LOR will ensure that any water which may have met any contaminated materials during construction will be disposed of in accordance with the Water Resources Act (1991) and other legislation, and to the satisfaction of the Environment Agency and sewage undertakers. In addition, any risk will be reduced as far as practicable by adopting good management practices and relevant measures described in the Environment Agency's Pollution Prevention Guidelines (PPG6).

All liquids and solids of a potentially hazardous nature (for example diesel fuel, oils and solvents) will be stored in bunded COSHH storage containers and will be segregated into flammable and non-flammable materials. Spill kits will be available on site in vulnerable locations.

There may be a requirement to discharge water into watercourses and/or foul sewers during construction and operation of the Proposed Development. Discharge licences will be applied for through the normal routes if they are required.

To ensure that suitable sub-contractors are appointed, all potential sub-contractors will have their environmental credentials vetted and will be asked to submit their company Environmental Policies and Procedures.

The CEMP would be submitted to all relevant bodies prior to the commencement of the works. Compliance with the EMP is anticipated to be secured by appropriate planning conditions or obligations.

The Environmental Management System will also be developed to address and monitor the following issues:

- Applicable environmental legislation
- Pollution
- Nuisance (noise, vibration, dust, emissions, light)
- Public Relations

Applicable environmental legislation will need to be identified in a register, to ensure that appropriate systems are put in place in order to comply with the legal requirements in question.

Resource Management Plan

The project will develop a Resource Management Plan (RMP) in order to demonstrate selection of materials to minimise waste, types and quantities of waste that will be produced, and targets established. It will identify how waste can be re-used, recycled, or recovered

Waste will be generated during the construction programme. However, this will be carefully managed and cleared to prevent nuisances such as litter, dust, odour and pests, and to maintain a "clean" working and site environment, for the benefit of all parties. Major sources of waste within the construction process are anticipated to include:

- Packaging – plastics, pallets, expanded foams etc.;
- Waste materials generated from inaccurate ordering, poor usage, badly stored materials, poor handling, spillage etc.; and
- Liquid wastes, other than surface water run-off and foul drainage, such as waste oils and chemicals.

During the construction phase, requirements for the management of waste will be communicated to all sub-contractors to ensure that waste is managed in accordance with the waste hierarchy and relevant statutory controls. These measures will be controlled through the CEMP and Resource Management Plan (RMP) in consultation with the relevant authorities.

Laing O'Rourke will manage the effective segregation and removal of waster materials with buy in from all sub-contract parties. A local Waste removal and management centre will be utilised so that a high proportion of waste generated is recycled and diverted form landfill. Local initiatives will also be sought where material such as timber pallets can be re-used with the community.

The Government removed the statutory requirement for site waste management plans (SWMPs) in England in October 2013. However, because SWMPs were considered good practice, a resource management plan will be produced to ensure that demolition and construction wastes are dealt with in an appropriate manner and in accordance with the waste hierarchy.

Procedures for the segregation and storage of waste will be detailed in the RMP. This will include the use of colour-coded skips to facilitate segregation for re-use and recycling; inspection of containers to ensure they are fit for purpose. There will not be any mixing of hazardous and non-hazardous wastes

For waste removed from the Site, notification by the Contractor/Construction Manager for approval (via consultation with the authorities) will take place. Loads will only be deposited at authorised waste treatment and disposal sites. Deposition will be in accordance with the requirements of the Environment Agency and all relevant waste legislation.

Any person removing waste from the Site will hold a current waste carrier licence and all waste shall be received at an authorised waste treatment or disposal facility. The nominated person(s) with responsibility for waste will ensure that all relevant authorisations are in place prior to off-site removal. No burning of construction waste will be undertaken on the Site.

In addition, removal of any non-hazardous waste from the Site will be accompanied by a Waste Transfer Note (WTN), signed by both the producer and the carrier of the waste, and correctly completed in accordance with the Environmental Protection (Duty of Care) Regulations 1991 (as

amended). This will apply to the removal of both solid and liquid wastes (other than surface water run-off and foul drainage).

To prove the correct depositing of waste material and to prevent the occurrence of fly-

Tipping, removal of any hazardous waste from the Site will be accompanied by a Hazardous Waste Consignment Note (HWCN), signed by both the producer and the carrier of the waste, and correctly completed in accordance with the Hazardous Waste Regulations (England and Wales) Regulations 2005. This will apply to the removal of both solid and liquid wastes (other than surface water run-off and foul drainage).

Noise Management Strategy

In general, the management of construction related noise will follow the principles of good practice set out in the British Standard 5228:2009 Code of practice for noise and vibration control on construction and open sites. This will encompass best practice in order to minimise noise disturbance to residents and other sensitive receptors arising from construction activities. Where minimisation is not possible suitable mitigation measures will be employed in order to reduce impacts.

Hours of work

In order to mitigate noise impacts all work on site will be carried out in line with Manchester City Council's Controlling Pollution from Construction Sites guidance and will be as follows:

Monday - Friday 07.30* - 18.00

Saturday 08.30* - 14.00

Sunday / Bank Holidays No work

*may arrive on site 30 minutes earlier but no working outside these times.

Any works outside of these hours will only be carried out by prior arrangement and agreement from MCC.

Stakeholder Engagement

In order to develop and maintain positive relationships with residents and businesses stakeholder engagement activities will be undertaken. This is a key process in construction noise management and it will comprise of the following:

- Provision of site contact for any enquiries, issues or complaints
- Regular newsletter or like be distributed to all neighbours within the vicinity of the works
- Other forms of communication as appropriate (e.g. website, liaison meetings or similar)

Complaints Procedures

Should a noise related complaint from a local stakeholder be received the following procedure will be implemented:

1. All received complaint will be recorded on project Field View system
2. Initial response will be made where appropriate, e.g. immediate cessations of the noisy activity if applicable
3. Where appropriate further investigation will be undertaken to establish the source/details of the noise issue and corrective action will be undertaken
4. Details of the investigation outcome and actions taken will be relayed to the complainant

5. All actions will be recorded on the Field View system and the complaint will be closed on the system

Record Keeping

The following records will be kept on site and will be available to interested parties for inspection upon request:

- Noise monitoring data
- Monitoring equipment calibration certificates

Details of complaints received, and actions undertaken to resolve these

8. WORKING IN CLOSE PROXIMITY OF THE METROLINK

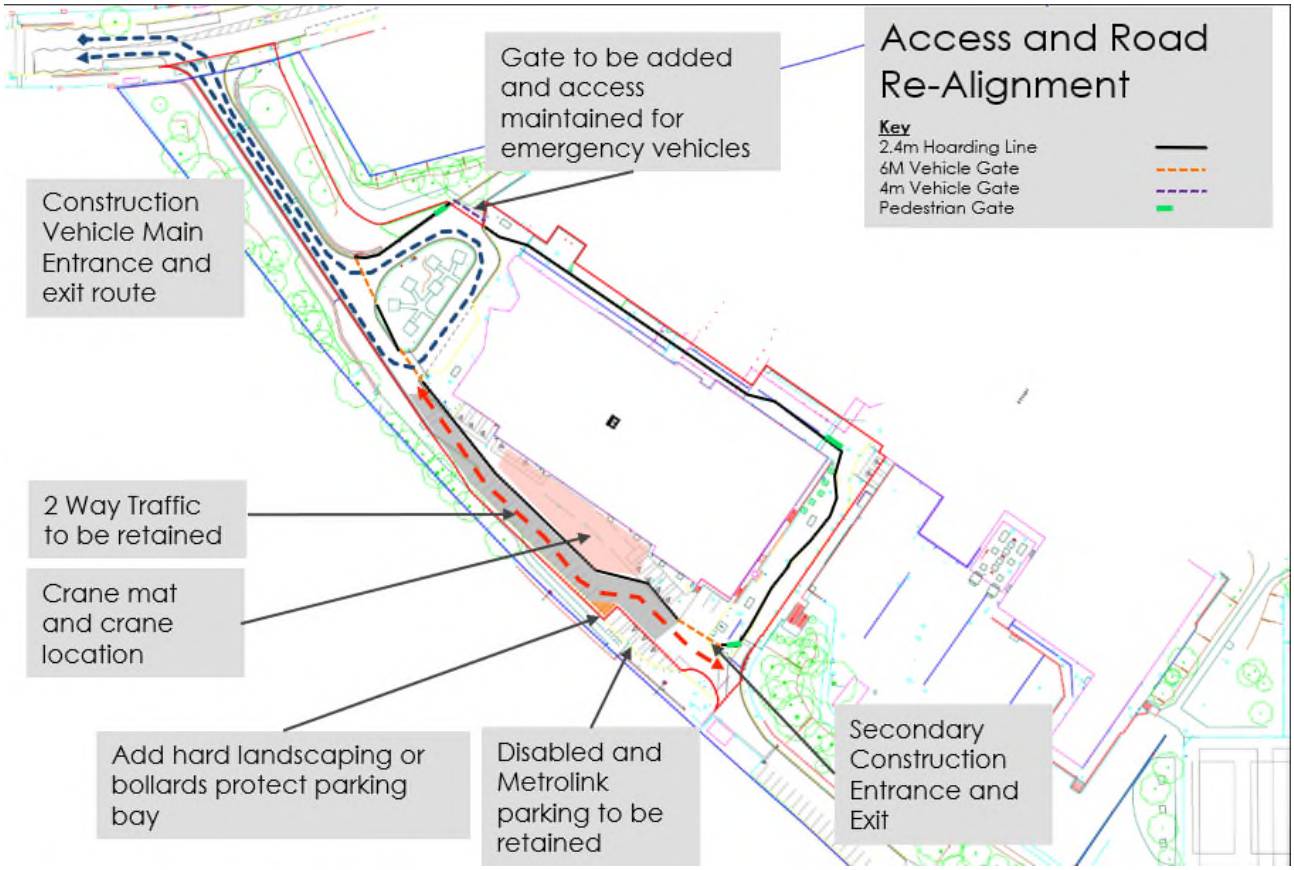
The construction site is near the Abraham Moss Metrolink station which is on the line that connects Bury to Manchester city centre.

The logistics management plan for the works activities has always been created to maintain vehicle access safe pedestrian access to the Metrolink.

The Metrolink owned parking bays (in line with Ownership plan provided by MCC as appendix 7 of this document) and the designated disabled parking bays between the station and the construction site will always be maintained. Vehicular access from the main entrance onto the campus to the Metrolink station will remain as 2-way traffic throughout the project development.

Pedestrian access and egress to the station will not be impacted by any of the works that will take place for this development. A number of parking bays near the Metrolink station will be lost to allow for re alignment of the site access to road to allow for enough construction space and maintain a 2-way vehicular access. Images below show that the bays highlighted in red will be retained, with the remaining bays to be removed

The Graphic Below shows the road re-alignment work that is planned to take place to allow for the construction hoarding line to be installed. This will be completed in advance of any structural demolition works.



All construction deliveries will be co-ordinated so that they are taken straight off the campus road network and within the construction hoarding line for any unloading to ensure that access is maintained. A strict online booking system will be used to limit the opportunity for parked vehicles within the campus that cannot be dealt with within the construction hoarding line.

Access to the track access point within the Abraham Moss Campus Car park will not be fouled by any construction activity or construction vehicle. The below traffic management and logistics plan will always be put in place to maintain two- way traffic access to the car park and Track access point. Construction vehicles will be taken within the construction site compound area and not foul the campus access roads.

There will be no impact of construction activity on all trackside equipment cabinets and chambers for the low voltage power, signalling and communications cables for Metrolink both during construction and once operational.

Prior to structural demolition LOR will look to engage with the Metrolink organisation to discuss the site interfaces and plant and equipment that is to be used within the campus.

LOR will also hold a Crane Management plan engagement meeting with Metrolink in advance of the first crane arriving onto site to establish safe working procedures that can be built into all LOR crane management plans and safe lifting plans. There are no fixed position cranes to be installed to complete the planned works. Cranage will be carried out using mobile and crawler cranes within the site hoarding line. Main elements of lifting will be to necessitate the below elements of works

- Installation of formwork shuttering for retaining walls and substructure
- Installation of the Structural steel frame
- Installation of large Roof and Cladding elements
- Installation of roof top plant items

Cranage will be co-ordinated with the working safely near the Metrolink guidance document. This document does not specifically require any de-rating of cranes, this has not currently been factored into cranage calculations. Lifting plans will be co-ordinated to avoid oversailing of the Metrolink unless the crane is in free slew.

All works will be co-ordinated with the "Working Safely near Metrolink" guidance leaflet that can be found as an appendix to this plan.

9. COMMUNICATIONS

LOR will also register as part of the considerate constructor's scheme that will display a separate site contact detail for any complaint or enquiries that will be co-ordinated independent of LOR.

Resident and stakeholder communication will be delivered in conjunction with the local neighbourhood team and Manchester city council. A combined communication plan will be developed to inform the residents of the impact of the redevelopment works including loss of service and the management of the construction works themselves. LOR will deliver local newsletters and display information on the progress of the works and any upcoming work activity that may impact the local environment. These will be displayed within the campus environment on notice boards, community engagements and delivered to the residents within proximity of the site.

LOR in conjunction with Manchester city council will also look to develop a stakeholder management regular meeting with representatives from the local community and centres that have a presence o the campus to detail the ongoing works and address and queries or concerns. Further details of this will be established with the project representatives from Manchester City Council when the works commence.

10 EMERGENCY CONTACT

In the event of an emergency LOR have an emergency contact in place. This will be highlighted in the completed Construction Phase Health and Safety Plan as well as being displayed on the site notice boards and hoardings.

APPENDIX 1
Logistic Plans

Traffic Management and Logistics Plan

ABRAHAM MOSS

Logistics Notes and Site Rules

- There is no designated on site contractor parking provision
- Just in Time delivery to be used and co-ordinated via LOR delivery system
- Minimal laydown and storage capacity within site compound
- Green and sustainable travel plan to be implemented to reduce parking requirement, onsite metro link to be utilised where possible
- No deliveries to site between 08:00 and 09:00 and 15:00 to 16:00
- Vehicles will be met by LOR banksman from entry into LOR site compound
- All deliveries to adhere to Abraham Moss Campus driving restrictions and regulations when within Abraham Moss campus from the point of exiting public road network on crescent Rd
- Abraham Moss Campus is a busy site with numerous site stakeholders including schools and public transport Connections. All deliveries transits to be minimised wherever possible. All deliveries and driver to be briefed on Abraham Moss Logistical constraints before transit
- CLOCS compliance is required for all major packages and deliveries.
- “Last mile” preferred delivery route to be confirmed before commencement on site

Site Rules & Procedures

Deliveries

- Deliveries will be timed to avoid the busiest rush hour periods wherever practicable. Consideration will be given to adjacent neighbours and planned deliveries communicated and coordinated with any persons directly impacted. Avoiding the school drop off and collection periods for all planned deliveries will be required as the site is heavily impacted at these times. Further co-ordination around school time table is required for large deliveries and a banksman is to be in place for all transit through the community centre.

Pedestrians

- Traffic routes will be established to minimise the interface between vehicles and pedestrians. The site entrance will be separate for vehicles and pedestrians.

- Pedestrian barriers will be erected at the site access to control the interface between members of the public and site traffic with clear visible warning signage providing a safe crossing point. Where possible the site will look to close footpaths and move the pedestrians to the other side of the road, significantly reducing the risks associated with site entrances.

Control of Construction Vehicles

- Vehicular access routes will be established on site, and as far as reasonably practicable these will be kept away from pedestrian routes, uneven ground, excavations and structures. A one-way system will be implemented where possible to avoid the need to turning or reversing on site.
- Where turning or unavoidable reversing takes place, a competent banksman will supervise.
- Records shall be kept on site for all construction vehicles accessing the site, and shall include the
- following:
- 1) Make, model and serial number
- 2) Records of inspection of work equipment.
- 3) Records of thorough examination of any lifting equipment
- 4) Operator's competency records.

Subcontractors shall also make the above information available on site and will be stored at the site office.

Communication of Information

- The traffic management plan will form part of the site induction, and a tool box talk will be delivered within the early stages of the project as a further reminder of the hazard of construction site traffic and the site specific controls in place to reduce the risks on site.
- Traffic management arrangements will be discussed during daily briefings to include planned deliveries and any restrictions or changes due to developing site conditions or short term activities.

Reporting

- Everyone on site has a duty to contribute to site safety, and will be requested to report any near misses or dangerous situations, including that involving traffic management on site.

Subcontractors

- All subcontractors will be inducted and provided with information on the traffic management procedures in place. All subcontractors will be required to submit details of planned deliveries and to comply with the contents of this logistics management plan. Sub-contractor deliveries must be arranges via the Site Manager and coordinated with other planned deliveries.

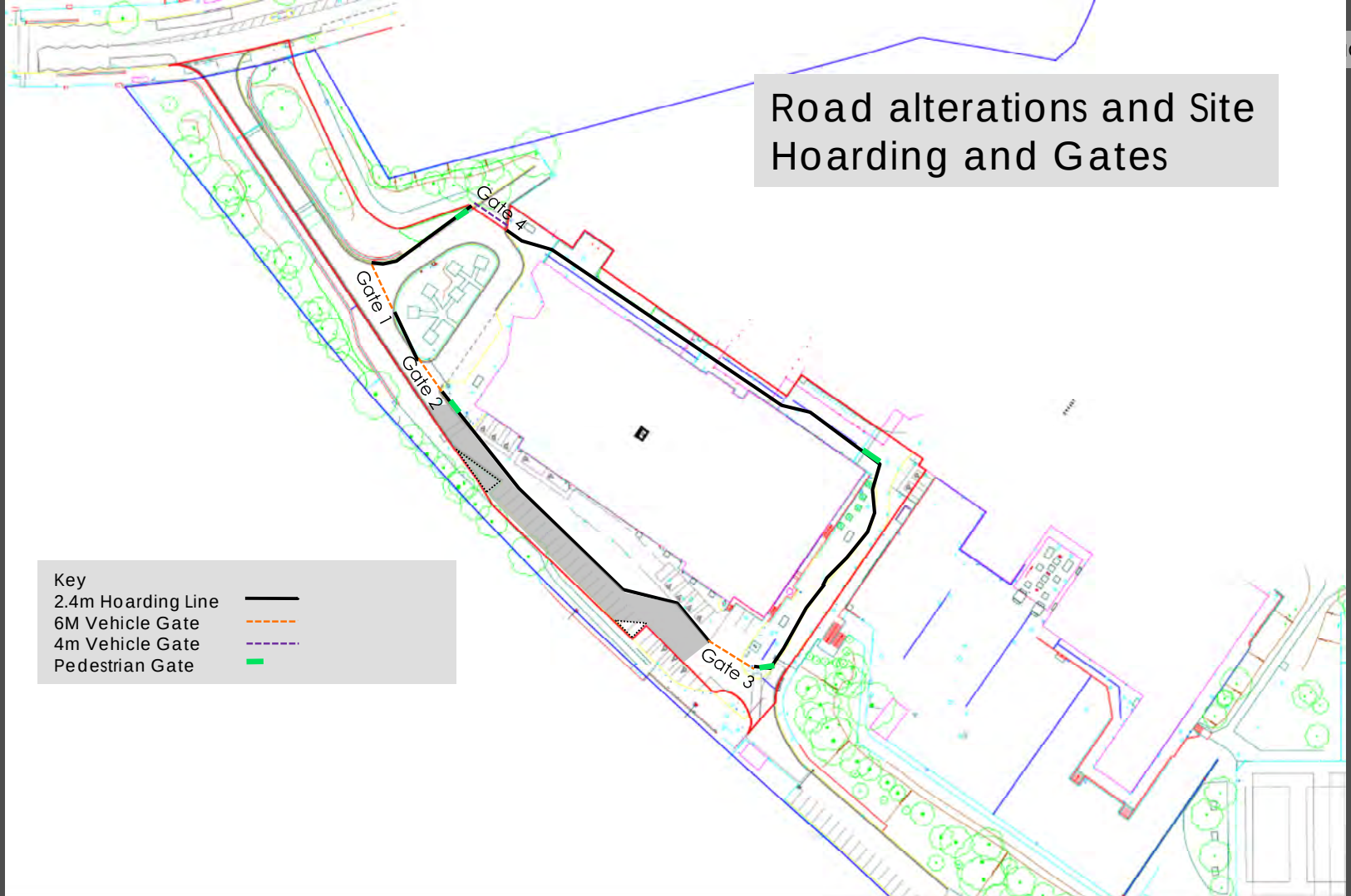
Monitoring

- Traffic management will be assessed and monitored ongoing throughout the project with any changes made to the plan as necessary to ensure safe access, egress and movement around the site.
- A record of all deliveries will be held at the site office. Delivery notes for all deliveries will be held on site (these will include the points of origin of the material).
- **Site Plan**
- The logistics plan identifies the pedestrian and vehicular traffic routes throughout the site and at interfaces with the public. This will be updated and kept live throughout the scheme, and updates to all operatives, and staff when required.
- The main strategy and initial logistics plan for the temporaries is below. Further discussion and development of the plan will be completed alongside the sub-contractors delivery requirements, the client and any third parties affected by the scheme.

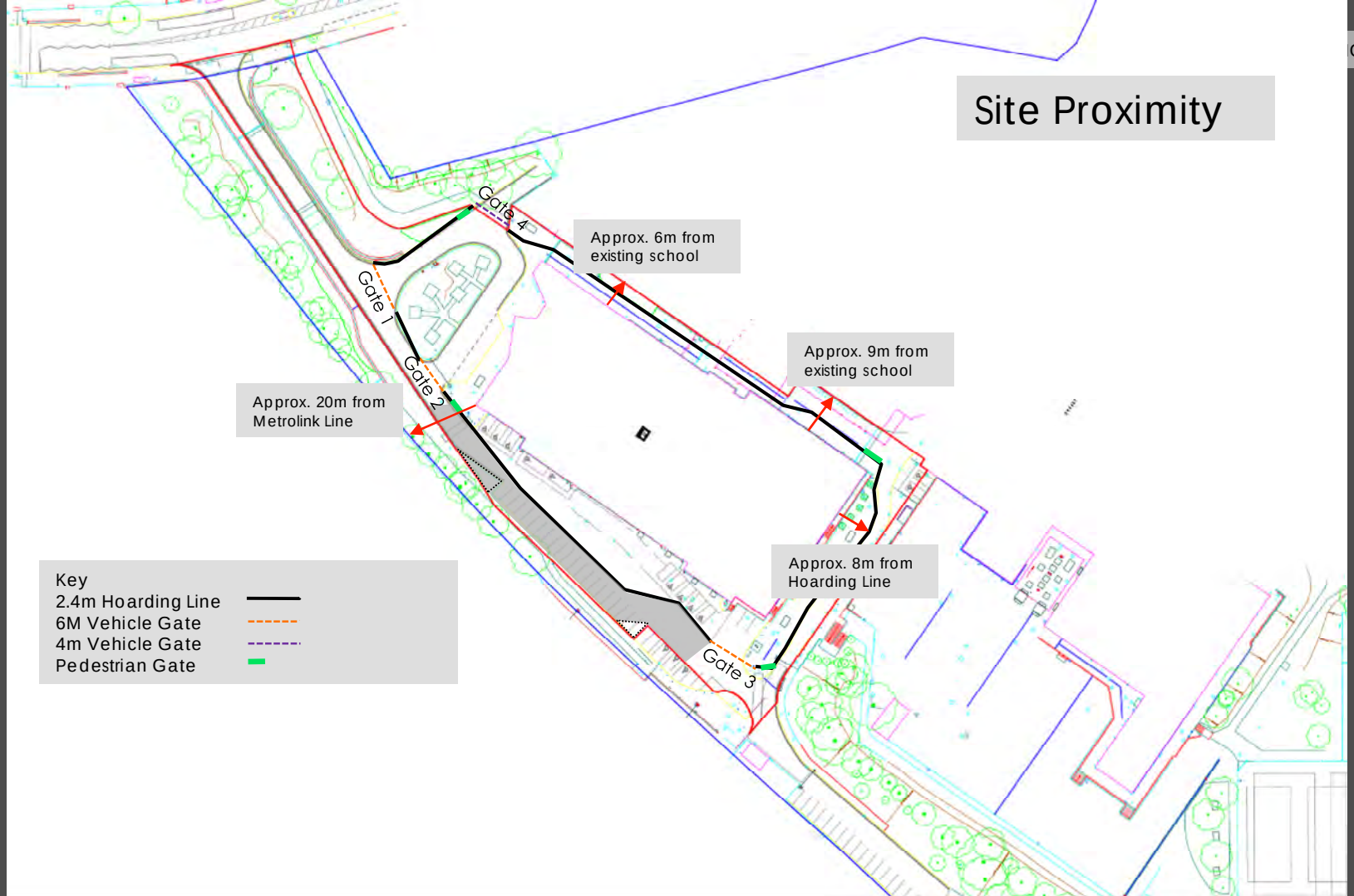

Nursery
Existing School
Existing School
Metrolink Line
Abraham Moss Library
Abraham Moss Leisure Centre
Park And Ride Abraham Moss
Abraham Moss
Abraham Moss
The Abbey
Masters Dry Cleaners
Woodville Sure Start Children's Centre
College Of The Third Age
Crescent Rd
Crescent Rd
Crescent Rd
Crescent Rd
Crescent Rd
Greenstead Ave
Woodlands Rd
Woodlands Rd
Hardwood Cl
Woodhall Rd
Esmond Rd
Parslow Ave

Demo and Construction

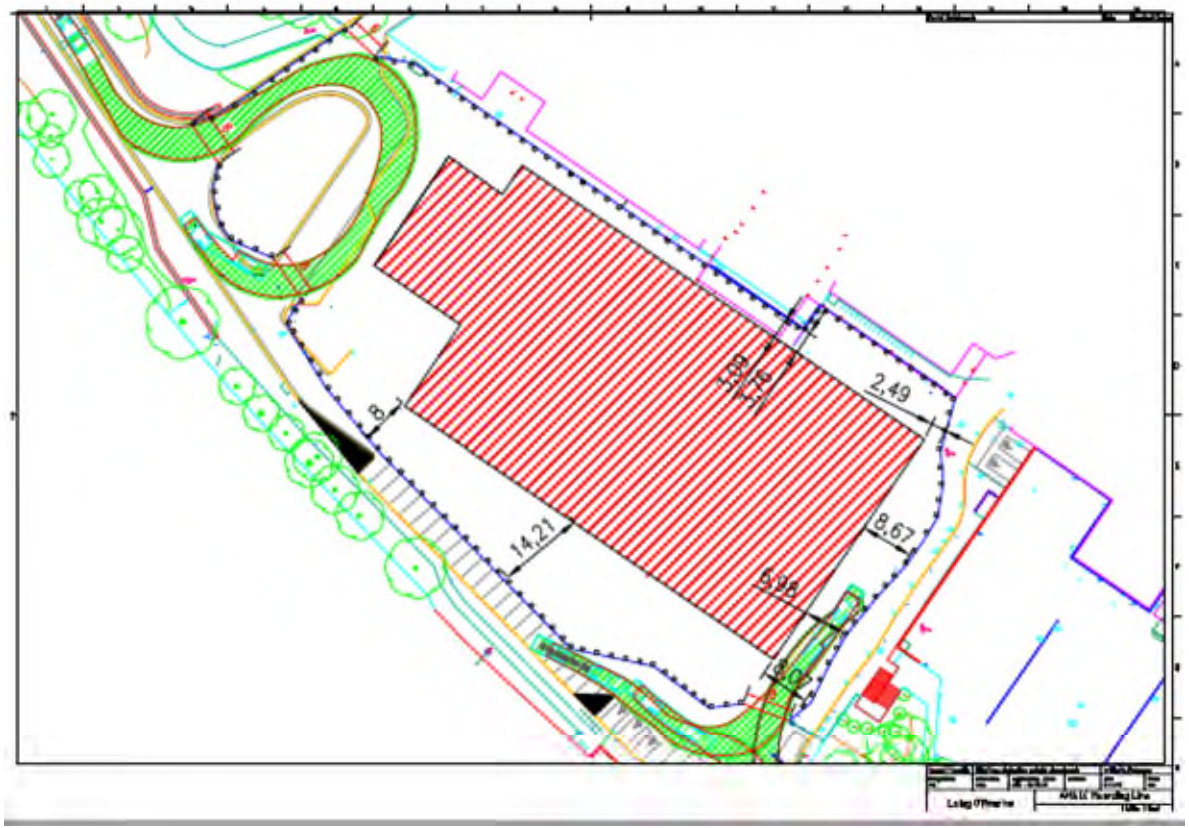
Road alterations and Site Hoarding and Gates

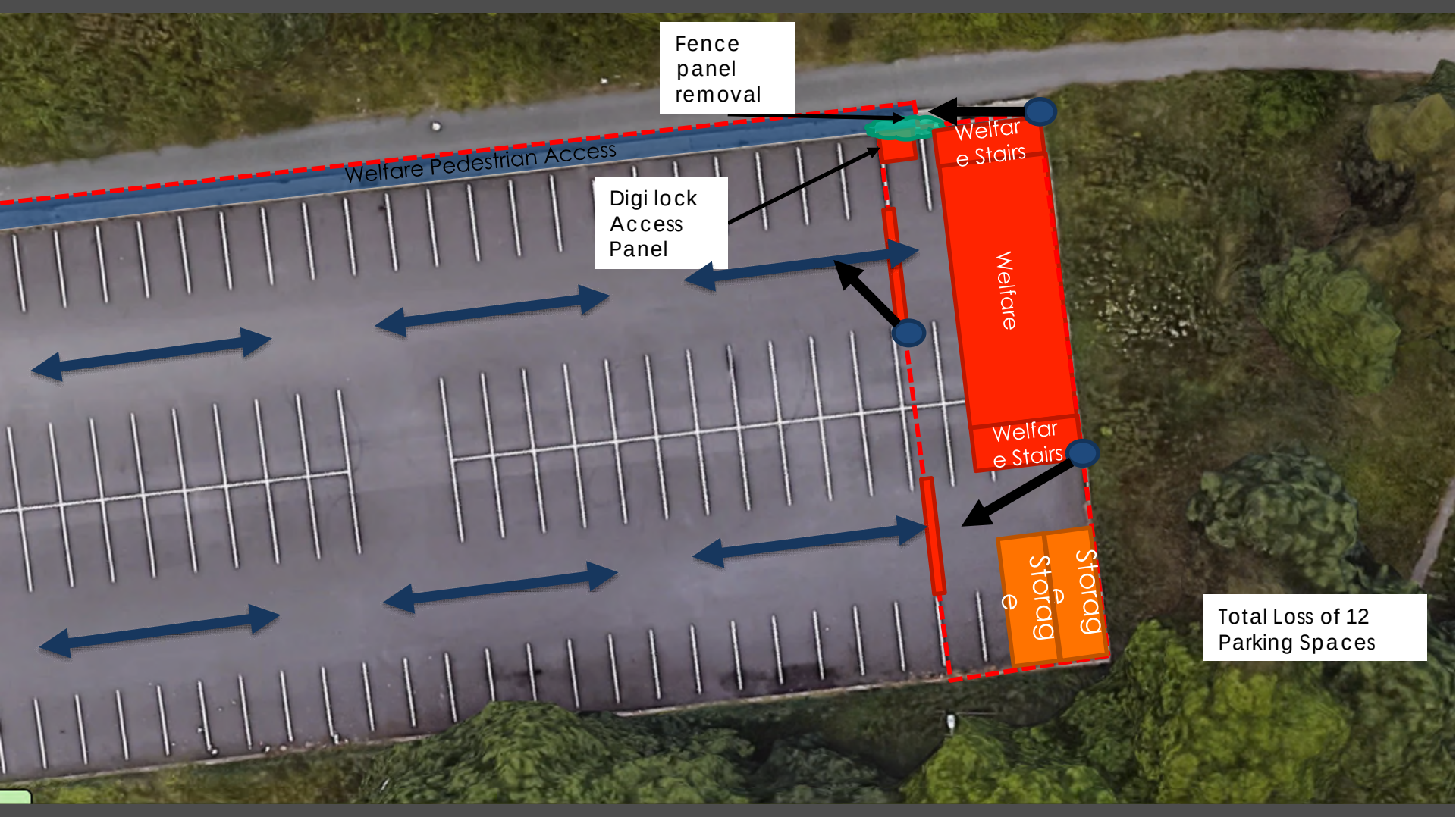


Site Proximity



Hoarding Line and Swept Path Analysis




Fence panel removal
Welfare Pedestrian Access
Digi lock Access Panel
Welfare Stairs
Welfare
Welfare Stairs
Storage
Storage
Storage
Total Loss of 12 Parking Spaces

APPENDIX 2
Traffic Management Plan

Traffic Management Plan
Abraham Moss

Introduction

The purpose of this traffic management plan is to organise site activities so that vehicle traffic and pedestrian traffic can be fully segregated to minimise the risks associated allowing traffic routes to be used safely.

The risks from construction site traffic can be controlled through the organisation and management of traffic on site. The term ‘vehicles’ includes: cars, vans, lorries, delivery vehicles, low-loaders and mobile plant such as excavators, lift trucks and site dumpers etc. The term 'pedestrians' includes: operatives, workers, management, consultants, visitors and any other person accessing the site on foot.

This traffic management plan outlines the management of the movements of vehicles and pedestrians on the site and the interaction with adjacent community use including highways footpaths.

The aims of this document are:

1. To identify the roles and responsibilities of the team associated with traffic management
2. To identify the traffic related hazards and risks
3. To effectively identify control measures that will manage the risk
4. To communicate mitigation rules and procedures to site operatives, visitors and the public.
5. To eliminate all traffic related incidents.

