

North Lindsey College redevelopment, Kingsway, Scunthorpe, DN7 1AJ

Rev A	11 th July 2023	First issue

Construction Methodology

BAM Construction Ltd has been appointed by the Department for Education to design and construct a new teaching building at North Lindsey College within the existing college campus.

This document is included within the planning application to North Lincolnshire Council Planning Department, to demonstrate our approach to construction of the proposed development, including site logistics and traffic management.

Our methodology statement is for the site mobilisation/construction works to be carried out on the development site.

Scope of works

The works will comprise the following elements:

- New 3 storey teaching block, constructed on mass fill concrete foundations, structural steel frame with precast concrete floors and roof with structural toppings, brickwork façade with aluminium windows and curtain walling.
- A detached maintenance shed, constructed on mass fill foundations and steel frame with metal cladding to the walls and roof.
- Demolition of redundant buildings and external works comprising new site access road, car parking facilities and hard and soft external communal areas

Programme

Subject to planning approval, BAM aim to start the new build construction phase on 29th January 2024. The project construction period will be split as the below dates / durations –

- Phase 1 – Initial demolition of 2nr detached single storey buildings to allow the new college building to be constructed. Weeks 1 to 81.
- Forecast College Building Complete 18th July 2025.
- College Decant into new building, weeks 79 to 81 with a forecast operational date being 18th August 2025.
- Phase 2 – Demolition of redundant buildings and external works. Weeks 82 to 110.
- Asbestos surveys undertaken from 26th August 2025 to allow Demolition works to commence 6th October 2025.
- Forecast Project Completion Date 6th March 2026.

Construction sequence and methodology

Sequencing

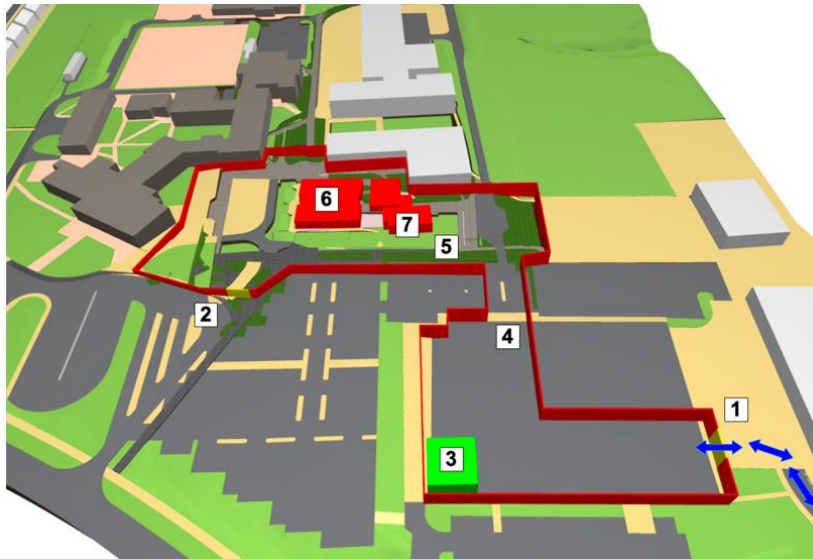
The construction of the new college block will be sequenced in 2 phases as identified earlier. This maximises the working areas and provides programme efficiency to achieve the 110-week period.

North Lindsey College – Phasing and Logistics

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Weeks 1 - 9





NOTES:

1. Gate 1 – Primary access from Ridge Way.
2. Gate 2 – Secondary site access formation during phase 1a works.
3. BAM modular site welfare and accommodation.
4. Ramp foundation to access site

KEY:

- 2.4m Solid hoarding line.
- Primary vehicular route (one way).

North Lindsey College – Phasing and Logistics

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Weeks 10 - 81





NOTES:

1. Gate 1 – Primary site access across from Ridge Way.
2. Gate 2 – Secondary site access from Kingsway – required for PCC floor installation.
3. BAM modular site welfare and accommodation.
4. Pedestrian site access through biometric security turnstile.
5. On-site contractor parking areas (TBC).

