



## **Bacton Low Rise, LB Camden**

### **CONSTRUCTION (DEMOLITION) MANAGEMENT PLAN**

Report, October 2016

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# 1 Introduction

## GENERAL

- 1.1 JMP Consultants Ltd (JMP) has been commissioned by Rydon Construction Ltd (the Client) to provide transport and construction consultancy services through the production of a Construction Management Plan (CMP) in support of development proposals for the regeneration of the Bacton Low Rise Estate, Haverstock Road, London, NW5 4PS (the Site).
- 1.2 The Local Planning Authority and Local Highway Authority is the London Borough of Camden (LBC), whilst the Strategic Transport Authority is Transport for London (TfL).

## DEVELOPMENT PROPOSALS

- 1.3 The Site has been granted planning permission (ref: 2012/6338/P) for the demolition of the southern part of the Bacton Low Rise Estate and the construction of 140 new residential dwellings, to be followed by the demolition of the northern part of the estate and the construction of 87 new homes (the Consented Development). Planning Condition 47 states that:

*“Prior to the demolition of the existing buildings on the relevant part of the site and the commencement of construction of the new buildings on the relevant part of the site a Construction Management Plan / Construction Logistics Plan setting out measures for ensuring highway safety and managing transport, deliveries and waste (including recycling of materials) throughout that part of the demolition and/or construction period(s) and taking account of the cumulative impact of concurrent or planned development within the immediate area, shall be submitted to and approved by the local planning authority in consultation with Transport for London and shall contain mechanisms for monitoring, review and further approval by the local planning authority and Transport for London as required from time to time. The Construction Management Plan / Construction Logistics Plan shall also include details of a working group involving local residents and businesses, a contractor complaints/call-line and measures to be carried out to mitigate the impact of the noise arising from construction and demolition activities on local residents and businesses. The measures contained in the Construction Management Plan / Construction Logistics Plan shall at all times remain implemented throughout the duration of the works of demolition and construction”*

- 1.4 This CMP is intended to partially discharge Planning Condition 47 to enable demolition works to take place at the Site. As such, the CMP covers demolition only.
- 1.5 It is noted that an additional planning application has been submitted to facilitate the construction of an additional 20 units during the construction phase of the project, with a Planning Order anticipated to be granted in March 2017. The full CMP for the Consented Development will consider construction impacts associated with the additional 20 units.
- 1.6 Proposed architect plans are contained at **Appendix A** for information.

## OBJECTIVES

- 1.1 The aim of this CMP is to set out the principles of demolition of the Site to facilitate construction of the Consented Development. It aims to ensure that all demolition works at the Site are organised and delivered in a manner that minimises impact on the local highway network, pedestrians, cyclists and local businesses / residents, ensuring safety is maintained throughout demolition.

- 1.2 This CMP provides information on the proposed demolition vehicle routing strategy, the type and number of demolition vehicles required to serve the Site daily, and operating procedures to be employed at the Site to help mitigate the impact of demolition on the local highway network. Clear routes and procedures are outlined that will be adhered to at all times as a means of limiting the effect of demolition. The CMP addresses the practical considerations of demolition, including the proposed methodology and anticipated timescales, and more importantly assesses the potential impact of demolition on the local community giving consideration to issues such as traffic congestion, air quality impacts associated with dust and vehicle emissions, noise, hours of operation and site security.
- 1.3 The CMP has been developed in accordance with TfL's *Construction Logistics Plan Guidance for Developers*, LBC's *Construction Management Plan pro forma (v 2.0)* and the Mayor of London's *The Control of Dust & Emissions during Construction and Demolition: Supplementary Planning Guidance* document.

## CMP STRUCTURE

- 1.4 Following this introductory section, the remainder of the CMP is structured as follows:
- **Section 2: Baseline Conditions** – Provides an overview of the existing transport conditions prevailing at the Site and in the immediate surrounding area;
  - **Section 3: Demolition Process** – Sets out details of the anticipated demolition programme and methodology, including details of core working hours;
  - **Section 4: Logistics** – Details the logistics of demolition, including the proposed demolition vehicle routing strategy, loading and unloading arrangements and the anticipated number and size of vehicles visiting the Site; and
  - **Section 5: Mitigation Measures** – Sets out the mitigation measures that will be employed during demolition to minimise impact on local residents, businesses and the local highway network.