Roles & Responsibilities

The general duties of the principle contractor – Laing O'Rourke, in respect of traffic management are:

1. Ensuring adequate planning of the work including traffic management arrangements on site.
2. Ensuring subcontractors make adequate provision for the selection and provision competent drivers, plant and equipment.
3. Setting standards for operative competence, vehicle safety and maintenance, and ensuring controls are maintained.
4. Ensuring co-ordination and co-operation between all different subcontractors and third parties.
5. Instruction and training to the workforce on the traffic management arrangements and site rules.
6. Monitoring the implementation of traffic management arrangements on site
7. Reviewing the implementation of traffic management arrangements on site

Lead Construction Manager (for the temporary facilities the sub-contractor is responsible for this role)

1. Ensure that safety measures such as the use of pedestrian barriers, stop blocks, traffic barriers, one-way systems, segregation of routes, and signage are implemented as required within the construction site and at interfaces with the public in accordance with this document.
2. Ensure a suitable briefing on the traffic management requirements is included in the site induction for new starters and updated where required utilising toolbox talks to existing workers in accordance with the arrangements in this document.
3. Ensure suitable steps are taken to co-ordinate traffic movements in the construction area by involving subcontractor supervisors in regular reviews of planned work activities, including deliveries, on a weekly basis in accordance with the arrangements in this document.
4. Ensure suitable steps are taken to co-ordinate traffic movements of adjacent sites, client occupied areas or other access requirements, in regular reviews of planned activities, in accordance with the arrangements in this document.
5. Investigate, take appropriate action and respond to reports from workers on deficiencies and faults in the implementation of the traffic management arrangements in accordance with this document.
6. The Site Manager may delegate elements of the requirements of the traffic management plan to other competent members of the site management team as required to ensure the requirements are met in an effective and efficient manner.

Staff and Subcontractors

Subcontractors using construction vehicles shall ensure that the work involving the use of construction vehicles is planned and detailed in method statements and risk assessments communicated to the workforce, taking account of the requirements of this document.

Workers in the construction area shall adhere to the site rules and the instruction provided through the site induction and/or toolbox talk for traffic management arrangements.

Staff, visitors and operatives shall report any deficiencies or faults in the arrangements for traffic management to the Site Manager using the site near miss reporting system.

Initial Risk Assessment

Vehicles striking pedestrians	Separate vehicle and pedestrian access routes to be established. Site pedestrians to wear high visibility clothing (jacket or vest minimum) always on site. Audible and visual alarms to be in working order on vehicles. Signage to be displayed on site directing vehicles and pedestrians. Speed limit to be established and enforced. Gateman to control all access through site gates to ensure safety of public pedestrians and vehicles. Safety signage adjacent site warning public pedestrians of dangers from site vehicles. One-way system and no reversing policy implemented on site and within public highways.
Vehicle striking of access plant	Access equipment not to positioned in areas at risk from being struck by vehicles, including other mobile access equipment. Where required, full segregation from vehicle routes with vehicle grade barriers required. Mobile access equipment to be accompanied by a banksman on site roads when moving around site.
Excavations	Vehicles routes to be planned away from excavations as far as possible. Vehicles and plant to be kept a safe distance from excavations. Excavations adjacent to and within 1m of vehicle routes where there is a risk of driving directly into the excavation to be provided with pedestrian barriers, vehicle grade barriers and / or stop blocks along entire to be installed.
Plant Failure	All plant to be maintained and examined in accordance with manufacturer's instructions. Where plant is obtained on hire obtain copies of certificates from the hire company. All construction vehicles to be provided with suitable audible and visual indications of movement. Controls, lights and warning systems to be checked before first use each shift as part of pre-start plant inspections.
Noise	Figures for noise levels will be obtained for plant used. Protection to site and public pedestrians to be implemented where levels exceed an acceptable level.

Site Rules & Procedures

Deliveries

Deliveries will be timed to avoid the busiest rush hour periods wherever practicable. Consideration will be given to adjacent neighbours and planned deliveries communicated and coordinated with any persons directly impacted. Avoiding the school drop off and collection periods for all planned deliveries will be required as the site is heavily impacted at these times. Further co-ordination around school time table is required for large deliveries and a banksman is to be in place for all transit through the community centre.

Pedestrians

Traffic routes will be established to minimise the interface between vehicles and pedestrians. The site entrance will be separate for vehicles and pedestrians.
Pedestrian barriers will be erected at the site access to control the interface between members of the public and site traffic with clear visible warning signage providing a safe crossing point. Where possible the site will look to close footpaths and move the pedestrians to the other side of the road, significantly reducing the risks associated with site entrances.

Control of Construction Vehicles

Vehicular access routes will be established on site, and as far as reasonably practicable these will be kept away from pedestrian routes, uneven ground, excavations and structures. A one-way system will be implemented where possible to avoid the need to turning or reversing on site.
Where turning or unavoidable reversing takes place, a competent banksman will supervise.
Records shall be kept on site for all construction vehicles accessing the site, and shall include the following:

1) Make, model and serial number
2) Records of inspection of work equipment.
3) Records of thorough examination of any lifting equipment
4) Operator's competency records.

Subcontractors shall also make the above information available on site and will be stored at the site office.

Communication of Information

The traffic management plan will form part of the site induction, and a tool box talk will be delivered within the early stages of the project as a further reminder of the hazard of construction site traffic and the site specific controls in place to reduce the risks on site.
Traffic management arrangements will be discussed during daily briefings to include planned deliveries and any restrictions or changes due to developing site conditions or short-term activities.

Reporting

Everyone on site has a duty to contribute to site safety, and will be requested to report any near misses or dangerous situations, including that involving traffic management on site.

Subcontractors

All subcontractors will be inducted and provided with information on the traffic management procedures in place. All subcontractors will be required to submit details of planned deliveries and to comply with the contents of this traffic management plan. Sub-contractor deliveries must be arranged via the Site Manager and coordinated with other planned deliveries.

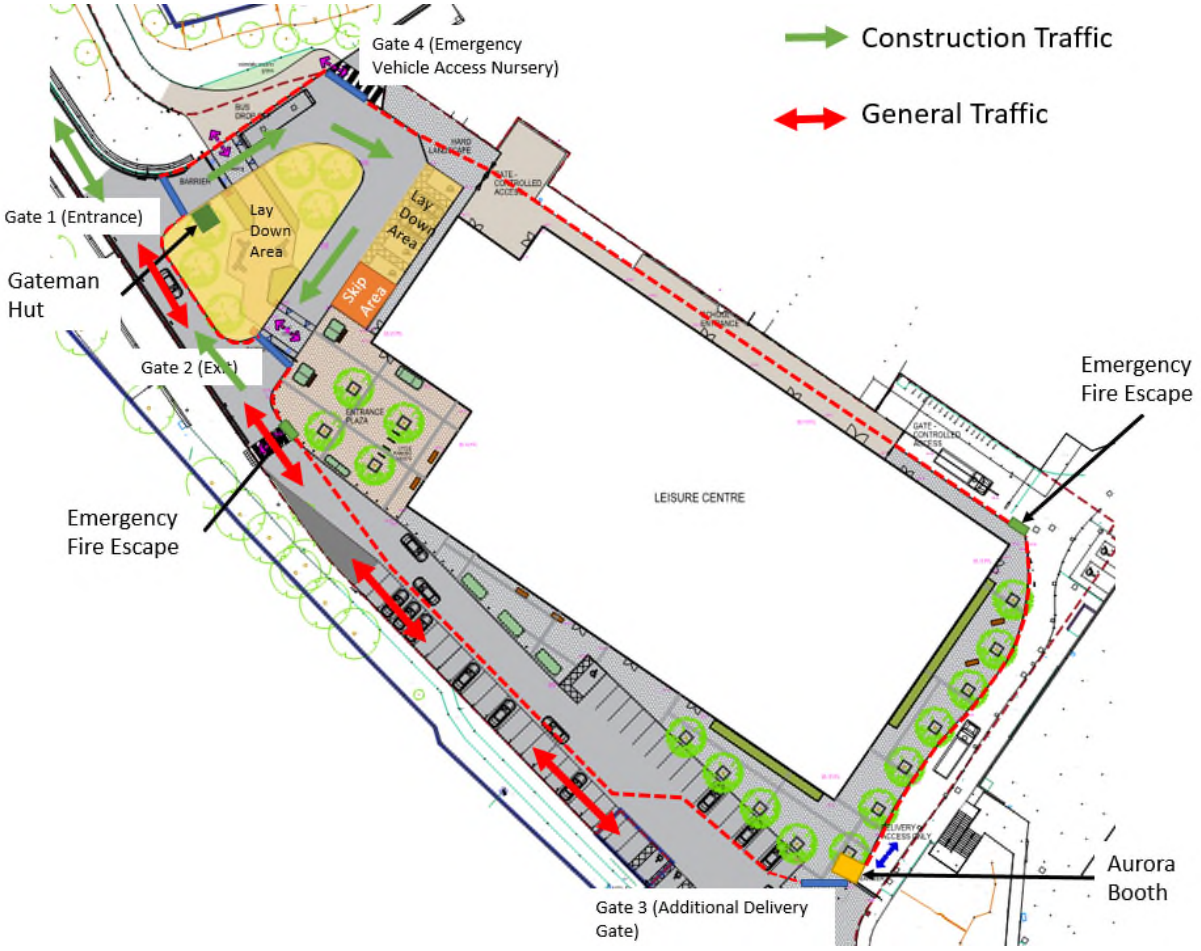
Monitoring

Traffic management will be assessed and monitored ongoing throughout the project with any changes made to the plan as necessary to ensure safe access, egress and movement around the site.
A record of all deliveries will be held at the site office. Delivery notes for all deliveries will be held on site (these will include the points of origin of the material).

Site Plan

The logistics plan identifies the pedestrian and vehicular traffic routes throughout the site and at interfaces with the public. This will be updated and kept live throughout the scheme, and updates to all operatives, and staff when required.

The main strategy and initial logistics plan for the temporaries is below. Further discussion and development of the plan will be completed alongside the sub-contractor's delivery requirements, the client and any third parties affected by the scheme.



The exact location of the Sports facility is dependent on information from the sub-contractor and the foundation solution along with further design development and client input. The sub-contractor will be responsible for segregation from the school environment with proposals being approved by LOR and the Client. The logistic plan (appendix 1) shows the site location with the primary access route being via the track that leads directly from the car park. These routes will be managed by the subcontractor.

APPENDIX 3

Environmental Management Plan

ENVIRONMENTAL and ENERGY MANAGEMENT PLAN

Abraham Moss

January 2020

ENVIRONMENTAL & ENERGY MANAGEMENT PLAN

LOCATION NAME

Revision History

	Summary of Amendments	Completed By	Date
1.0	First draft – phase 1 (temporary facilities)	T Meakin	31.01.20
2.0			
3.0			
4.0			
5.0			
6.0			
7.0			
8.0			
9.0			
10.0			
11.0			

The Laing O'Rourke Group Environmental and Energy Management Systems define in detail how environmental and energy management is applied throughout the group. The key requirements and actions within the environmental and energy management systems, at an operational level, are defined within this document, the Environmental & Energy Management Plan. The purpose of this plan is to ensure that this location is enabled to comply with all relevant environmental and energy legislation and other requirements and to continually improve environmental and energy performance and processes. These processes are based upon requirements of BS EN ISO 14001:2015 Environmental Management Systems - Specification and ISO 50001:2018 Energy Management Systems – Specification with guidance for use.

Please note: all official guidance, EMS and EnMS proformas and links to legislation and other useful websites can **be accessed via iGMS through the Laing O'Rourke Environmental** and Energy Planning tiles.

Table of Contents

Introduction

This Environmental & Energy Management Plan (EMP) describes the high-level processes followed to fulfil the requirements of the Laing O'Rourke Environmental and Energy Management Systems / ISO 14001 and 50001 standards.

The context of the organisation and the scope of both Management Systems are addressed online within the iGMS.

Both Environmental and Energy Management within Laing O'Rourke is a Business wide issue and is part of the Group's Sustainability strategy - it does not start and stop at the gates of a construction site or office. It affects all our employees and crosses all departmental boundaries at all locations.

The sustainability philosophy adopted by Laing O'Rourke is to ensure that the environmental and energy impacts resulting from its operations are effectively controlled and minimised, to ensure compliance with all relevant legislation and other requirements and to continually improve its environmental and energy performance and processes.

1.0 Scope of Plan

This document is a summary of the main requirements of the ISO14001 and 50001 standards, Client and stakeholder obligation and location specific goals. The main operational controls sit as appendices to it, but these are the critical and live aspects of the EMP.

This Environmental & Energy Management Plan (EMP) is prepared for Abraham Moss and covers the environmental and energy impacts relating directly to the construction activity within the site boundary, but also within the local area that may be affected by the development/activity. The Environmental Risk Assessment, Resource Management Plan and Environmental Emergency Plan are the three key planning procedures that constitute the EMP and these are discussed in later sections.

Review of this EMP and supporting procedures/documents must be completed quarterly. The summary EMP document (this one) will typically only have small changes made (appointments, objectives added/closed).

1.1 Scope of works

Abraham Moss Leisure Centre is a new development that will form part of the wider site, including a primary school, secondary school and adult learning centre. The development will consist of construction of temporary facilities (library and sports hall), demolition of the existing leisure centre and construction of the new building. Work on the temporary structures will commence on 31/01/20 and will ongoing until the end of May, at which point demolition will commence.

The new construction aspects will include building a new sports hall, swimming pool, gym and changing facilities, as well as a library and reception area. The build is predominantly in-situ.

It is a tight site, with the schools remaining operational throughout. In addition, there is also a Manchester Metro line stop adjacent to the site.

There will be embargo hours for deliveries in order to reduce congestion around school drop off and pick up times:

08:00 – 09:00

15:00 – 16:00

1.2 Deviations from minimum EMP templates/process

There are minimum requirements for several templates/procedures and activities in accordance with the Laing O'Rourke Environmental and Energy Management Systems (see Guidance – EMS Document Revision Tracking). However, with the agreement of the visiting advisor, adjustments can be made in line with the levels or risk or activity occurring. Deviations at this location include:

Document/Procedure	Deviation	Reason	Agreed (Date/Name)

*Deviations are agreed with the Environment Leader and a record is kept of the emailed authorisation.

There are currently no deviations in place on the Abraham Moss project.

2.0 Environmental & Energy Policy (ISO 14001 Clause 5.2)

The Environmental and Energy Policy relevant to the Laing O'Rourke European Business are signed by the Chairman. Policies are held on the policy section of the Laing O'Rourke iGMS.

The policies which currently include: the Environmental & Energy Policy and Sustainability Policy. They are available on iGMS. The Environmental & Energy Policy is displayed on noticeboards and communicated to staff and to those organisations working for or on behalf of Laing O'Rourke as appropriate. Any of the policies are available to external parties including the general public, on request.

3.0 Planning (ISO 14001 Clause 6)

This Environmental & Energy Management Plan has been developed and will be implemented and maintained during all phases of demolition and construction including pre-construction phase (including design stage, demolition); construction stage and post construction as appropriate.

Post-construction EMP activity will include: closing out actions related to the Resource Management Plan, recording and archiving any relevant documentation/calibration records; closing down of any permits acquired for the project; and ensuring lessons learned are captured centrally for discussion in the annual management review.

3.1 Environmental Aspects (ISO14001 Clause 6.1.2)

The environmental aspects of our activities have initially been identified during design and bid stages and then are assessed with a 3-6 month look ahead against our activity/programme of works. To align with the rest of the business and to simplify, we do not refer to "aspects and impacts" in the traditional sense. Instead we use language our people understand i.e. "risk". These are recorded in the Environmental Risk Assessment (ERA) which considers the location and activity specific risks and impacts. The ERA is an integral part of this EMP although held as an appendix due to complexity.

The main environmental risks and energy issues (not all) associated with our activity at this location are in the table below. The detailed review of our aspects is held and managed through the ERA.

Risk issue (Aspect/Impact)	Activities
Noise	*Various activities will generate noise which could impact the wider site, in particular the schools. The team will adopt best practicable means to limit the noise generated and will be in regular contact with the schools to communicate any specific activities that may have an affect.*
Contaminated Land	*The land adjacent to the site (to the east of the school is known to be contaminated. Initial ground investigation has not shown any contamination within the actual site boundary, however this has not flagged up any contamination. Whilst this is the case, it remains a risk. The workforce will be briefed on contaminated land, in the event that any contamination or hotspots are uncovered during the groundworks.*
Community	*With the site situated amongst a live school development, communication with the community and schools will be imperative to mitigate any risks.*
Energy Management and performance	*The site will be working to ISO50001 and will develop plans and targets in line with this.*

3.2 Legal and Other compliance obligations (ISO14001 Clause 6.1.3, 6.1.4)

All legal and contractual (client/planning) requirements are incorporated as appropriate into the Environmental Risk Assessment (ERA) with appropriate controls and mitigation measures detailed. All permits, licences and consents that may be required during construction have been, and will continue to be, identified and applied for accordingly, ensuring that sufficient time is allowed.

A Group Environmental Legal Register is maintained and held on iGMS. The Legal Register includes legislation that directly impacts our business, but also that that may be indirectly related (items we have no control over but may impact on the developments we work on) and legislation that may be of interest/provides context. Any significant changes to the Group register that may impact on the organisations operations will be communicated internally, through the HS&E Bulletin, Environmental Information Notes and leadership meetings where appropriate.

At this location, the key environmental legislation that has been considered and addressed is predominantly around:

- Water quality
- Air Quality
- Waste
- Noise
- Energy Consumption
- Vibration (nuisance perspective)
- Contaminated Land
- CO_2 Emissions
- Processes that could contaminate land, water or air
- Local Authority planning permissions and requirements

3.3 Client /Planning Specific Requirements

At this location we have also a number of client / planning specific requirements. These are:

Client /Planning Requirement	How they are addressed
	(e.g. objectives/targets/ERA/EAP)

3.4 Stakeholders and Interested Parties (ISO14001 Clause 4.2)

At this location we have a number of local stakeholders and community groups that have an acute interest in the development and our business.

Local Stakeholder	Issues/Concerns/Goals	How they are addressed
Abraham Moss Community School	Safety risks around operating in close proximity to a live construction site. Additionally issues potential issues around construction traffic and congestion, as well as noise.	Regular meetings with the school to provide updates, particularly on exceptional activities that may have more impact on the school. Just in time deliveries.
Manchester City Council (Client)	Reputational damage of the build does not go to plan (over-run, over-budget, poor quality)	Robust processes in place, regular meetings and engagement with the client.
Metroline Users	Construction traffic, difficulty of access	Good traffic management, clear signage
Local residents	Noise, dust, congestion	Regular newsletters
Abraham Moss Leisure Centre	Change in services, quality of facilities, noise, dust, congestion	Regular updates, Just in time deliveries.

3.5 Objectives and Targets (ISO14001 Clause 6.2)

A number of key environmental and energy objectives and targets are defined and communicated on an annual basis, through the company annual report. These objectives and targets align with longer term corporate goals and strive for continuous improvement.

This location has developed specific environmental and energy objectives which align as appropriate with our environmental risk profile and any particular client/planning requirements. These are recorded in the Objectives and Targets table below which lists the corporate, Business Unit and location specific environmental and energy objectives and targets.

Objective - What is it you are targeting (water/waste/energy minimisation/timber cert./ BREEAM etc.)
Actions – what is required (detail may be embedded within e.g. Environmental Risk Assessment)
Responsibility - who is the lead that is going to make this happen?
Evidence / Progress - how is progress going to be monitored?
Target/Time Constraint – realistic timescales – some may be project duration; short term / one off?

Examples below in red – alter/replace as required

Objective	Actions	Responsibility	Evidence / Progress	Target/Time Constraint
Location Specific Objectives/Targets (Mandatory to set)				
Achieve water consumption 15m3/£100k	Collect waste data from all relevant contractors	Environmental Co-ordinator	IMPACT and environmental KPI spreadsheet	Track monthly, achieve by the end of the job.

Achieve waste of 11.1t/100m2	Collect waste data from all relevant contractors	Environmental Co-ordinator	IMPACT and environmental KPI spreadsheet	Track monthly, achieve by the end of the job.
Achieve 1500kgCO2/£100k	Collect electricity and fuel data from all relevant contractors	Environmental Co-ordinator	IMPACT and environmental KPI spreadsheet	Track monthly, achieve by the end of the job.
Achieve X% reduction in energy use	Collect data for a 6 month period. After this period review with the project team and set target.	Environmental Co-ordinator	IMPACT and environmental KPI spreadsheet	Timescales to be agreed at the 6 momth review. Likely to be requirement to achieve by the end of the job or after a year.
Client Objectives				
BREEAM Very Good	Review pre-assessment. Complete regular reviews.	Tatiana Meakin	Tracker + reviewed monthly, unless otherwise required.	Achieve Very Good at Design Stage by end April 2020 (as a minimum have all evidence submitted, awaiting review by SRL or decision by BRE).
NWCH waste target (Xt/£m)	Track waste data monthly to ensure on track.	Environmental Co-ordinator	IMPACT and environmental KPI spreadsheet	Achieve at the end of the job. Review monthly to track progress

3.5.1 Energy Action Plans

Our corporate energy management system requirements need to be considered when reviewing energy performance related risk and opportunity and may result in improvement plans in the form of the EAP – Energy Action Plan as appropriate. Energy management and performance should be a consideration in ERA, but could also form one or more of the location specific objectives. Implementation of an EAP may be triggered by a corporate initiative; client initiative or most likely as a result of the quarterly review and update of the Ste Energy Review or performance review in meetings such as HS&E or progress meetings.

Corporate	Issues/Concerns/Goals	How they are addressed
Clients	Energy efficiency considered element of quality control for construction projects Positive PR from energy-reduction innovations applied to construction processes on projects	Ensure efficient delivery Capture and communicate good news stories
All Employees	Job satisfaction & fulfilment associated with progress in saving energy/reducing carbon	Capture and communicate success
Select Plant Hire	Ensuring Select offer the most cost-effective vehicles, plant, site accommodation, equipment to staff and projects, from a whole-life perspective	Track opportunities to update our offer to projects/sites, and ensure presentation of opportunities which encourage uptake of most efficient options
Facilities Management	Improving data management with respect to energy consumption Tracking technology progress relating to energy consumption Investment in the optimal energy solutions in our permanent premises, informed by data	Support development of data systems and maximise value of data collected for driving improvement Support investment in optimal solutions Communicate successes in improving energy management that results

Finance/ Commercial	Track and minimise costs relating to energy bills and related investment	Ensure financial guidance and impetus for improved energy management

4.0 Implementation and Operation (ISO14001 Clause 5, 7, 8)

4.1 Roles and Responsibilities (ISO14011 Clause 5, 7.1)

The European Hub Director has overall accountability for the effectiveness of the Environmental and Energy Management Systems. Day to day responsibility has been delegated to the Heads of HS&E and Sustainability & Carbon. Maintenance and development of the EMS & EnMS to meet stakeholder pressures, regulatory changes, ISO 14001 & 50001 certification and industry best practice requirements is the responsibility of the Environmental Leader and Energy Management Team.

The Head of HS&E will ensure an effective HS&E service is provided, staffed by competent personnel and ensure that each Business operates within the Group Policies. The Head of HS&E will report to the executive board.

The Head of Sustainability and Carbon Management is responsible for the development of strategic Sustainability and Energy Management programmes for business reporting into the Head of HS&E.

The Project Manager is accountable for the Environmental and Energy Management Plan and its implementation, but day to day maintenance of the EMP documentation and any reports will be carried out by the appointed Project Environmental Co-ordinator. An environmental co-ordinator will be appointed in due course, but for the time being, these responsibilities will be picked up by Tatiana Meakin.

The environmental and energy management structure and main personnel with key EMP responsibilities are listed in the table below. The appointment letter describing the full responsibilities of the Project Environmental Co-ordinator can be found on the server (folder 8.14.1).

Role	Name	Contact details
Location Environmental Coordinator	TBC	
Environmental Advisor (visiting)	Tatiana Meakin	07469 412 036
Project Leader	George Holgate	07887 056 930
Section Manager	Craig Bland	07341 072 322
Design Manager	Graham Atter	07469 406 977
Procurement Manager	Noel O'Sullivan	07833 980 230

4.2 Competency (ISO14001 Clause 7.2, 7.3)

Staff will be appointed to roles with responsibilities for managing environmental and energy issues based on their knowledge, training and experience of the relevant topic area.

Environmental and energy management training courses will be offered to the staff as required to complete their roles. The primary objectives of training are to ensure that:

i. personnel are fully aware of the Environmental & Energy Policy and their respective roles and responsibilities;

ii. personnel are fully aware of the potential environmental and energy impact of their work and associated environmental and energy issues;
iii. individually and collectively, personnel are committed to the provision of a sound environmental and energy performance;
iv. activities of personnel do not expose and Laing O'Rourke company to criticism or legal/financial liability;
v. effective communication in respect of environmental and energy issues exists within the corporate body;
vi. the potential consequences of not complying with the EMS, EnMS and legal requirements.

Whilst the training pattern adopted is holistic in application, i.e. from managers to operatives, to be effective in ensuring environmental and energy performance improvements it must be targeted, i.e. relevant and appropriate to the receiving individual/group, in form, depth and content. Each location will determine the environmental and energy training requirements of all personnel working for or on behalf of Laing O'Rourke and ensure that those needs are met.

Where the environmental and/or energy risks are significant, it is essential that this information received during induction is subsequently reinforced and expanded and that this continual training is targeted appropriately.

Site operatives and staff will attend additional specific environmental and/or energy presentations/ training if, and when, identified.

Where appropriate, Environmental and Energy Efficiency Toolbox Talks (TBTs) will be given to site operatives (including subcontractors). Toolbox talks must be relevant to the current activity or environmental and/or energy risks present. A register of all attendees will be maintained in the Training Records folder on the server (8.14.16).

The Environmental Co-ordinator must have attended the one-day workshop or one-to-one competency session around their responsibilities which includes instruction on how to use the Laing O'Rourke IMPACT monitoring system. The Coordinator receives additional support from a regional or BU Environmental Adviser.

At this location records of all environmental and energy-related training including Spill Drill/Emergency condition drills will be maintained in the Training Records folder on the server (8.14.16).

5.0 Communication (ISO14001 Clause 7.4)

Internal Communication:

The Environmental and Energy Management Systems are communicated through the iGMS. The HS&E Leader for the Business Unit shall put in place the appropriate mechanisms to ensure that communication between the various departments and projects takes place relating, but not limited, to:

- Significant risks and opportunities
- Environmental incidents, hazards, near misses and complaints
- Changes to the Environmental and Energy Management System
- Audit Results and Trends
- Results of Management Review
- Objectives and Target Results
- Receiving, distributing and responding to communications from interested parties

These will be communicated via HS&E or Environmental Information Notes or HS&E Learning Bulletins, email communications, Sustainability Champions e-Newsletters, relevant Yammer groups; and site visits, inspections or audits.

At this location environmental and energy issues are communicated through a variety of means. ERA engagement; collective insights, inductions, tool box talks, Daily Activity Briefings, weekly progress meetings and sub-contractor tender meetings will all be used on the Project on a regular basis to communicate and discuss the environmental and energy aspects and impacts on the project. Communications from Group or Business Unit environmental and energy leadership will be passed on to site staff/operatives through postings on notice boards, email and face to face meetings as appropriate.

Good and best environmental and energy management practice shall be captured and communicated as a driver for continuous improvement.

External Communication:

All Laing O'Rourke companies will engage with all relevant stakeholders to ensure effective communication with regards its operations. For example, local residents that may be affected by construction works may be notified by letter drops, newsletters or through a project specific website.

Communication with environmental regulators and all enforcement visits or letters shall be formally recorded on the IMPACT database.

The Laing O'Rourke Group has taken the decision not to communicate externally regarding its significant environmental and energy aspects, unless there is a legal requirement to do so.

Contact by the Media

In the event of any contact being made any member of the media [e.g. press, radio or television], immediate reference should be made to:

The Madano Partnership
4th Floor South
Harling House
47-51 Great Suffolk Street
London SE1 0BS

Tel: +44 (0) 20 7593 4000

6.0 Documentation (ISO14001 Clause 7.5)

The main documents that form this Environmental & Energy Management Plan (EMP) include as appendices:
Environmental Risk Assessment (including an Energy Action Plan when required) (described under section 3., 3.4.1)
Resource Management Plan (described under section 3.1.)
Environmental Emergency Plan (described under section 4.7)
Licences, Permits and Exemptions Register
EnMS Site Energy Review (available on iGMS)

These will be held electronically in an Environmental Management File on the project server, in folder 8.14.

6.1 Control of Documents (ISO14001 Clause 7.5.2 and 7.5.3)

This Environmental & Energy Management Plan shall be reviewed and updated along with the main documents that are integral to the EMP (see section 3.1 Environmental Aspects) the Environmental Risk Assessment (ERA) and Resource Management Plan (RMP) which must be

reviewed and updated (as necessary) every three months unless otherwise agreed by the BU Environment Leader.

Licences and permits should be reviewed quarterly to check and prepare for expiry dates.

6.2 Control of Records (ISO14001 Clause 7.5.2, 7.5.3)

All records related to this the EMP and environmental and energy management processes will be identified, maintained, controlled and disposed in accordance with the processes within the Environmental Management section of iGMS.

At this location, the EMP, supporting plans, documentation, environmental training records (NOT necessarily TBT's) are held here: server folder, 8.14.

Data relating to water use, waste, and energy use along with incidents will be recorded on IMPACT. Waste tickets will be held in server folder 8.14.3.

The types of EMP related records kept will include but are not be limited to: –

- Information on applicable environmental and energy legislation or other requirements
- Inspection and test reports (e.g. water/air quality/noise)
- Inspection, measuring and test equipment maintenance and calibration
- Records of any visits from enforcing bodies or interest parties (environmentally related)
- Environmental management plan and file including associated documentation
- Environmental consents and permits
- Information on emergency preparedness and response
- Information on significant environmental and/or energy aspects
- Incident reports (held on IMPACT)
- Pertinent contractor and supplier information
- Audit results
- Management review
- Complaints
- Training
- Process Information
- Product Information
- Waste management records
- Energy management records

7.0 Operational Control (ISO14001 Clause 8.1)

The Laing O'Rourke Project Manager will ensure that appropriate environmental and energy controls are fully implemented. In particular, they will:

i. Ensure projects are designed and programmed, where possible, with a view to having minimum effect on the environment and energy consumption during construction and after completion of project;

ii. Ensure that environmental and energy management requirements are controlled through appropriate risk assessments, method statements, and work instructions including those of organisations working on behalf of any Laing O'Rourke company;

iii. Ensure that procured material minimises harm to the environment and ensures safe movement;

iv. Ensure that materials are stored to prevent pollution;

v. Encourage all project personnel (including consultants and sub-contractors) to recycle material, to conserve energy and water, to reduce waste and to protect / enhance biodiversity.

vi. Ensure site-specific operational and maintenance controls, records and procedures for any significant energy-consuming equipment provided by third party suppliers (i.e. not

Select) are maintained locally where provided, and shared with the Energy Management Team upon request.

Evidence of following company operational and maintenance planning procedures may also be required where applicable – further guidance and information is available on iGMS.

7.1 Contaminated Land

The area to the east of the development is known to be highly contaminated. The site has been set up in such a way to ensure that all building works (including construction of the temporary facilities) are kept away from the areas of known contamination. This has included movement of the temporary sports hall and the construction will mean it is 'pinned' into the ground to avoid digging in to the ground.
Ground investigation has been completed for the main construction site, as well as the areas covered by the temporary facilities. To date all samples have returned 'non-hazardous' waste classifications.
All members of the workforce will be briefed on the requirements for identifying and dealing with contamination, including hot spots as well as the contents of the remediation strategy. A verification report will be produced at the end of the phase 1 works (construction of temporary facilities). Any training records will be held on the server in folder 8.14.

7.2 Documented Procedures

The main documented procedures for Environmental and Energy Management are as follows:

- EMP – EMP Summary document (this document)
- ERA – Environmental Risk Assessment
- EAP – Energy Action Plan (embedded in ERA, applicable according to risk/opportunity)
- RMP – Resource Management Plan
- EEP – Environmental Management Plan (can be incorporated into location Fire and Emergency Plan)
- Licences, Permits and Exemptions Register (can be incorporated into this EMP summary document where permitting is minimal)

Environmental Risk Assessment
This procedure is completed via a Collective Insight (H&S Next Gear engagement tool). Facilitated by the Environmental Manager/Coordinator, the Supervisor/Manager responsible for a particular area of works e.g. Earthworks or Logistics, as a minimum (ideally people 'doing' the work should be involved) will discuss the work activities and the potential risks and impacts associated with that work. Together they will build the ERA for that with a look 3-6 month look ahead.

A risk rating is assigned before any control measures or mitigation have been considered and then once these measures have been applied as residual risk rating remains. These are assigned as Red for high risk, Amber for medium risk and Green for low or minimal risk. Not all residual risk will revert to Green. Anything remaining at Amber once all reasonable mitigation has been applied, will need particular care and attention and therefore actions relating to items like this will require more consideration by Supervision.

Any activity considered to be particularly high risk will be communicated with project management for inclusion in the project risk register. This may even include BREEAM and contaminated land requirements as these are often contractual requirements. Also delivery of low embodied carbon/procurement of locally sourced materials may fall into this category.

The Energy Action Plan is contained within the ERA document. This should be completed when there are any opportunities or risks identified through the location specific ERA process or related energy performance monitoring, or when it is driven by a specific stakeholder requirement.

Resource Management Plan
Waste is a significant environmental aspect of construction activity and as such is dealt with as a specific subject using a RMP (Resource Management Plan). The RMP is an integral part of this EMP (as an appendix) and is also referenced in the Environmental Risk Assessment (ERA).

The Resource Management Plan is a mandatory Laing O'Rourke document on projects. The RMP details the location waste targets (including recovery and re-use) and responsibilities for waste disposal. All waste generated will be taken away by licensed carriers to licensed tips. All waste transfer documentation e.g. transfer notes / consignment notes will include the appropriate six-digit EWC code and the SIC code.

Trade Contractors (especially those responsible for their own waste disposal) must provide Laing O'Rourke with all/any relevant licences and Duty of Care documents.

Waste data records will be maintained on the project on IMPACT. At the end of the project all waste dockets will be kept and archived for a minimum of two years for general waste and three years for hazardous waste.

Environmental Emergency Plan
Key 'typical' emergency actions are embedded into the ERA (Environmental Risk Assessment.) The Environmental Emergency Plan also considers contingency planning where the risks are more significant. At this location we are using the EEP.

Licences, Permits and Exemptions Register
A list of permits / consents / exemptions and licences other than waste (e.g. pollution control, exemption certificates, discharge, works near watercourses, random licence checks etc.) will be maintained. It is recommended where there are many location specific permits that a quarterly check is done to ensure any expiration dates are captured early. The frequency of checking can be changed and will be noted in the Monitoring / Inspection Routine (section 9.1 of this EMP).

Where there are very few permits/consents or the number reduces, this 'register' can be incorporated into this EMP summary document in this section of the EMP.