KEY:

- 2.4m Solid hoarding line.
- Primary vehicular route (one way).
- Secondary delivery route, agreed deliveries only.
- Site pedestrian route from compound to site.

North Lindsey College – Phasing and Logistics

Weeks 82 - 110



NOTES:

1. Site welfare re-located within the Estates office.
2. Vehicular site access from Kingsway.
3. Buildings to remain.

KEY:

- 2.4m Solid hoarding line, fence line
TBC with landscape design.
- Vehicular routes.
- Indicative sequence of demolition
works.

Foundations

Foundations will be mass filled foundation bases. This method has been selected to suit the existing ground conditions and provides a relatively quiet method as not to disturb the surrounding residential area and College.

Precast concrete ground beams have been selected to maximise the benefits of offsite construction and reduced deliveries. However, regular deliveries of materials will be required for formwork, bar reinforcement / mesh and concrete for the pile caps which will be managed as “just in time” deliveries and within the time constraints of the school and local traffic.

Steelwork and precast concrete upper floors

The steel frame and the pre-cast concrete floors and stairs will be erected in the sequence of east to west. The steelwork and pre-cast concrete installation will overlap to ensure the following trades can commence as soon as possible to meet our construction programme.

The frame and upper floors will be erected with mobile cranes commencing with 1 crane to erect the Area 1 steelwork. Once this first phase of steel is lined and levelled, a second mobile crane will install the pre-cast concrete items, this allows the 1st mobile crane to continue the steel installation into Phase 2. This provides continuity for the steelwork erector and releases work faces sooner for the following on trades such as under slab drainage and ground floor slab construction.

Building Envelope

The envelope is constructed of a SFS inner leaf and a mixture of facing brickwork and cladding panels, interspersed with windows and curtain wall sections.

The SFS will be installed from mobile elevated working platforms (MEWP's) following the same phasing as the frame construction. The windows will be installed following the SFS as this will offer earlier weatherproofing of the internal areas, meaning that partitions and installation of M&E services can commence sooner.

The brickwork will be constructed from independent access scaffolds erected and dismantled to suit the programme.

Roof coverings will be running concurrently with the perimeter envelope cladding and will commence once the roof decking is in place, this will give control of surface water which can be channelled to temporary rainwater pipes as necessary.

External Works

The external works will commence as soon as works to the roof and facades are progressed sufficiently to allow safe access. Tarmac areas will be constructed to base course early in the construction programme to provide early hard standings to maintain a safe clean site and reduce any migrating dirt onto adjacent roads.

External services will take place as early as practical to ensure key commissioning dates are met.

Drainage and main sewer connections will also be installed as soon as practicable to allow roof water to drain into the network, this will maintain a dry site and negate any standing water on site due to inclement weather.

Site management proposals

Contractor's means of access to the site.

Phase 1 will be accessed and egressed from existing college access gate located on Ridge Way via Kingsway. A secondary access point will also be accessed via the main college entrance along Kingsway.

Access to the site will be via the existing ramped access within the college boundary to travel across the redundant concrete hardstanding and onto site.

Phase 2 will be accessed and egressed through the main college gate located on Kingsway.

Full details of the site access and proposed site logistics are included within **Appendix 1 – Site logistics plans**.

Intended hours of construction work.

NLC to confirm working hours, current anticipated working hours are to be 08.00 to 18.00 Monday to Friday. If required, weekend working will be limited to 08.00 to 14.00 on Saturdays only. Any extension to these hours will be subject to written approval by the LPA.

Intended hours of delivery of materials.

Deliveries will occur during the above noted hours. Wherever possible, deliveries will be planned to avoid peak travel times to avoid any disruption to local businesses, residents and the college.

Location of site management offices

The location of the site management offices is shown within **Appendix 1 – Site logistics plan**.

