



# Newburn, BESS Construction Traffic Management Plan

*For Fig Power Limited*

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Date      7 February 2024

Doc ref    29911-HYD-XX-XX-RP-TP-0001

# Document control sheet

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Client	Fig Power Limited	
Project name	Newburn, BESS	
Title	Construction Traffic Management Plan	
Doc ref	29911-HYD-XX-XX-RP-TP-0001	
Project number	29911	
Status	S3	
Date	07/02/2024	

Document production record		
Issue number	P02	Name
Prepared by	[REDACTED]	
Checked by	[REDACTED]	
Approved by	[REDACTED]	

Document revision record			
Issue number	Status	Date	Revision details
P01	S3	01/02/2024	Suitable for stage approval
P02	S3	07/02/2024	Suitable for stage approval

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## 1. Introduction

### 1.1 Overview

- 1.1.1 This Construction Traffic Management Plan (CTMP) has been prepared by Hydrock in support of planning application for the proposed Battery Storage development (90 MW) located at Newburn, Walbottle Road, Newburn, Newcastle Upon Tyne, NE15 8HH.
- 1.1.2 A Transport Statement (TS) has been submitted at (Ref: 29911-HYD-XX-XX-RP-TP-4001).
- 1.1.3 The battery storage site is in two separate locations connected by an access track with the substation located to the east of the site access and the main battery storage site located north west of the access at the end of the hardstanding track.
- 1.1.4 The proposed site layout is shown in Figure 11 and attached at Appendix A.