Energy Management System Manual

This provides procedure for planning, monitoring, managing, measuring and reporting on energy performance, use, objectives and targets. It is supported by a range of documents referenced throughout the manual and links into existing EMS documentation, some of which are list above. The manual is available on iGMS and should be referred to when considering energy efficiency and management throughout a project's lifecycle.

8.0 Emergency Preparedness and Response (ISO14001 Clause 8.2)

A full Environmental Emergency Plan (EEP) is provided as part of this EMP in the appendices. All Environmental and/or Energy-Related incidents, however small, will be recorded on IMPACT – under 'Environmental Incidents'. They will also be recorded on our monthly environmental reports for the Client if required.

Site plans indicating the location of drainage and also of spill kits will be kept in the Environmental Management File, but where risk is significant, will also be displayed as appropriate on the noticeboards on site with the Fire & Emergency plans.

The ERA (Environmental Risk Assessment) also includes some high level emergency actions.

It is imperative that the emergency response plan is tested. Training how to deal with spills is not the same as testing the effectiveness of the plan. As a minimum, spill drills (other types of drill could be

simulated) should be carried out at least annually if no incidents have occurred on site in the interim period. If there is not risk of spills, the EMP will reflect this in the deviations section.

9.0 Checking (ISO14001 Clause 9)

9.1 Monitoring & Measurement (ISO 14001 Clause 9.1)

The EMP shall identify how the applicable environmental and energy aspects of the project / location will be monitored (e.g. visual inspection, tests or reports, metering) and the frequency that such monitoring will be undertaken.

All operations and activities having a significant impact on the environment and energy performance shall be regularly monitored and measured.

Any equipment used to monitor or measure shall be checked and calibrated to ensure results are reliable. Records of maintenance and calibration shall be retained and kept in the Environmental Management File.

Minimum Inspection/Monitoring/Activity for:	
Location:	Abraham Moss Leisure Centre

Activity	Weekly	Monthly	Quarterly	6 Month	Annually	As & when required
Waste info input to IMPACT (Also checking info on dockets, chasing waste reports)		X				
Water benchmark monitoring (data on Impact)		X				
Energy consumption monitoring (data on Impact)		X				
Environmental Inspection on IMPACT		X				
Environmental Incidents						X
Review of permits, licences and legislation			X			
EMS Audit and EnMS Audit (carried out by Head Office Team / Lead Auditors)					X	
Calibration Certification			X			
Environmental NCR's (to be reviewed to maintain corrective action)						X
Waste procedure re-briefs (WTN completion AND management)						X
Sub-contractor Environmental Audits (frequency/ applicability to be discussed with BU Environment Leader)						X

Red are mandatory monitoring or completion requirements

9.2 Visit by Statutory Bodies / Interested Parties

During the lifetime of the project there may be a number of visits from statutory bodies including water authorities, Environment Agency, local authorities, HSE etc. Some visits will be scheduled and part of ongoing monitoring against consents or permits. Other visits will be a response to a perhaps a concern from that body or in response to a complaint from the public or another party.

All visits - unscheduled (responsive= Incident Reporting) and scheduled (monitoring = Visits) will be recorded on IMPACT. All records/documents/emails relating to these visits should be uploaded to IMPACT with the record of attendance.

9.3 Evaluation of Legal Compliance (ISO14001 Clause 9.1.2)

The Laing O'Rourke group Legal Register is maintained and held on the EMS. At a location (project/depot/facility), legal compliance will be evidenced through fulfilment of the permitting, consents and licence (and sometimes planning conditions) requirements applicable to that location as well as testing and related records and inspection/audit. Evaluation is carried out at:

Operational level:

- Regular or mandatory inspections and/or tours as defined in the monitoring routine above.
- The monitoring and testing that is required to comply with any consents or permits and related record keeping (e.g. ph testing, notch gauge readings, noise monitoring, meter readings)
- Potentially audit or inspection (not a formal process) of the location or of any supply chain that contribute to compliance with consents, licences or permits.
- External visits from issuing bodies or contractual parties (e.g. water authorities, local authorities, EA , Client etc.

Function or Business Unit level:

- Audits, in accordance with the EMS and EnMS
- Management Review in accordance with the iGMS and Environmental/Energy Management review processes.

All records of evaluation will be maintained, controlled and disposed of in accordance with EMS and EnMS requirements.

The validity of environmental licences and permits within England and Wales can be verified from the Public Register which can be accessed from the Environment Agency's website:

http://www2.environment-agency.gov.uk/epr/

For requirements in Scotland please refer to: http://www.netregs.org.uk/

Wales also have their own resource:

http://naturalresources.wales/how-we-regulate-you/find-out-if-a-site-has-a-permit-licence-or-exemption/?lang=en

9.4 Non-Conformance, Corrective & Preventative Action (ISO14001 Clause 9.1.2)

Non-conformances can be raised as part of any internal or external inspection, audit or informal visit or tour in order to raise the profile and importance of a particularly significant environmentally or energy related issue on site.

All environmental and energy non-conformances raised during an Internal EMS/EnMS Audit or external Accreditation body (BSI/Achilles) will be closed out within good time (generally no later than one month). Failure to comply with the timescales for closing out actions will be notified to the Business Unit HS&E Leaders with persistent issues being reported to the Head of HS&E and relevant BU Leaders.

Environmental hazards, near misses and incidents shall all be recorded on the IMPACT database. The categorisation of environmental incidents is

Category 1 - significant environmental impact requiring clean up or substantive action; legislation breach;

Category 2 - significant environmental impact with more limited clean up/action; possible legislative breach

Category 3 - small spills, emissions, that cause no environmental impact (examples: hydraulic hose burst on tarmac; noise complaint where no restrictions);

Category 1 & 2 incidents shall be communicated to HS&E Leaders and will be investigated, actions assigned and close out expected.

In the event of a significant pollution incident, it is essential that the Project Manager and BU HS&E Leader be informed immediately, so that they can contact the relevant regulator if required.

All projects and facilities are required to implement pollution prevention measures, to minimise the risk of their activities impacting on the environment.

10.0 Internal Audit (ISO14001 Clause 9.2)

The number of internal audits against the Environmental and Energy Management Systems implementation depends (see EM/EnM Manual) on the risk, size and duration of the project. Where possible, the environmental/energy review will form part of the Integrated Management System Audits however as these do not happen on every project, the Central HS&E team will ensure that all projects are at least annually audited against the EMS and EnMS (where applicable).

The Central HS&E team has supplied an audit schedule identifying the locations provisional auditing dates. All environmental and energy audits are carried out in accordance with the EMS and EnMS audit process.

Results of audit are shared with the project team and any significant findings (positive or negative)and best practice shared with the HS&E or BU Leadership as appropriate.

11.0 Management Review (ISO14001Clause 9.3)

There are no actions for projects except to provide any information requested. It is the responsibility of the Business Unit HS&E Leaders to ensure that the effectiveness of the environmental and energy management systems is reviewed so that they continue to reflect accurately the organisation and environmental and energy management practices as applied to all Laing O'Rourke businesses.

BU Management Reviews will be carried out in the group HQ's and communicated out as appropriate.

The items listed below as a minimum will be considered in the review:

1. Results of internal audits including evaluations of compliance with legal requirements and other applicable requirements
2. Communication from interested parties including complaints

3. Evaluation/trend analysis of environmental and energy incidents and audit findings
4. Environmental and energy performance
5. The extent to which objectives and targets have been met
6. Non-conformance, corrective and preventive actions
7. Results of the previous management review
8. Changing circumstances (which includes developments in legal and other requirements related to environmental and energy aspects)
9. Recommendations for improvement

Results of these reviews will be analysed by the Central HS&E and Energy Management teams and any resulting actions or amendments to the EMS, EnMS or related policy or procedures will then be signed off by the HS&E or Technical Directors on an annual basis.

Actions arising from Management Review will be communicated to projects as appropriate as they may affect or require changes to the EMP and related objectives, targets or controls measures.

APPENDIX 4
Transport Assessment

Intended for
Manchester City Council

Document type
Report

Date
August 2019

ABRAHAM MOSS LIBRARY AND LEISURE CENTRE
TRANSPORT STATEMENT

RAMBOLL Bright ideas. Sustainable change.

ABRAHAM MOSS LIBRARY AND LEISURE CENTRE
TRANSPORT STATEMENT

Project name	Abraham Moss Library and Leisure Centre
Project no.	1620005164
Recipient	Manchester City Council
Document type	Report
Version	[LP44107-RAM-B01-XX-RP-Y-91001 P02]
Date	11/08/2019
Prepared by	Tom Craven
Checked by	Nicola Evans
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Description	Transport Statement

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CONTENTS

APPENDICES

1. INTRODUCTION

Ramboll have been appointed by Laing O'Rourke (LOR) to provide transport planning advice in support of an outline planning application for the redevelopment of Abraham Moss Library and Leisure Centre (AMLLC) in Crumpsall, North Manchester.

The existing AMLLC will be demolished and the new replacement 4,850m^2 library and leisure centre will be rebuilt on the same site footprint. The new building will provide a like-for-like use (sports hall, swimming pool, library, etc.) in an improved building fit for modern day usage.

Based on consultation with Neil Bayliss-Rowe on 13 March 2019, it was agreed that a Transport Statement (TS), Travel Plan (TP) and Construction Traffic Management Plan (CTMP) will be required to support the planning application for the new permanent structure.

1.1 Background

The AMLLC are community facilities located to the west of the large Abraham Moss community complex in Crumpsall, North Manchester. Following the implementation of the 2013 Sport and Leisure Investment Strategy, the majority of Manchester City Council's (MCC) leisure centres are now modern, fit for purpose and represent good value for money. AMLLC has been identified as an exception, needing significant investment to meet customer demand and to address the condition of the building fabric and services.

Following a feasibility study, review of the business case and due to the limitations of the existing CLASP building, MCC have determined that demolition and new build is the most appropriate option. The library is located within the existing leisure centre and therefore is to be incorporated within the design of the new leisure centre.

The first phase of proposals is for the existing sports hall and library facilities to be temporarily relocated within the school grounds and the second phase is for the construction of a permanent leisure and library facility which this planning application covers.

The temporary sports hall and library facilities are to be built and operational before the old building is demolished and will be taken down once the permanent AMLLC is constructed and operational.

1.2 Site Location

The Abraham Moss site is located off Crescent Road in Crumpsall, North Manchester as shown by the redline boundary in Figure 1.1 below.

Figure 1.1 also shows the location of existing library and leisure centre (number 1, red), the existing swimming pool (number 2, blue) and the proposed location for the temporary sports hall facility to the west of the main school campus.

Figure 1.1: Abraham Moss Site

1.3 Pre-Planning Application

This document follows from an initial consultation meeting with Neil Bayliss-Rowe (MCC Highways), Niall Meyers (Ramboll), Janine Renshaw-Livesey, Jennifer Atkinson (MCC Development Planning), Graham Bruce (MCC Capital Projects), Stephen Kershaw, George Holgate (LOR), Michael Kavanagh (EWA) held on 6 March 2019 in Manchester.

A subsequent meeting was held on the 13 March 2019 with Tom Craven, Nicola Evans, Allan Wilson (Ramboll), Neil Bayliss-Rowe (MCC Highways), George Holgate, Stephen Kershaw (Laing O'Rourke) and Graham Bruce (MCC Capital Projects). The scope of the transportation works required to support the permanent planning application was agreed, as presented below.

1.4 Purpose and Structure of TA

- Chapter 1 – Introduction (this chapter)
- Chapter 2 – Policy Context – A review of national and local development and transport planning policies; and;
- Chapter 3 – Baseline Conditions – a review of baseline transport conditions;
- Chapter 4 – Walking & Cycling Route Audits -
- Chapter 5 – Proposed Development - description of the development proposals including the proposed access, servicing and delivery details and construction traffic plan;
- Chapter 6 – Trip Generation - Calculation of trip generation/attraction of the proposed development based upon TRICs;
- Chapter 7 – Parking Review – a review of parking requirements and presentation of survey data;

- Chapter 8 – Policy Compliance – assessment of the whether the proposed development complies with national and local planning policies; and
- Chapter 9 – Summary and Conclusions.

2. POLICY REVIEW

This section considers the relevant transport policy background to the proposed development. The documents reviewed are:

- National Planning Policy Framework (2019);
- Manchester Local Development Framework Core Strategy Development Plan Document (adopted 2012);
- Transport for Greater Manchester (TfGM) 2040 Transport Strategy; and
- Greater Manchester Local Transport Plan (2012).

2.1 National Planning Policy Framework 2019

The National Planning Policy Framework (NPPF, 2019) outlines the Government's planning policies for England and how they are expected to be applied. Sustainable transport policies are outlined in Section 9 of the NPPF and include the following key points of relevance to the current application:

Paragraph 105: For residential and non-residential development, policies should take into account:

- The accessibility of the development;
- The type, mix and use of the development;
- The availability of and opportunities for public transport;
- Local car ownership levels; and
- The need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles.

Paragraph 106: Maximum parking standards for residential and non-residential development should only be set where there is a clear and compelling justification that they are necessary for managing the local road network, or for optimising the density of development in city and town centres and other locations that are well served by public transport.

Paragraph 109: Development should only be refused on transport grounds where the cumulative impacts of development are deemed to be "severe".

Paragraph 110: A safe to access development for all the modes of transport, including service and emergency vehicles should be provided while priority should be given to cycle and pedestrian movements as well as to disabled peoples' needs.

2.2 Manchester Local Development Framework and Core Strategy Development Plan Review (July 2012)

The Local Development Framework (LDF) Core Strategy Development Plan is Manchester City Council's plan to guide the development of Manchester and covers a 15 year period from 2012 to 2027. The document outlines the council's vision for Manchester and identifies policies within 6 objectives to deliver that vision.

There are 3 core strategy policies within the LDF relating to Transport, these include:

2.2.1 Policy T1 – Sustainable Transport

To deliver a sustainable, high quality, integrated transport system to encourage modal shift away from car travel to public transport, cycling and walking, to support the needs of residents and businesses and to prepare for carbon free modes of transport, the Council will support proposals that:

- Improve choice by developing alternatives to the car;
- Promote regeneration and economic vitality by relieving traffic congestion and improving access to jobs and services, particularly for those most in need and for those without a car;
- Improve access to transport services and facilities in order to enable disabled people and people with mobility impairments to participate fully in public life;
- Improve pedestrian routes and the pedestrian environment;
- Improve and develop further Manchester's cycle network (for example the Manchester Cycleway and the Trans Pennine Trail);
- Contribute to improvements to the extent and reliability of the public transport network through safe and attractive waiting and interchange facilities, better priority, improved services and information provision;
- Improve and develop appropriate road, rail and water freight transport routes and associated intermodal freight transport facilities in order to assist in the sustainable and efficient movement of goods;
- Facilitate modes of transport that reduce carbon emissions, e.g. by incorporating charging points for electric vehicles, subject to their appropriate design and location;
- Would reduce the negative impacts of road traffic, for example, congestion, air pollution and road accident casualties; and
- Take account of the needs of road users according to a broad hierarchy consisting of, in order of priority:

    - Pedestrians and disabled people;
    - Cyclists, public transport;
    - Commercial access;
    - General off-peak traffic; and
    - General peak time traffic.

2.2.2 Policy T2 – Accessible areas of opportunity and need

The Council will actively manage the pattern of development to ensure that new development:

- Is located to ensure good access to the City's main economic drivers, including the Regional Centre, the Oxford Road Universities and Hospitals and the Airport and to ensure good national and international connections;
- Is easily accessible by walking, cycling and public transport; connecting residents to jobs, centres, health, leisure, open space and educational opportunities;
- Particular priority will be given to providing all residents access to strategic employment sites including:

    - Links between North Manchester residents and key employment locations, including the City Centre, Central Park, Salford Quays and Chadderton Industrial Estate and Trafford Park;
    - Links within East Manchester to employment locations, Central Park and Eastlands in particular. - Links within Central Area between residents and employment, the Corridor in

particular and east/west connectivity for residents in Central Area to employment areas in Trafford and East Manchester;
  - Maintaining strong links between residential areas in the South and the Regional Centre and improving connectivity with the Airport;
  - Ensuring good links between Wythenshawe residents and the Airport and further employment opportunities in Stockport, Trafford and the Regional Centre.

- Within the City Centre, provide a level of car parking which reflects the highly accessible nature of the location, as well as the realistic requirements of the users of the development. Elsewhere, all new development should provide appropriate car parking facilities, taking account of the guidance, which reflects policy in the Regional Strategy (RS). In all parts of the City proposals should have regard for the need for disabled and cycle parking, in line with guidance. If the RS is revoked the Council will continue to use these standards when applying this policy. Standards are set for two different area types:

  - District Centres; and
  - Areas not within the City Centre or District Centres.

The car parking standards are maximums and the cycle and disabled car parking standards are minimums. However, the Council will take the circumstances of each proposal into account to establish what level of parking is appropriate.

Table 2.1 presents the MCC parking standards for D2 Assembly and Leisure land use extracted from the Manchester Local Development Framework and Core Strategy Development Plan.

Table 2.1: Manchester Parking Standards – D2 Assembly and Leisure

Land Use	Maximum number of parking spaces		Minimum number of spaces required for:		
	District Centres	Areas not within the City Centre or District Centres	**Disabled people's parking a**s % of total (Citywide)		Cycles (Citywide)
D2: Assembly and Leisure					
Other Leisure Facilities	1 space per 25sqm	1 space per 22sqm	3 bays or 6% of total capacity whichever is greater	4 bays plus 4% of total capacity	1 per 140sqm minimum of 2 space

2.2.3 Policy T3 – Strategic Integration

The Council will support proposals that contribute to an economically and environmentally sustainable transport network including the following strategic transport initiatives:

- Metrolink extensions to Rochdale, Oldham, Ashton, South Manchester and the Airport;

The Council also supports future aspirations to extend the network to Trafford Park and Stockport:

- Metrolink extensions to Rochdale, Oldham, Ashton, South Manchester and the Airport;
- The Council also supports future aspirations to extend the network to Trafford Park and Stockport;
- A second Metrolink crossing in the City Centre; and

- A Metrolink extension to Marple on the current heavy rail network.

2.3 Transport for Greater Manchester (TfGM) 2040 Transport Strategy (February 2017)

TfGM's 2040 Transport Strategy has been drafted by TfGM on behalf of the Greater Manchester Combined Authority (GMCA) and the Greater Manchester Local Enterprise Partnership (GMLEP) in response to Greater Manchester's growing population and economy which is moving towards significant devolution of powers and funding from central Government. Transport is crucial in supporting Greater Manchester's ambitious growth plans and growth will need and be driven by improved connectivity at local and pan-northern level as Greater Manchester has a fundamental role to play at the heart of a successful, better connected, Northern Powerhouse.

The 2040 Transport Strategy is not about simply predicting what the future might hold and responding accordingly, it's about helping to shape and create a successful, resilient city-region, ready to tackle the challenges and opportunities of the next 25 years.

The vision for Greater Manchester is to have world class connections that support long-term, sustainable economic growth and access to opportunity for all. The strategy is to connect opportunities and information, entrepreneurs with ideas and capital, and employers with talent and skills. It also needs to play a part in creating better places: supporting new development and regeneration, reducing the dominance of cars and goods vehicles and improving the environment.

The four key elements of the vision for Greater Manchester are:

- Supporting sustainable economic growth;
- Protecting the environment;
- Improving quality of life; and
- Developing an innovative city-region.

2.4 Greater Manchester Local Transport Plan (2012)

The third Greater Manchester Local Transport Plan (LTP3) covers the period from 2011/12 to 2015/16, setting out transportation policies and proposals for the five-year period. The document also contains a long-term strategy to 2026, the delivery of which depends upon funding.

The key policies of the plan are the provision of safe, integrated, efficient and economic transport to and within the area. The policies contained within the plan build upon the transport direction set out in the previous Local Transport Plan, LTP2.

The core objectives for LTP3 include:

- To ensure the transport network supports the Greater Manchester economy to improve the life chances of residents and business;
- To ensure that carbon emissions from transport are reduced in line with U.K. Government targets in order to minimise the impact of climate change; and
- To ensure that the transport system facilitates active, healthy lifestyles and a reduction in the number of casualties, and that other adverse health impacts are minimised.

3. BASELINE CONDITIONS

3.1 Existing Site

The existing site is currently occupied by the existing AMLLC, which are community facilities located to the west of the Abraham Moss community complex comprising the Library, Leisure Centre, AMCS (which includes a high school, primary school and nursery), theatre, adult learning college, site café and shop.

The Leisure Centre offers a wide range of facilities including a gym, ladies only gym, swimming pool, sports hall, squash courts and a health suite and the council operated library operates on the ground floor of the Leisure Centre.

The Leisure Centre is open 6.30am to 10pm Monday to Friday and 9am to 5pm Saturday to Sunday and the library is open from 9am to 5pm on Monday, Tuesday, Friday and Saturday and from 9am to 8pm on Wednesday.

The site's location provides excellent access to sustainable transport modes as its located within a short distance from several local bus services, a Metrolink stop and cycle routes.

3.2 Local Highway Network

The Abraham Moss site is located on Crescent Road which is a 2-lane urban single carriageway approximately 12m wide, with footways either side running from A665 Cheetham Hill Road in the west to Waterloo Street/ Hazelbottom Road in the east. The road is subject to a 30 mph speed limit with a 20 mph 'school zone' stretching from Charminster Drive to the east until Greenhill Road in the west. A 2m wide hatched central lane runs from Greenhill Lane to Ash Tree Lane creating lanes of approximately 3.65m east and west of the site access with on-street parking either side.

The local area is residential in nature with many small roads off Crescent Road providing access to local housing and other buildings and amenities to the north and west of the site. The residential roads to the north of the site (Crescent Avenue, Maureen Avenue, Ash Tree Road, Wellington Road, Hallworth Road and Duchess) all fall within the 'school zone' and are subject to 20 mph speed limits.

Crescent Road provides a good east-west link to A665 Cheetham Hill Road which a major north-south strategic A-road connecting to Heaton Park, Middleton, Bury and the M60 to the north and Manchester city centre to the south. Waterloo Street is another north-south link road connecting Blackley in the north to Cheetham Hill in the south.

Waterloo Street connects to the A6010 Queen Street and Rochdale Road in the south. A6010 Queen Street is part of the north Manchester ring road connecting Salford in the west with East Manchester to the east. Rochdale Road runs parallel to Waterloo Road and like Cheetham Hill is a major north-south route into Manchester city centre from Middleton and Rochdale Road in the north. These north-south A-roads are major strategic commuter routes into Manchester city centre.

To the south and west, the Abraham Moss site is bordered by Woodlands Road and Greenhill Road. Woodlands road is a west-east route linking A665 Cheetham Hill Road to the A6010 Queen

and Greenhill Road is a north-south link linking Crescent Road to A665 Cheetham Hill Road and further onto A6010 Queen Street and Bury New Road.

3.3 Car Parking

3.3.1 Site Car Park

There are 51 car parking spaces in the main Abraham Moss car park adjacent to the existing building. This parking is not dedicated parking for the AMLLC and is for the use by the general public, the full Abraham Moss site and Metrolink station, providing 36 standard spaces, 2 electric charging spaces and 13 disabled access spaces.

In addition, there is a 236 space overspill car park which like the main site car park is used by the full Abraham Moss site, Metrolink users and the general public. All spaces are standard spaces with no designated electric charging or disabled access spaces. This section of the car park is barrier controlled, opening at 6am and closing at 9pm Monday to Sunday.

Table 3.1 presents the total parking provision available at the Abraham Moss site. There are 287 spaces in total with 2 electric charging spaces and 13 disabled access spaces split between the main car park and overspill car park.

Table 3.1: Abraham Moss Parking Provision

Type of Spaces	Main Car Park	Overspill Car Park	Total
Regular	36	236	272
Electric Charging	2	0	2
Disabled	13	0	13
Total	51	236	287

3.3.2 Site Car Park Usage

From local observations and consultation, it has been noted that the car parks are used mainly by AMCS and the wider Abraham Moss site staff, plus Metrolink users and the general public visiting the site. The main car park is filled first which stays full for the day and then the overspill car park is filled once the main car park reaches capacity. From observations it has been noted that the overspill car park always has some spare capacity even during the busiest periods of the day meaning people who want to park throughout the day can almost always find an empty space.

During the morning school drop off and afternoon pick up, the main car park becomes heavily trafficked with parents dropping children off to the school in the car park. During these periods when busy, parents tend to park illegally (on the side kerbs of the car park, at the entrance and exit of the turning circle) throughout the car park and the overspill car parking for a short time in the morning (between 8am to 9am) and the afternoon (between 3pm to 4pm).

A car park survey has been undertaken to assess the use and occupancy of the car parks and full details of the survey and its findings are presented in chapter 6.

3.3.3 On-Street Parking

On-street parking is available either side of the carriageway directly to the west of the site access until Duchess Road and to the east of the site access from Greenhill Lane to Cheetham Hill Road with double yellow lines around some of the roads that connect onto Crescent Road.

On-street parking is also readily available on most residential streets within a 200m walk from the site, namely; Crescent Avenue, Maureen Street, Ash Tree Road, Wellington Road, Hallworth Road and Duchess Road to the north and Greenhill Road, Greenstead Avenue and Woodlands Road to the south-west of the site.

3.3.4 Cycle Parking

The main cycle parking facilities for the site (Figure 3.2) are provided to the rear of the existing leisure centre underneath a covered cantilevered section of the adjacent offices. The cycle parking facilities are shared facilities for the whole Abraham Moss site and contain 16 Sheffield stands for approximately 32 bicycles. There are also 4 Sheffield stands by the Metrolink station with parking for approximately 8 bicycles

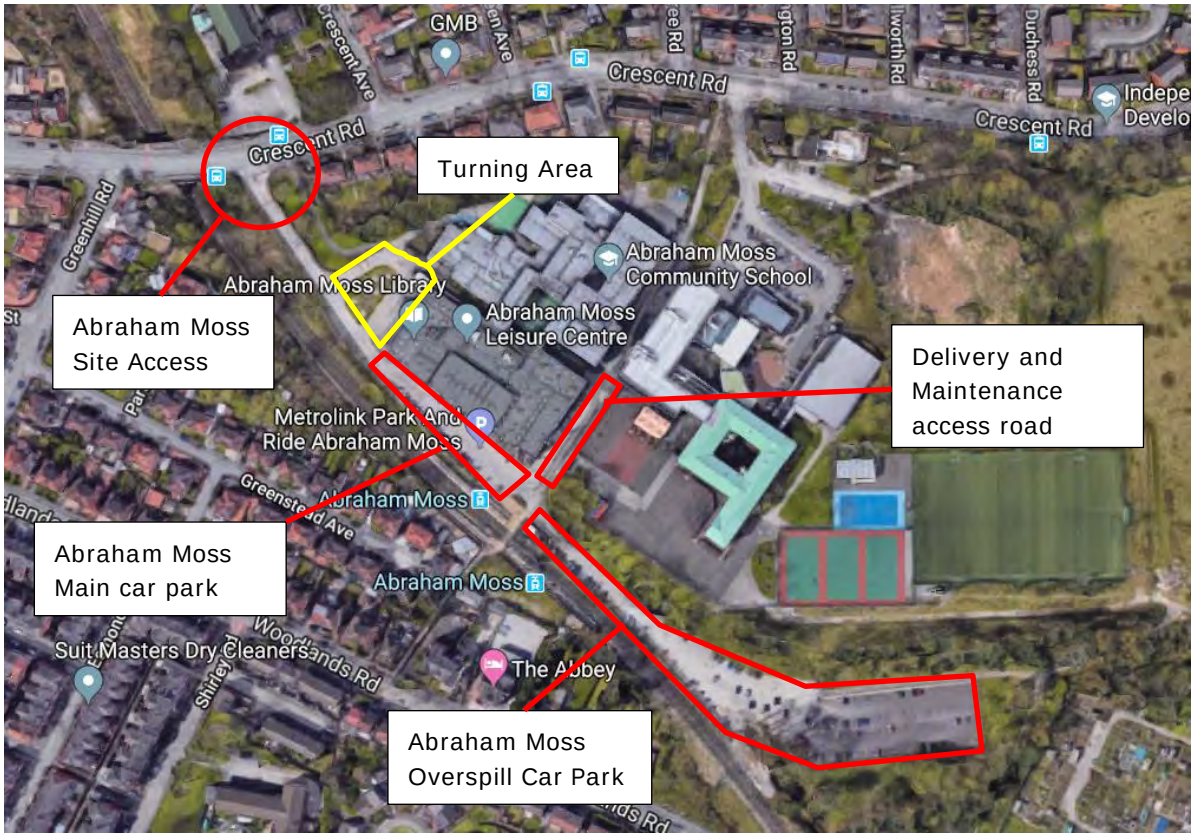
Figure 3.2: Abraham Moss Cycling Parking Provision

3.4 Access

3.4.1 Vehicular Access

Vehicular access to the existing AMLLC is currently taken from the existing Abraham Moss site access which is located to the far west of the Abraham Moss site, as shown in Figure 3.1.

Figure 3.1: Existing Site Access



To access the AMLLC from the highway network, vehicles enter the main Abraham Moss site access via a priority T-junction off Crescent Road. The access junction has a wide flared entrance allowing cars and light and heavy goods vehicles to enter and exit safely into the main site access road and main site car park. The access connects through to the Abraham Moss overspill car park and also provides access to the main delivery and maintenance access road for the AMLLC, AMCS and the other buildings on site to rear of the existing building, as shown in Figure 3.1 above.

The Abraham Moss site has 5 mph speed limit throughout the car parks and access road.

3.4.2 Turning Area

There is an existing turning area (yellow area in Figure 3.1) on the western boundary of the existing AMLLC site that is currently not utilised as the turning area is too tight for coaches to exit, therefore coaches drop off and pick up on Crescent Road.

The turning area is barrier controlled and these barriers are permanently down as they are not managed. Coaches currently use the bus stop on Crescent Road outside the site access to drop off school children from other schools in the area who use the leisure centre for swimming lessons which are the only coach trips to and from the AMLLC. Currenting the turning area is not used or utilised.

3.4.3 Pedestrian Access

Pedestrian access to the site is taken off Crescent Road by the main site access and off Woodlands Road via the Metrolink pedestrian crossing to the south-west of the site. The

pedestrian accesses and crossing points are shown in Figures 3.2 to 3.4 below with the red arrows denoting the pedestrian access routes and the yellow arrows denoting the carriageway and Metrolink pedestrian crossings.

Figure 3.2: Pedestrian Access (Abraham Moss Main Site Access) – Aerial View

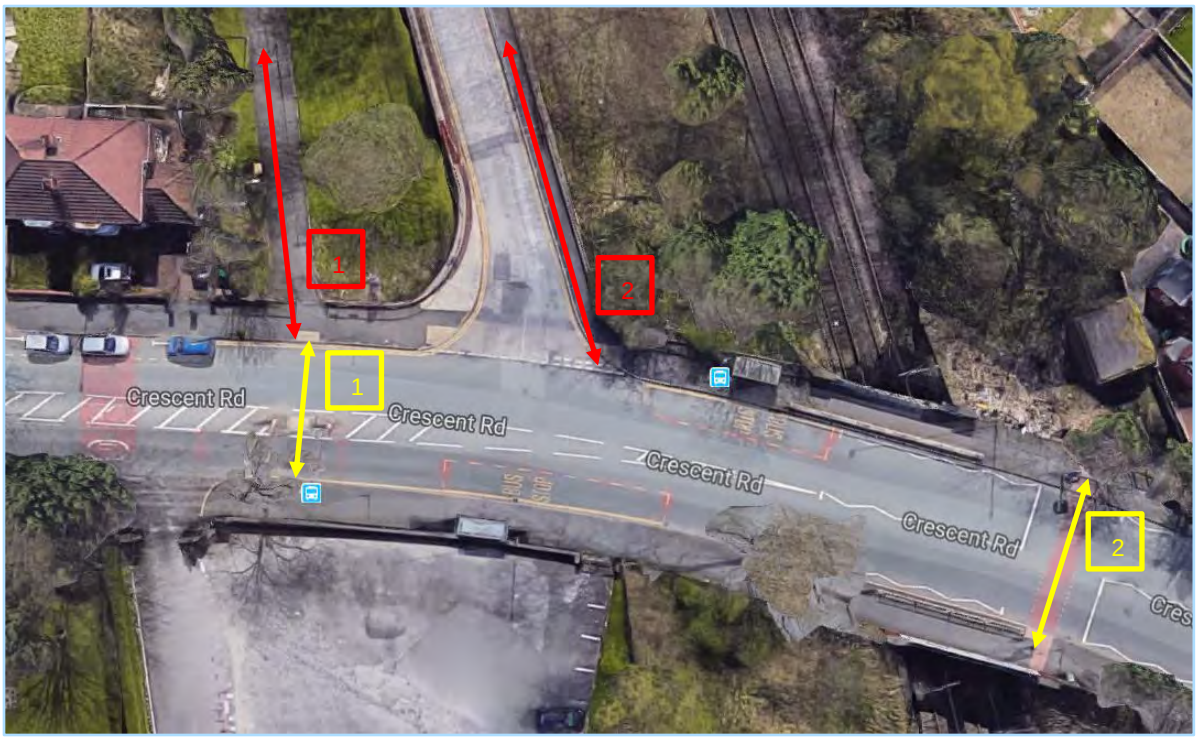


Figure 3.3: Pedestrian Access (Abraham Moss Main Site Access) – Street View

Two pedestrian footways are provided into the Abraham Moss site off Crescent Road as shown in Figure 3.2 and 3.3. Pedestrian access 1 is a gated access providing a wide footway down to the site segregated from the access road via a wide grass verge. Pedestrian access 2 is via a pedestrian footway along the eastern boundary of the Abraham Moss site access road which stretches from Crescent Road, south to the Metrolink station, providing good access to and from Crescent Road to the Metrolink station and the main site car park.

Wide footways run along each side of Crescent Road with two pedestrian crossing facilities close to the Crescent Road / Site Access junction as shown in Figure 3.2. The first pedestrian crossing across Crescent Road is via a pedestrian island to the west of the Crescent Road / Site Access junction opposite pedestrian access 1. The second pedestrian crossing across Crescent Road is via a Pelican crossing to the east of the Crescent Road / Site Access junction.

There are further pedestrian crossings to the east of the Crescent Road / Site Access junction around the AMCS site access which provides crossing opportunities close to the school.