Location of materials storage compounds, loading/unloading areas and areas for construction vehicles to turn within the site.

The logistics plan within Appendix 1 shows how the site will be set up during construction. The site accommodation will be located to the North East corner of the existing concrete hardstanding adjacent the site, with pedestrian access controlled via a secure biometrics' turnstile.

Signage and a Gatemen will be provided around the site to direct pedestrians and construction traffic, the site gates will be set at the top of the existing ramp to allow access directly onto site.

All delivery drivers will report to the Gateman on arrival. All deliveries will be planned, and the site will operate a delivery booking system for "just in time" deliveries to avoid any disruption to the surrounding local residents and businesses.

Within both phases of the development, a turning head is provided to allow vehicles to offload and egress the site in forward gear.

Once vehicles are off loaded, they will exit site turning either left or right and travel along A18 Kingsway.

Car parking areas for construction workers.

An area for contractor parking has been allocated for on the concrete hardstanding which forms part of the contract compound area.

Street parking will be actively discouraged and will be closely monitored at all times. Local parking restrictions and access arrangements for all contractors will be discussed at site induction and the locations of all local car parks will be included in the individual subcontract order packages.

To encourage alternative means of access to the site, BAM has produced a Green Travel Plan (see **Appendix 2**), detailing public transport links, cycle to work and car sharing schemes.

Temporary warning and direction signing on the approaches to the site

A 'Concealed site entrance sign will be fixed to the BAM hoarding on Ridge Way. This will ensure good visibility and forewarning vehicles turning either left or right onto Ridge Way.

All subcontractors and suppliers will be provided with a site location plan and advised of the most appropriate routes to site at their pre-commencement meeting.

Preventing mud, dirt or debris being carried on to the adjoining highway as a result of the site construction works:

During the works we will employ a vehicle banksman who inspects, and jet washes the vehicles prior to leaving site. This will avoid mud, dirt and debris migrating on to the adjoining highways.

If required during periods of exceptionally inclement weather, road sweepers will be employed to supplement the jet wash systems to further ensure the highways are safe.

Preventing noise nuisance

It is envisaged that site operations will only be undertaken during 8.00am to 6.00pm Monday to Friday and 8.00am to 2.00pm on a Saturday, subject to planning agreement. This will ensure local residents do not suffer any significant noise disruption during construction activities.

All machinery shall be fitted with noise silencers and shall be serviced at regular intervals. No items of plant shall be operated with engine covers raised, and no plant machinery will be started before 8.00am. The site cabin set up will be on mains power, removing the issue of noise from generators.

Public Consultation

The information detailed in the above will be made publicly available and displayed on the site and community notice boards.

The site will also be registered with the Considerate Constructors Scheme providing members of the public with 24hr site contact details throughout the duration of the project.

Information will also be available through the site Facebook page, details of which will be displayed on the site hoarding.

In addition to this a quarterly newsletter, with updates on the project, current activities and site contact details will be produced and distributed to the local residents.

Dust control and air quality measures

BAM know the importance on the protection of air quality on our construction projects, employing stringent controls measures to ensure that dust particles do not become air born during the construction activities.

With particular emphasis on reducing the emission of fine particles into the atmosphere and local emission sources from ground remediation and construction works.

It is an offence under the Environmental Protection Act 1990 (EPA) to cause nuisance to the inhabitants of any neighbourhood by generating dust. Air monitoring stations will be positioned around site to monitor air quality throughout the project.

When undertaking ground remediation or construction works during periods of dry and/or windy weather, dust problems often prevail, particularly on sites bordered by residential properties and local business. The EPA requires that Best Practicable Means (BPM) must be taken to prevent dust causing a nuisance and it is the duty of the contractor to demonstrate to that all reasonable remedial action has been implemented.

By following this Best Practice Guidance, we are able to identify good practice methods for ground remediation and construction works. Everyone should take elements of this Best Practice Guidance into account depending on the level of risk identified for the ongoing construction activity.