## 2 Baseline Conditions

### GENERAL

- 2.1 This section of the CMP provides an overview of the existing Site and surrounding area with a focus on local transport services and infrastructure. It is informed by desk-based research and a site visit undertaken by JMP on Tuesday 9 August 2016. The baseline conditions are identified so that the context of demolition of the Site to facilitate construction of the Consented Development and the potential impact on the local transport and highway network can be fully understood.

### SITE LOCATION

- 2.2 The Site currently comprises the Bacton Low Rise Estate and is formed of residential blocks. It is located within a residential area of the London Borough of Camden, and is bound by Haverstock Road to the west and Wellesley Road to the north, east and south.
- 2.3 A plan showing the location of the Site in the context of the surrounding area is shown in **Figure 2.1** below.

**Figure 2.1 Site Location Plan**



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## LOCAL HIGHWAY NETWORK

### Wellesley Road

- 2.4 Wellesley Road borders the southern, eastern and northern boundaries of the Site and is adopted by LBC as the local highway authority. It is formed of a single carriageway in either direction and is subject to a 20mph speed restriction. Wellesley Road and other streets in the vicinity of the Site are located in Controlled Parking Zone CA-L, which is in operation between the hours of 08:30 and 18:30, Monday to Friday. Residential parking bays are located on both sides of the carriageway in the vicinity of the Site.
- 2.5 A loading bay associated with Wellesley Road Care Home is located to the south of the Site, as shown in **Figure 2.2** below.

**Figure 2.2 Wellesley Road Loading Bay**



### Haverstock Road

- 2.6 Haverstock Road borders the eastern end of the Site and is adopted by LBC as the local highway authority. It is a no-through road formed of a single carriageway, with traffic permitted to travel in either direction. It connects to Wellesley Road at its southern end and is subject to a 20mph speed restriction. A series of parallel parking bays are located adjacent to Haverstock Road, as shown in **Figure 2.3** overleaf, and are associated with the existing Bacton Low Rise Estate.

Figure 2.3 Haverstock Road Parallel Parking



## PUBLIC TRANSPORT ACCESSIBILITY & SERVICES

### Public Transport Accessibility Level

- 2.7 Public Transport Accessibility Levels (PTALs) are a measure of accessibility from a specific location to the local public transport network. The measure takes account of the walk access time to a station or stop as well as the wait time and reliability of public transport services. A PTAL assessment has been undertaken for the Site using the latest timetable data for accessible public transport nodes, using the TfL PTAL website. The assessment confirms a PTAL of 3 (moderate).
- 2.8 The full PTAL assessment is contained at **Appendix B** for information.

### Bus Services

- 2.9 The Site is currently served by a total of three daytime bus services. According to TfL standards, an accessible bus service can be reached within a maximum walk distance of 640m (an eight minute walk at 4.8kph).
- 2.10 The closest bus stops to the Site are located on Malden Road, approximately 50m to the south of the Site, with the northbound stop located to the west of the junction with Wellesley Road, and the southbound stop to the east of the junction. These stops are served by bus routes 24 and 46. Bus route C11 can be accessed from Mansfield Road, approximately 200m to the north of the Site.

### London Overground Services

- 2.11 Gospel Oak station is located approximately 650m to the northeast of the Site, and can be accessed via Mansfield Road. The station is served by the London Overground running from Clapham Junction and Richmond to Stratford, with trains running approximately once every ten minutes in either direction during peak hours. Services from Gospel Oak provide access to destinations including Hackney Central, Highbury & Islington, Kensington Olympia and West Hampstead.



## WALKING & CYCLING

- 2.12 Existing pedestrian infrastructure in the vicinity of the Site is of good quality. Footpaths are generally wide, smooth and clear of obstructions and excessive street furniture. Tactile paving and dropped kerbs are utilised at the majority of junctions and pedestrian crossing points in the vicinity of the Site. A series of pedestrian crossings are located on Malden Road, including a two-stage non-signalised crossing located immediately to the south of the junction with Wellesley Road, as shown in **Figure 2.4**.

**Figure 2.4 Pedestrian Crossing, Malden Road**



- 2.13 A marked cycle lane is provided on both sides of the carriageway on Malden Road, as shown in **Figure 2.5** below.

**Figure 2.5 Cycle Lane, Malden Road**



## 3 Demolition Process

### GENERAL

- 3.1 This section outlines details concerning the anticipated demolition methodology, phasing programme and timescales. It is informed by information provided by the Client and Contractor.