Figure 3.4: Pedestrian Access (Abraham Moss Metrolink Access off Woodlands Road) – Aerial View

Alternative to the main site pedestrian accesses off Crescent road there is an internal footpath (red route in Figure 3.4) to the south of the existing AMLLC, that runs from the Metrolink station (and Woodlands Road) across the Abraham Moss main car park (via zebra crossing) to a footway that runs alongside the delivery access road which links through to the front of the school and to Crescent Road via centre of the Abraham Moss site.

The footways and car parks are lit for safety during the morning and evening dark periods.

Details of key walking routes to/from site are detailed in the walking route audit in chapter 4 below.

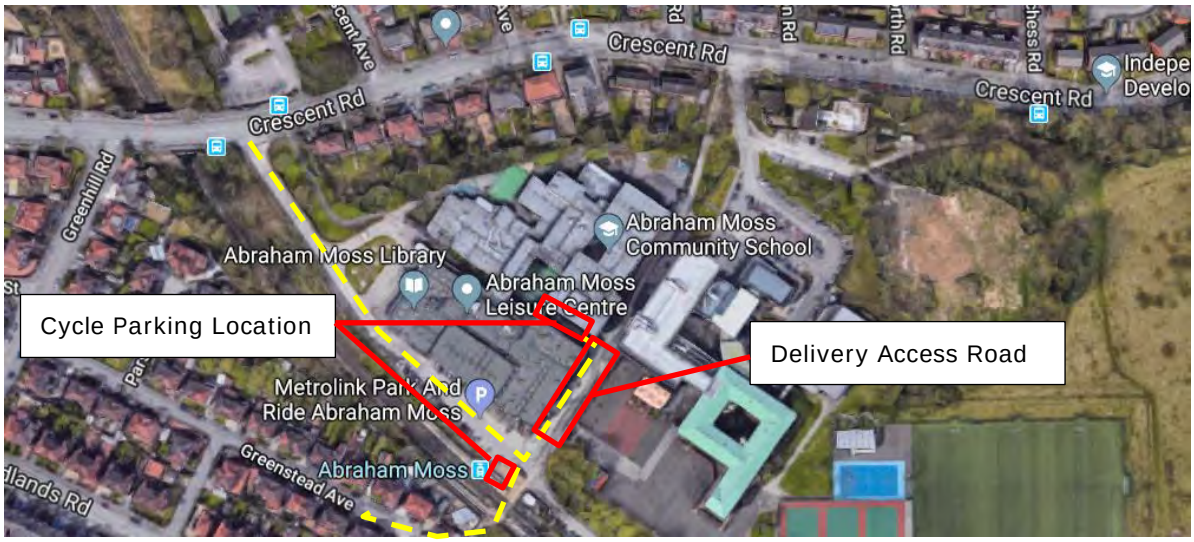
3.4.4 Cycling Access

The main cycle parking facilities for the site (Figure 3.5) are provided to the rear of the leisure centre underneath a covered cantilevered section of the adjacent offices. The cycle parking facilities are shared facilities for the Abraham Moss site and contain 16 Sheffield for approximately

36 bicycles. There are also 4 Sheffield stands by the Metrolink station with parking for approximately 8 bicycles

Figure 3.5: Abraham Moss Cycling Parking Provision

Figure 3.6: Abraham Moss Cycle Parking Location and Cycle Route

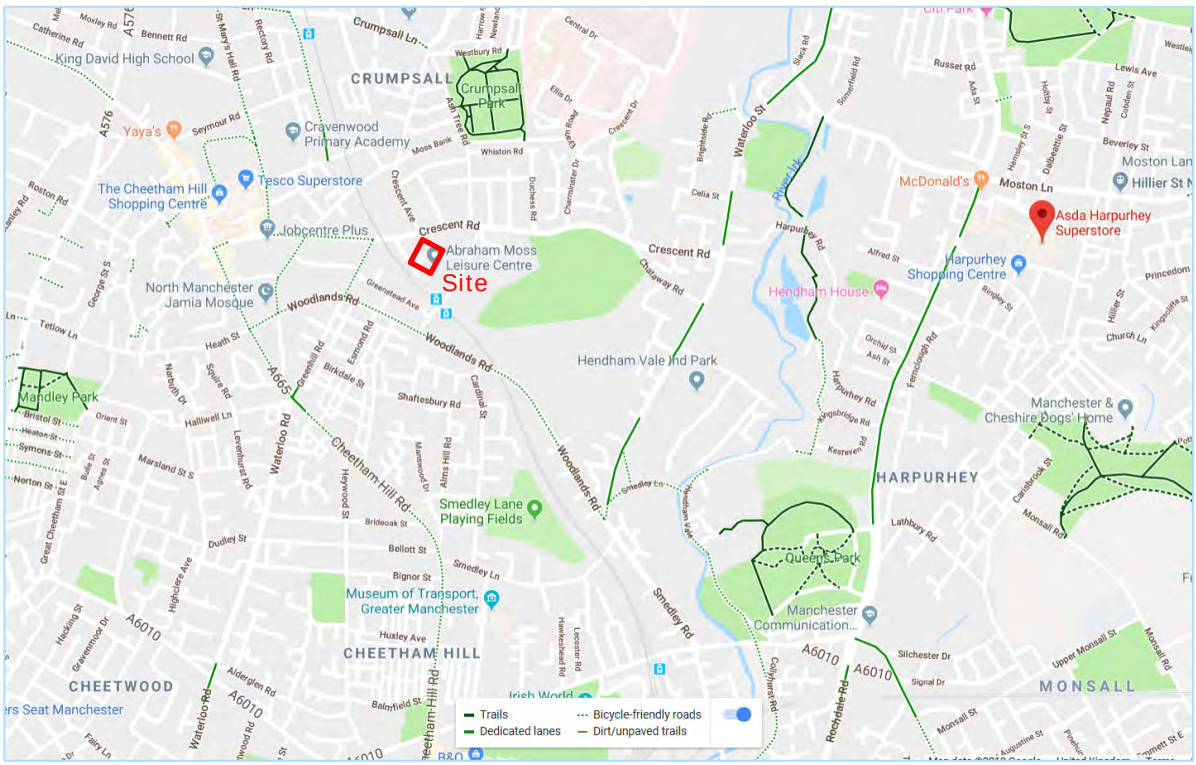


To access the main cycle parking to the rear of the site, cyclists can either enter via the main Abraham Moss site access, via the AMCS site access (which also provides access for other businesses on the site and general public) or cross the Metrolink crossing and cycle to the rear of the leisure centre via the delivery access road (shown in Figure 3.6). The Metrolink cycle parking is easily accessible from the Abraham Moss main car park by the Metrolink line entrance.

As shown in Figure 3.7 below, there are no on-street cycling facilities / lanes along Crescent Road in the vicinity of the site. There are some dedicated cycle lanes along Greenhill Road, Cheetham

Hill Road, Waterloo Road to the west of the site, Waterloo Street/Hazelbottom Road and Rochdale Road to the east of site and Station Road and Moss Bank Road to the north of the site. These cycle lanes are small in length but provide some needed provision around the busier trafficked areas. There are some bicycle friendly roads to the west and south of the site along Crescent Road, Humphrey Street, Woodlands Street, Woodlands Road, Cheetham Hill Road and on roads around the Cheetham Hill Shopping Centre (Thomas Street and Arlington Street). There are also some good bicycle friendly routes to the north of site along St. Mary's Hall Road/Belhaven Road, Delaunay's Road, Crumpsall Road and Station Road (past the Crumpsall Metrolink station).

Figure 3.7: Cycle Lanes / Trails (North Manchester)



Source: Google

Details of the key cycling routes to/from site are detailed in the cycling route audit in chapter 4 below.

3.5 Public Transport

3.5.1 Bus Services

The "Buses in Urban Developments" document published by the Institution of Highways and Transportation (IHT) in January 2018, recommends as maximum walking distance to bus stops as presented in Table 3.7.

Table 3.7: Recommended Maximum Walking Distances to Bus Stops

Situation	Maximum Walking Distance
Core Bus corridors with two or more high-frequency services	500 metres
Single high-frequency routes (every 12 minutes or better)	400 metres
Less frequent routes	300 metres
Town/city centres	250 metres

Source: https://www.ciht.org.uk/media/4459/buses_ua_tp_full_version_v5.pdf

Figure 3.8 below shows the locations of all bus stops (red dots) within 400m of site. It can be seen that there are 10 bus stops located along Crescent Road (close the Abraham Moss car park access and the main School access), Crescent Avenue, Ash Tree Road and Charminister Drive.

Figure 3.8: Bus Stop Locations (Within 400m)

The 10 bus routes that serve the bus stops situated with 400m of site and a summary of the services are presented in Table 3.9 below.

Table 3.9: Bus Services

Service Number	Route	Frequency (Mon - Fri)
41	Middleton – Sale	15mins (04:31 – 23:30)
52	Failsworth – Eccles/Trafford Centre	10mins (04:45 – 23:13)
53	Cheetham Hill – Pendleton	30 mins (05:05 – 23:10)
94	Pilsworth – North Manchester General Hospital	60 mins (07:48 – 17:17)
116	Middleton – Dam Head	60mins (10:30 – 14:30)
151	Hollinwood – Mandley Park	60 mins (07:36 – 16:42)

Full details of the bus services and route plans are presented in Appendix 1.

3.5.2 Tram / Metrolink

Metrolink operate the tram line that runs along the western boundary of the Abraham Moss site. The Abraham Moss tram stop is approximately 200m to the west of the temporary site and can be accessed from the Abraham Moss site car park. Metrolink operates tram lines around Greater Manchester from Manchester city centre to Manchester Airport, East Didsbury, Altrincham, Media City UK, Eccles, Bury, Rochdale and Ashton-Under-Lyne.

Two lines operate through Abraham Moss. The green line operates from Manchester Piccadilly to Bury and the blue line operates from Ashton-Under-Lyne to Bury. Trams operate every 12 minutes, every day of the week from 6:10am to 11:46pm Monday to Thursday, from 6:10am to 00:46am Friday and Saturday and from 07:10 to 11:46pm Sunday.

A full map of the Metrolink network can be found Appendix 2.

3.5.3 Trains

The closest rail station to site is Manchester Victoria Station which is 3.2km to the south of site which is a 40 minute walk, 11 minute car/taxi ride or a 13 minute tram ride. Manchester Victoria is a major city train station connecting Manchester to small and large towns and cities throughout Greater Manchester and the North of England. The local area is served by Metrolink which operates on the disused train lines in the area and provides the best rail service opportunities in the area.

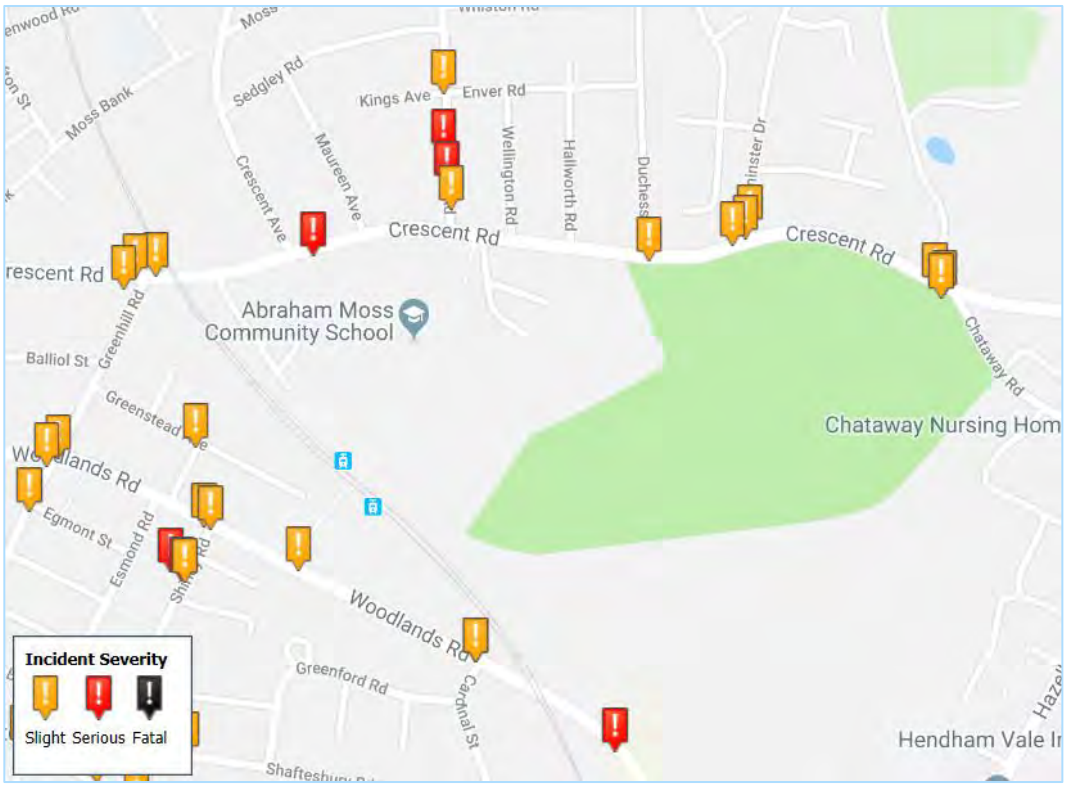
3.6 Servicing and Deliveries

Currently all services and deliveries are taken off the delivery access road to the rear of the Leisure Centre. The delivery access road is accessed through the main car park off Crescent Road and is barrier controlled from Monday to Friday between 7am to 7pm.

The Leisure Centre receives approximately 2 deliveries per week and the library receives approximately 6 deliveries per week with refuse collections undertaken once per week during the hours indicated above.

3.7 Accident Data

Figure 3.10: Accident Data (2014-2018)



Source: Crashmap

Accident data for the five-year period from 2014 to 2018 was obtained from Crashmap for a distance of approximately 400m from site (which covers all the nearby roads surveyed in chapter 5). Figure 3.10 identifies the location and severity of the 27 accidents which have occurred in the area over the five year period.

Table 3.11 below presents the 27 accidents split between by year of occurrence and severity.

Table 3.11: Accident Severity (2014-2018)

Injury Classification	2014	2015	2016	2017	2018	Total
Fatal	0	0	0	0	0	0
Serious	1	1	0	3	1	6
Slight	5	3	3	7	3	21
Total	6	4	3	10	4	27

Of the 27 accidents reported over the last five years, there were 21 slight, 6 serious and no fatal incidents. Focusing on accidents close to the school identifies 1 serious accident and 9 slight accidents which have occurred along Crescent Road, 4 of which are near to the site access.

The accident analysis does not indicate a prevailing road safety issue which could be made worse by the new development site.

3.8 Local Amenities

Figure 3.12: Local Amenities with 500m of Site

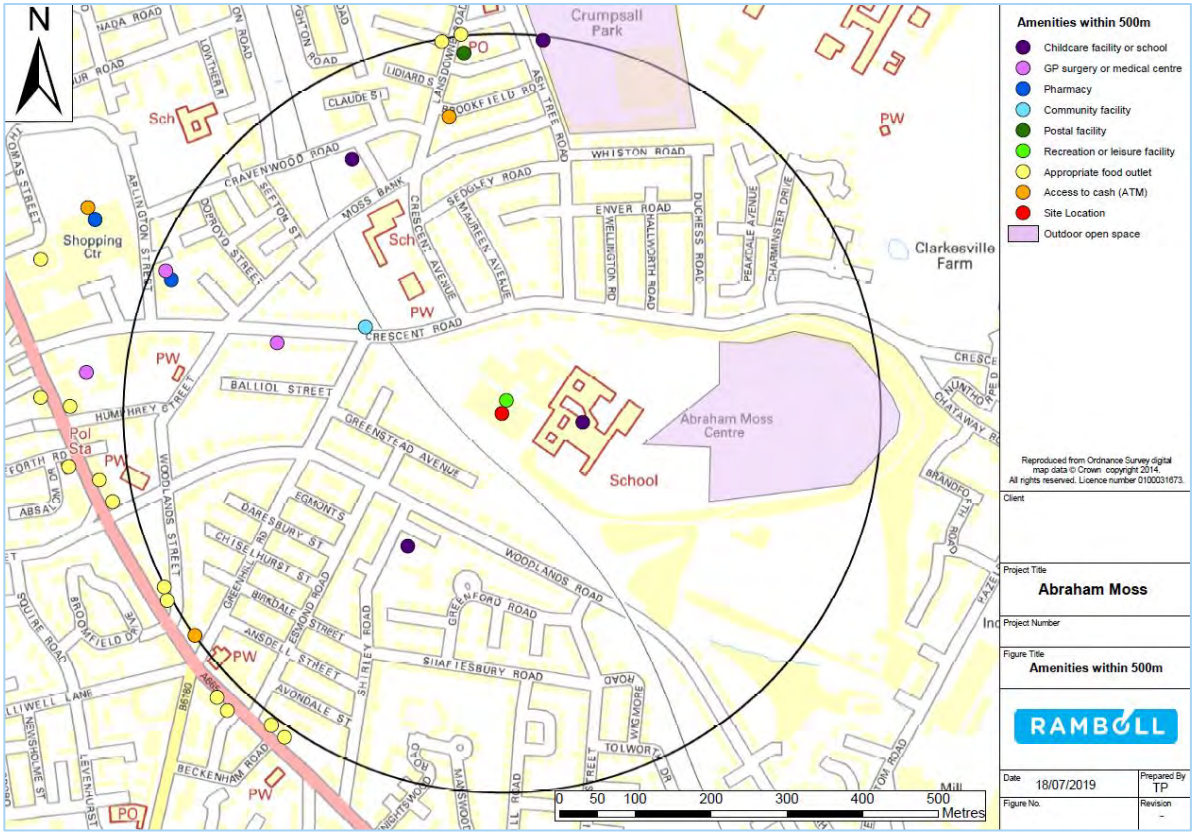


Figure 3.12 shows all the local accessible amenities within 500m of site. The figure identifies that as the area is mainly residential the local amenities tend to cluster on or around the main roads in the area such as Crescent Road, Lansdowne Road and Cheetham Hill Road and consists of approximately:

- 4 No. food outlets/stores;
- 4 No. childcare facilities/primary schools;
- 2 No. postal facilities;
- 2 No. outdoor spaces;
- 2 No. GP surgery/medical centre;
- 1 No. pharmacy; and
- 1 No. community facility.

3.9 BREEAM Accessibility Index

The BREEAM Accessibility Index (AI) is a measure that provides an indicator of the accessibility and density of the public transport network at a point of interest. The index is influenced by the proximity and diversity of the public transport network and the level or frequency of service at the accessible node. For example, a building that has a single public transport node 500m from its main building entrance with one service stopping every 15 minutes, i.e. four services per hour on average, will score an AI of approximately 1.90. Alternatively, the same node with one service every 15 minutes, but 300m from the building entrance will achieve an AI of 2.26. The same node

with two services stopping every 15 minutes will score an AI of 2.85. The greater the number of compliant nodes, services and their proximity to the building, the higher the AI.

The Accessibility Index is determined by entering the following information in to the BREEAM Tra 01 calculator:

- The distance (m) from the main building entrance to each compliant public transport node
- The public transport types serving the compliant node, e.g. bus or rail
- The average number of services stopping per hour at each compliant node during the operating hours of the building for a typical day

Up to five BREEAM credits are available based on the AI. The threshold for achieving five credits is an AI of 18 or higher.

Using the BREEAM Tra 01 calculator to input details for the Abraham Moss site (served by five bus stops plus one rail (Metrolink) stop), an AI of 18.43 has been achieved which qualifies the site for all five BREEAM credits.

The BREEAM Tra 01 AI calculator output for the site can be seen in Appendix 4.

4. WALKING & CYCLING ROUTE AUDITS

This chapter describes the walking and cycling route audits that have been undertaken to assess the condition of key walking or cycling routes to/from the proposed development, as requested by MCC during scoping.

As MCC do not have any specific walking and cycling route audit guidance, the audits have been undertaken with reference to Department for Transport (DfT) walk/cycle threshold guidance and the Welsh Governments' Active Travel (Wales) Act 2013 Design Guidance [https://gov.wales/sites/default/files/publications/2017-09/active-travel-design-guidance.pdf] published in December 2014.

The proposed site is situated off Crescent Road in Crumpsall, in a mainly residential area approximately 5km north of Manchester city centre. The main links on the local highway network in the vicinity of the site are described as follows:

- The main pedestrian site access for the existing leisure centre and library is off Crescent Road and Woodlands Road (via a pedestrian footway and crossing across the Metrolink tram line);
- Crescent Road is a 20mph single carriageway road running from Cheetham Hill Road to the west to Hazelbottom Road/Waterloo Street in the east. The road has two wide footways running along each side of the carriageway for its entire length with a cycle friendly route along Crescent Road between Cheetham Hill Road and the site access;
- Woodlands Road is a 20mph residential road with footways either side of the carriageway and a cycle friendly route running along its entire length, connecting Smedley Road/A6010 Queens Street to the south with the residential areas and Cheetham Hill Road to the north;
- Crescent Avenue and Ash Tree Road are both residential 20mph single carriageway roads to the north of the site with footways along both sides of the carriageway and no dedicated cycles lanes linking Crumpsall Road to the north with Crescent Road to the south;
- Hazelbottom Road/Waterloo Street is a 30mph single carriageway road to the east of the site with footways along each side of the carriageway and dedicated cycle lanes along 70% of its length from Blackley to the north-east linking to Crescent Road and Woodlands Road to the south; and
- Cheetham Hill Road is a 30mph major north/south single carriageway A-road (double lane carriageway in some places) to the west of the site linking north Manchester with Manchester city centre to the south.

The scope of this audit has focussed on the residential areas to the north, west and south of the site, which will use routes to site via Crescent Road, Crescent Avenue/Ash Tree Road and Woodlands Road as a minimum.

Details of the dedicated cycle lanes and bicycle friendly roads on local highway network are found in Appendix 3.

4.1 Audit Guidance

4.1.1 Dft Guidance

4.1.1.1 Walking Threshold

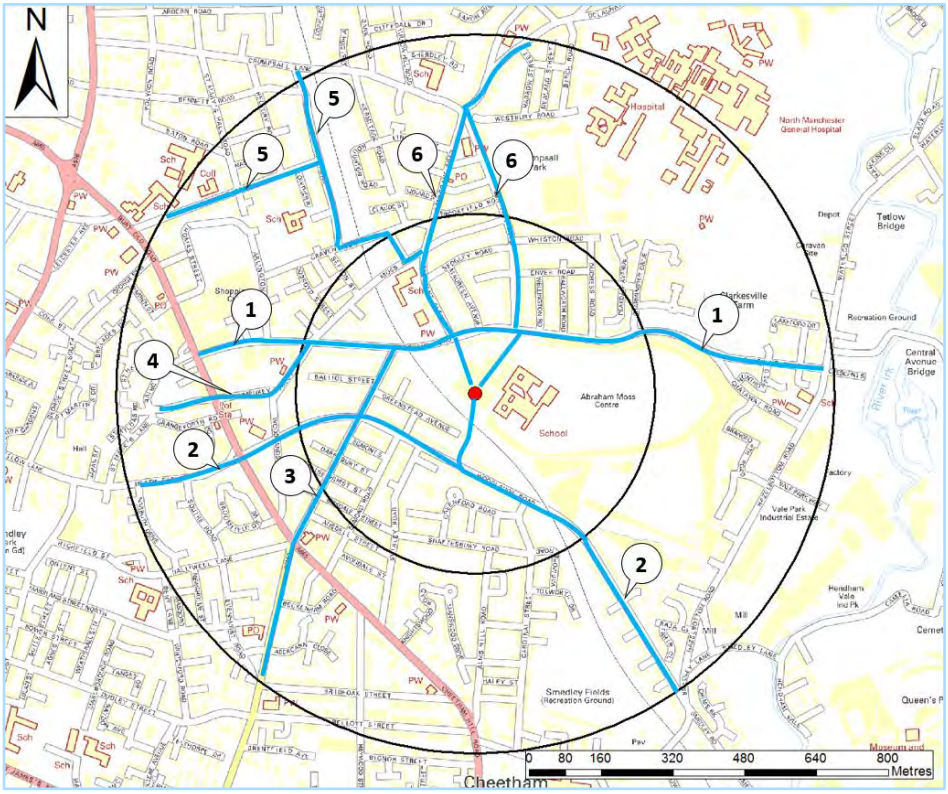
The Manual for Streets[1] (DfT, 2017) promoted the concept of walkable neighbourhoods and these are typically characterised by having a range of facilities within 10 minutes' walking distance of residential areas which is approximately 800m assuming an average walk speed of 4.8 km/h (or c.400m every 5 minutes). The Manual advises that 800m is not "an upper limit" just a suggested acceptable walking distance to local facilities.

Planning for Walking[2] (CIHT, 2015) provides the following guidance on walking distances, "Most people will only walk if their destination is less than a mile away. Land use patterns most conducive to walking are thus mixed in use and resemble patchworks of "walkable neighbourhoods", with a typical catchment of around 800m, or a 10 minute walk".

Therefore, taking the above guidance into consideration, the walking catchment area has been derived to cover the key walking routes within approximately 800m of the site.

Figure 4.1 below (shown in Appendix 5 in more detail) shows an approximate 400-800m walking catchment area from the site. As indicated by the Figure, the walk time to the nearest residential areas is approximately 5-10 minutes from the site.

Figure 4.1: Walking Catchment Area (400m & 800m Isochrones)



[1] Department for Transport (2007) *Manual for Streets*: Thomas Telford.

[2] Chartered Institute of Highways & Transportation (2015) Planning for Walking: Chartered Institution of Highways & Transportation.

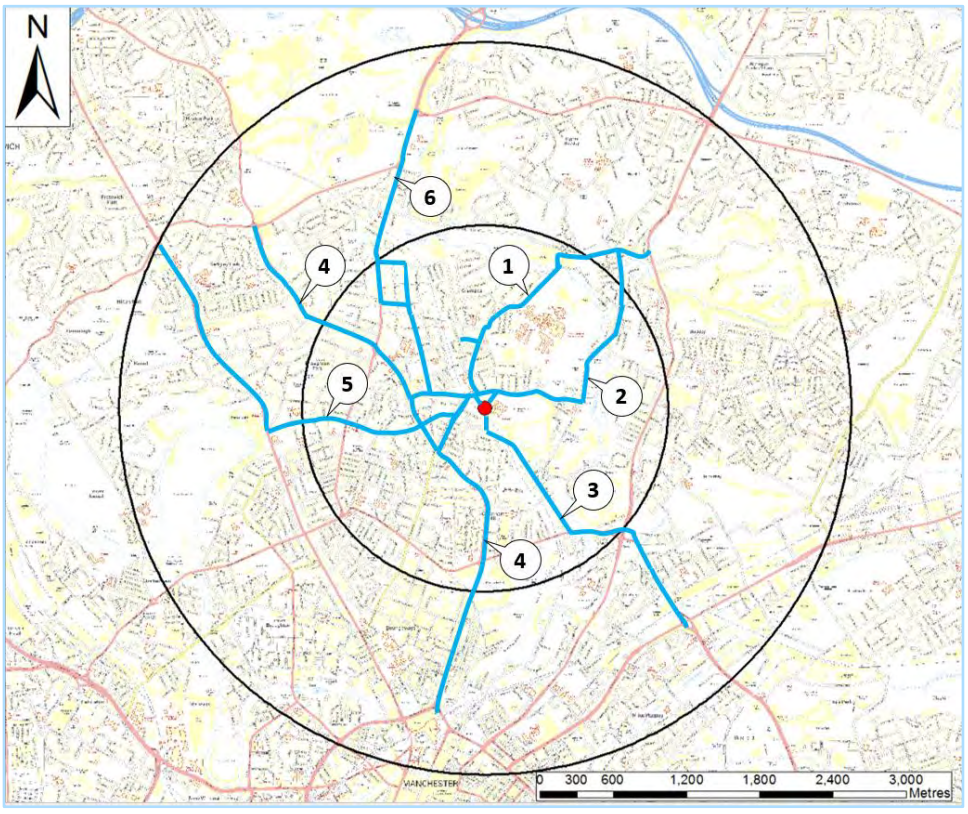
4.1.1.2 Cycling Threshold

Figure 4.2 below (shown in Appendix 5 in more detail) shows the cycling catchment area assessed, showing the areas accessible within a reasonable cycling distance/time to the site.

DfT data indicates 79% of cycle trips are 5 miles (8km) or under therefore, a reasonable cycle threshold of 10 minutes (3000m) has been defined, based on an average cycle speed of 12 mph or 18 km/h (or 1,500m every 5 minutes). This threshold sits within the DfT range and will capture key cycle routes on approach to the site.

The figure shows the approximate area from which the site can be reached within 5 to 10 minutes by bicycle, with a specific focus on the residential areas closest to the site (c.1,500m or 5 minutes). As indicated by Figure 4.2, the applied cycle threshold provides ample cover of neighbouring residential areas to the east, west, south and north.

Figure 4.2: Cycling Catchment Area (1,500m & 3,000m Isochrones)



4.1.2 Walking and Cycling Route Audit Guidance

The aim of the walking and cycling route audit is to identify key pedestrian and cycle routes within the walking and cycling catchment thresholds above and, assess the condition of these routes for people that walk or cycle to/from site. Details of how the routes were assessed, following the Welsh Government Design Guidance Active Travel (Wales) Act 2013 which has been used as best practice as MCC do not have any specific walking and cycling route audit guidance, is detailed below for both walking and cycling routes.

4.1.2.1 Auditing the Key Walking Routes

This audit assesses the condition of key pedestrian routes and infrastructure to/from the site for the following five factors:

1) Comfort;
2) Attractiveness;
3) Accessibility;
4) Directness; and
5) Safety.

Based on these 5 key considerations, a recommended audit checklist has been developed, which defines the pedestrian environment in terms of 21 individual categories to be assessed on-site, (20 of which are scored) as shown in walking route audit tool template in Appendix 6.

The audit covered the 7 key pedestrian routes to/from the site within the walking catchment area shown in Figure 4.1, including footways adjacent to roads and other non-highway footpaths to which the public have access, as appropriate.

Pedestrian routes were scored against each of the 20 factors using the following scale:

- 0 (zero) for poor provision;
- 1 (amber) for provision which is adequate but should be improved if possible; and
- 2 (green) for good quality provision.

Any routes which scored less than 28 (out of a potential 40 points, i.e. a score below 70%), improvement to the route may be required and may be subject to further investigation.

4.1.2.2 Auditing Key Routes Cycling

The cycling route audit has assessed the condition of 6 key cycle routes and infrastructure within 3,000m of the site for five factors:

1) Cohesion;
2) Directness;
3) Safety;
4) Comfort; and
5) Attractiveness.

Based on these 5 key factors, a recommended audit checklist has been developed, which defines the cycling environment in terms of 25 individual categories to be assessed and scored on-site, as shown in cycling route audit tool template in Appendix 7.

The audit covered 6 key cycling routes to/from the site within the cycling catchment area shown in Figure 4.2 and includes all cycle lanes and cycle paths to which the public have access.

Cycling routes were scored against each of the 25 factors using the following scale:

0 (zero) for poor provision;
1 (amber) for provision which is adequate but should be improved if possible; and
2 (green) for good quality provision.

Any route which scored less than 35 (out of a potential 50 points, i.e. a score of 70%), improvement to the route may be required and may be subject to further investigation.

4.2 Audit Results & Summary

4.2.1 Walking Route Audit Results

Table 4.3 presents the scores for the 13 walking route audits. The table presents the route number and route description for all 7 routes (as shown in Figure 4.2 and Appendix 6) and presents the audit score and audit percentage against the total audit score of 40, if each of the 20 audit categories were scored 2 (good quality provision).

Table 4.3: Walking Route Audit Score Results

Route No.	Route Description	Score (Out of 40)	%
1	Hazelbottom Road / Waterloo Street > Crescent Road > Abraham Moss Site	31	78%
2	Woodlands Road > Metrolink Pedestrian Access > Abraham Moss Site	37	93%
3	Waterloo Road > Greenhills Lane > Crescent Road > Abraham Moss Site	29	73%
4	Woodlands Street > Humphrey Street > Crescent Road > Abraham Moss Site	30	75%
5	Seymour Road > Station Road > Cravenwood Road > Crescent Avenue > Crescent Road > Abraham Moss Site	28	70%
6	Delaunays Road > Landsdowne Road/Crescent Avenue > Crescent Road > Abraham Moss Site	32	80%
7	Delaunays Road > Ash Tree Road > Crescent Road > Abraham Moss Site	33	83%

Analysis of the walking route audits identify that the walking routes to/from the site with a 500m radius are generally good. Footways are generally well kept and good widths.

The area sits on a slight hill resulting in some gradients. The area has a good provision of tactile paving and crossing points and routes are generally direct to site.

Tree roots along Crescent Road result in some unevenness, however, the footways are generally wide enough to avoid the roots.

All walking routes scored 70% or above. A detailed appraisal of each route can be found in the individual walking audits found in Appendix 6.

4.2.2 Cycling

Table 4.4 presents the scores for the 6 cycling route audits undertaken as part of the cycling route audit survey. The table presents the route number and route description for all 6 routes (as shown in Figure 4.3 and Appendix 7) and presents the audit score and audit percentage against the total audit score of 50, if each of the 25 audit categories were scored 2 (good quality provision).

Table 4.3: Cycling Route Audit Score Results

Route No.	Route Description	Score (Out of 50)	%
1	Delaunays Road > Crescent Avenue	28	56%
2	Slack Road / Waterloo Road > Crsecent Road	31	62%
3	Queens Road > Smedley Road > Woodlands Road	27	54%
4	Cheetham Hill Road > Greenhills Road > Crescent Road	19	38%
5	Bury New Road > Broom Lane > Heath Street > Woodlands Road > Greenhills Road > Crescent Road	27	54%
6	Middleton Road > Belhaven Road > St. Mary's Hall Road > Crescent Road	30	60%

The key routes identified are made up of an assortment of dedicated cycle lanes, bicycle friendly roads and normal single/double carriageway roads.

None of the routes have dedicated cycling lanes along its entire length and this impacts on the audit score. Some routes have extended sections of cycle lanes and bicycle friendly roads as shown by the scores for routes 2, 3, 5 and 6. All these routes also have sections of roads with no cycle lane provision leaving the cyclist vulnerable to other road traffic. Route 3 and 5, navigate along very busy edge of town centre commuter A-road routes therefore, traffic flows and speeds are higher than the mainly residential roads close to the site.

Cheetham Hill Road performs the worst out of the 6 routes assessed due the sheer volume of traffic and lack of cycling facilities along its route.