Where possible, best practice mitigation measures should be always carried out.

The following 3 principles are well established and are central to the control strategies to be employed by BAM Construction regarding demolition works.

1. Prevention
2. Suppression
3. Containment

The 3 principles are embedded in BAM Construction operating procedures and are used in a way that is appropriate to the scale of a particular development and the potential exposure from the specific construction/demolition activities taking place.

Site evaluation

The need and ability of BAM Construction to deploy effective control measures is often dependant on the size and scale of a development. In addition, consideration will need to be given to site location with regard to local air quality and ground conditions.

The potential impact of the development on sensitive receptors close to the development, for example local business, residential homes, college, and other building uses which would be affected by high levels of air pollution or dust.

Considerations

• **Is the site located on contaminated land?**

NO - The Site Investigation survey hasn't identified any contaminated land.

Site impact

During the works, in order to ensure that we have little if any impact at any sensitive receptors, such as the local residents, businesses and the college the following factors have been taken into consideration:

- Location of the building site.
- Proximity of sensitive receptors.
- Demolition activities.
- Extent of any intended excavation.
- Nature, location and size of stockpiles and the length of time they are to be onsite.
- Occurrence and scale of dust generating activities - including cutting, grinding and sawing.
- Necessity for on-site concrete crusher or mortar batcher.
- Number and type of vehicles and plant required on-site.
- Potential for dirt or mud to be made airborne through vehicle movements.
- Inclement weather conditions.

Mitigation measures to be employed on site

Site Planning

- A full 2.4m wooden high solid hoarding will be erected around site
- No bonfires allowed on site.
- The site layout has been planned correctly, ensuring that machinery and dust causing activities are located away from sensitive receptors where practicable.

Construction Traffic

- All vehicles to switch off engines when not in use – No idling vehicles.
- Subcontractors will be encouraged to utilise Non-Road Mobile Machinery (NRMM) compliant vehicles and equipment. BAM will hold 'Toolbox Talk's to explain the NRMM standards and support our supply chain with compliance. No vehicles/equipment with obviously defective emissions will be allowed on site.
- Wash or clean all vehicles before leaving the site.

- All loads entering and leaving site to be covered.
- No site runoff of water or mud; (During the works we will employ a vehicle banksman who inspects, and jet washes the vehicles prior to leaving site. This will avoid mud, dirt and debris migrating on to the adjoining highways. If required during periods of inclement weather, road sweepers will be employed to supplement the jet wash systems to further ensure the highways are safe)

General Site Activities

- Cutting equipment to use water as suppressant.
- Securely cover skips and minimise drop heights.
- Minimise dust generating activities.
- Use water as dust suppressant where applicable.
- Keep stockpiles for the shortest possible time. (If required to prevent seeding or dust blowing across site, stockpiled materials will be sealed by an excavator to stop any migration into the atmosphere)
- Erect solid wooden hoardings to site boundary.
- Identify responsible person in charge.
- Hard surface (tarmac) site haul routes are to be put in place with regular inspections and effective cleaning taking place – The haul roads, skip laydown areas site cabins and parking and loading zones are to have an appropriate speed limit of 5 mph.
- All site personnel are to be fully trained and hold the relevant skills card.
- Trained and responsible manager will be on site during working hours to maintain a logbook and carry out regular site inspections.
- Real-time dust monitoring stations are to be set up across site.
- Damping down of haul routes to be carried out when required
- Minimise movement of construction traffic around site.
- Use recycled water as dust suppressant.

Demolition works

The demolition works will run 23/02/24 to 21/03/24 and 06/10/25 to 16/01/26 largely through the winter months.

During this period, all material will be dampened down at source prior to dismantle. The use of excavators to dismantle the buildings will reduce the potential of generating excessive dust from the process.

This process will be supported by constant flow of watermist from mist cannons situated around the areas of work, catching and dampening down any airborne dust particles. All surrounding ground, slabs and stockpiles of material will be dampened down regularly through the use of hosepipes.