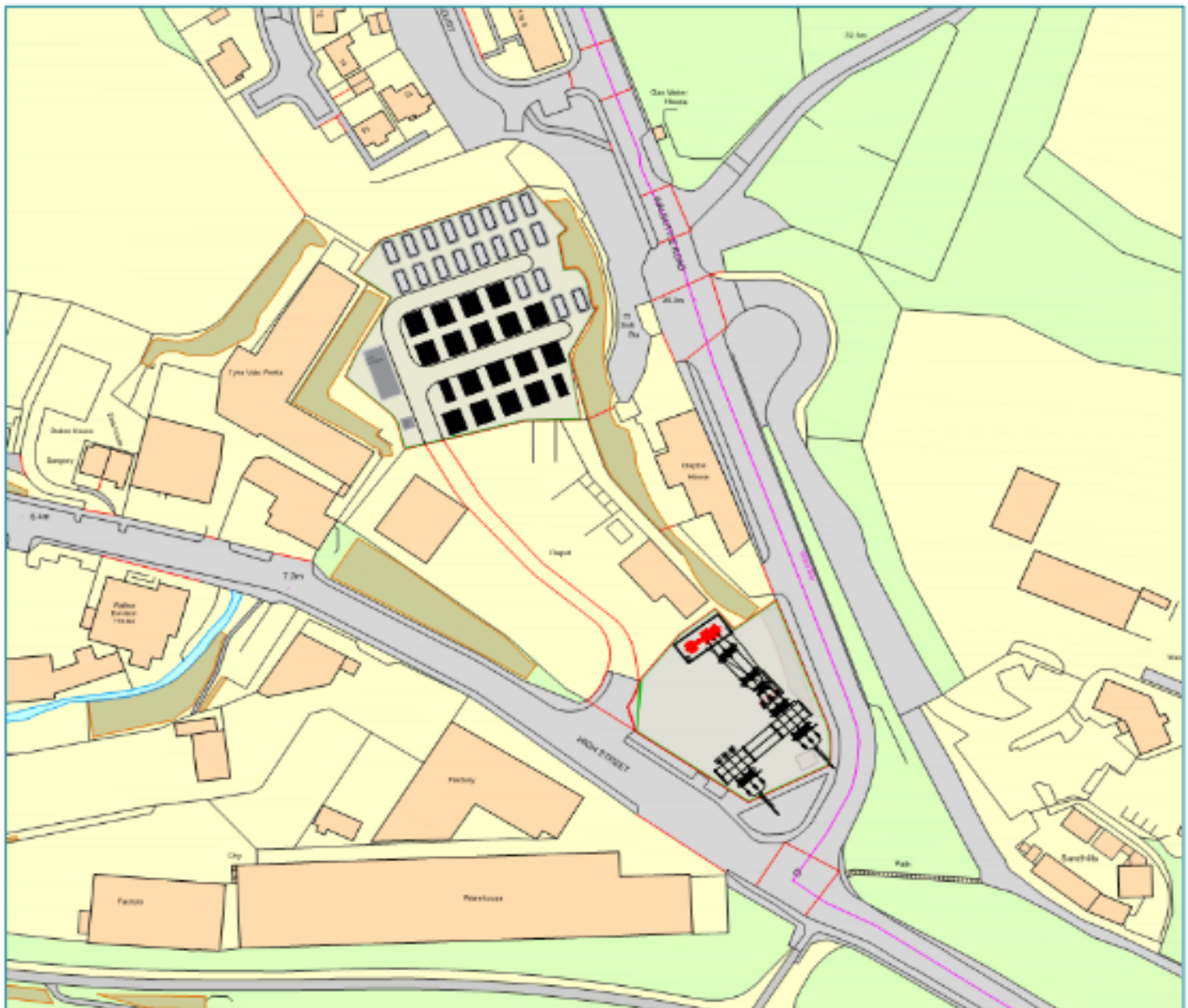


Figure 11: Site layout

### 1.2 Summary

- 1.2.1 This CTMP aims to ensure that the impacts of construction traffic movements associated with the development are managed in a manner that minimises negative impacts on local highway users, existing highway infrastructure and the wider environment.

- 1.2.2 Consideration will need to be given to how construction traffic will reach the site from the Strategic Road Network (SRN), and how to minimise any impact construction traffic may have on neighbouring communities.
- 1.2.3 It is recognised that the temporary construction phase of the development needs to be carefully managed.
- 1.2.4 The purpose of a CTMP is to identify suitable and safe routes that can accommodate the movements associated with construction materials during the construction phase, and to establish measures to reduce any interruption and/or delay to existing vehicle traffic so as to ensure that the impacts of construction traffic in the vicinity of the site and on the surrounding highway network are kept to a minimum.
- 1.2.5 The primary considerations for the routing strategy are as follows:
- » To use the shortest route from the access point of the site to the Strategic Road Network (SRN);
  - » As far as possible use 'A' roads as a first priority followed by 'B' roads, 'C' roads and then 'unclassified roads';
  - » Where possible avoid single carriageway roads unless these provide direct access to the construction site; and;
  - » To avoid settlements and sensitive receptors to minimise impact on villages and towns and sensitive road users.



## 2. Existing conditions

## 2.1 Site location

- 2.1.1 The site occupies brownfield land and is located at Newburn approximately 8.75km west of Newcastle upon Tyne city centre and 320m north of the River Tyne.
- 2.1.2 The site is bound by residential buildings to the north, industry to the west, east and south. The A6085 is located approximately 40m to the south of the site and Walbottle Road is located to the eastern boundary of the site.
- 2.1.3 The site in its local context is shown in Figure 2.1.