Routes closer to the site along Crescent Road, Woodlands Road and St. Mary's Hall Road are bicycle friendly with wide carriageways and lower traffic volumes. These bicycle friendly routes within the residential zone (between Cheetham Hill Road to the west and Waterloo Street to the east) mean cycling within this area is more attractive and safer and that the catchment zone for cycling is better for shorter trips.

To encourage longer trips (over 1.5km), cycle routes would need more dedicated cycles lanes along the busy A-roads, better signage of existing cycle routes and more provision of bicycle friendly routes and infrastructure.

A detailed appraisal of each cycle route can be found in the individual cycling audits found in Appendix 7.

5. PROPOSED DEVELOPMENT

The development proposals are to demolish the existing AMLLC and replace it with a state of the art 4,850m^2 Library and Leisure Centre on the same site footprint. The development will be a like for like replacement of facilities and it is proposed that it will take 20 weeks to demolish the old AMLLC building and 85 weeks to construct the new facility.

The School currently use the existing sports hall and therefore a temporary sports hall with associated changing and storage is to be provided on the playground of the AMCS for the duration of the demolition and construction works which has been subject to a separate planning application.

Likewise, the library will continue to be used by the general public and School whilst the existing AMLLC is being demolished and constructed. Therefore, a temporary library is to be constructed on AMCS land, which will be subject to a separate planning application.

The Leisure Centre will continue to offer a wide range of facilities including a gym, ladies only gym, swimming pool, sports hall, squash courts and a health suite and will be open to the public from 6.30am to 10pm Monday to Friday and 9am to 5pm Saturday to Sunday. School use of the sports hall and swimming facilities will occur at allocated times throughout the week during term time as well as specially allocated times on the weekends for extracurricular sports events.

Figure 5.1: Proposed Landscape Masterplan

Figure 5.1 presents the proposed landscape masterplan and shows how the site will be redeveloped and landscaped. This plan is also shown in more detail in Appendix 8.

The redeveloped Library and Leisure Centre will be housed within the main building block (shown as 'Leisure Centre' in Figure 5.1), and the redeveloped site will see improvements and updates to the existing car park, turning circle, entrance plaza, landscaping, hard standing, footways and pedestrian crossings in line with the improved aesthetic of the redesigned new building.

The existing barrier controlled turning circle by the front entrance to the building has been updated with the provision of a new bus drop off area, six disabled parking spaces, two pedestrian level crossings and a zebra crossing, all which are located within the barrier area of the turning circle.

The whole site has also been heavily landscaped with new concrete and wooden seats, shrub planting, new trees and two types of hard-wearing concrete paving laid around the entire perimeter of the building. The entrance plaza has been vastly upgraded providing additional easy access cycle parking and seating at the front of the building along with metal security bollards around the perimeter of the pedestrian areas and footways around the site.

The updated landscaping makes for a more pleasant and safer pedestrian environment around the building, improving the pedestrian and vehicular interactions within and around the site.

The opening times for the leisure centre will stay the same as existing and be open from 6.30am to 10pm Monday to Friday and 9am to 5pm Saturday to Sunday. The library will be open from 9am to 5pm on Mondays, Tuesdays, Fridays and Saturdays and from 9am to 8pm on Wednesdays.

5.1 Parking

5.1.1 Car Parking Provision

Although the main Abraham Moss car park is not for sole use of the AMLLC, the car park provides the nearest and best formalised parking to the site. As part of the development proposals the main Abraham Moss car park has been reconfigured and improved and now provides 52 spaces of which 40 are regular spaces, 10 are disabled access spaces and 2 are electric charging spaces.

Table 5.2: Proposed Abraham Moss Parking Provision

Type of Spaces	Main Car Park	Overspill Car Park	Total
Regular	40	236	276
Electric Charging	2 (5%)	0	2
Disabled Access	10	0	10
Total	52	236	288

Table 5.2 presents the updated parking provision for the main Abraham Moss car park (as shown in Figure 5.1) as well as the overspill car park which will not change. The reconfigured car park will provide 1 extra car parking space overall, along with a reconfigured disabled allocation,

reducing the number of disabled access spaces from 13 spaces to 10 spaces, which complies with MCC standards.

The overspill car park to the south-east of the main car park will still provide 236 regular parking spaces with no disabled access spaces or electric charging spaces. This area will not be changed or redeveloped as part of the development proposals and will continue to be accessed via a barrier control at its boundary with the main Abraham Moss car park from 6am to 9pm Monday to Sunday. This car park will provide overspill parking provision for full Abraham Moss site, the AMLLC and Metrolink facilities for both the general public and users of the Abraham Moss site.

The remaining car park layout has been reconfigured with 3 strips of parking around the building. There will be 6 disabled access parking spaces located at the front of the building by the entrance plaza. Along the side of the building there will be 16 regular spaces with 1 disabled access space on its western end. Adjacent to the Metrolink station 29 spaces are proposed, including 24 regular spaces, 2 electric charging spaces and 3 disabled access parking.

There will be 10 disabled access spaces provided with six spaces at the front of the building, accessed through the barrier within the updated turning circle. The 4 other spaces split between 3 spaces by the Metrolink stop (as existing) and 1 space along the frontage of the building. The updated layout means the majority of disabled access spaces provide much improved access to the main entrance to the building with improved paving/footways, tactile paving and reduced distances to travel to the main pedestrian access to the building making disabled access convenient.

5.1.2 Cycle and Motorcycle Parking

The redeveloped AMLLC will provide 4 new stainless steel Sheffield cycle stands which will provide 8 extra cycle spaces situated at the front of the building within the entrance plaza. This provision is in addition to the 16 existing spaces provided to the rear of building and the 4 spaces by the Metrolink station.

There will be no dedicated motorcycle parking spaces provided as part of the development, any motorcyclists may park in the regular car parking spaces provided.

Table 5.3: Proposed Abraham Moss Cycle Parking Provision

Cycle Parking Location	Number of Spaces	Status
Entrance Plaza	8	New
Behind AMLLC	16	Existing
Metrolink Stop	2	Existing
Total	25	

5.2 Development Schedule

The Leisure Centre offers a wide range of facilities including a gym, swimming pool, sports hall, squash courts, a health suite and cafe across two levels and the council operated library will operate on the ground floor of the Leisure Centre.

Table 5.4 presents the development schedule for the redeveloped facilities, showing the size and level of each component of the building.

Table 5.4: Proposed Development Schedule of Accommodation

Schedule of Accommodation	Area (m2)	Level
Reception & Lobby	132	Ground
Library & Store	301	Ground
Toilets	46	Ground
Staff Only Rooms	103	Ground
Pool & Pool Viewing Area	917	Ground
Changing Rooms	505	Ground
Health Rooms	40	Ground
Store & Cleaner Rooms	10	Ground
Main Sports Hall & Store	739	Ground
Plant	201	Ground
Lift, Stairs & Circulation	286	Ground
Dance Room & Store	163	1st
Main Gym	402	1st
Programme Gym	124	1st
Pool Viewing Area (Mezzanine)	49	1st
Squash Courts & Viewing Area	147	1st
Changing Rooms	145	1st
Cleaner Room	9	1st
Lift, Stairs & Circulation	256	1st
Total Area	4,576	

5.3 Site Access

5.3.1 Vehicular Access

Vehicular access to the site from the local highway network (as described in chapter 4.4.1) will be taken from the main Abraham Moss site access on Crescent Road.

There will be no changes to the existing delivery and service vehicles access, via the gate controlled area to the rear of the new building, as shown in Figure 5.1. Access to this area will be via the barrier controlled Abraham Moss internal access road. Delivery or service vehicles will continue to be able to park, service/deliver and turn before departing back out along the internal access road through the main car park to Crescent Road.

All internal school coach and bus drop off's/pick-up's (for school trips/sporting events etc.) will be undertaken at the new bus drop off in the updated turning circle at the front of the site.

5.3.2 Pedestrian Access

Pedestrian access to the site from the local highway network (as described in section 4.4.2), will be unchanged from existing with pedestrian access available from the main Abraham Moss site access and the main school access off Crescent Road as well as from Woodlands Road via the

Metrolink pedestrian crossing to the south of the site (as shown by the red pedestrian routes in Figure 4.1 in section 3.4.3).

The development proposals show a much improved pedestrian environment with enhanced pedestrian crossings to the north and south of the site (by the entrance plaza and Metrolink crossing), with wider and newly paved footways around the perimeter of the site and a more spacious and pleasant entrance plaza. The upgraded environment includes new seating, trees and raised shrub planting and bollards which provide a safety barrier between the pedestrian environment and car park / access road.

Access and egress for mobility impaired/disabled persons has been improved and made safer by the development proposals (as described above). The relocation of the disabled access spaces to the front of the building by the entrance plaza means disabled access spaces are now closer to the main pedestrian access.

5.4 Servicing and Deliveries

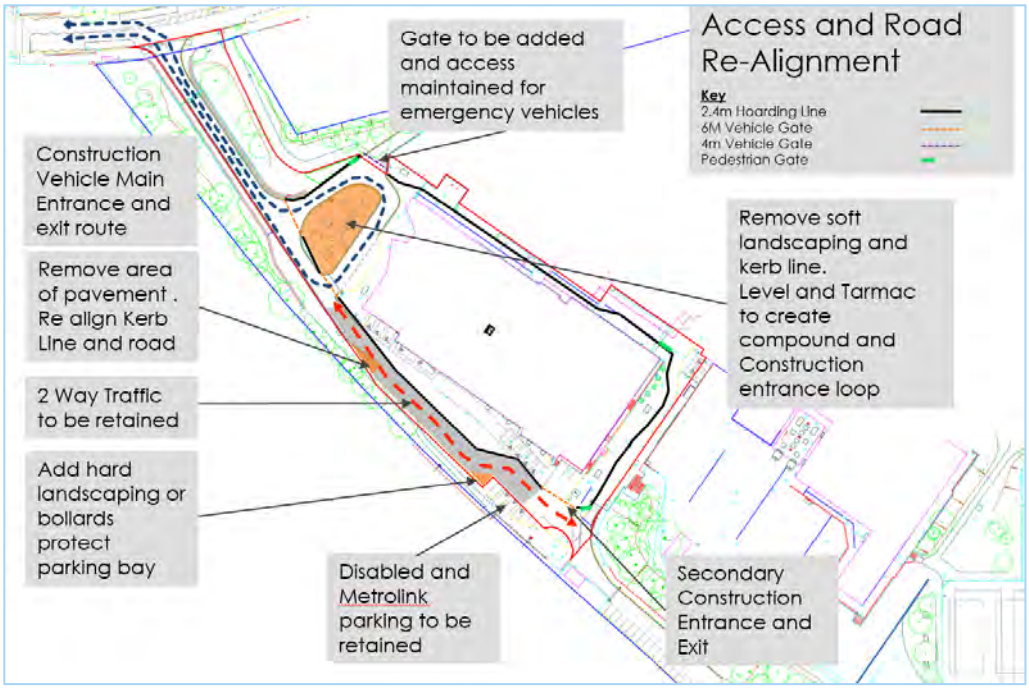
There are no changes proposed to the existing servicing and delivery arrangements.

5.5 Construction Traffic

5.5.1 Construction Traffic Plan

A Construction Traffic Management Plan (CTMP) has been produced by LOR and has been submitted as part of the application.

Figure 5.2: Construction Traffic Plan



As part of the CTMP, LOR have produced a CTMP Access Plan (Figure 5.2 above) showing how construction traffic will access and exit the site. The black line in the plan shows the 2.4m Hoarding Line which creates the main site construction compound, which will be in place for the 85 week construction programme. The hoarding will be placed around the existing library/leisure

facility and the existing turning bay and will result in the temporary loss of 23 parking spaces adjacent to the building which will used as within hoarded off construction compound.

A further temporary loss of 21 parking spaces adjacent to the Metrolink station will be required so the road can be realigned to allow continued access through the site for construction vehicles, servicing and delivery vehicles and vehicles wishing to park in the retained site parking.

As part of the temporary road realignment during the construction, an area of pavement will be removed (as shown in Figure 5.2) to allow the road and kerb to be realigned and an area of hard landscaping or bollards will be added to protect the retained parking spaces by the Metrolink entrance. Two way vehicular access will be retained throughout the construction phase and the road and parking will be reinstated as per the proposed landscape proposals (Appendix 8).

Vehicular access to the main site construction compound will be via 3 vehicular access gates (Gates 1 to 3 in Figure 5.2). Gates 1 and 2 will be positioned at the existing turning head entrance and exit and will be used in a same manner, whereby Gate 1 will be entry only and Gate 2 will be exit only for all vehicles entering via Gate 1. All soft and hard landscaping will be removed and the area will be flattened and tarmacked to create the compound and construction entrance loop. It is proposed that the majority of the construction vehicles required for the demolition and construction of the site will access the compound through this access, with the largest vehicles being a 12.3m mobile crane and 16.5m articulated lorry.

Gate 3 situated to the south-west of the compound by the existing site delivery access road will provide access to the rear of the site.

Along with the main site construction compound, a site staff compound containing staff cabins and welfare areas will be located to the rear of the overspill car. This compound will result in a temporary loss of 16 car parking spaces during the construction phase and will be reinstated once the new building is constructed.

5.5.2 Construction Traffic Routes

As shown in the Figure 5.2, the main vehicle construction route in and out of the site will be via a right turn in movement from Crescent Road for arriving vehicles and a left turn out movement back onto Crescent Road for departing vehicles.

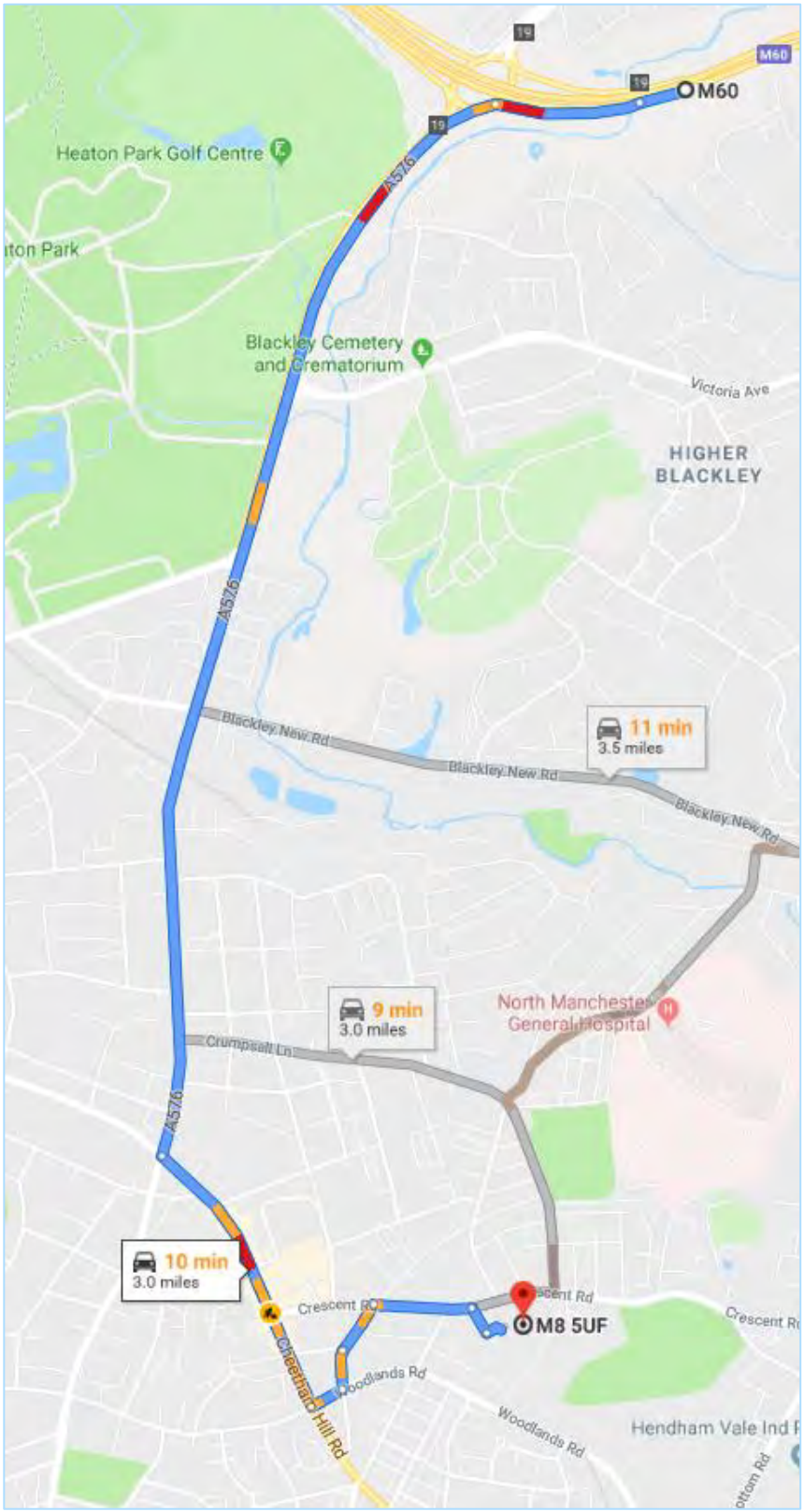
The majority of construction vehicles will enter the site compound via Gate 1 and depart via Gate 2, with some vehicles requiring access to the rear of the site via Gate 3. Gate 3 access use will be kept to a minimum with the majority the construction vehicles accessing via Gates 1 and 2, so that majority of construction vehicle movements are curtailed to the north of the of site so as not interfere/interact with other site vehicles wishing to park at the Abraham Moss site.

All construction traffic will be planned to arrive and depart during off-peak traffic times where possible and this construction vehicle arrival and departure schedule will be detailed in the CTMP.

Figure 5.3 below shows the route abnormal loads would follow, to achieve a right turn into the site. All other construction vehicles will also adopt this same route.

There is a 16ft bridge on A576 that would give a maximum running height of 4.87m which is acceptable for the cabins proposed for the site compounds.

Figure 5.3: Local Highway Construction Route



Source: map data ©2019 Google

5.6 Vehicle Swept Path Analysis

Swept path analysis has been undertaken around the proposed AMLLC turning head for the final scheme layout and the proposed construction phase layout.

The final scheme layout has been tracked for an 8.7m emergency fire appliance and 12.5m school coach around the proposed turning circle to the front the new building based on the proposed landscape masterplan (Appendix 8).

Swept path analysis for servicing and deliveries to the service/delivery area has not been undertaken as no changes are proposed to the service/delivery road to the rear of the site therefore, the existing arrangements for servicing and deliveries will continue as existing.

For the construction layout, the two largest vehicles required to access the site, a 12.3m mobile crane and 16.5m articulated lorry, have been tracked in and out of Gates 1 and 2 to the front of the site and in and out of Gate 3 to the rear of the site. A rigid 10m HGV has also been tracked in and out of Gate 3.

Results of the swept path analysis for the final scheme layout is presented in Appendix 12 and for the construction phase in Appendix 13.

5.6.1 Final Scheme Layout

5.6.2 Emergency Vehicle

Tracking for a fire appliance (8.7m) has been undertaken around the turning head of the proposed site. An emergency access route will be provided to the emergency services in order that they can gain easy access to the building.

- Drawing LP44107-RAM-B01-XX-DR-Y-95005 (Appendix 12) demonstrates the vehicle can enter the turning head from the site access road, manoeuvre around the turning head and egress back onto the site access road.

5.6.3 School Bus

Tracking for a school bus (12.5m) has been undertaken around the site the turning head of the proposed site.

- Drawing LP44107-RAM-B01-XX-DR-Y-95004 (Appendix 12) demonstrates the vehicle can enter the turning head from the site access road, manoeuvre around the turning head and egress back onto the site access road. There will be minor amendments to the design of the central island to accommodate all vehicle movements and address potential clash.

5.6.4 Construction Layout

The location of the hoarding during construction is yet to be finalised. There will be there minor amendments to the design to accommodate vehicle movements and address potential clashes. However, it is considered that there is sufficient room within the site to accommodate these amendments.

5.6.4.1 Mobile Crane

Tracking for a mobile crane (12.3m) has been undertaken in and out of the main construction compound. The vehicle has been tracked into Gate 1 and out of Gate 2 and has been tracked in and out of Gate 3.

- The top left viewport in drawing LP44107-RAM-B01-XX-DR-Y-95006 (Appendix 13) identifies that the mobile crane can enter the construction compound through Gate 1, but it struggles to turn on site and exit through Gate 2. The swept path analysis shows there could be a potential clash with the hoarding/gate under the current construction compound layout.
- The bottom left viewport in drawing LP44107-RAM-B01-XX-DR-Y-95006 (Appendix 13) identifies that the mobile crane can enter through Gate 1, turn around on site and exit back through Gate 2 if the construction gates are increased to 9m from 6m and if the gates are realigned to allow the vehicle to manoeuvre out of Gate 2 safely with no clashes.
- Drawing LP44107-RAM-B01-XX-DR-Y-95007 (Appendix 13) shows that the mobile crane can reverse into Gate 3 to the south of the construction zone but cannot turn around and exit by Gate 3.

5.6.4.2 Articulated Lorry Vehicle

Tracking for an articulated lorry (16.5m) has been undertaken in and out of the main construction compound. The vehicle has been tracked into Gate 1 and out of Gate 2 and has been tracked in and out of Gate 3.

- The top right viewport in drawing LP44107-RAM-B01-XX-DR-Y-95006 identifies that the lorry can enter the construction compound through Gate 1, but it struggles to turn on site and exit through Gate 2. The swept path analysis shows there could be a potential clash with the hoarding/gate under the current construction compound layout.
- The bottom right viewport in drawing LP44107-RAM-B01-XX-DR-Y-95006 identifies that the mobile crane can enter through Gate 1, turn around on site and exit back through Gate 2 if the construction gates are increased to 9m from 6m and if the gates are realigned to allow the vehicle to manoeuvre out of Gate 2 safely with no clashes.
- Drawing LP44107-RAM-B01-XX-DR-Y-95008 (Appendix 13) shows that the lorry can reverse into Gate 3 to the south of the construction zone but cannot turn around and exit by Gate 3.

5.6.4.3 Rigid Vehicle

Tracking for a rigid HGV (10.0m) has been undertaken in and out of Gate 3 of the main site construction compound.

- Drawing LP44107-RAM-B01-XX-DR-Y-95004 (Appendix 13) demonstrates the vehicle can enter Gate 3 by reversing into the site. To depart the vehicle will need to undertake a 3-point turn by the gate in order to face forward and depart out of the site compound.

6. TRIP GENERATION

This chapter provides an estimate of the vehicle trip generation to/from the proposed development, for a typical weekday based on the development schedule presented in chapter 5 above.

The proposed development will be a like for like replacement of the existing leisure centre and library facilities for a new, state of the art leisure and library facility on the same site footprint as the existing site. All existing services and facilities will continue to be offered, only in an updated, and much improved new building.

It is anticipated that there will be no additional trips generated by the site compared to the existing facility, therefore this section provides an estimate of the expected number vehicular trips to (arriving trips) and from (departing trips) development.

In order to estimate the likely number of daily trips arriving and departing from the development, as agreed with MCC, the TRICS database has been used to find representative trip rates for the leisure centre and library.

Table 6.1 below summarises the Gross Floor Area (GFA) of proposed leisure centre and library accommodation presented in Table 5.4 in chapter 4 above. GFA is a measurement of the total internal floor area and is the measurement that trip generation is based on.

Internal floor areas include all areas accessible to staff and visitors (e.g. office space, canteens, storage areas, toilets, etc), but will exclude service areas (e.g. lift shafts, stairwells, plant, staff and visitor car parks, etc). Trip rates are calculated per 100m2 GFA and Table 6.1 presents the GFA of the Leisure Centre and Library excluding the plant, lift, stairwell and circulation areas.

Table 6.1: Proposed Development Accommodation

Development Accommodation	GFA (m2)
Leisure Centre	3,532
Library	301
Total GFA	3,834

6.1 Leisure Centre Trips

On review of the TRICS database, it is considered appropriate to select the 'Leisure Centre' category from the '07 - Leisure Centre' land use.

The key factors that have been considered at this stage to carry out this TRICS analysis are the location, gross floor areas, parking provision and public transport availability.

On this basis, TRICS survey sites were selected using the following parameters:

- Land use type: 07 – Leisure;
- Category: C – Leisure Centre;
- Regions: UK (Excluding Norther Ireland & Scotland);
- Days of week: Monday, Tuesday, Wednesday, Thursday, Friday;

- Surveys: Taken since 01 January 2010;
- Location: Edge of Town / Suburban Area; and

From the TRICS database, all the surveyed sites are presented in Table 6.2.

Table 6.2: TRICS Site Selection

TRICS Ref	Town/City	Area	Location	Gross GFA	Parking Spaces	Site Selection
AG-07-C-01	ARBROATH	ANGUS	Suburban Area	4738	76	Excluded
AR-07-C-02	ARMAGH	ARMAGH	Suburban Area	3490	73	Excluded
CA-07-C-02	CAMBOURNE	CAMBRIDGESHIRE	Edge of Town	1502	111	Excluded
CF-07-C-01	CARDIFF	CARDIFF	Suburban Area	2150	55	Selected
CR-07-C-02	CORK	CORK	Edge of Town	3450	137	Excluded
EG-07-C-04	NORTHOLT	EALING	Suburban Area	4500	65	Selected
HD-07-C-01	RUISLIP	HILLINGDON	Suburban Area	4000	142	Selected
HK-07-C-01	SHOREDITCH	HACKNEY	Suburban Area	4627	69	Excluded
HK-07-C-02	SHOREDITCH	HACKNEY	Suburban Area	4627	71	Excluded
NT-07-C-05	NOTTINGHAM	NOTTINGHAMSHIRE	Suburban Area	2210	50	Selected
TI-07-C-02	NENAGH	TIPPERARY	Edge of Town	2980	54	Excluded
TW-07-C-03	GATESHEAD	TYNE & WEAR	Suburban Area	12188	72	Excluded
Cross Test of selected sites: 0.6%						

From the returned sites, several were excluded based on size and being in unrepresentative locations. Table 6.2 show the sites which were excluded in red and the sites included in black.

The TRICS cross test was used for the selected sites, which gives the percentage variation between the mean and median trip rate figures for a group of selected survey sites. In case of a large percentage (higher than 30%) the site selections should be further examined for site compatibility. The cross-test value of 2.9% for the selected sites shown in Table 6.2 demonstrates acceptable variations between the selected sites, therefore corroborating the robustness of selection.

Table 6.3: Leisure Centre Trips (Weekday Average)

Total Vehicles	Arrival Trips		Departure Trips		Total Trips	
Time Range	Trip Rate	Trips	Trip Rate	Trips	Trip Rate	Trips
06:00-07:00	1.074	38	0.168	6	1.242	44
07:00-08:00	0.7	25	1.036	37	1.736	61
08:00-09:00	0.933	33	0.645	23	1.578	56
09:00-10:00	1.073	38	0.785	28	1.858	66
10:00-11:00	0.832	29	0.902	32	1.734	61
11:00-12:00	0.723	26	0.98	35	1.703	60
12:00-13:00	0.747	26	0.622	22	1.369	48
13:00-14:00	0.591	21	0.677	24	1.268	45
14:00-15:00	0.599	21	0.537	19	1.136	40
15:00-16:00	0.918	32	0.653	23	1.571	55
16:00-17:00	1.058	37	1.05	37	2.108	74

17:00-18:00	1.392	49	1.252	44	2.644	93
18:00-19:00	1.361	48	1.353	48	2.714	96
19:00-20:00	0.91	32	1.26	45	2.17	77
20:00-21:00	0.614	22	0.933	33	1.547	55
21:00-22:00	0.163	6	0.754	27	0.917	32
Daily Total	13.688	483	13.607	481	27.295	964

The average total hourly vehicle trip rates per 100sqm for the selected sites in Table 6.2 are shown in Table 6.3, along with the estimated hourly total vehicle trips for the leisure centre.

From the daily trip calculations, the morning peak hour is 09:00-10:00 and the evening peak hour is 18:00-19:00. It is estimated the leisure centre will generate 964 trips across the day of which 483 are arriving trips and 481 are departing trips. It should be noted that these site peaks are likely to fall outside the highway network peak periods.

Details of the TRICS output for the Leisure Centre can be found in Appendix 9.

6.2 Library Trips

To derive trip rates representative of the library use, the TRICS database has been reviewed with the 'Library' category selected from the 'Leisure Centre' land use.

The key factors that have been considered at this stage to carry out this TRICS analysis are the location, gross floor areas, parking provision and public transport availability.

On this basis, TRICS survey sites were selected using the following parameters:

- Land use type: 07 – Leisure;
- Category: V – Library;
- Regions: UK (Excluding Norther Ireland & Scotland);
- Days of week: Monday, Tuesday, Wednesday, Thursday, Friday;
- Surveys: Taken since 01 January 2010;
- Location: Edge of Town / Surburban Area; and

From the TRICS database, all the surveyed sites are presented in Table 6.4.

Table 6.4: TRICS Site Selection

TRICS Ref	Area	Location	Gross GFA	Parking Spaces	Site Selection
CH-07-V-01	CHESHIRE	Town Centre	930	22	Selected
DL-07-V-01	DUBLIN	Suburban Area	992	8	Excluded
FA-07-V-01	FALKIRK	Edge of Town Centre	1607	22	Excluded
NR-07-V-01	NORTHAMPTONSHIRE	Town Centre	375	3	Selected
TI-07-V-01	TIPPERARY	Town Centre	1530	7	Excluded
WH-07-V-01	WANDSWORTH	Town Centre	900	13	Excluded
Cross Test of selected sites: 27%					

From the returned sites, several were excluded based on size and being in unrepresentative locations. Table 6.4 show the sites which were excluded in red and the sites included in black.

Although the two sites selected are in Town Centre locations, it was felt that operationally these two sites were the best fit for the proposed library, as the Abraham Moss library is easy to access from the local area and from public transport and is located within a leisure centre like the two selected sites. The site in Northamptonshire is a comparable size and the site in Cheshire is in a built up area in Macclesfield which is a similar nearby population size to the Cheetham Hill / Crumpsall area. The library element of the development is small compared to the leisure centre element, therefore this approach is considered acceptable.

The TRICS cross test was used for the selected sites, which gives the percentage variation between the mean and median trip rate figures for a group of selected survey sites. In case of a large percentage (higher than 30%) the site selections should be further examined for site compatibility. The cross-test value of 27% for the selected sites shown in Table 6.4 demonstrates acceptable variations between the selected sites, therefore corroborating the robustness of selection.

Table 6.5: Library Trips (Weekday Average)

Total Vehicles	Arrival Trips		Departure Trips		Total Trips	
Time Range	Trip Rate	Trips	Trip Rate	Trips	Trip Rate	Trips
09:00-10:00	2.912	9	1.149	3	4.061	12
10:00-11:00	3.448	10	2.682	8	6.13	18
11:00-12:00	1.609	5	2.682	8	4.291	13
12:00-13:00	2.146	6	1.839	5	3.985	12
13:00-14:00	3.142	9	3.372	10	6.514	19
14:00-15:00	4.215	12	3.218	9	7.433	22
15:00-16:00	2.146	6	2.989	9	5.135	15
16:00-17:00	1.379	4	2.605	8	3.984	12
17:00-18:00	1.609	5	1.379	4	2.988	9
18:00-19:00	1.183	3	2.258	7	3.441	10
Daily Total	23.789	70	24.173	71	47.962	141

The average total hourly vehicle trip rates per 100sqm for the selected sites in Table 6.4 are shown in Table 6.5, along with the estimated hourly total vehicle trips for the library.

From the daily trip calculations, the morning peak hour is 10:00-11:00 and the afternoon peak hour is 14:00-15:00. It is estimated the library generate 141 trips across the day of which 70 are arriving trips and 71 are departing trips.

Details of the TRICS output for the Library can be found in Appendix 9.

6.3 Proposed Development Combined Trips

Table 6.6 shows the total combined arriving and departing trips for the proposed development. The TRICS analysis identifies the morning peak for the development to be between 10:00-11:00 and the evening peak between 18:00-19:00.

Table 6.6: Total Proposed Development Trips

Total Vehicles	Combined Trips (Leisure Centre + Library)		
Time Range	Arriving Trips	Departing Trips	Total Trips
06:00-07:00	38	6	44
07:00-08:00	25	37	61
08:00-09:00	33	23	56
09:00-10:00	47	31	78
10:00-11:00	40	40	80
11:00-12:00	30	43	73
12:00-13:00	33	28	60
13:00-14:00	30	34	64
14:00-15:00	34	29	63
15:00-16:00	39	32	71
16:00-17:00	42	45	86
17:00-18:00	54	48	102
18:00-19:00	52	55	106
19:00-20:00	32	45	77
20:00-21:00	22	33	55
21:00-22:00	6	27	32
Total	555	553	1109

7. PARKING REVIEW

7.1 Introduction

To review the current parking situation around the existing Leisure Centre and Library, two parking beat surveys were carried out on Thursday 4th April 2019 to understand the parking demand and use at the Abraham Moss site and on selected roads within walking distance of the site (c.4-500m). The two parking surveys undertaken were:

1) Abraham Moss Car Park – Parking Beat Survey
2) On-Street – Parking Beat Survey

The description and results of these two surveys are presented below.

7.2 Abraham Moss Car Park Survey

The first survey undertaken was a 12-hour (07:00-19:00) parking beat survey of the Abraham Moss car park. Table 3.1 in chapter 3 identified that there is a total of 287 parking spaces split between two parking areas. The first parking area is the main Abraham Moss car park adjacent to the leisure centre which has 51 spaces of which 2 are electric charging spaces and 13 are disabled access spaces. The second parking area is the Abraham Moss overspill car park which has 236 spaces with no dedicated electric changing or disabled access spaces.

For surveying purposes, the two parking areas were split into 3 sections:

- Section 1 was designated to the main Abraham Moss car park adjacent to the sports hall and metro link station which provides 51 spaces;
- Section 2 is the western half of the overspill car park just after the barrier which provides 110 spaces; and
- Section 3 is the eastern end of the overspill car park and provides 126 spaces.

Figure 7.1 below shows the three parking sections surveyed as part of the parking beat survey.