Once the demolition material is ready to be crushed for reuse, material stockpiles will be excessively dampened before processing it through crushing plant which has in-built dust suppression.

Method Statements

The content of a method statement will be determined by the site evaluation but typical features to include are outlined below.

Summary of work to be carried out.

- Description of site layout and access – including proposed haul routes, location of site equipment including supply of recycled water for damping down, source of water, (wherever possible from dewatering or extraction), drainage and enclosed areas.
- Inventory and timetable of all dust generating activities.
- List of all dust and emission control methods to be used.
- Appointment of a responsible person on-site for air quality.
- Summary of monitoring protocols and agreed procedure of notification to the local authority nominated person(s).
- A site logbook will be held in the main office to record details and action taken in response to any incidents. It will also be used to record the results of routine site inspections.

Details of the contractor's workforce training in areas such as health and safety, best practice methods, site housekeeping, reporting procedures and communication will be held in the main office and be made available upon request.

Haulage Routes around site

Untarmacked haul roads can account for a significant proportion of dust emissions, especially in dry or windy conditions, in order to comply with BAM Construction best practice, all haul roads around site will have a tarmac base coat.

The haul roads will be regularly inspected for integrity and repaired if required; the haul roads around site will be inspected throughout each working day and damped down when required.

All operatives working on site will be asked to consider the environmental and economic benefits from the use of groundwater sources on site. Where possible the source of water will be sustainable in order to maximise use and re-use of this resource.

When required, road sweepers on all adjacent roads will be employed particularly during long periods of dry weather with particular emphasis on kerb edgings and footpaths.

Cutting Grinding and Sawing

Ideally, these activities should not be conducted on site and prefabricated material should be brought in where possible. In cases where such work must take place, then the following techniques should be followed.

- All equipment will use water suppressant.
- Use dust extraction techniques.
- Service all fans and filters regularly to ensure they are properly maintained.
- Regularly damp down surfaces with water.
- Screen off work areas.
- Vacuum up all dust and do not use sweeping brush methods.

Site Monitoring Protocols

If best practicable means are followed correctly, then formation of dust and harmful emissions from construction sites should be minimised as much as possible.

However, continuous site monitoring is still an important way of helping to manage dust from construction activities.

All BAM Construction projects are enrolled with the Considerate Contractors scheme as such must keep an accurate log of any complaints from the public, and more importantly ensure that any complaint is dealt with immediately.

The daily monitoring will include a visual inspection of site activities, dust controls and site conditions.

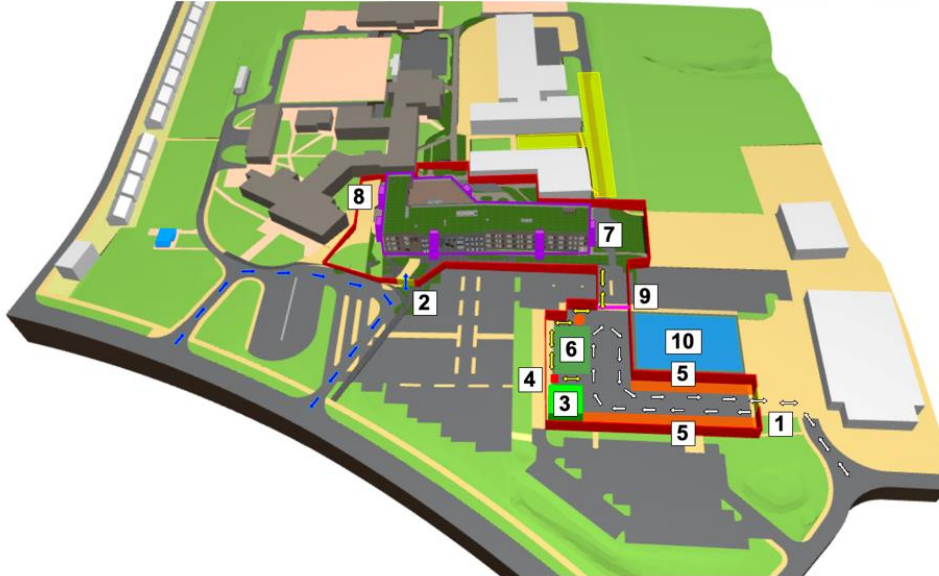
BAM Construction will have a 24-hour phone number displayed on the site hoardings and included within the newsletters issued to local residents and businesses.