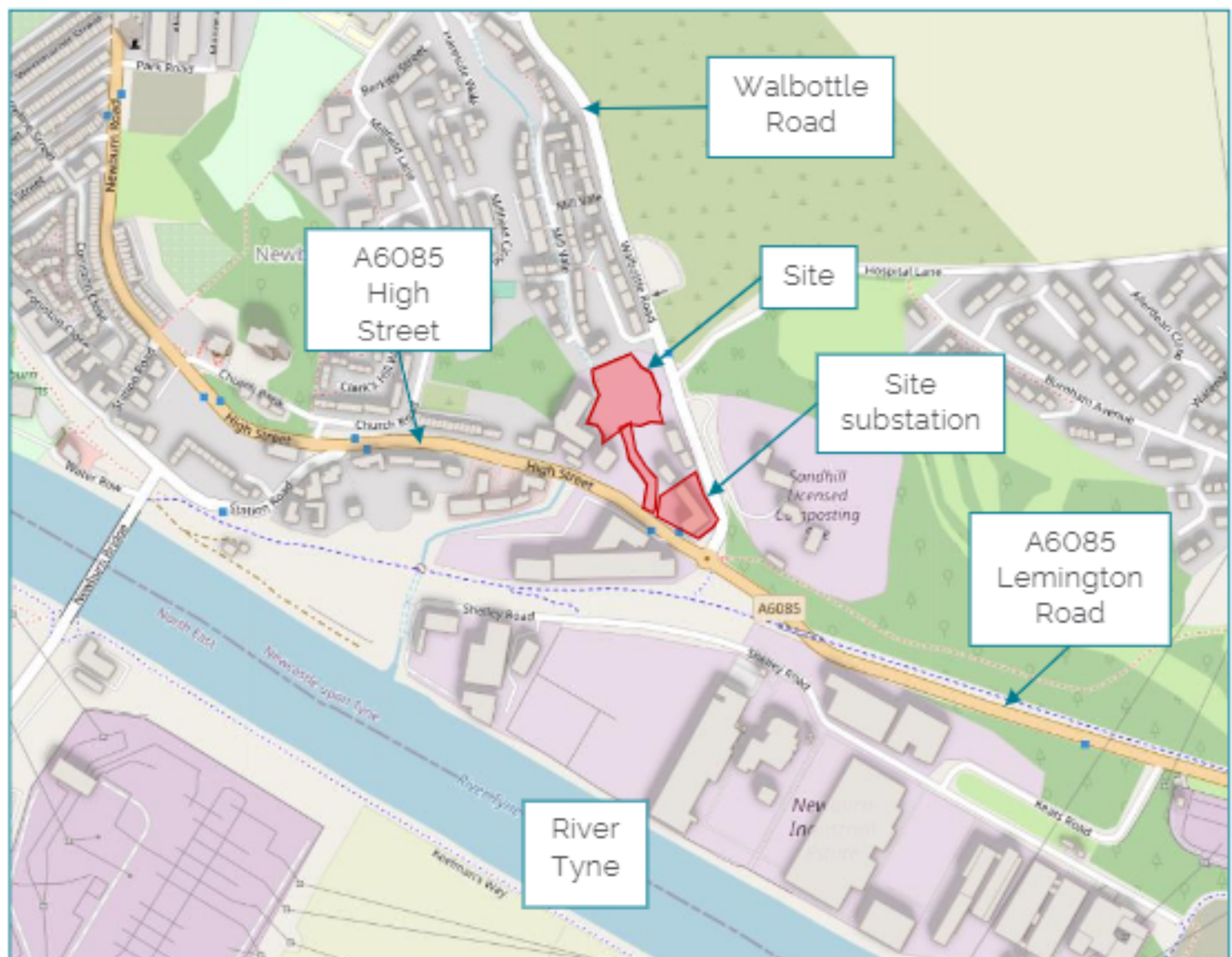


Figure 2.1: Indicative site location

### 3. Proposed construction routes

- 3.11 The site lies approximately 100m north of the A6085; the site will be accessed off the A6085 High Street which is a main principal road linking Newcastle City Centre to Throckley.
- 3.12 Construction vehicles approaching the site from the east, from Newcastle upon Tyne at Scotswood will continue along the A6085 after joining either from the north and south from the A1 or east from the A695. Vehicles approaching from the west on the A69 will continue south through Throckley and Newburn village along the A6085.
- 3.13 The routes outlined have been checked to confirm that there are no weight, height or width limits that would otherwise preclude the use of this route. It does however remain the driver's responsibility to ensure their vehicle can safely negotiate the prescribed route.
- 3.14 All the above links avoid the routing of traffic through densely populated residential areas with construction movements confined to appropriate roads including 'A' roads.
- 3.15 The construction vehicle routes are shown below in Figure 3.1.