Figure 7.1: Abraham Moss Car Park Survey Sections

It was noted by the survey company, that on the day of the survey 19 car parking spaces in section 2 were coned off and not in use so that Metrolink could use the area for the storage of plant and equipment whilst undertaking a possession. This reduced this section of parking to 91 spaces (from 110) and the overall parking capacity to 268 (from 287). It is understood that the work was a one-off event with no further or immediate plans, therefore the full site car parking provision has been considered when assessing the parking demand / occupancy.

Table 7.2 shows the parking provision on the day of the survey due to the coning off of the 19 spaces.

Table 7.2: Abraham Moss Car Park – Parking Provision (Day of Survey)

Type of Spaces	Section 1	Section 2	Section 3	Total
Regular	36	110	126	272
Disabled	13	0	0	13
Electric Charging	2	0	0	2
Coned Off	0	19	0	19
Total	51	91	126	268

The parking beat surveys recorded all parked cars within each of the three sections in 15-minute intervals for the duration of the 12-hour survey allowing the parking occupancy of the full car park to be derived over the course of the survey duration. Along with recording the number of parked cars, the survey numerators also made a note of any other parking around the site, i.e. parking in non-designated areas (kerbs, pavements, grassed over areas) and any temporary drop off and pick up parking.

7.2.1 Abraham Moss Car Park Survey Results

Table 7.3 below presents the results of the Abraham Moss car park survey for the 3 surveyed parking sections. The results present the numbers of parked cars in each section every 15 minutes between 07:00 to 19:00. The associated parking occupancy was calculated against the available car parking provision on the day of the survey (Table 7.2) which includes the deduction of the 19 coned off spaces from section 2. The final column of the table presents the parking occupancy of the full car park, without removing the 19 coned off spaces, showing the actual parking occupancy of the full car park for a typical day.

Table 7.3: Abraham Moss Parking Occupancy Results

Time	SECTION 1		SECTION 2		SECTION 3		TOTAL		
	No. Parked	Occ.	No. Parked	Occ.	No. Parked	Occ.	No. Parked	Coned Off Occ.	Actual Occ.
7:00	41	80%	10	11%	0	0%	52	19%	18%
7:15	38	75%	10	11%	0	0%	49	18%	17%
7:30	35	69%	17	19%	0	0%	53	20%	18%
7:45	39	76%	17	19%	4	3%	61	23%	21%
8:00	39	76%	51	56%	4	3%	95	36%	33%
8:15	47	92%	71	78%	16	13%	136	51%	47%
8:30	51	100%	91	100%	23	18%	167	62%	58%
8:45	52	102%	91	100%	42	33%	187	70%	65%
9:00	48	94%	91	100%	43	34%	184	69%	64%
9:15	50	98%	91	100%	97	77%	240	90%	84%
9:30	50	98%	91	100%	108	86%	251	94%	87%
9:45	53	104%	91	100%	110	87%	256	96%	89%
10:00	53	104%	91	100%	113	90%	259	97%	90%
10:15	55	108%	91	100%	123	98%	271	101%	94%
10:30	57	112%	91	100%	123	98%	273	102%	95%
10:45	55	108%	91	100%	124	98%	272	102%	95%
11:00	48	94%	91	100%	125	99%	266	99%	93%
11:15	49	96%	91	100%	125	99%	267	100%	93%
11:30	49	96%	91	100%	124	98%	266	99%	93%
11:45	52	102%	91	100%	122	97%	267	100%	93%
12:00	51	100%	91	100%	119	94%	263	98%	92%
12:15	51	100%	91	100%	122	97%	266	99%	93%
12:30	50	98%	91	100%	121	96%	264	99%	92%

12:45	49	96%	91	100%	122	97%	264	98%	92%
13:00	48	94%	91	100%	117	93%	258	96%	90%
13:15	48	94%	91	100%	117	93%	258	96%	90%
13:30	51	100%	91	100%	115	91%	259	97%	90%
13:45	52	102%	91	100%	115	91%	260	97%	91%
14:00	53	104%	91	100%	106	84%	252	94%	88%
14:15	53	104%	91	100%	108	86%	254	95%	89%
14:30	54	106%	90	99%	94	75%	240	90%	84%
14:45	56	110%	91	100%	91	72%	240	90%	84%
15:00	60	118%	86	95%	77	61%	225	84%	78%
15:15	63	124%	85	93%	74	59%	224	84%	78%
15:30	55	108%	71	78%	67	53%	195	73%	68%
15:45	54	106%	66	73%	64	51%	186	69%	65%
16:00	51	100%	47	52%	43	34%	143	53%	50%
16:15	41	80%	39	43%	29	23%	110	41%	38%
16:30	36	71%	34	37%	34	27%	105	39%	37%
16:45	36	71%	33	36%	36	29%	106	40%	37%
17:00	28	55%	13	14%	18	14%	60	22%	21%
17:15	36	71%	15	16%	14	11%	66	25%	23%
17:30	43	84%	13	14%	7	6%	64	24%	22%
17:45	49	96%	12	13%	1	1%	63	24%	22%
18:00	52	102%	14	15%	4	3%	71	27%	25%
18:15	51	100%	14	15%	3	2%	69	26%	24%
18:30	42	82%	8	9%	2	2%	53	20%	18%
18:45	38	75%	4	4%	0	0%	43	16%	15%

Analysis of the parking survey results identified that section 1 reached capacity by 08:30 and stayed full until 16:00, reducing to 55% by 17:00. After 17:00 the car park started to fill back up to capacity by 18:00 and started to empty around 18:30/18:45 with occupancy at 75% by the end of the survey. During the busiest periods when section 1 is at capacity, it was observed that vehicles parked illegally along the car park access road and across parked bays as pupils were dropped off/picked up. The peak occupancy was at 15:15, which coincides with when the School finishes, with a maximum occupancy of 124%, with 6 vehicles parking in non-designated parking areas. Additional capacity in the remaining car park was available during these times.

Like section 1, section 2 reached capacity by 08:30 and stayed at capacity until 15:00. After 15:00 the car park gradually empties to an occupancy of 4% by 19:00 at the end of the survey. All vehicles parked in designated areas in the overspill car park.

Section 3 didn't reach capacity during the survey with spaces still available during its busiest period between 10.30am to lunchtime (12:00-13:00). The car park began to empty after lunchtime by 17:30 it was virtually empty, and by 19:00 at the end of the survey it was completely empty.

Focusing on total actual parking occupancy, the busiest periods during the day for the full parking area is between 09:00 in the morning, until 15:00, which is consistent with the neighbouring schools operational hours

The total peak occupancy of the car park during the survey was between 10:30 and 11:00 with a maximum parking occupancy across the full parking area of 102%. During this period, it was noted that 6 cars parked in non-designated parking areas in section 1 when sections 1 and 2 were at capacity and section 3 had a few available spaces. If the 19 coned off spaces had been available, then total parking demand for the full car parking area would be 95% occupancy, meaning the total car park area wouldn't reach capacity with approximately 15 available spaces.

As mentioned above, numerators recorded vehicles dropping off and picking up every 15 minutes for the duration of the survey in all three sections. The results indicated all drop-offs/pick-ups only occurred in section 1 with no drop-offs/pick-ups in the overspill car park (sections 2 and 3). Table 5.4 presents the recorded drop-offs and pick-ups in section 1 for the 12-hour survey. The results show the majority of pick-ups and drop-offs are around the school start time (08:00-09:00) and finish time (15:00-16:00) and around 17:30-18:00, which could be consistent with collection from Metrolink services.

Table 7.4: Abraham Moss Car Park – Section 1 Drop Offs

Section 1 Drop Off/Pick Ups (Every 15 Minutes)							
7:00	0	10:00	0	13:00	0	16:00	1
7:15	1	10:15	0	13:15	1	16:15	0
7:30	1	10:30	0	13:30	0	16:30	0
7:45	2	10:45	0	13:45	1	16:45	0
8:00	2	11:00	1	14:00	0	17:00	1
8:15	5	11:15	0	14:15	0	17:15	0
8:30	6	11:30	0	14:30	1	17:30	2
8:45	3	11:45	0	14:45	0	17:45	3
9:00	1	12:00	0	15:00	0	18:00	0
9:15	0	12:15	1	15:15	5	18:15	0
9:30	0	12:30	2	15:30	3	18:30	0
9:45	0	12:45	0	15:45	0	18:45	0

7.2.2 Abraham Moss Car Park Summary

The occupancy analysis establishes section 1 becomes full early in the day, which is likely as it is the first area of available parking. Once this area is full, vehicles then park in the overspill car

park, with vehicles dropping off and waiting to pick up in non-designated parking areas in section 1 instead of parking in the overspill car park. This is potentially due to the drop-offs/pick-ups tending to be short in duration and section 1 is closer to the school entrance / leisure centre.

The survey identifies that the car parking area as a whole (including the temporary coned off spaces and both car parks) would not become over capacity during the day with 5% spare capacity in the overspill car park at its busiest time.

Full details of the Abraham Moss car park parking survey can be found in Appendix 10.

7.3 On-Street Car Park Survey

On-street parking beat surveys were undertaken on fourteen roads to the north, west and south of the site, as agreed with MCC, to determine parking demand around the local streets close to the site. Surveys were undertaken between 07:30 and 09:30 and 15:00 to 16:30 to assess the parking habits, use and occupancy of the local on-street parking around the neighbouring school opening and closing periods.

The fourteen roads surveyed were:

To the North of site:

1) Crescent Road
2) Crescent Avenue
3) Sedgley Road
4) Maureen Avenue
5) Ash Tree Road
6) Kings Avenue
7) Enver Road

To the West and South of Site:

8) Woodlands Road
9) Wellington Road
10) Greenstead Avenue
11) Greenhill Road
12) Parslow Avenue
13) Greenhill Road
14) Woodhall Road

Figure 7.5 shows the fourteen roads surveyed as part of the peak period on-street parking beat survey.

Figure 7.5: On-Street Parking Beat Survey Zone

Table 7.6 below presents the number of parking spaces along each side of the carriageway for the fourteen surveyed streets. The survey identified all available areas of parking and calculated the number of parking spaces within each parking area based on one parking space equating to 5m in length. The survey picked up all parking allowances and restrictions, how cars were parking, how many cars were parked and the parking stress (occupancy) of each parking area.
Full details of the on-street parking survey results can be found in Appendix 11.

Table 7.6: No. of On-Street Parking Spaces

On-Street Survey Locations	No. Parking of Spaces
WOODLANDS ROAD NORTH	58
WOODLANDS ROAD SOUTH	63
WOODHALL ROAD WEST	10
WOODHALL ROAD EAST	10
GREENSTEAD AVENUE NORTH	42
GREENSTEAD AVENUE SOUTH	40
GREENHILL ROAD EAST	19
GREENHILL ROAD WEST	27
CRESCENT ROAD NORTH	18
CRESCENT ROAD SOUTH	35
CRESCENT AVENUE EAST	28
CRESCENT AVENUE WEST	15
MAUREEN AVENUE EAST	21
MAUREEN AVENUE WEST	20
SEDGLEY ROAD NORTH	10
SEDGLEY ROAD SOUTH	8
KINGS AVENUE SOUTH	3
KINGS AVENUE NORTH	15
ASH TREE ROAD WEST	17
ASH TREE ROAD EAST	18
ENVER ROAD NORTH	31
ENVER ROAD SOUTH	28
WELLINGTON ROAD EAST	17
WELLINGTON ROAD WEST	18
HALLWORTH ROAD EAST	19
HALLWORTH ROAD WEST	18
PARSLOW AVENUE WEST	8
PARSLOW AVENUE EAST	9

As can be seen by the on-street parking numbers in Table 7.6, the largest amount of available parking spaces are on Crescent Road, Ash Tree Road and Enver Road to the north of site and Woodlands Road, Greenstead Avenue and Greenhill Road to the south of site. On-street parking is generally non-restricted, with some restricted parking bays along Crescent Road.

7.3.1 On-Street Car Park Survey Results

Tables 7.7 and 7.8 below present the results of morning and afternoon peak period on-street parking beat surveys. Full details of these parking results can be found in Appendix 11.

Table 7.7: On-Street Parking Survey Results (Morning Peak)

On-Street Parking Analysis	07:30			07:45			08:00			08:15			08:30			08:45			09:00			09:15			09:30		
AM Peak	**No. Spaces**	**No. Parked**	**Parking Stress (%)**	**No. Spaces**	**No. Parked**	**Parking Stress (%)**	**No. Spaces**	**No. Parked**	**Parking Stress (%)**	**No. Spaces**	**No. Parked**	**Parking Stress (%)**	**No. Spaces**	**No. Parked**	**Parking Stress (%)**	**No. Spaces**	**No. Parked**	**Parking Stress (%)**	**No. Spaces**	**No. Parked**	**Parking Stress (%)**	**No. Spaces**	**No. Parked**	**Parking Stress (%)**	**No. Spaces**	**No. Parked**	**Parking Stress (%)**
WOODLANDS ROAD NORTH	58	18	31%	58	17	29%	58	16	28%	58	16	28%	58	15	26%	58	15	26%	58	15	26%	58	14	24%	58	14	24%
WOODLANDS ROAD SOUTH	63	32	51%	63	31	49%	63	29	46%	63	12	19%	63	21	33%	63	10	16%	63	9	14%	63	24	38%	63	10	16%
WOODHALL ROAD WEST	10	1	10%	10	1	10%	10	1	10%	10	1	10%	10	2	20%	10	2	20%	10	2	20%	10	2	20%	10	2	20%
WOODHALL ROAD EAST	10	1	10%	10	1	10%	10	1	10%	10	1	10%	10	1	10%	10	1	10%	10	1	10%	10	1	10%	10	1	10%
GREENSTEAD AVENUE NORTH	42	11	26%	42	10	24%	42	10	24%	42	10	24%	42	11	26%	42	11	26%	42	10	24%	42	10	24%	42	9	21%
GREENSTEAD AVENUE SOUTH	40	13	32%	40	13	32%	40	11	27%	40	9	22%	40	9	22%	40	10	25%	40	11	27%	40	12	30%	40	11	27%
GREENHILL ROAD EAST	19	8	41%	19	7	36%	19	5	26%	19	5	26%	19	6	31%	19	6	31%	19	6	31%	19	7	36%	19	7	36%
GREENHILL ROAD WEST	27	6	22%	27	6	22%	27	6	22%	27	6	22%	27	6	22%	27	6	22%	27	6	22%	27	6	22%	27	6	22%
CRESCENT ROAD NORTH	18	19	105%	18	19	105%	18	22	121%	18	21	116%	18	21	116%	18	21	116%	18	13	72%	18	12	66%	18	11	61%
CRESCENT ROAD SOUTH	35	21	61%	35	20	58%	35	19	55%	35	15	43%	35	14	40%	35	14	40%	35	15	43%	35	15	43%	35	13	38%
CRESCENT AVENUE EAST	28	5	18%	28	5	18%	28	6	21%	28	6	21%	28	6	21%	28	7	25%	28	7	25%	28	7	25%	28	6	21%
CRESCENT AVENUE WEST	15	5	33%	15	5	33%	15	5	33%	15	5	33%	15	6	40%	15	6	40%	15	9	60%	15	8	53%	15	8	53%
MAUREEN AVENUE EAST	21	9	44%	21	9	44%	21	10	49%	21	10	49%	21	11	54%	21	10	49%	21	9	44%	21	10	49%	21	10	49%
MAUREEN AVENUE WEST	20	9	45%	20	9	45%	20	9	45%	20	10	50%	20	10	50%	20	9	45%	20	8	40%	20	9	45%	20	9	45%
SEDGLEY ROAD NORTH	10	5	49%	10	3	30%	10	4	39%	10	5	49%	10	6	59%	10	6	59%	10	4	39%	10	3	30%	10	2	20%
SEDGLEY ROAD SOUTH	8	2	26%	8	4	52%	8	3	39%	8	4	52%	8	6	79%	8	3	39%	8	3	39%	8	3	39%	8	3	39%
KINGS AVENUE SOUTH	3	7	222%	3	7	222%	3	8	253%	3	8	253%	3	8	253%	3	9	285%	3	8	253%	3	9	285%	3	9	285%
KINGS AVENUE NORTH	15	11	71%	15	11	71%	15	10	65%	15	9	58%	15	9	58%	15	9	58%	15	8	52%	15	8	52%	15	9	58%
ASH TREE ROAD WEST	17	9	52%	17	9	52%	17	10	57%	17	10	57%	17	10	57%	17	9	52%	17	9	52%	17	11	63%	17	11	63%
ASH TREE ROAD EAST	18	10	57%	18	10	57%	18	10	57%	18	12	68%	18	14	79%	18	13	74%	18	10	57%	18	11	62%	18	11	62%
ENVER ROAD NORTH	31	22	71%	31	22	71%	31	20	65%	31	21	68%	31	21	68%	31	21	68%	31	21	68%	31	19	61%	31	19	61%
ENVER ROAD SOUTH	28	15	53%	28	15	53%	28	16	57%	28	17	60%	28	17	60%	28	15	53%	28	16	57%	28	17	60%	28	18	64%
WELLINGTON ROAD EAST	17	9	52%	17	9	52%	17	9	52%	17	7	40%	17	7	40%	17	8	46%	17	8	46%	17	8	46%	17	8	46%
WELLINGTON ROAD WEST	18	9	49%	18	9	49%	18	10	54%	18	12	65%	18	12	65%	18	9	49%	18	9	49%	18	9	49%	18	10	54%
HALLWORTH ROAD EAST	19	16	83%	19	16	83%	19	14	73%	19	16	83%	19	17	88%	19	16	83%	19	16	83%	19	16	83%	19	15	78%
HALLWORTH ROAD WEST	18	14	77%	18	14	77%	18	14	77%	18	13	71%	18	13	71%	18	11	60%	18	12	66%	18	13	71%	18	11	60%
PARSLOW AVENUE WEST	8	3	39%	8	3	39%	8	3	39%	8	4	52%	8	4	52%	8	4	52%	8	4	52%	8	5	64%	8	5	64%
PARSLOW AVENUE EAST	9	0	0%	9	2	22%	9	2	22%	9	1	11%	9	1	11%	9	1	11%	9	2	22%	9	1	11%	9	1	11%

Table 7.8: On-Street Parking Survey Results (Afternoon Peak)

On-Street Parking Analysis	15:00			15:15			15:30			15:45			16:00			16:15			16:30		
PM Peak	No. Spaces	No. Parked	Parking Stress (%)	No. Spaces	No. Parked	Parking Stress (%)	No. Spaces	No. Parked	Parking Stress (%)	No. Spaces	No. Parked	Parking Stress (%)	No. Spaces	No. Parked	Parking Stress (%)	No. Spaces	No. Parked	Parking Stress (%)	No. Spaces	No. Parked	Parking Stress (%)
WOODLANDS ROAD NORTH	58	17	29%	58	16	28%	58	12	21%	58	13	22%	58	16	28%	58	16	28%	58	16	28%
WOODLANDS ROAD SOUTH	63	21	33%	63	21	33%	63	18	28%	63	20	32%	63	19	30%	63	18	28%	63	18	28%
WOODHALL ROAD WEST	10	2	20%	10	2	20%	10	1	10%	10	1	10%	10	1	10%	10	1	10%	10	1	10%
WOODHALL ROAD EAST	10	0	0%	10	0	0%	10	0	0%	10	1	10%	10	1	10%	10	1	10%	10	1	10%
GREENSTEAD AVENUE NORTH	42	8	19%	42	7	17%	42	6	14%	42	8	19%	42	8	19%	42	9	21%	42	10	24%
GREENSTEAD AVENUE SOUTH	40	8	20%	40	8	20%	40	12	30%	40	14	35%	40	13	32%	40	11	27%	40	11	27%
GREENHILL ROAD EAST	19	6	31%	19	7	36%	19	7	36%	19	6	31%	19	6	31%	19	5	26%	19	6	31%
GREENHILL ROAD WEST	27	7	25%	27	7	25%	27	8	29%	27	6	22%	27	6	22%	27	6	22%	27	6	22%
CRESCENT ROAD NORTH	18	7	39%	18	8	44%	18	9	50%	18	8	44%	18	7	39%	18	7	39%	18	6	33%
CRESCENT ROAD SOUTH	35	18	52%	35	10	29%	35	10	29%	35	9	26%	35	9	26%	35	8	23%	35	8	23%
CRESCENT AVENUE EAST	28	6	21%	28	6	21%	28	6	21%	28	0	0%	28	6	21%	28	6	21%	28	6	21%
CRESCENT AVENUE WEST	15	2	13%	15	2	13%	15	2	13%	15	2	13%	15	2	13%	15	3	20%	15	4	27%
MAUREEN AVENUE EAST	21	8	39%	21	9	44%	21	9	44%	21	8	39%	21	8	39%	21	8	39%	21	8	39%
MAUREEN AVENUE WEST	20	7	35%	20	7	35%	20	6	30%	20	6	30%	20	6	30%	20	4	20%	20	4	20%
SEDGLEY ROAD NORTH	10	4	39%	10	5	49%	10	5	49%	10	4	39%	10	4	39%	10	5	49%	10	5	49%
SEDGLEY ROAD SOUTH	8	5	65%	8	4	52%	8	2	26%	8	3	39%	8	3	39%	8	3	39%	8	2	26%
KINGS AVENUE SOUTH	3	9	285%	3	9	285%	3	9	285%	3	8	253%	3	7	222%	3	8	253%	3	8	253%
KINGS AVENUE NORTH	15	5	32%	15	5	32%	15	6	39%	15	6	39%	15	6	39%	15	6	39%	15	6	39%
ASH TREE ROAD WEST	17	9	52%	17	7	40%	17	6	34%	17	6	34%	17	6	34%	17	6	34%	17	6	34%
ASH TREE ROAD EAST	18	9	51%	18	9	51%	18	7	40%	18	7	40%	18	7	40%	18	7	40%	18	8	45%
ENVER ROAD NORTH	31	15	48%	31	17	55%	31	17	55%	31	21	68%	31	21	68%	31	19	61%	31	18	58%
ENVER ROAD SOUTH	28	11	39%	28	10	35%	28	7	25%	28	8	28%	28	7	25%	28	7	25%	28	7	25%
WELLINGTON ROAD EAST	17	10	57%	17	9	52%	17	7	40%	17	9	52%	17	7	40%	17	7	40%	17	7	40%
WELLINGTON ROAD WEST	18	9	49%	18	8	43%	18	8	43%	18	7	38%	18	7	38%	18	7	38%	18	8	43%
HALLWORTH ROAD EAST	19	9	47%	19	9	47%	19	10	52%	19	9	47%	19	11	57%	19	11	57%	19	11	57%
HALLWORTH ROAD WEST	18	13	71%	18	12	66%	18	12	66%	18	13	71%	18	11	60%	18	11	60%	18	11	60%
PARSLOW AVENUE WEST	8	4	52%	8	3	39%	8	3	39%	8	3	39%	8	3	39%	8	3	39%	8	3	39%
PARSLOW AVENUE EAST	9	0	0%	9	0	0%	9	0	0%	9	2	22%	9	1	11%	9	1	11%	9	1	11%

7.3.2 On-Street Car Park Survey Summary

Crescent Road is the major road which provides access to the AMLLC and the wider Abraham Moss site and is the longest stretch of road surveyed around the site. It is the main road that the AMLLC takes access from therefore, it is important to understand its current parking provision and typical use.

The southern carriageway of Crescent Road provides approximately 35 parking spaces along its surveyed length, with the majority of available parking space outside residential properties fronting Crescent Road in between the main school access and Abraham Moss car park access and to the west of the car park access. The northern carriageway of Crescent Road provides approximately 21 spaces along its surveyed length, with the majority of available parking space to the west of the car park access and to the east of the main school access.

The available parking along Crescent Road is made up of a mixture of restricted parking bays which front the residential properties along the road and areas of available parking with no restrictions or designated bays, which are mainly to the west away from the school. No parking is permitted around the main school access or the Abraham Moss car park access either side of the carriageway, with double yellow lines along the frontage of the school, around the car park access and to the east of the school access along the southern carriageway of Crescent Road. This area of Crescent Road is heavily double yellow lined with a large area zig zags to the west of the Abraham Moss car park access.

Results of the morning peak period on-street parking beat survey indicates all surveyed streets have spare occupancy to park in the morning period apart from along the northern carriageway of Crescent Road and the southern carriageway of Kings Avenue, which exceed their calculated occupancy.

Results of the morning peak period survey along Crescent Road identify no issues along the southern carriageway which has spare capacity, but the northern carriageway identifies a parking occupancy of 116-121% between 08:00 and 09:00, decreasing to 72% by 09:00 and 61% by 09:30. It was noted by the survey that although the parking occupancy identifies the parking area is over capacity, all cars parked in the permitted parking area and did not park illegally.

Kings Avenue is a small, narrow residential street to the north of Crescent Road off Ash Tree Road, which appears to be used for residents parking as there is no other off-street parking provision. Due to its location (set back away from Crescent Road off Ash Tree Road) and the narrowness of the street, this road is unlikely to be used for parking for users of the site as there are more accessible alternative on-street parking options in closer vicinity to the site.

Results of the afternoon peak period on-street parking beat survey suggests there is adequate parking available on the surveyed streets between 15:00 to 16:30, including those roads close to the site; Crescent Road, Woodlands Road, Crescent Avenue and Ash Tree Road.

Across the surveyed area in the afternoon, total occupancy peaks at 15:00 with demand decreasing until 16:00. This would appear to be consistent with the neighbouring schools operational hours. After 16:00 the general occupancy of the surveyed area increases, potentially reflecting local residents arriving home from work.

The southern carriageway of Kings Avenue still exceeds capacity in the afternoon. However, it is considered likely that this is due to local residents parking outside their properties as opposed to visitors to the site.

In general, the on-street parking beat survey concluded that there are no on-street parking issues in the surveyed area around the Abraham Moss site during the morning and afternoon peak periods. However, Crescent Road is heavily used between 08:00-09:00, with most parking areas utilised, but with no illegal parking. During all other times, no other roads exceed parking capacity, except Kings Avenue which is clarified above. It is considered that parking demand is generally residential in nature with some pupil drop-off and pick-up parking for the AMCS along Crescent Road, consistent with the neighbouring school's operational hours. All adjacent roads surveyed had no parking capacity issues or illegal parking.

Full details of the on-street parking survey can be found in Appendix 11.

7.4 Construction Impact on Car Parking

As mentioned in chapter 5, construction of the new library and leisure centre will result in the loss of 44 car parking spaces in the main site car park. Six spaces will be retained of which 2 spaces are disabled access spaces. A further 16 spaces will be taken at the eastern end of the overspill car park to accommodate the staff site compound, as detailed in section 5.5.1.

The assessment indicates that the AMLLC car park will accommodate the anticipated parking demand with the temporary loss of parking during the construction phase, noting the potential reduction in demand due to the temporary off site relocation of the leisure centre facilities.

8. POLICY COMPLIANCE

8.1 National Policy

The development supports the aims and objectives of national policy as set out in NPPF and is consistent with the public transport strategies and desires of national and local policy to encourage sustainable modes of travel and reduce the need to travel by car by encouraging the use of non-car modes.

Policy encourages development to be progressed in sustainable locations, thus promoting walking and cycling to the site. The development will be progressed in a manner which supports policy guidance, by ensuring the development will be a convenient and safe environment for pedestrians, cyclists and disabled persons.

As discussed in Section 3, it is considered that the site is located in an area where there is excellent existing public transport and good walking and cycling infrastructure which will support sustainable travel and reduce the reliance on private vehicular modes.

8.2 Greater Manchester Local Transport Plan

It is considered that the proposed development meets the core objectives of LTP3. Specifically, the development will facilitate active, healthy lifestyles by encouraging opportunities for walking and cycling within Manchester City Centre. The site's location and accessibility to public transport means that site users will have access to the amenities and employment opportunities offered by the development, supported by the Great Manchester economy.

8.3 BREEAM

BREEAM is an assessment using scientifically based sustainability metrics and indices that covers a range of environmental issues. Its categories evaluate energy and water use, health and wellbeing, pollution, transport, materials, waste, ecology and management processes. Buildings are rated and certified by independent, licensed assessors on a scale of 'Pass', 'Good', 'Very Good', 'Excellent' and 'Outstanding'.

It works to raise awareness amongst owners, occupiers and designers of the benefits of taking a sustainability approach. It helps them to successfully adopt sustainable solutions in a cost effective manner and provides market recognition of their achievements with the aim to reduce the negative effects of construction and development on the environment.

Table 8.1 below identifies the BREEAM requirements for transport assessments and provides references within this document where these requirements are addressed and comply.

Table 8.1: BREEAM Compliance

The site-specific travel assessment (or statement) shall cover as a minimum:	*Document Reference*
2.a) If relevant, travel patterns and attitudes of existing building or site users towards cycling, walking and public transport, to identify relevant constraints and opportunities.	Not relevant

2.b) Predicted travel patterns and transport impact of future building or site users.	A detailed assessment of the likely trips to be generated by the development is presented in chapter 6 (Trip Generation).
2.c Current local environment for pedestrians and cyclists, accounting for any age-related requirements of occupants and visitors.	Detailed walking and cycling route audits have been undertaken in chapter 4 (Walking and Cycling Route Audits).
2.d) Reporting of the number and type of existing accessible amenities within 500m of the site.	Chapter 3.8 details all accessible amenities within 500m of site.
2.e) Disabled access accounting for varying levels and types of disability, including visual impairment.	This has been detailed in the proposed development section in chapter 5 (Proposed Development).
2.f) Calculation of the existing public transport Accessibility Index (AI).	The existing public transport Accessibility Index score was calculated as 18.43 achieving a total of 5 Tra 01 credits. Full details of the assessment are presented in chapter 3.9 and Appendix 4.
2.g) Current facilities for cyclists.	This has been detailed in the proposed development section in chapter 5.1.2 (Proposed Development – Cycle Parking Provision).

9. SUMMARY & CONCLUSIONS

This Transport Statement has considered the impact of the redevelopment of Abraham Moss Library and Leisure Centre (AMLLC) in Crumpsall, North Manchester. The proposals are to demolish the existing AMLLC and construct a new state of the art structure to house new AMLLC on the same site footprint.

The proposed new library and sports facilities will be for use by the general public and the adjacent AMCS between 06:30-22:00 Monday to Friday and from 09:00-18:00 on weekends (09:00-18:00).

Whilst the existing building is being demolished and the new building is constructed, the general public will be offered other swimming and leisure facility options in the local area. It is proposed to construct a temporary sports hall for the AMCS on the rear playground of the school site for the entire construction program (100 weeks) whilst the new library and leisure centre is being constructed which is subject to a separate planning application which was submitted for planning in July 2019. The proposed temporary facility will be for use of the AMCS between school opening and closing times and for general public use in the evenings (17:00-22:00) and weekends (09:00-18:00).

It is also proposed to temporarily relocate the library to a new temporary structure adjacent to the retaining wall in the northern car park of the School site, which is subject to a separate planning application. The temporary library will be open from 09:00-17:00 Mondays, Tuesdays, Fridays and Saturdays and from 09:00-20:00 on Wednesdays and like the temporary sports hall will be operational for the entire 100 week construction program.

It should be noted that demolition of the existing AMLLC building cannot commence until the temporary sports and temporary library are operational.

A review of the key walking and cycling routes around the Abraham Moss site concludes that the condition of the walking routes to/from the site are acceptable. The routes assessed for cycling are typically not formal cycle routes, but routes which cyclists may use therefore the audit scores are typically lower than the 70% threshold.

The parking review of the on-site car parking has established that there is sufficient capacity to accommodate anticipated demand of the new AMLLC. The surveys demonstrated that there is sufficient capacity in the Abraham Moss car park to accommodate both construction compounds and all vehicles wishing to park throughout the day during the temporary construction works. It has also been determined that in the unlikely event the car parks reach capacity there is suitable on-street parking available. The CTMP will detail how construction traffic will be managed throughout the site, to minimise any impact on the daily operation of the car parks.

The on-street parking beat survey concluded there are no on-street parking issues in the surveyed area around the Abraham Moss site during the morning and afternoon peak periods.

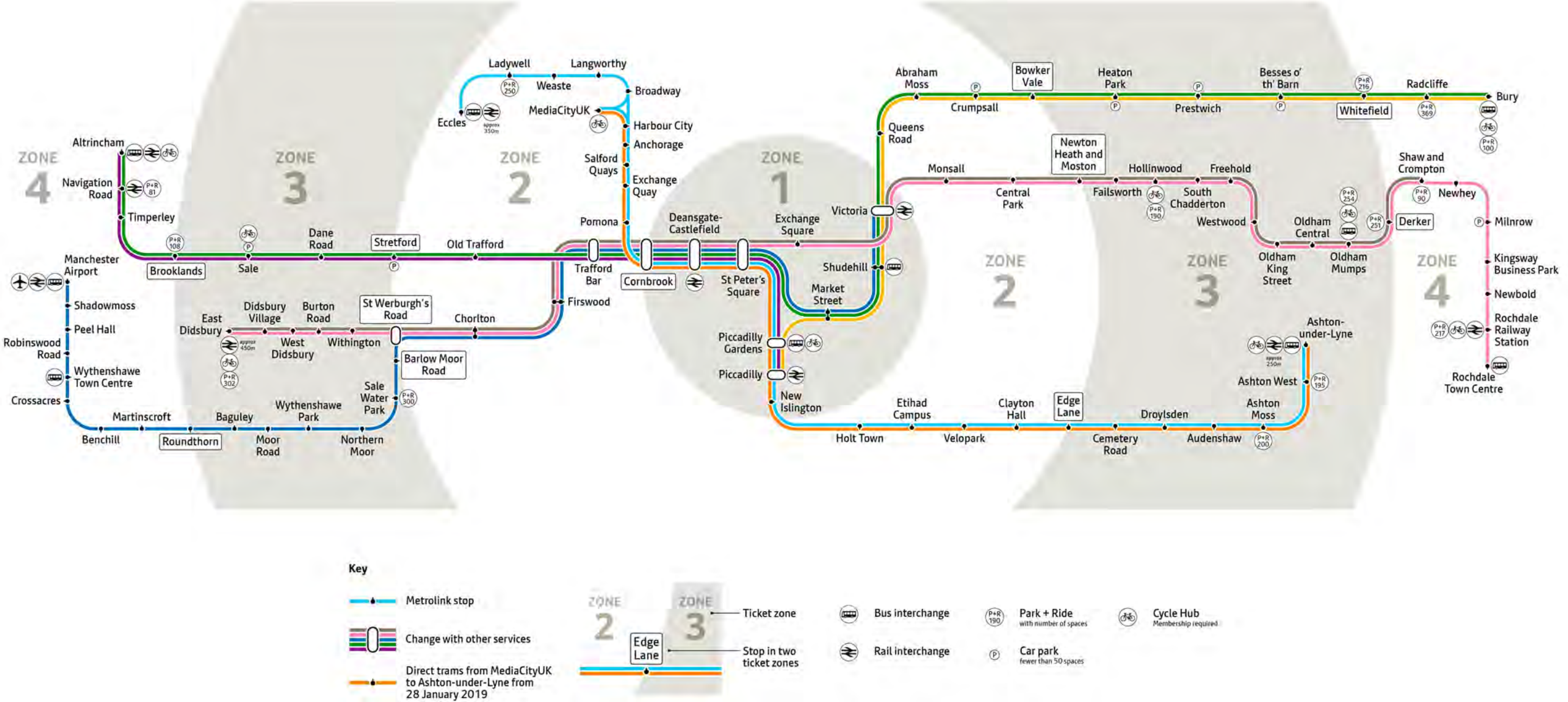
There will be no highway layout (or barrier) change to the site service/delivery road to the rear of the new AMLLC therefore, all service vehicles (refuse trucks) and delivery vehicles (swimming pool chemical tankers) will continue to access and service/delivery in this area as existing.