### DEMOLITION PROGRAMME

- 3.2 Demolition at the Site is anticipated to begin in late 2016 and is estimated to last for approximately 16 weeks, with completion anticipated in April 2017. A detailed project programme prepared by Rydon is contained at **Appendix C** for information.

### WORKING HOURS

- 3.3 In accordance with LBC's Construction Management Plan pro forma (v2.0), all works will be carried out between the hours of 08:00 and 18:00, Monday to Friday, and between the hours of 08:00 and 13:00 on Saturdays. No works will be undertaken at the Site on Sundays or bank holidays, unless agreed in advance with LBC.
- 3.4 Noisy works are anticipated to be associated with the use of munchers and crushers for demolition, and will be undertaken between the hours of 08:00 to 13:00 and 14:00 to 18:00. For such noisy works where there is a direct impact upon surrounding properties within the specified times, the Site Manager will make contact with the neighbours to consult on the duration, extent and impact of the works.

### SITE OFFICE

- 3.5 Welfare facilities for site personnel will be provided on-site at the junction of Vicars Road and Wellesley Road.

### SITE SET UP & PREPARATION

- 3.6 Site setup will be crucial to mitigating the impact of demolition on surrounding residents, businesses and road users. During demolition, it is anticipated that access to the Site will be gained via an access point to be located on Wellesley Road at the southern end of the Site. This will provide both vehicular and pedestrian access to the Site.
- 3.7 Throughout demolition works the frontage of the Site will be kept tidy and presentable. Hoarding will be erected up to a height of 2.44m along the length of the frontage of the Site on both Haverstock Road and Wellesley Road during demolition, to be located within the Site's red line boundary. The purpose of the hoarding is to provide additional security, preventing unauthorised personnel from accessing the Site as well as providing suitable segregation between pedestrians and works being undertaken. No ramps or additional barriers will be required during demolition.

### POTENTIAL IMPACT ON UTILITIES

- 3.8 No utility works are anticipated to be required to facilitate demolition works. No alterations to existing gas and water supplies are anticipated.

# 4 Logistics

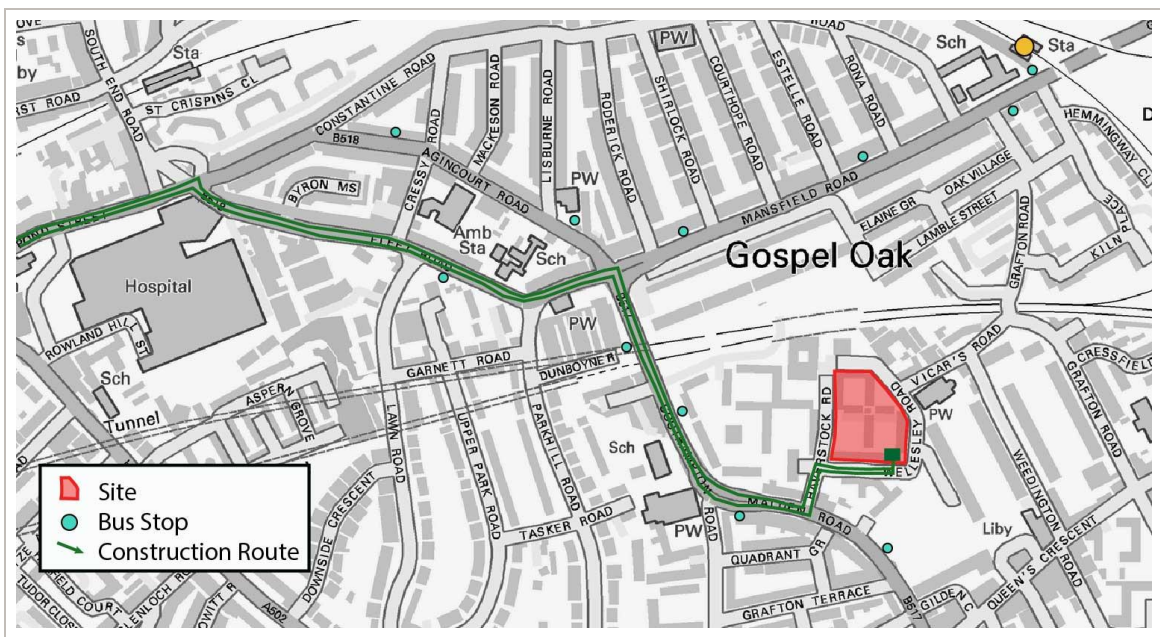
## GENERAL

- 4.1 Local transport, traffic and parking impacts are primary issues and concerns for all construction projects, particularly within Greater London. As such, managing the potential transport impacts of demolition and construction is a key priority. Potential impacts include on-street congestion resulting in traffic delays, increased road hazards, noise associated with vehicles and construction works and air quality impacts related to vehicle emissions and dust generation.
- 4.2 This section provides an overview of the logistics of demolition at Bacton Low Rise. Details are set out concerning vehicle access routes to and from the Site, anticipated vehicle sizes and frequencies, and expected personnel numbers.