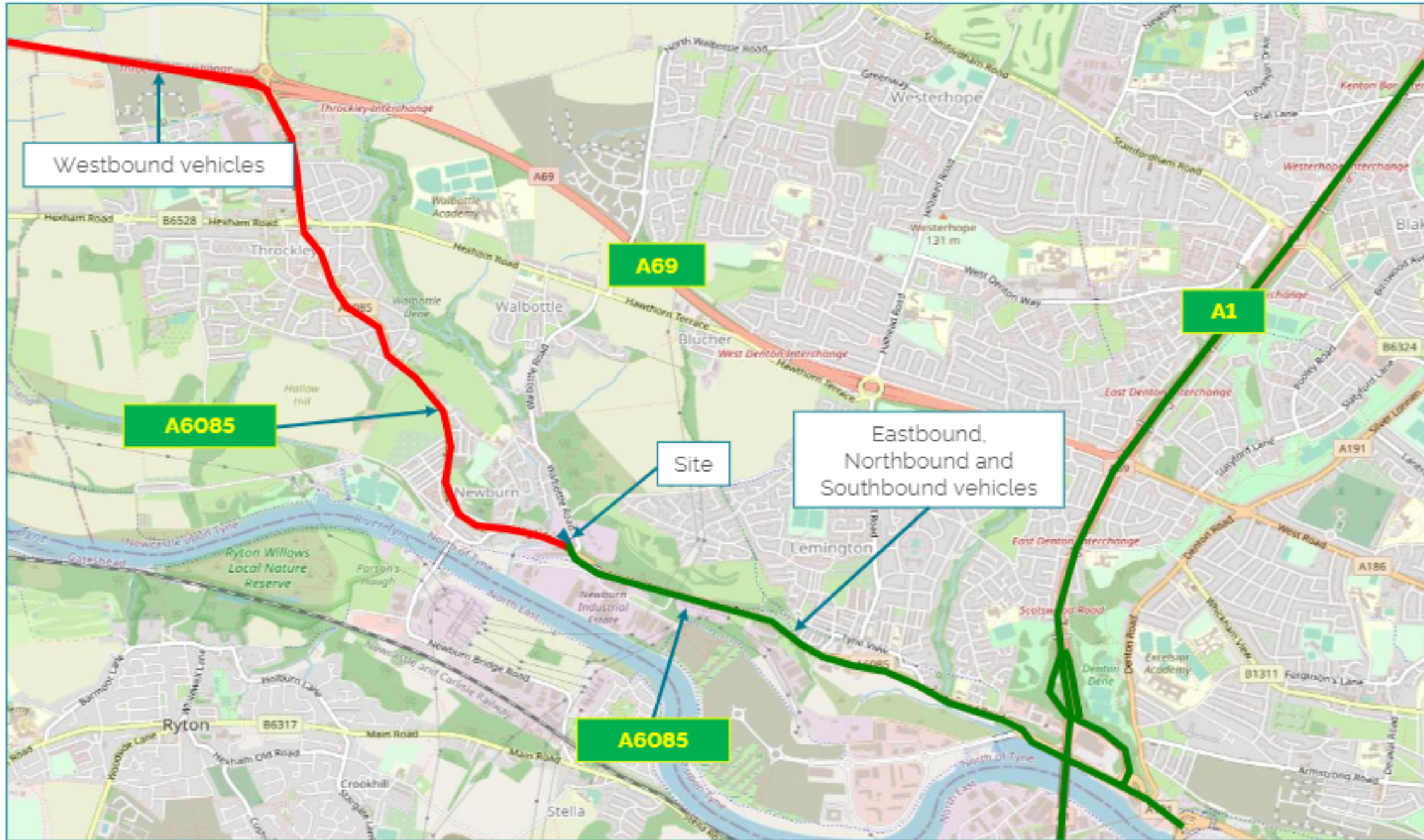


Figure 3.1: Construction vehicle routes



## 4. Construction programme and vehicle movements

### 4.1 Construction programme and duration

- 4.1.1 The construction phase of the development is anticipated to last a total of approximately 9-12 months.
- 4.1.2 It is anticipated that the initial stage of the construction will comprise of establishing a temporary site compound, the site access construction, drainage, earthworks and infrastructure construction.
- 4.1.3 This CTMP will be in place throughout the ground clearance and new development construction. The clear intent will be to minimise adverse impacts on the surrounding area.