Appendix 1 – Site logistics layouts

North Lindsey College Access

Site Logistics – Phase 1

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NOTES:

1. Gate 1 – Primary site access across from Ridge Way.
2. Gate 2 – Secondary site access from Kingsway – required for PCC floor installation.
3. BAM modular site welfare and accommodation.
4. Pedestrian site access through biometric security turnstile.
5. On-site contractor parking areas (TBC).

6. Material storage area and potential mortar silo position.
7. Scaffolding to full perimeter and loading bays.
8. 2m Footpath retained around existing buildings and hoarding line.
9. Potential formation of crossing point for access to and from the Construction Centre.
10. Retained hardstanding for Construction Centre use.

KEY:

- 2.4m Solid hoarding line.
- Primary vehicular route (one way).
- Secondary delivery route, agreed deliveries only.
- Site pedestrian route from compound to site.

North Lindsey College – Phasing and Logistics

Site Logistics – Phase 2

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NOTES:

1. Site welfare re-located within the Estates office.
2. Vehicular site access from Kingsway.
3. Buildings to remain.

KEY:

- 2.4m Solid hoarding line, fence line
- TBC with landscape design.
- Vehicular routes.
- Indicative sequence of demolition works.

Appendix 2 – Green travel plan

Green Travel Plan for the North Lindsey College Project

Introduction

The North Lindsey College *construction* site is located within the area of Scunthorpe

- The construction site and offices are accessed from A18 Kingsway / Ridge Way
- There are limited numbers of parking.
- The construction site is accessed from A18 Kingsway / Ridge Way for vehicles and deliveries.
- The site offices are accessed from Monkseat Drive for pedestrians.

Bus

The following bus service provide good links to site:

- Stagecoach 355 / 350 / 11 / 6 / 100

Rail

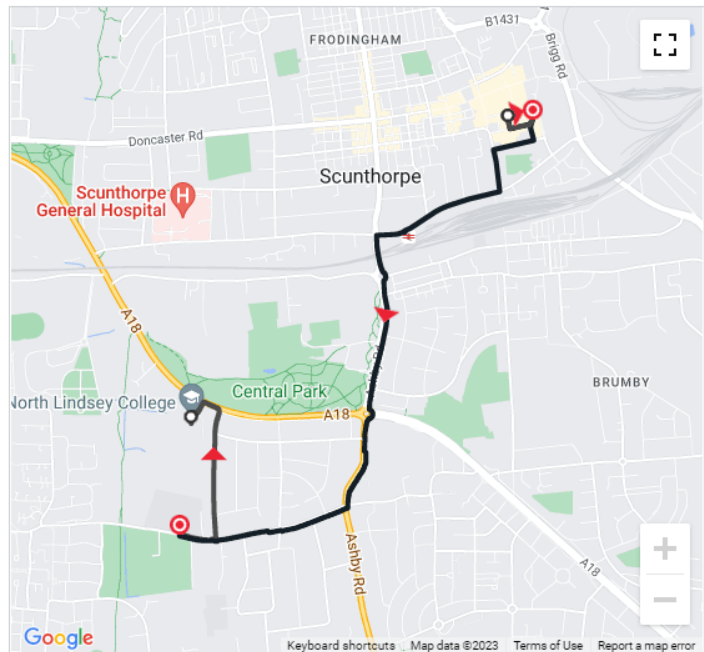
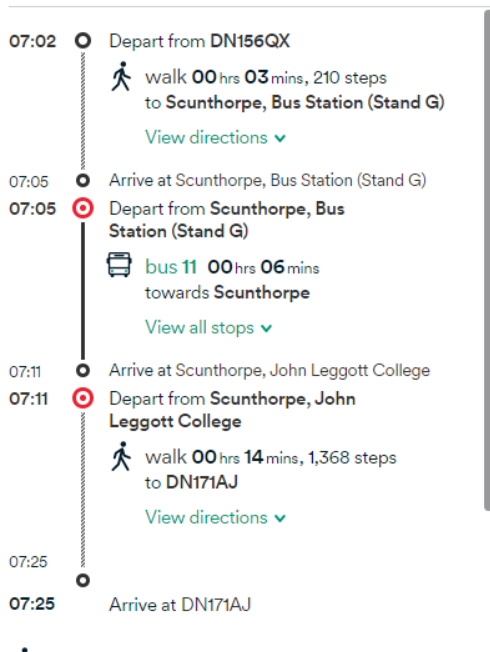
There are good networks to Scunthorpe rail station with connections to the Bus Network.