## DEMOLITION TRAFFIC ROUTING

- 4.3 The proposed vehicle routing strategy to be employed for the duration of demolition works is shown in **Figure 4.1** overleaf. The routing strategy has been developed taking into consideration local and strategic highway routes in the vicinity of the Site, including the presence of one-way restrictions, road widths and restrictions, sensitive receptors and key pedestrian and cycle routes.

**Figure 4.1 Vehicle Routing Strategy**



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- 4.4 It can be seen in **Figure 4.1** that vehicles accessing the Site will travel via Malden Road, before turning left onto Wellesley Road and enter the Site at its southern boundary on Wellesley Road. On leaving the Site, vehicles will exit via the same access point onto Wellesley Road, before travelling northbound on Malden Road and following their arrival route.
- 4.5 Swept path analysis has been undertaken using AutoCAD software to assess the suitability of the proposed routing strategy. The analysis demonstrates that a maximum sized legal articulated vehicle is



able to enter and exit the Site in forward gear, and travel along Wellesley Road and Malden Road. The swept path analysis is contained at **Appendix E** for information.

- 4.6 The proposed routing strategy ensures that, as far as reasonably practicable, vehicles travel to and from the Site on the strategic highway network, and avoids vehicles travelling on local roads of a residential nature that are subject to low vehicle flows and have high pedestrian footfall levels. The proposed routing strategy also avoids use of roads that are marked for use by cyclists. It is considered appropriate to avoid routes where vulnerable road users and demolition-related vehicles could conflict.
- 4.7 Where possible, the Contractor will source local material suppliers and labour as a means of minimising journey lengths.

## ROUTE COMPLIANCE

- 4.8 During the demolition programme, all traffic associated with the Site will be advised of the appropriate transport routes that should be used. All regular visitors to the Site will be provided with written notification of access routes.
- 4.9 A requirement to use the agreed vehicle route as set out in **Figure 4.1** will be included as a contractual requirement of all sub-contractors travelling to and from the Site, and will be communicated to all individuals associated with demolition works. It is envisaged that this information will be communicated in the form of a leaflet or email and will include information with regard to times of operation, delivery routes, the call up procedure and delivery slot information. Any repeated non-compliance with the routing strategy could result in disciplinary procedures or the termination of the contract of workers and/or suppliers.
- 4.10 All workers and suppliers will be advised to use the PIE Freight Journey Planner website, which is designed to help freight operators plan a route for a specified size of vehicle, and identify where it is possible to stop or wait legally.
- 4.11 An appointed Site Manager will keep up-to-date with regards to scheduled roadworks, events and incidents in the area using the London Works website. Where feasible, any required changes to the routing strategy due to significant roadworks or events taking place on the proposed vehicle route will be agreed with LBC in advance where feasible.

## PROPOSED LOADING LOCATION & STRATEGY

- 4.12 All loading and unloading activity associated with demolition works will take place on-site. All vehicles will enter and exit the Site via Wellesley Road at the southern end of the Site. It is anticipated that vehicles will reverse into the access point from Wellesley Road, load or unload goods before leaving in forward gear. All vehicles will travel to and from the Site following the routing strategy outlined in **Figure 4.1** above.
- 4.13 Deliveries will take place during specified core working hours only, meaning deliveries will be restricted to between the hours of 08:00 and 18:00, Monday to Friday, and 08:00 to 13:00 on Saturdays. Where possible, deliveries will be scheduled to take place outside of the standard network peak hours of 08:00 to 09:00 and 17:00 to 18:00 to minimise impact on the local highway network.
- 4.14 A trained banksmen will be present outside the Site during periods of loading and unloading activity and vehicle movements into and out of the Site to ensure that appropriate levels of safety are maintained whilst loading and unloading activity is taking place, minimising conflict with pedestrians.