### 4.2 Delivery vehicles

#### *Site mobilisation*

- 4.2.1 On site hardstanding areas, tracks and equipment foundations shall be constructed using stone and concrete. The majority of deliveries at this stage will use tipper lorries, concrete trucks and flatbed trucks. Plant required for the works will also be delivered on low loaders or other suitable transportation vehicles.

#### *BESS Infrastructure*

- 4.2.2 These components shall be delivered using articulated lorries. Associated goods such as smaller components, tools and other equipment will be delivered on flatbed trucks and low loaders.

#### *Miscellaneous Equipment*

- 4.2.3 Electrical and communications cables, fencing panels, drainage materials and other such miscellaneous materials will be delivered to site on flatbed trucks or low loaders. Occasional deliveries of small packages will also take place with vans and other light goods vehicles.

#### *Staff*

- 4.2.4 The daily commute of workers in cars, vans and small trucks will form a large proportion of the site traffic. However, the chosen contractor will encourage all sub-contractors, labourers and tradesmen to car/van share for their journeys to and from the site to reduce the number of vehicle movements involved. Parking for the workforce will be fully accommodated on site in the industrial land. Parking on, or near to, the adopted highway will not be required.

### 4.3 Construction traffic movements

- 4.3.1 During the first 6-12 weeks of pre-construction approximately 100 two-way movements would occur, which equates to some 3-6 two-way movements per day. Not all vehicle movements would be by HGVs, with some deliveries undertaken by smaller delivery vehicles and vans.

- 4.3.2 Following pre-construction, the main construction phase is anticipated to last up to 3 months. HGV movements would typically be in the region of 2 two-way movements per day over the duration of this phase, the bulk of which would be related to the delivery of the battery modules. The level of traffic during the main construction phase is not material and would not affect traffic or safety conditions in the local area particularly as the movements would be managed by the CEMP and Banksman at the site accesses.

#### *Staff*

- 4.3.3 Staff levels are likely to vary through construction depending on the operations being undertaken.
- 4.3.4 A conservative worst-case estimate of staff numbers has been made. It is assumed that approximately 20 staff will be required on site per day, equating to 40 two-way car/light van movements (20 arrivals and 20 departures). As staff will be encouraged to car share, it is anticipated that the figure for car or van movements is likely to be considerably lower than these estimates in practice.



## 5. Construction traffic management

### 5.1 Management of construction vehicles

- 5.1.1 Delivery vehicles are to adhere to the agreed construction route. All appointed haulage and supply companies will be advised of the precise routing to and from the development site. Directional temporary signage including 'works traffic' and 'works access' will be in place on the A6085 Lemington Road on approach to the Walbottle Road junction and on A6085 High Street on approach to the site access. Such signage will need to be agreed with the Local Area Roads Offices.
- 5.1.2 All delivery drivers would remain in telephone contact with on-site staff so that deliveries are managed from the local highway network to the site access.
- 5.1.3 A banksman will be positioned at the site access in advance of vehicles arriving.

### 5.2 Construction traffic hours

- 5.2.1 Confirmation of the restrictions on construction vehicle delivery hours will be set out following the appointment of the contractor.
- 5.2.2 In order to minimise the disruption to general traffic movements along the surrounding road network during the AM and PM peak hours, restrictions on times and days when construction traffic vehicles can access the site are proposed.
- 5.2.3 The permitted hours for construction are therefore proposed as Monday to Friday between the hours of 07:00 and 19:00 with construction deliveries managed to avoid the traditional AM peak hour (08:00-09:00) and the PM peak hours (15:00-16:00 and 17:00-18:00). These hours avoid the traditional peak hours as well as avoiding local school opening and closing times.
- 5.2.4 Except in case of emergency, any work required to be undertaken outside of the core working hours (not including repairs or maintenance) will be agreed with Newcastle upon Tyne County Council prior to undertaking the works.