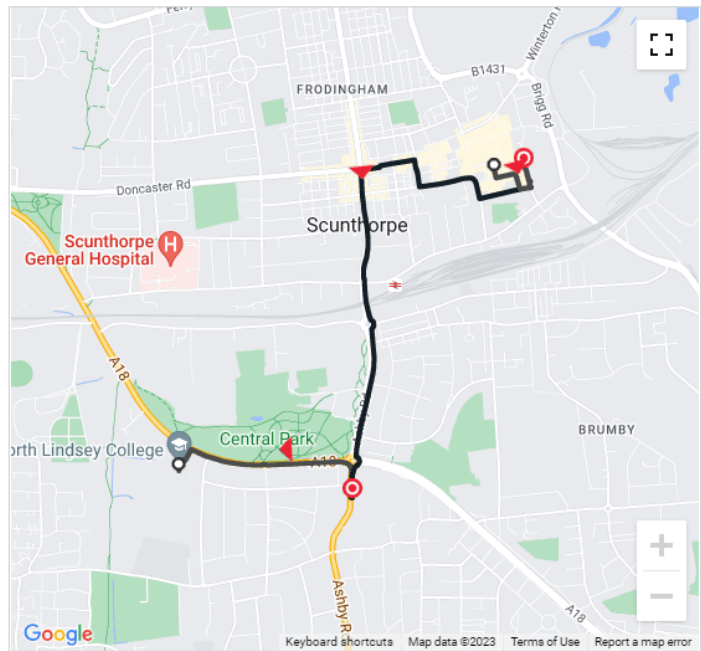
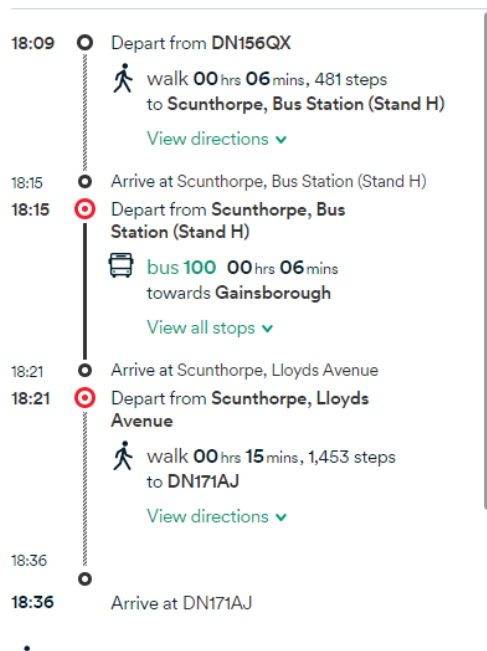
Virtual Conferencing

- The site has the ability to host conferencing via teams for all meetings.