The development complies to BREEAM requirements as demonstrated in section 8.4.

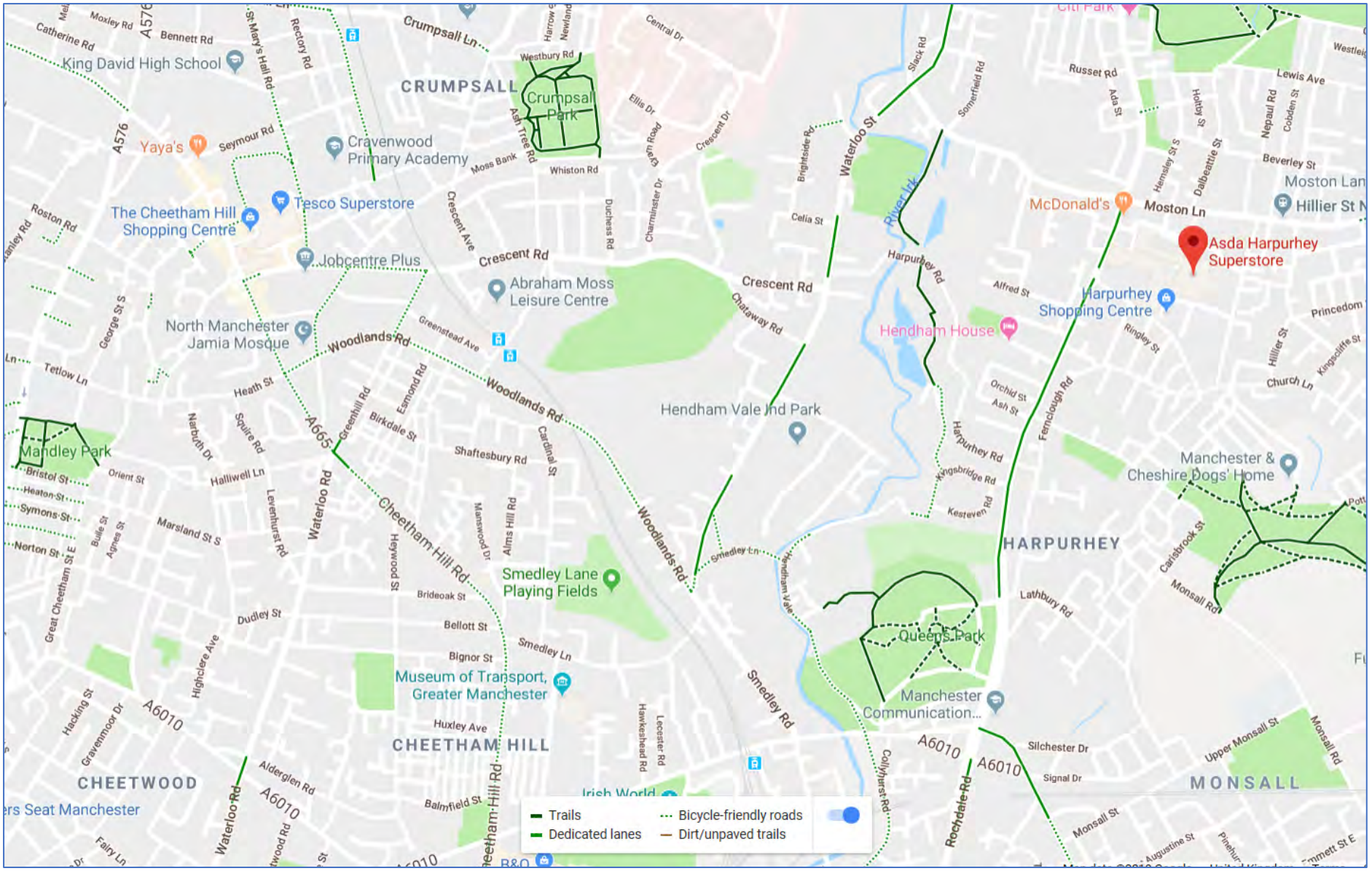
In conclusion, it is considered that the proposed development comprising of the construction of a new state of the art Abraham Moss Library and Leisure Centre should be supported by MCC on highway and transport grounds.

APPENDIX 1
BUS SERVICES

APPENDIX 2
METROLINK NETWORK


ZONE 4
ZONE 3
ZONE 2
ZONE 1
ZONE 2
ZONE 3
ZONE 4
Altrincham
Navigation Road
Timperley
Brooklands
Sale
Dane Road
Stretford
Old Trafford
Manchester Airport
Shadowmoss
Peel Hall
Robinswood Road
Wythenshawe Town Centre
Crossacres
Martinscroft
Benchill
Roundthorn
Baguley
Moor Road
Wythenshawe Park
Northern Moor
Sale Water Park
Barlow Moor Road
East Didsbury
Didsbury Village
West Didsbury
Burton Road
Withington
St Werburgh's Road
Chorlton
Firswood
Ladywell
Weaste
Langworthy
Eccles
Broadway
MediaCityUK
Harbour City
Anchorage
Salford Quays
Exchange Quay
Pomona
Trafford Bar
Cornbrook
Deansgate-Castlefield
St Peter's Square
Exchange Square
Victoria
Shudehill
Market Street
Piccadilly Gardens
Piccadilly
New Islington
Holt Town
Etihad Campus
Velopark
Clayton Hall
Edge Lane
Cemetery Road
Droylsden
Audenshaw
Ashton Moss
Ashton West
Ashton-under-Lyne
Abraham Moss
Crumpsall
Bowker Vale
Heaton Park
Prestwich
Besses o' th' Barn
Whitefield
Radcliffe
Bury
Queens Road
Monsall
Central Park
Newton Heath and Moston
Failsworth
Hollinwood
Freehold
South Chadderton
Westwood
Oldham King Street
Oldham Central
Oldham Mumps
Derker
Shaw and Crompton
Newhey
Milnrow
Kingsway Business Park
Newbold
Rochdale Railway Station
Rochdale Town Centre
Key
Metrolink stop
Change with other services
Direct trams from MediaCityUK to Ashton-under-Lyne from 28 January 2019
Ticket zone
Stop in two ticket zones
Bus interchange
Rail interchange
Park + Ride
with number of spaces
Car park
fewer than 50 spaces
Cycle Hub
Membership required

APPENDIX 3
CYCLING NETWORK


CRUMPSALL
CHEETHAM HILL
CHEETWOOD
HARPURHEY
MONSALL
King David High School
Crumpsall Park
Cravenwood Primary Academy
Yaya's
Tesco Superstore
The Cheetham Hill Shopping Centre
Jobcentre Plus
Abraham Moss Leisure Centre
North Manchester Jamia Mosque
Mandley Park
Hendham Vale Ind Park
Smedley Lane Playing Fields
Museum of Transport, Greater Manchester
Queens Park
Manchester Communication...
Manchester & Cheshire Dogs' Home
McDonald's
Asda Harpurhey Superstore
Harpurhey Shopping Centre
Hendham House
Hillier St
Moston Ln
Crumpsall Ln
Crescent Rd
Woodlands Rd
Cheetham Hill Rd
Waterloo Rd
Smedley Rd
Rochdale Rd
A6010
A665
A576
Trails
Dedicated lanes
Bicycle-friendly roads
Dirt/unpaved trails

APPENDIX 4
BREEAM ACCESSIBLITY INDEX CALCULATOR

BREEAM International 2016 Tra 01 Public transport accessibility calculator

Using the drop down boxes make the relevant selections and press the 'Select' button

Building type

No. nodes required

Dedicated bus service:

Select

NODE 1

Public transport type	Bus									
Distance to node (m)	150									
	Service 1	Service 2	Service 3	Service 4	Service 5	Service 6	Service 7	Service 8	Service 9	Service 10
Average frequency per hour	4	1	2	1	1					

NODE 2

Public transport type	Bus									
Distance to node (m)	350									
	Service 1	Service 2	Service 3	Service 4	Service 5	Service 6	Service 7	Service 8	Service 9	Service 10
Average frequency per hour	3	2	2	1						

NODE 3

Public transport type	Bus									
Distance to node (m)	350									
	Service 1	Service 2	Service 3	Service 4	Service 5	Service 6	Service 7	Service 8	Service 9	Service 10
Average frequency per hour	3	2	2	1						

NODE 4

Public transport type	Bus									
Distance to node (m)	650									
	Service 1	Service 2	Service 3	Service 4	Service 5	Service 6	Service 7	Service 8	Service 9	Service 10
Average frequency per hour	4	3	1							

NODE 5

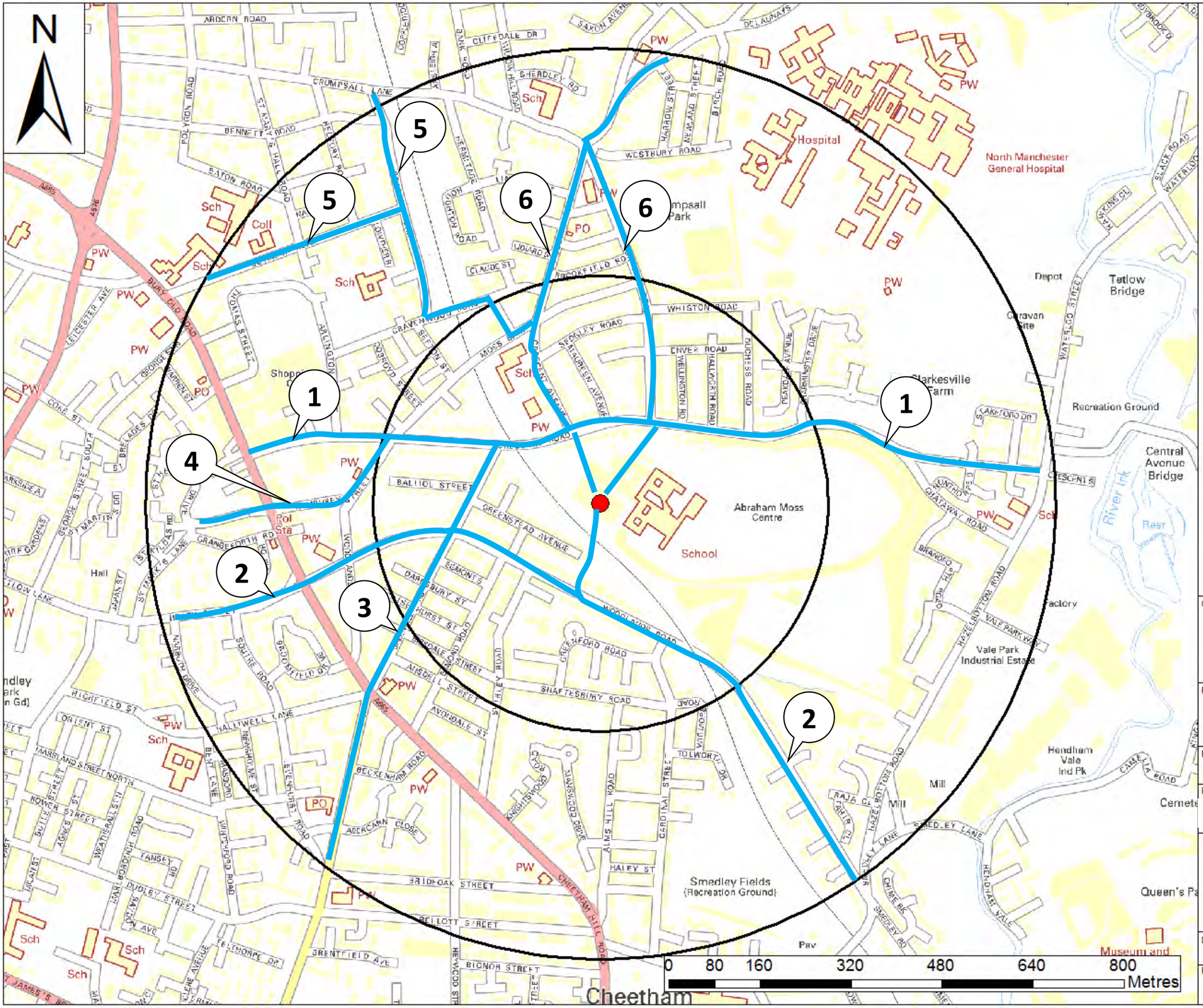
Public transport type	Bus									
Distance to node (m)	550									
	Service 1	Service 2	Service 3	Service 4	Service 5	Service 6	Service 7	Service 8	Service 9	Service 10
Average frequency per hour	2	1								

NODE 6

Public transport type	Rail									
Distance to node (m)	150									
	Service 1	Service 2	Service 3	Service 4	Service 5	Service 6	Service 7	Service 8	Service 9	Service 10
Average frequency per hour	5	5								

Accessibility Index	18.43
Tra01 total credits achieved	**5**

APPENDIX 5
WALKING & CYCLING CATCHMENT ISOCHRONES



Client

Project Title

Abraham Moss

Project Number

Figure Title

Walk Routes Assessed

RAMBOLL

Date	Prepared By
18/07/2019	TP
Figure No.	Revision
	-

N

6

4

1

5

2

3

4

0 300 600 1,200 1,800 2,400 3,000
Metres

Isochrones indicate 1,500m and 3,000m

Client

Project Title

Abraham Moss

Project Number

Figure Title

Cycle Routes Assessed

RAMBOLL

Date	Prepared By
18/07/2019	TP
Figure No.	Revision
	-

APPENDIX 8
PROPOSED LANDSCAPE MASTERPLAN

BUS DROP OFF
reinstate area to grass
level crossing
BARRIER
BARRIER
HARD LANDSCAPE
GATE - CONTROLLED ACCESS
SCHOOL ENTRANCE
GATE - CONTROLLED ACCESS
ENTRANCE PLAZA
CYCLE PARKING HOOPS
65.15 FFL
LEISURE CENTRE
CYCLE PARKING
BARRIER
DELIVERY & ACCESS ONLY
METRO STATION

KEY

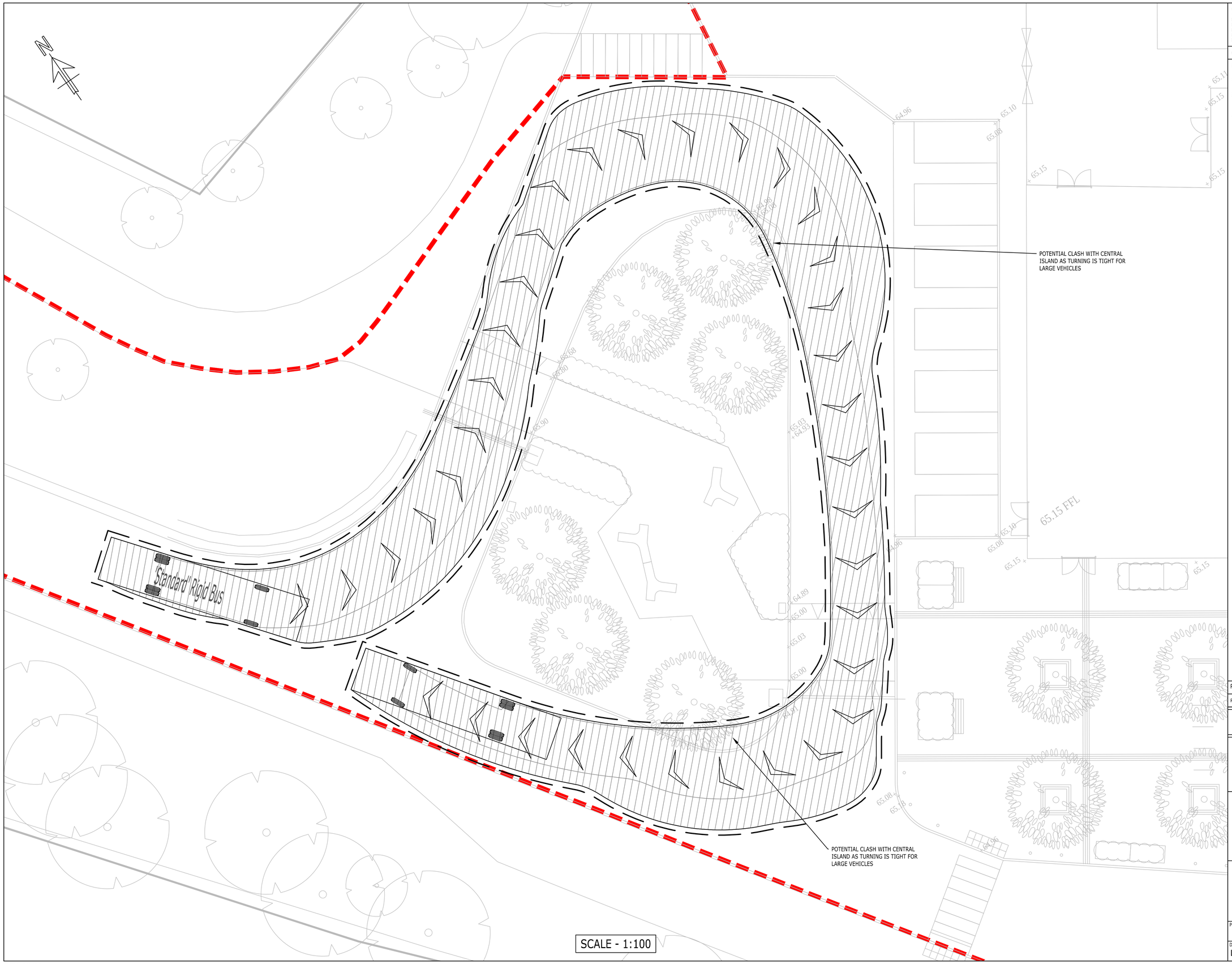
- Paving Type 1 — Tobermore 'Braemar' concrete paving blocks. 200 x 300 x 80mm, colour - Islay Rose. 'Stripes' in Sienna Graphite 160 x 120 x 80mm - 3 rows
- Paving Type 2 — Tobermore 'Sienna' concrete paving blocks, 240 x 160 x 80mm, colour - Silver. 'Stripes' in Sienna Graphite 160 x 120 x 80mm - 3 rows
- Vehicular grade macadam
- Pedestrian grade macadam
- Turf over 150-mm depth topsoil
- Semi Mature Tree 20 - 25cm girth, underground guyed in paving with tree grilles
- Semi Mature Tree 20 - 25cm girth, underground guyed in grass
- Heavy standard tree 14 - 16cm girth, double staked
- Shrub planting in raised container - Europlanters - GRP planter, finished in RAL colour to complement building
- Shrub planting into 450mm depth topsoil into ground.
- Steel bollards
- Marshalls Rendezvous seat - cast iron & timber, finished in RAL colour to complement building. 3 with arm rests 3 without
- Marshalls concrete 'Twig' seats, with anti graffiti treatment
- 4 stainless steel shelfield parking hoops to house 8 cycles
- + 64.96 — Proposed levels
- + 65.15 — Existing levels

REV	DATE	REVISION NOTE	BY	CHECK
P02	02.07.19	Updated following end user meeting	NS	MPK
P01	24.06.19	First Issue	NS	MPK

ellis williams ARCHITECTS
Wellfield Chester Road Preston Brook WA7 3BA
T: +44 (0)1928 752 200 E: info@ewa.co.uk

ABRAHAM MOSS LIBRARY & LEISURE CENTRE
LANDSCAPE MASTERPLAN
2434 REV P01
STATUS | PRELIMINARY SCALE | 1:200 @ A0
DRAWN BY | NH DATE | 20.03.19
LP44107-EWL-ZZZ-ZZ-DR-L-94000

APPENDIX 12
SWEPT PATH ANALYSIS – FINAL SCHEME LAYOUT



SCALE - 1:100

Notes

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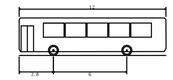
4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.

VEHICLES TRACKED



'Standard' Rigid Bus	
Overall Length	12.000m
Overall Width	2.550m
Overall Body Height	3.069m
Min Body Ground Clearance	0.309m
Track Width	2.350m
Lock to lock time	4.00s
Wall to Wall Turning Radius	10.771m

Rev	Description	Date	By	Chk	App
P01	PRELIMINARY	02/08 2019	JW TC		NE

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RIGID BUS (FINAL SCHEME LAYOUT) VEHICLE TRACKING SHEET 4

Project No:	Scale (@A1):	Drawn:	Date:
1620005164	AS SHOWN	JW	JUL 19

Drawing No:	Rev:
LP44107-RAM-B01-XX-DR-Y-95004	P01

02/08/2019 11:22:36

Notes

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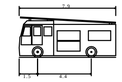
VEHICLES TRACKED



Pumping Appliance	
Overall Length	7.900m
Overall Width	2.500m
Overall Body Height	3.300m
Min Body Ground Clearance	0.140m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	7.750m

Pumping Appliance

65.15 FFL

SCALE - 1:100

Rev	Description	Date	By	Chk	App
P01	PRELIMINARY	02/08 2019	JW TC		NE

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PUMPING APPLIANCE
(FINAL SCHEME LAYOUT)
VEHICLE TRACKING
SHEET 5

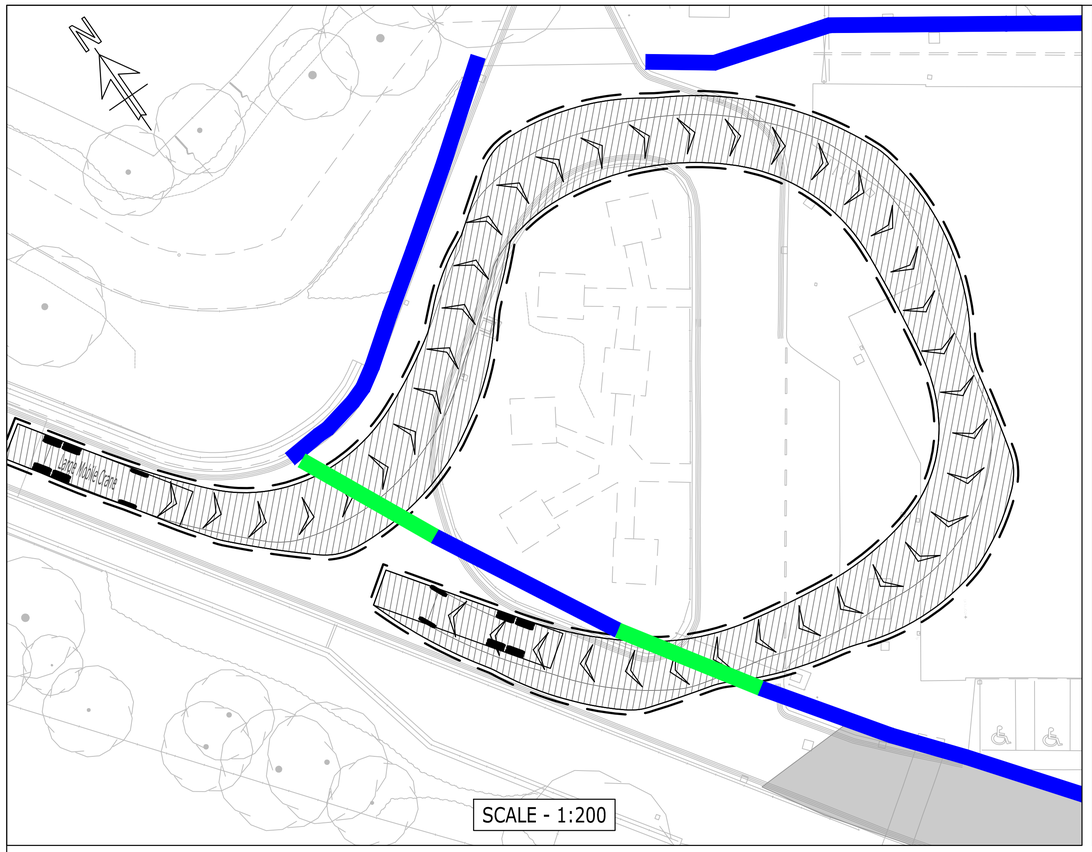
Project No:	Scale (@A1):	Drawn:	Date:
1620005164	AS SHOWN	JW	JUL 19

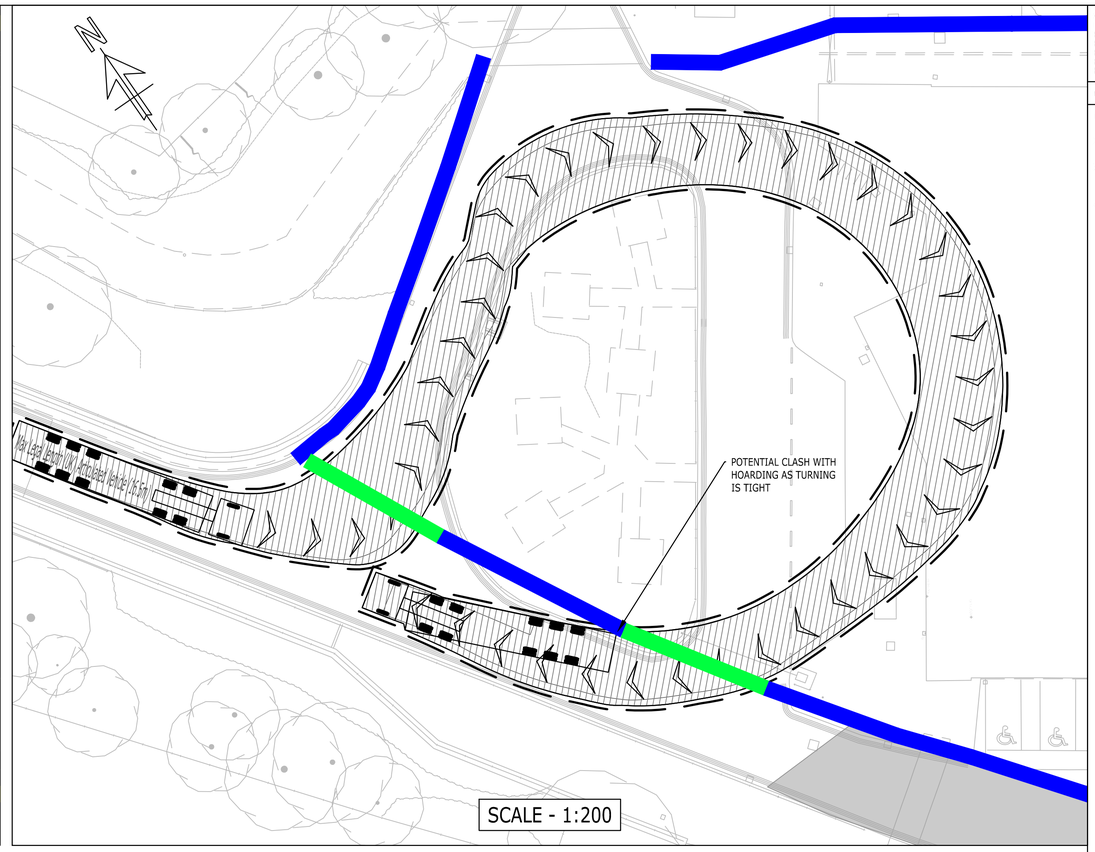
Drawing No: LP44107-RAM-B01-XX-DR-Y-95005

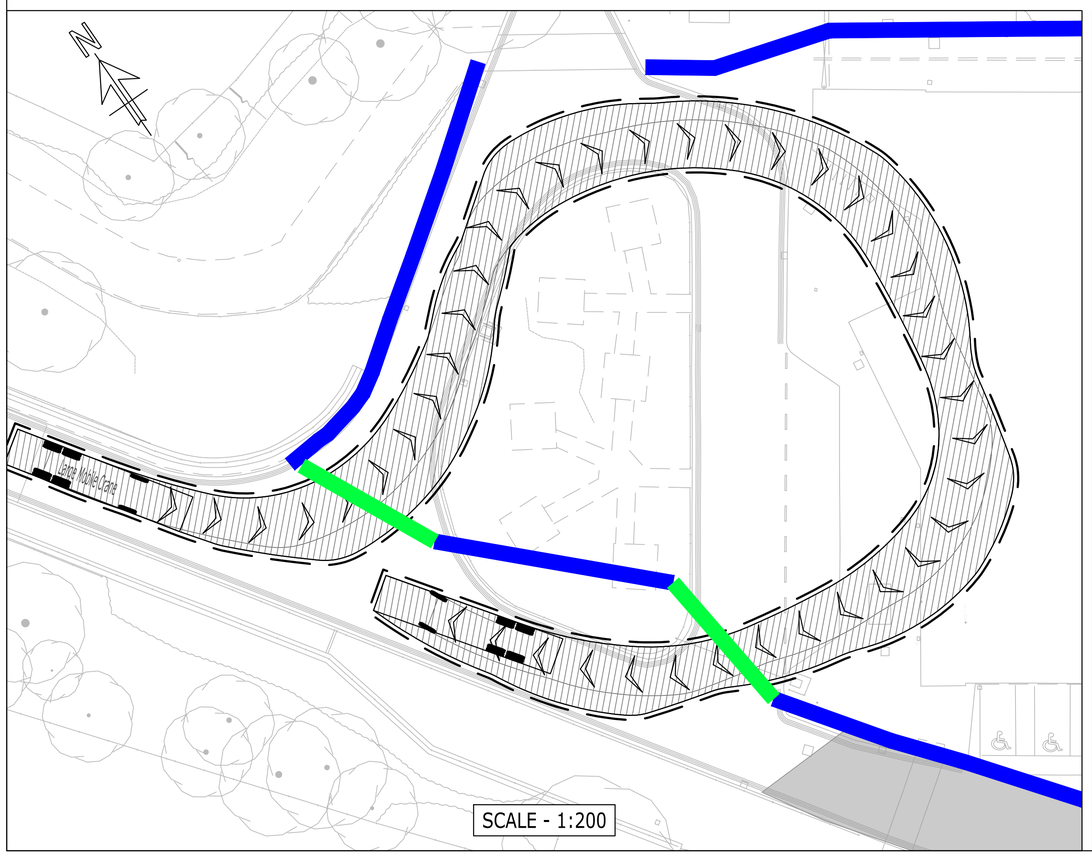
Rev: P01

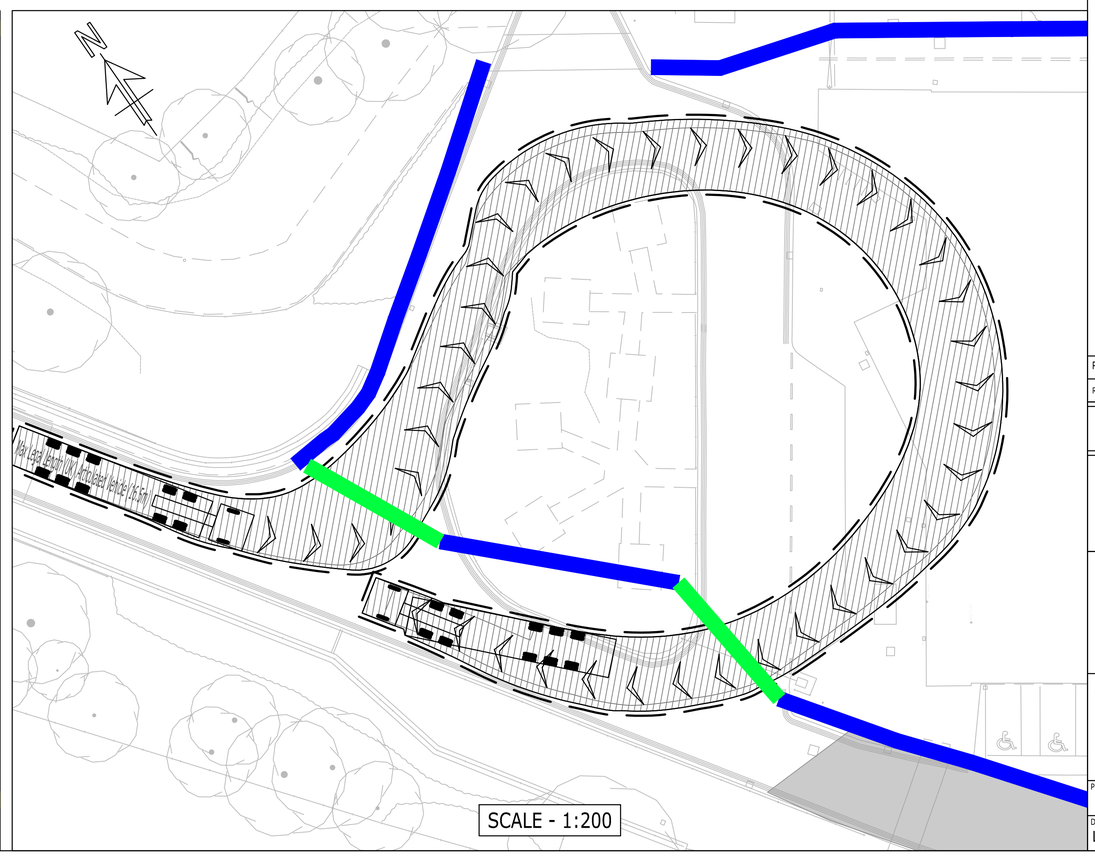
02/08/2019 15:33:16

APPENDIX 10
SWEPT PATH ANALYSIS – CONSTRUCTION PHASE LAYOUT









Notes

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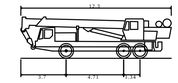
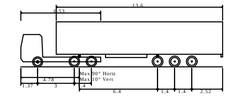
VEHICLES TRACKED