### 5.3 Construction Vehicle Arrivals and Storage

- 5.3.1 Site deliveries will adopt a 'just in time' arrangement whenever practical so as to minimise queuing and on-site storage requirements. Deliveries to the site will be staged with drivers given specific time windows for arrival and these will be recorded within the booking system by the site manager. This will prevent convoying of vehicles to and from the site and ensure that construction traffic does not queue on the local highway network.
- 5.3.2 Prior to arrival on-site, drivers of vehicles will be instructed to call ahead to confirm they will arrive during their allocated timeslot. If there are any issues with arriving during the allocated time, drivers will be instructed to contact the site manager as soon as this is known to obtain another timeslot. A number of spare slots will be reserved throughout the day to maintain flexibility.
- 5.3.3 During the twelve-hour delivery period, there will be suitable capacity to accommodate the anticipated number of arrivals per day on the peak days of delivery.

- 5.3.4 All plant and construction materials will be stored within the site boundary in the construction compound. Deliveries of building materials will be phased throughout the construction period to ensure there is sufficient storage space available for direct offloading and storage of the site.

## 5.4 Vehicle Access and Driver Information

- 5.4.1 The construction access point is proposed in the same location as the vehicular access for the proposed development via A6085 High Street.
- 5.4.2 The site is a large site and therefore a vehicle turning area will be provided on-site located in the industry land below the site for vehicles to enter and exit the site in a forward gear.
- 5.4.3 As set out within Health and Safety Executive (HSE) guidance, the Banksman directing vehicle movements (signallers) will be trained and authorised to do so. On the rare occasions when reversing is required and in addition to a competent Banksman directing vehicle movements consistent with HSE guidance, consideration will be given to:
- » Aids for drivers - mirrors, CCTV cameras or reversing alarms that can help drivers see movement all-round the vehicle
  - » Lighting - so that drivers and pedestrians on shared routes can see each other easily. Lighting may be needed after sunset or in bad weather
  - » Clothing - pedestrians on site should wear high-visibility clothing
- 5.4.4 To avoid construction traffic congestion and nuisance to the surrounding area, all supplies and contractors will be made aware of the prescribed construction routes and time slot allocated within the booking system.
- 5.4.5 Access to the site will be appropriately signed to avoid congestion or queuing onto the highway. The site entrance will also be maintained and kept clean and clear.

## 5.5 Proposed Site Layout and Compound

- 5.5.1 The existing hardstanding through the middle of the industry land below the access track will be used for turning and parking. During construction the site will have a rolling laydown area where work will be started at the back of the site and move towards the entrance.
- 5.5.2 The industrial area may be used for the laydown area during construction but this will be confirmed closer to the build stage of the project.
- 5.5.3 The materials storage, site welfare and delivery area will be accommodated on-site within the construction compound which the location is to be confirmed. Swept path analysis of a 16.5m max legal HGV, fire tender and panel van has been undertaken, attached as Appendix B to demonstrate that vehicles can access, manoeuvre and exit the site in a forward gear.
- 5.5.4 The contractor will implement a clear and concise construction warning signage scheme on-site to assist in internal traffic control and separate construction vehicles and pedestrians.
- 5.5.5 Signage will also identify the site office and parking areas for workers, site visitors and delivery vehicles.



- 5.5.6 The site will have secure perimeters to protect the community and pedestrians on adjacent footways from construction work and vehicle movements.

## 6. Construction workforce

### 6.1 Numbers of workers and parking

- 6.1.1 The level of construction workers on-site will vary during each phase of construction; worst-case estimate of staff numbers has been made which totals approximately 20 staff on site per day.
- 6.1.2 It is envisaged that workers will travel mainly by private vehicle, although car sharing will be promoted.
- 6.1.3 Some construction workers will require access to tools and materials which are usually stored within vehicles and as such, some workers will need to travel by vehicle and park on-site. To accommodate this, there will be a suitable amount of parking provision for worker vehicles. This will be carefully managed to ensure that these vehicles are booked into the site in advance and on arrival.
- 6.1.4 The client will ensure that where reasonable and practicable local labour and sub-contractors will be utilised for the duration of construction, thus minimising distances travelled on the network and maximising opportunities to consider alternative modes of transport to the site. As it is envisaged that workers will mainly travel by private vehicle, sustainable travel will be best achieved through the promotion of car sharing.



## 7. Traffic noise and environmental impact mitigation

### 7.1 Introduction

- 7.1.1 This section sets out specific measures to be adopted to mitigate construction impacts in pursuance of the Environmental Code of Construction Practice.