Walking

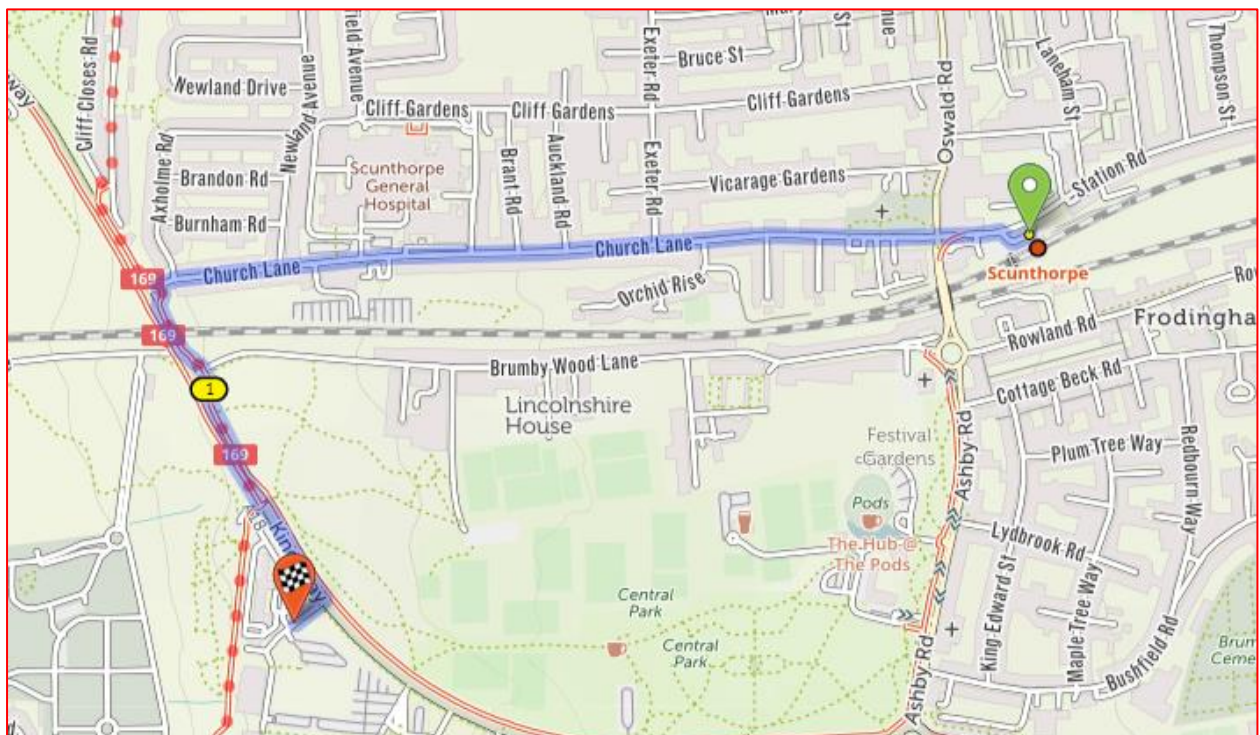
- The footpaths to site are well maintained, lit and Good signage displayed





Cycle Route

- To cycle from Scunthorpe Train Station is via Station Rd on to Church Lane and then follow A18 Kingsway all the way to NLC.
- Cycles can be secured by owners on site at our cycle stand next to the site cabins. Cycles are secured at the owner's risk on site.
- Encouraging schemes such as Cycle to work for BAM Employees. Are ways we try to promote a healthy lifestyle
- There are many places to rent bikes too.
- For cycling routes there are plenty of websites such as;
- [\(https://cycle.travel/\)](https://cycle.travel/)



Car

BAM staff, operatives and visitors are always encouraged to **car share** wherever possible.

- There is minimal parking on site. Alternative forms of transport are encouraged to access site.
- The nearest public car park(s) is Central Park Car Park 0.4m from site. This is approximately 9 minutes' walk along *Kingsway*