## VEHICLE SIZES & FREQUENCIES

- 4.15 Information concerning the anticipated number and type of vehicles required to visit the Site during demolition is set out in **Table 4.1** overleaf.

**Table 4.1 Demolition Vehicle Information**

Phase	Vehicle Information
Phase 1: Demolition	Two muck away lorries per day (weeks 1-4) Five low loader lorries per day (weeks 1-2) One lorry for metal removal (weeks 4 to 10) Four staff vehicles per day

4.16 The measures that will be employed to minimise the environmental impacts of such vehicle movements, including in relation to noise and air quality, throughout demolition works are set out within **Section 5** of this CMP.

4.17 It is noted that no cranes will be required on-site to facilitate demolition works.

## VEHICLE MOVEMENTS & CONTROL OF DELIVERIES

4.18 The Site will operate a delivery booking schedule to control deliveries to ensure as far as reasonably practicable that there are no delivery vehicles held waiting in the vicinity of the Site, and to ensure no more than one delivery takes place at a time. Such a booking system will enable deliveries to be distributed across the week and across working hours. The booking schedule will be strictly enforced and will be managed by the Contractor. It is anticipated that all deliveries to the Site will be organised to take place between the hours of 08:00 and 18:00, Monday to Friday.

4.19 In addition, as far as reasonably practicable, vehicle movements will avoid the standard network weekday morning and evening network peaks of 08:00 to 09:00 and 17:00 to 18:00 as a means of minimising the impact of demolition on the local highway network.

4.20 Deliveries will not be accepted outside of their designated time-slot, and such deliveries will be asked to re-book. Unless there is capacity to accommodate within the specified loading area on-site, unplanned deliveries will be turned away and advised to return to the Site at a pre-arranged delivery time. Unplanned deliveries will not be permitted to wait at any other location on the local highway network in the vicinity of the Site.

4.21 The Contractor and the Project Team will consider potential methods to reduce the number of vehicle movements to the Site, including investigating the potential for consolidation of deliveries. With proper planning and an efficient delivery schedule, unnecessary vehicle trips to the Site will be kept to a minimum.

4.22 When planning deliveries, The Contractor will consider the following:

- All deliveries to the Site will be restricted to the timings set out within this document;
- Deliveries will be permitted only in the specified on-site loading area;
- A policy to stagger deliveries will be employed to avoid vehicles queuing or waiting on the local highway network in the vicinity of the Site; and
- Material storage areas will be prepared on-site in advance of deliveries to minimise loading and unloading times.

4.23 With proper planning and an efficient delivery schedule, unnecessary vehicle trips to the site will be kept to a minimum.

## VEHICLE EMISSIONS

4.24 No engines of vehicles will be left running when not in use. If a vehicle or piece of equipment is not being used, then it will be turned off to reduce both emissions and on-site noise levels.



## VEHICLE DWELL TIMES

- 4.25 Demolition delivery vehicles are not anticipated to be required on-site for a period longer than one hour, depending on materials being delivered or collected. The delivery booking system will allow sufficient times between deliveries to ensure that no vehicles arrive whilst a vehicle is currently loading / unloading on-site.

## PERSONNEL & TRAVEL PATTERNS

### Personnel Numbers

- 4.26 It is anticipated that approximately ten personnel will be working at the Site during demolition at any one time. All contractors and suppliers employed at the Site will be members of the TfL Fleet Recognition Scheme (FORS). As such all contractors and suppliers working on the site will be committed to safer and more efficient ways of working.

### Staff Travel Patterns

- 4.27 It is anticipated that all personnel will travel to and from the Site by public transport, on foot or by bicycle. As identified in **Section 2**, the Site is located in an accessible area with a PTAL rating of 3. This reflects the range of public transport services that operate in the vicinity of the Site. As previously detailed, the Site is located within an accessible distance of three bus services, alongside London Overground services from Gospel Oak station. Information on public transport services that operate within an accessible distance of the Site will be provided to all personnel at the commencement of their contract.
- 4.28 No individual car parking will be provided for site personnel during demolition works. Furthermore, the Site and surrounding streets are located within Controlled Parking Zone CA-L, restricting on-street parking to residential permit holders only between the hours of 08:30 and 18:30, Monday to Friday. This acts as an aid to discourage construction personnel from travelling to and from the Site by car.
- 4.29 The Contractor, where feasible, will seek to recruit workers from the local area. This will help maximise the potential for workers to travel sustainably to and from the Site. As such it is likely that the workforce will reside in the Greater London area and therefore, in most instances, the majority of staff will have the opportunity to arrive at the site via public transport, bicycle or on foot.