### 7.2 Construction Traffic Noise

- 7.2.1 The Environmental Protection Authority released the "Environmental Criteria for Road Traffic Noise" in May 1999. The policy sets out noise criteria applicable to different road classifications for the purpose of defining traffic noise impacts. The following will be applied during construction to minimise the traffic noise impacts:

- » Apply and strictly adhere to low-speed limits within the site and within the vicinity of the site
- » As far as possible, ensure all contractor vehicles are fitted with adequate noise control equipment in good working order
- » Large vehicles will not arrive or leave the site at noise sensitive times
- » Ensure no parking or queuing of construction traffic on surrounding roads.

### 7.3 Environmental Conditions

- 7.3.1 The potential exists for mud to be spread onto the surrounding highway network. As such, measures will be implemented to minimise this as far as possible. Measures will include (but are not limited to):

- » Use of an approved mechanical water-assisted road sweeper to clean the site of any mud or debris deposited by site vehicles within the vicinity of the site. The road sweeper is to be available whenever needed and will be properly used and maintained
- » The avoidance of dry sweeping large areas
- » Provision of wheel washing on all site exits and lorry jet washing facilities (to include rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practical)
- » Adequate sheeting of vehicles carrying waste materials
- » A water bowser will be present on site to aid in dust control, should this be a likely issue - this may well depend on the time of year in which construction takes place
- » Measures will be taken to ensure that mud and debris is not swept into gullies

- 7.3.2 Dust control will be best achieved at source, and if possible, activities will be carried out in a manner so as to preclude dust generation.

- 7.3.3 If dust is generated, steps will be taken to protect workers in the vicinity who shall, as a minimum, be issued with dust masks. Dust will, if possible, be contained in the location in which it is generated, and be controlled and managed therein.

## 8. Site Operation

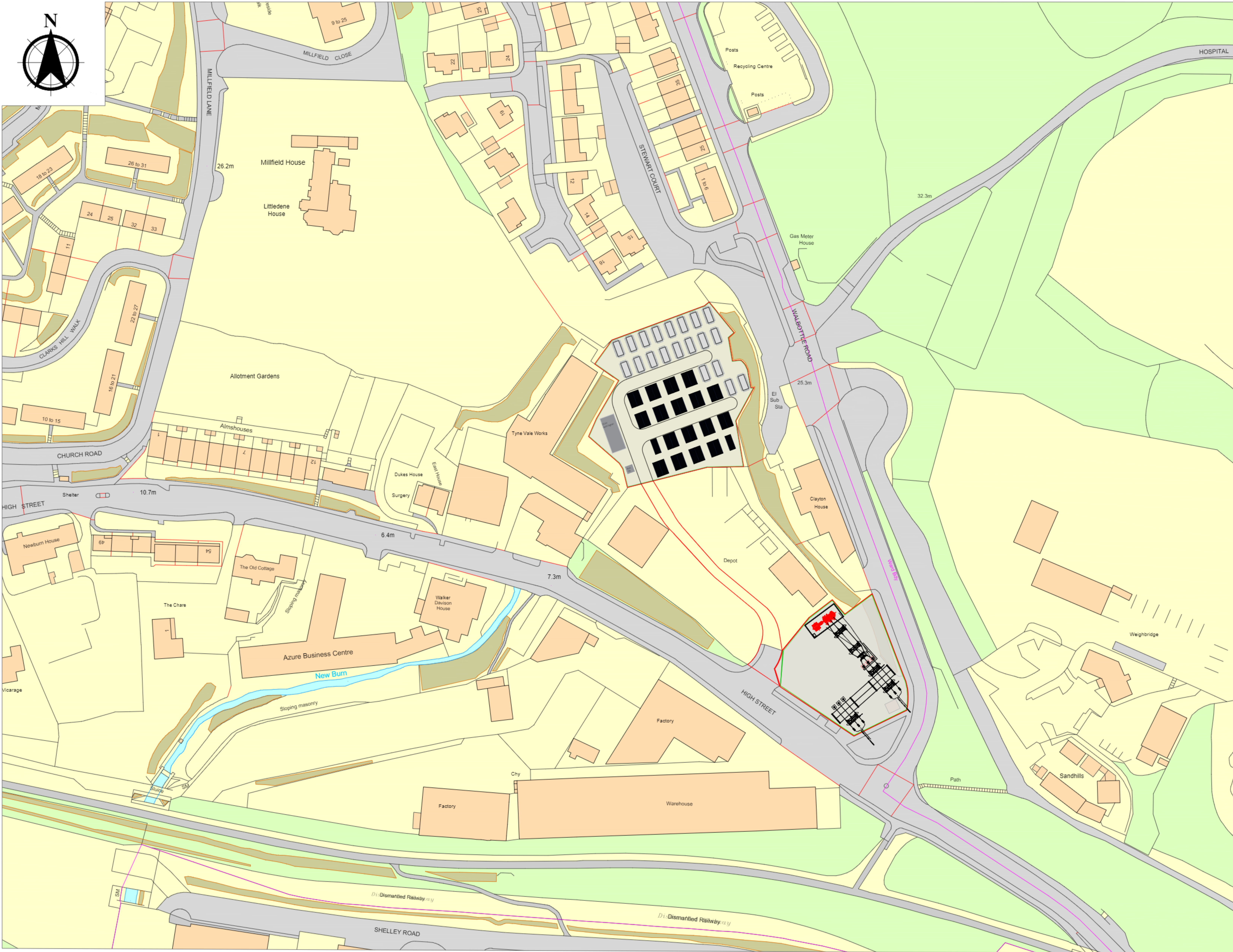
### 8.1 Post Completion – Site Operation