Large Mobile Crane

Overall Length	12.300m
Overall Width	2.430m
Overall Body Height	3.386m
Min Body Ground Clearance	0.590m
Track Width	2.430m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	10.000m



Max Legal Length (UK) Articulated Vehicle (16.5m)

Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

KEY

HOARDING

10m GATE

Rev	Description	Date	By	Chk	App
P01	PRELIMINARY	02/08 2019	JW	TC	NE

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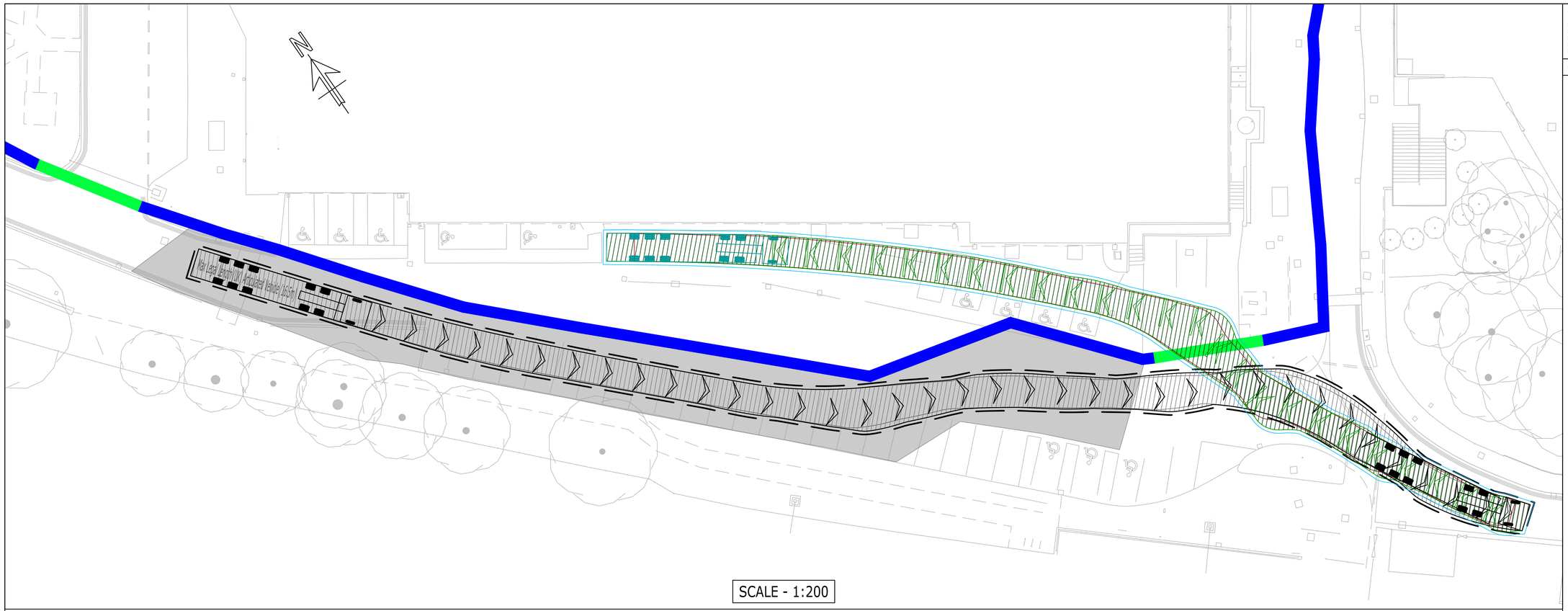
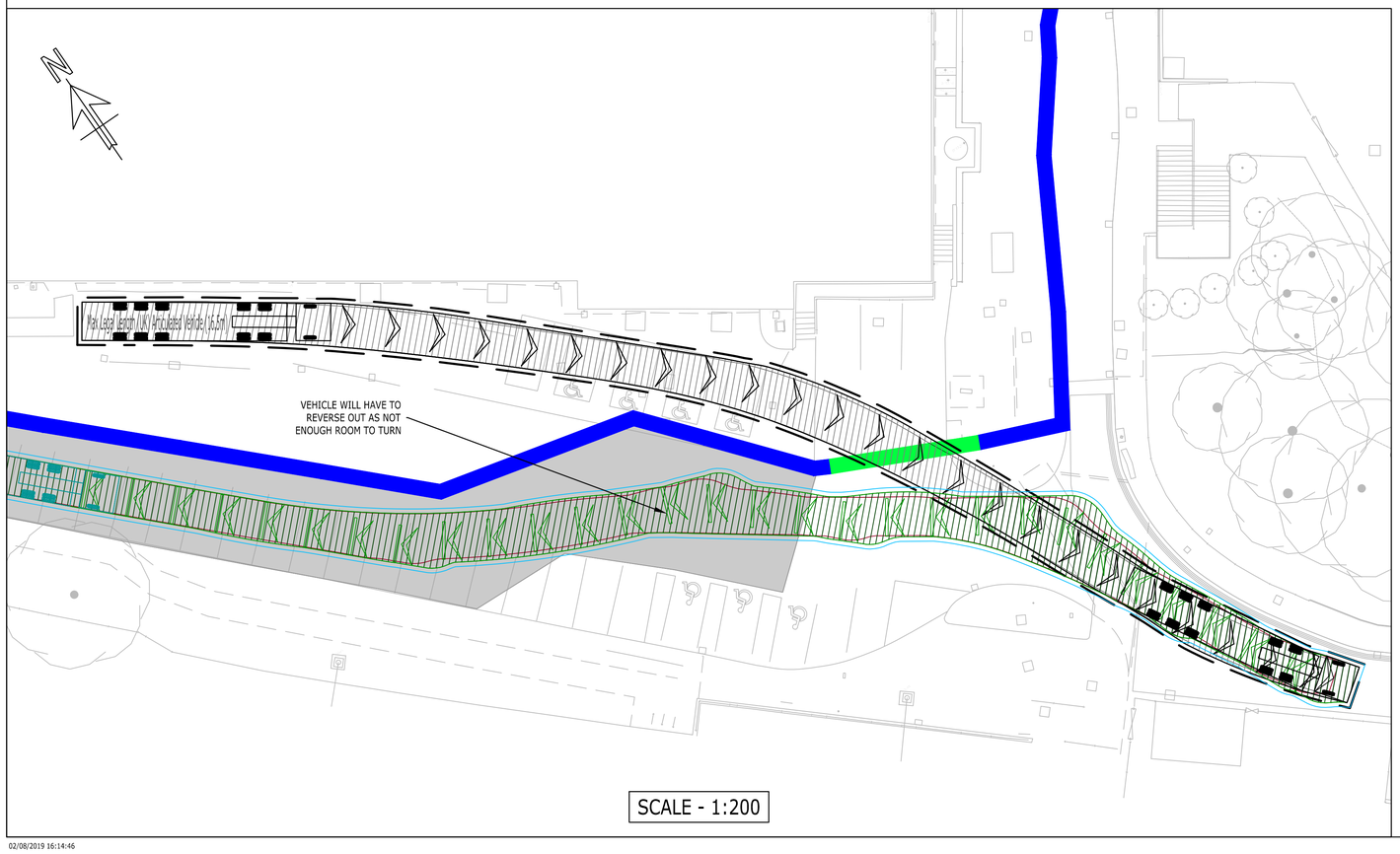
CRANE/ARTICULATED VEHICLE (CONSTRUCTION PHASE) VEHICLE TRACKING SHEET 6

Project No:	Scale (@A1):	Drawn:	Date:
1620005164	AS SHOWN	JW	JUL 19

Drawing No:	Rev:
LP44107-RAM-B01-XX-DR-Y-95006	P01



SCALE - 1:200



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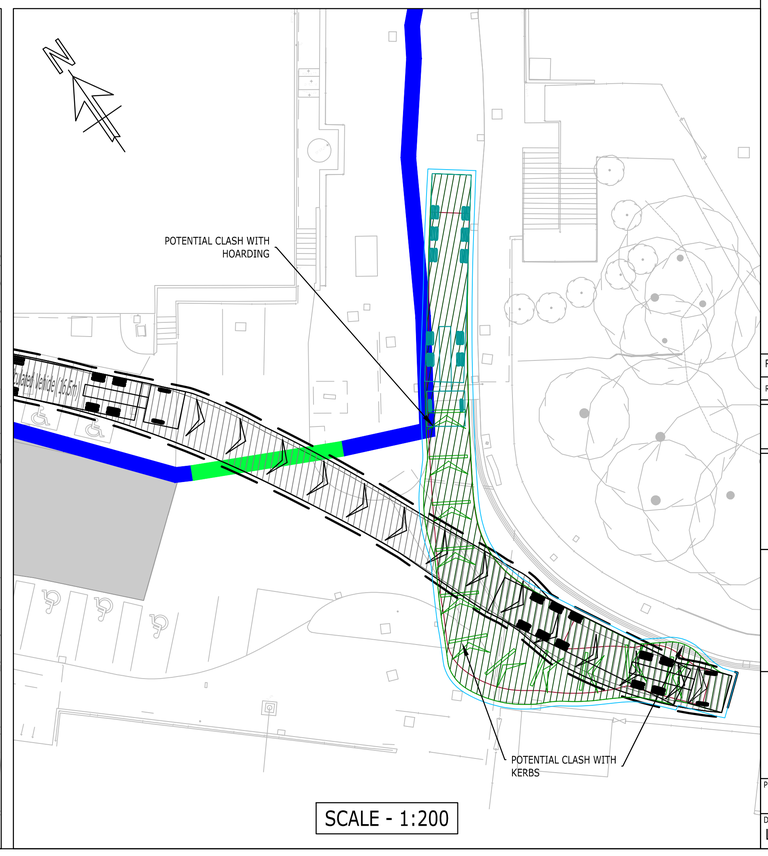

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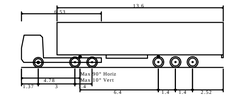
VEHICLES TRACKED



Max Legal Length (UK) Articulated Vehicle (16.5m)

Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

KEY

HOARDING

10m GATE

Rev	Description	Date	By Chk	App
P01	PRELIMINARY	02/08 2019	JW TC	NE

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ARTICULATED VEHICLE (CONSTRUCTION PHASE) VEHICLE TRACKING SHEET 7

Project No:	Scale (@A1):	Drawn:	Date:
1620005164	AS SHOWN	JW	JUL 19

Drawing No: LP44107-RAM-B01-XX-DR-Y-95007

Rev: P01

02/08/2019 16:14:46

Notes

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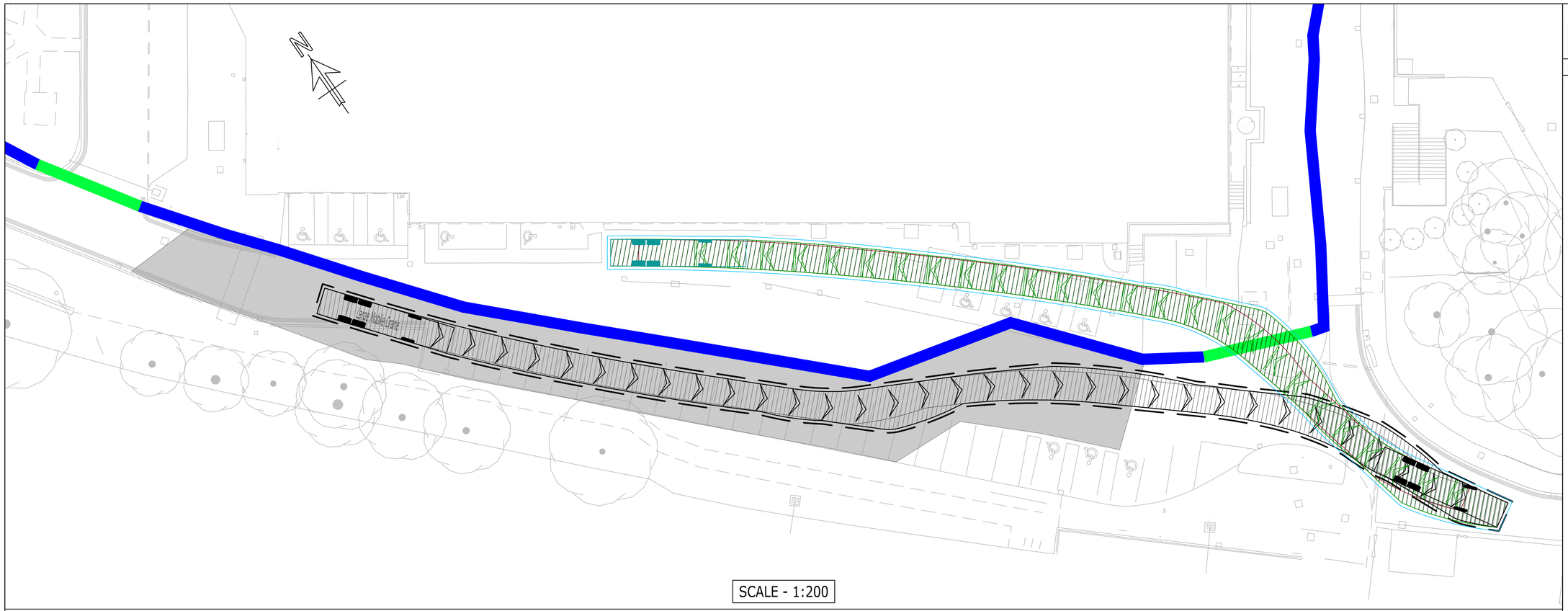
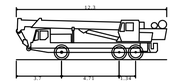


SCALE - 1:200

VEHICLES TRACKED

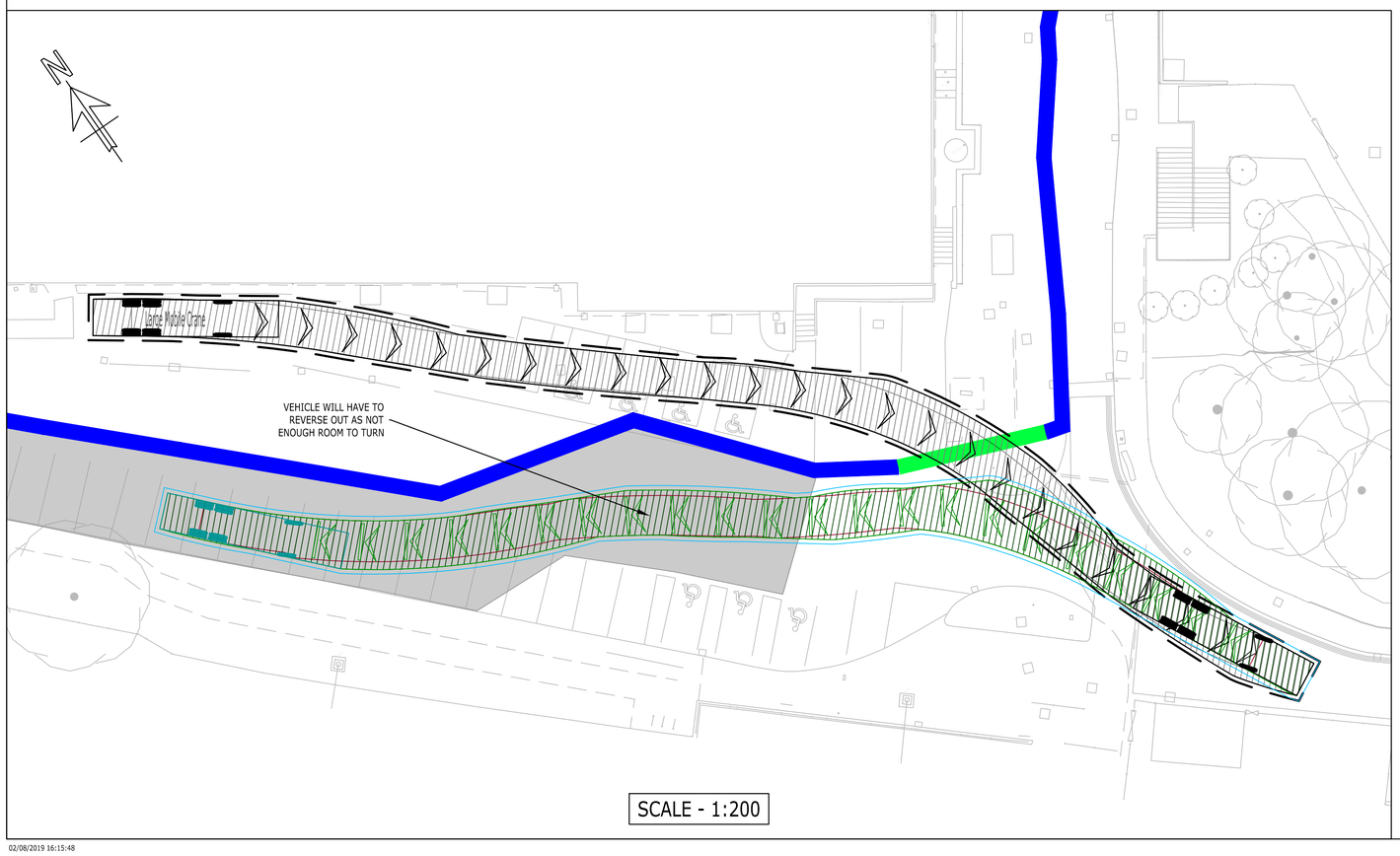


Large Mobile Crane	
Overall Length	12.300m
Overall Width	2.430m
Overall Body Height	3.386m
Min Body Ground Clearance	0.590m
Track Width	2.430m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	10.000m

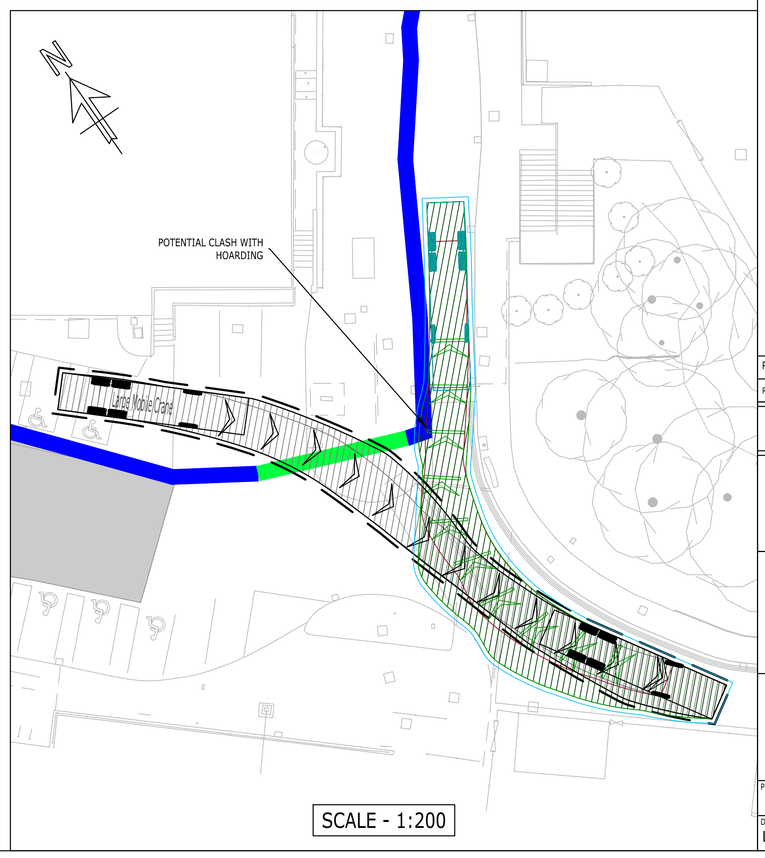
KEY

HOARDING

10m GATE



SCALE - 1:200



SCALE - 1:200

Rev	Description	Date	By / Chk	App
P01	PRELIMINARY	02/08 2019	JW / TC	NE

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MOBILE CRANE (CONSTRUCTION PHASE) VEHICLE TRACKING SHEET 8

Project No:	Scale (@A1):	Drawn:	Date:
1620005164	AS SHOWN	JW	JUL 19

Drawing No:	Rev:
LP44107-RAM-B01-XX-DR-Y-95008	P01

02/08/2019 16:15:48

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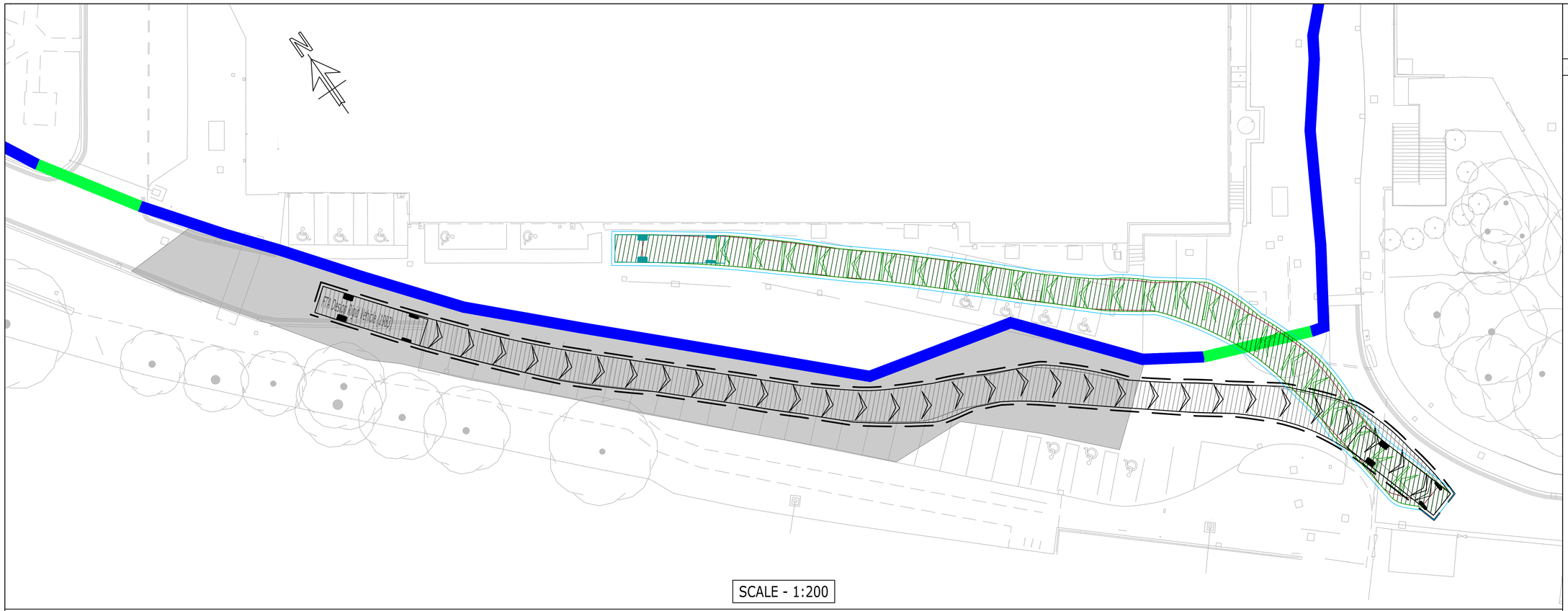
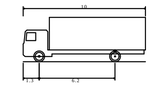


SCALE - 1:200

VEHICLES TRACKED

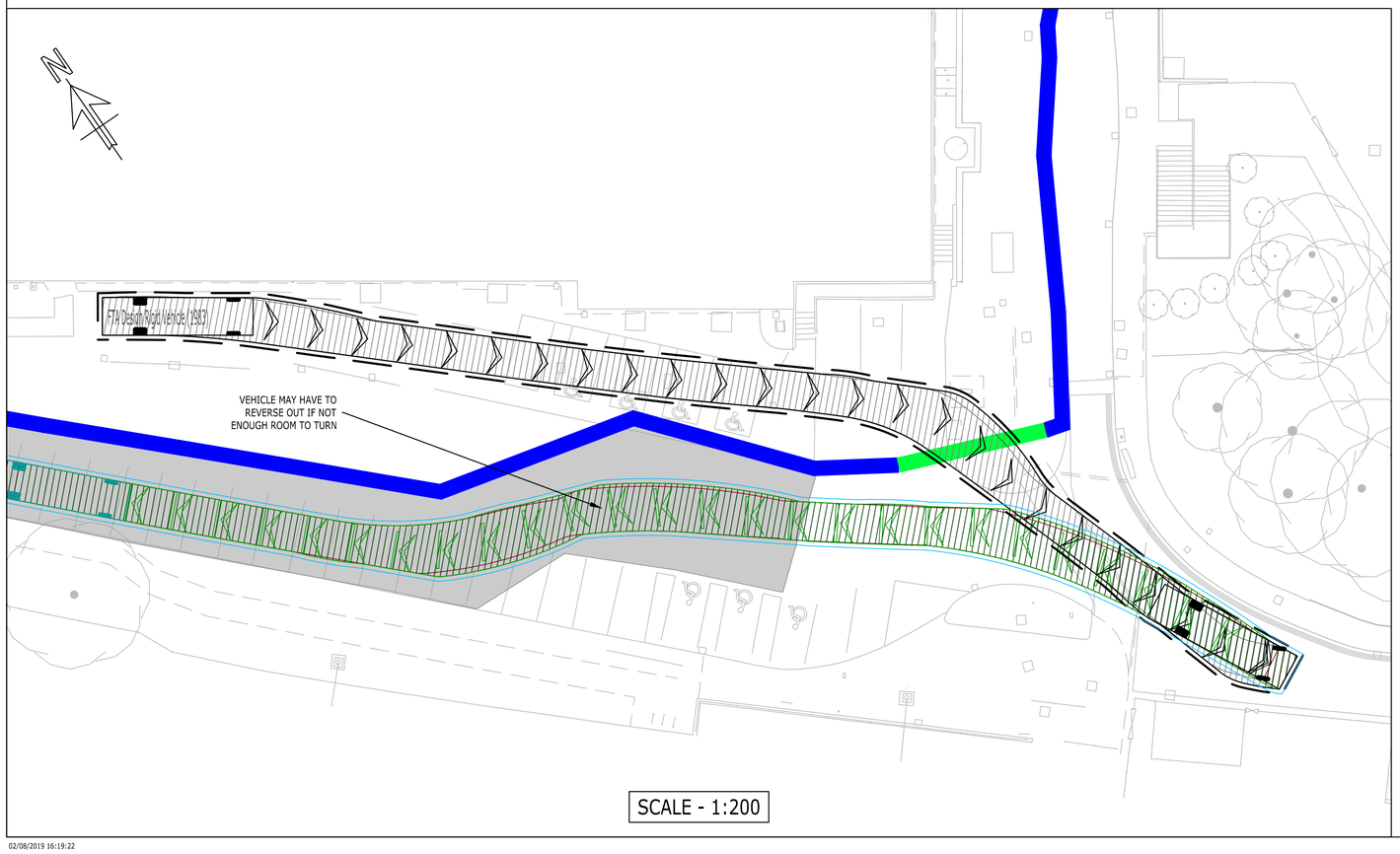


FTA Design Rigid Vehicle (1983)	
Overall Length	10.000m
Overall Width	2.500m
Overall Body Height	3.632m
Min Body Ground Clearance	0.427m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	12.000m

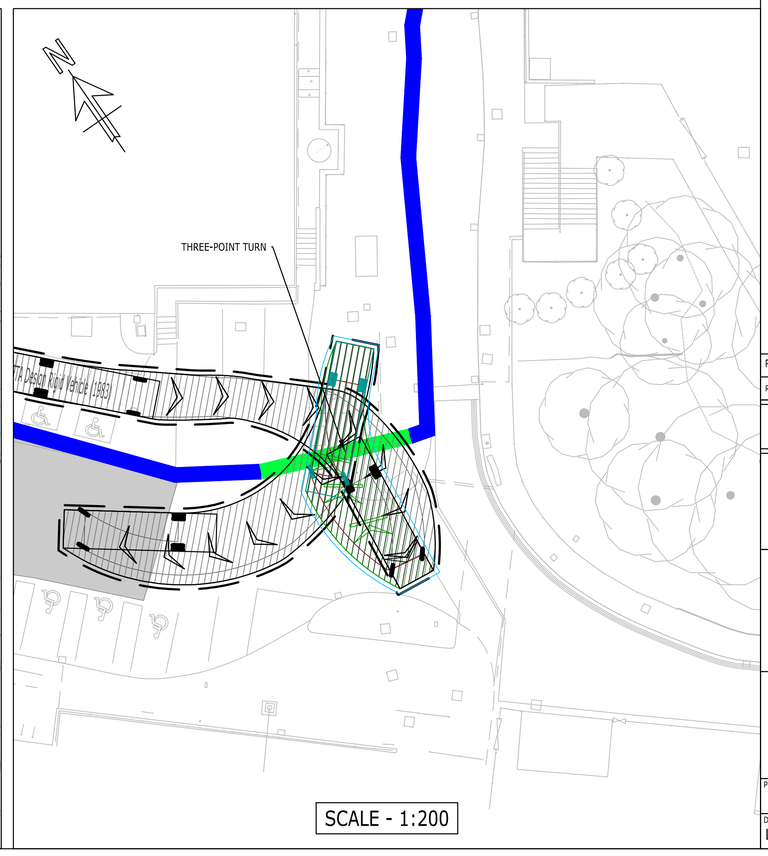
KEY

HOARDING

10m GATE



SCALE - 1:200



SCALE - 1:200

Rev	Description	Date	By Chk	App
P01	PRELIMINARY	02/08 2019	JW TC	NE

PRELIMINARY

ABRAHAM MOSS
LIBRARY AND
LEISURE CENTRE

RAMBOLL

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RIGID VEHICLE (CONSTRUCTION PHASE) VEHICLE TRACKING SHEET 9

Project No:	Scale (@A1):	Drawn:	Date:
1620005164	AS SHOWN	JW	JUL 19

Drawing No:	Rev:
LP44107-RAM-B01-XX-DR-Y-95009	P01

02/08/2019 16:19:22

APPENDIX 5
Framework Travel Plan

Intended for
Manchester City Council

Document type
Framework Travel Plan

Date
August 2019

ABRAHAM MOSS LIBRARY AND LEISURE CENTRE
FRAMEWORK TRAVEL PLAN

RAMBOLL Bright ideas. Sustainable change.

ABRAHAM MOSS LIBRARY AND LEISURE CENTRE FRAMEWORK TRAVEL PLAN

Project name	Abraham Moss Library and Leisure Centre
Project no.	1620005164
Recipient	Manchester City Council
Document type	Report
Version	LP44107-RAM-XXX-XX-RP-Y-91003 P01
Date	26/07/19
Prepared by	Nicola Evans
Checked by	Tom Craven
Approved by	Steve Chewins
Description	Framework Travel Plan

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CONTENTS

APPENDICES

APPENDIX 1
BUS SERVICES

APPENDIX 2
METRO SERVICES

1. INTRODUCTION

1.1 Introduction

Ramboll have been commissioned to produce a Framework Travel Plan in support of a full planning application for the redevelopment of Abraham Moss Library and Leisure Centre (AMLLC) in Crumpsall, North Manchester.

The existing AMLLC will be demolished and the new replacement 4,850m^2 library and leisure centre will be rebuilt on the same site footprint. The new building will provide a like-for-like use (sports hall, swimming pool, library, etc) in an improved building fit for modern day usage.

In addition to this Framework Travel Plan, Ramboll have also produced a Transport Assessment in support of the planning application. The Transport Assessment should be read in conjunction with this Framework Travel Plan.

1.2 Travel Plan Purpose

The purpose of a Travel Plan is to present sustainable travel choices to and from the proposed development in order to encourage sustainable travel and reduce the single occupancy car journeys to/from work.

A Travel Plan can help reach these goals by setting out a package of measures to encourage site occupants to find alternatives to single occupancy car journeys. Where a development has not yet been occupied, detailed data on the travel characteristics of the end user are unknown. A Framework Travel Plan, therefore, identifies as far as possible an action plan of measures and includes a commitment to prepare an approved 'full' Travel Plan at an appropriate time.

Production of a Framework Travel Plan is as requested by MCC during scoping discussions for the TA.

1.3 Document Structure

The structure of this Framework Travel Plan is as follows:

- Chapter 2 – Proposed Development – provides details including physical measures built-in to the site which will facilitate sustainable travel choices;
- Chapter 3 – Policy and Guidance Review – reviews documents relevant to Travel Planning;
- Chapter 4 – Accessibility and Existing Conditions – provides an audit of current site accessibility;
- Chapter 5 – Travel Surveys – sets out an agenda for traffic surveys of site occupants;
- Chapter 6 – Aims, Objectives, Targets and Indicators – sets out the Framework Travel Plan aims and objectives, and provides details of the targets and indicators against which to the effectiveness of the Framework Travel Plan will be measured;

- Chapter 7 – Management, Monitoring and Review Strategy – provides details of the management, monitoring and review strategy for ongoing implementation of the Framework Travel Plan, including appointment of a Travel Plan Co-ordinator;

- Chapter 8 – Measures – details the specific package of Framework Travel Plan measures proposed, including the marketing strategy which will ensure early and continuous awareness of the measures to staff and visitors; and

- Chapter 9 – Action Plan – summarises the Framework Travel Plan Action Plan, including commitments to continued development of Plan. Actions are timebound, with specific trigger points and/or deadlines as appropriate.

2. PROPOSED DEVELOPMENT

2.1 Description of Development

The development proposals are to demolish the existing AMLLC and replace it with a state of the art 4,850m^2 Library and Leisure Centre on the same site footprint. The development will be a like-for-like replacement of facilities.

The Leisure Centre will continue to offer a wide range of facilities including a gym, ladies only gym, swimming pool, sports hall, squash courts and a health suite and will be open to the public from 6.30am to 10.00pm, Monday to Friday, and 9.00am to 5.00pm, Saturday to Sunday. School use of the sports hall and swimming facilities will occur at allocated times throughout the week during term time as well as specially allocated times on the weekends for extracurricular sports events.

Figure 2.1: Proposed Landscape Masterplan

Figure 2.1 presents the proposed landscape masterplan and shows how the site will be redeveloped and landscaped.

The redeveloped Library and Leisure Centre will be housed within the main building block (shown as 'Leisure Centre' in Figure 2.1), and the redeveloped site will see improvements and updates to the existing car park, turning circle, entrance plaza, landscaping, hard standing, footways and pedestrian crossings in line with the improved aesthetic of the redesigned new building.