- 8.11 Any temporary compound, including any surplus materials or equipment, Portakabin type building, wheel washing facilities, and signage will be removed from the site approximately two months after the site first comes into operation.
- 8.12 Following commissioning, minimal maintenance is expected in relation to the Battery Storage site. Visits will be made to the site for maintenance etc. Approximately 2 visits per month would be made to the site by small van/4x4 type vehicles. This level of traffic is not considered material.



## Appendix A Site Layout





KEY PLAN

NOTES  
Any equipment shown is indicative of dimensions and general appearance and may be subject to minor amendments by the manufacturer or supplier

LEGEND

- BATTERY
- PCS AND TRANSFORMER
- CONCRETE PLINTHS
- HARDSTANDING AREA
- FENCE
- GATE
- ON SITE SUBSTATION

REVISIONS

INITIAL VERSION						
PO1	CL	22/01/24	XX	XX	XX	XX
REVISION NOTES/COMMENTS						
REV	DRAWN BY	DATE	CHECKED BY	DATE	APPROVED BY	DATE

**fig power**  
firm, flexible energy

CLIENT  
FIG POWER

PROJECT  
NEWBURN  
BATTERY ENERGY STORAGE SYSTEM

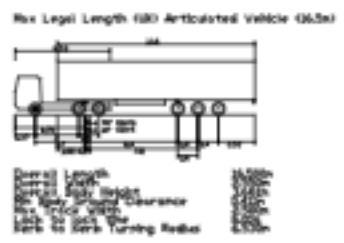
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FOR OPERATION

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DRAWING NO. (PROJECT CODE-DR-0006) 2991-FIG-DR-0006		REVISION PO1



## Appendix B Swept Path Analysis





NO.101010  <div>             HYDROCK HOLDING NORTH              CHANGING ROAD              BRISTOL              BS2 0PH              T: (0117) 802 000              E: <a href="mailto:enquiry@hydrock.com">enquiry@hydrock.com</a> </div>			TITLE SWEPT PATH ANALYSIS  MAX LEGAL LENGTH ARTICULATED VEHICLE (16.5M)		
CLIENT FIG POWER LIMITED			HYDROCK PROJECT NO. 29911		
PROJECT NEWBURN BESS			STATUS DESCRIPTION INFORMATION		
DRAWING NO. (PROJECT CODE-OPERATOR CODE-CLIENT PROJECT NUMBER) 29911-HYD-XX-XX-DR-TP-0102			STATUS S2		
Revision Rev. Date Description By Date App			REVISION P02		