# 5 Mitigation Measures

## GENERAL

- 5.1 This section of the CMP sets out the mitigation measures that will be employed during demolition to minimise the impact of demolition works at the Site on local residents, adjacent businesses, the local highway network in the vicinity of the Site and other road users, including pedestrians and cyclists.

## SITE MANAGER

- 5.2 It is proposed that a designated Site Manager will be appointed for the duration of demolition to deal with any enquiries, comments and complaints from local residents and businesses, the general public and any other parties. The Site Manager will be appointed prior to the commencement of works, with their details (including a 24 hour phone number) will be provided to LBC prior to demolition activities commencing on-site.
- 5.3 Contact details of the Site Manager will also be displayed outside the Site on hoarding and will be provided to adjacent businesses and residents, ensuring that any questions or queries raised concerning works at the Site are appropriately dealt with in a timely manner.
- 5.4 The Site Manager will be responsible for undertaking the transport co-ordination role for the duration of demolition. Their main responsibilities are anticipated to include, but not be limited to:
- Managing the implementation of the Final CMP;
  - Delivery vehicle scheduling and booking;
  - Informing local residents, businesses and LBC about the commencement of works and anticipated programme;
  - Informing local residents, businesses and LBC of any major or noise intensive works;
  - Checking for scheduled road works, special events and incidents on the London Works and Roadworks.org websites;
  - Handling any complaints and responding to questions or concerns from LBC, local residents and neighbouring businesses; and
  - Acting as a point of contact for employees, contractors, LBC, TfL and the general public.
- 5.5 The Site Manager will ensure that there is adequate liaison between key stakeholders throughout the demolition period, including the Contractor, local residents and businesses, LBC, TfL and other local parties.
- 5.6 In accordance with TfL's 'Construction Logistics Plan Guidance for Developers', regular review meetings and telecommunication will be held between the Site Manager and LBC. It is envisaged that update meetings will be held on an ad-hoc basis, with updates provided to LBC at agreed intervals. Furthermore, if requested, the Site Manager will provide any monitoring data, delivery schedules, complaints or breaches of agreements to LBC.

## SUBCONTRACTORS

- 5.7 Individual contractors involved in activities such as site clearance and waste removal will be required to incorporate the relevant requirements from the CMP into their activities as well as statutory requirements. Any potential subcontractors will be required to demonstrate the ways in which they will comply with the contents of the CMP.

## GOOD NEIGHBOURS POLICY

- 5.8 The Client and the Contractor will strive to be ‘Good Neighbours’, and as such will employ systems to ensure that any local issues and concerns are understood. Consultation and communication with local residents and businesses will commence prior to the commencement of works. Adjacent residents and businesses will be provided with information concerning demolition works, including the proposed timescales, working hours, loading bay suspension and delivery scheduling, alongside contact details for the Site Manager and a 24/7 helpline. The Contractor is signed up to and approved by the Considerate Constructor Scheme (CCS), and is compliant with all associated elements.
- 5.9 An induction programme specific to Bacton Low Rise will be provided to all personnel before demolition commences. This will incorporate health and safety, on-site works and issues and sensitivities in the context of the surrounding area and local community. Operatives will be advised on how to behave on-site and whilst interacting with the local area, businesses and residents.
- 5.10 Activities associated with demolition at the Site will be restricted to between the hours of 08:00 and 18:00 Monday to Friday, and 08:00 and 13:00 on Saturdays. No work will be undertaken on Sundays and bank holidays.
- 5.11 As with all construction and demolition projects, there is potential for extenuating circumstances to occur that may require work to extend beyond core working hours; for example, the breakdown of plant machinery or other equipment). Such instances are beyond the usual control of the contractor. Whilst considered unlikely, should this situation occur, the Contractor would speak to LBC’s Environmental Health Officer in order to obtain their guidance on how best to approach ‘out of works’ working in extenuating circumstances. Where possible, any work that is anticipated to occur outside of the core working hours will be discussed and agreed in advance with LBC.
- 5.12 In line with best practice guidance, the Contractor will notify local businesses and residents that will be directly affected or potentially inconvenienced by works at the Site. This will help to minimise the impact demolition may have on the surrounding community and ensure that residents and businesses are fully informed at all times.

## COMPLAINTS PROCEDURE

- 5.13 Although the measures set out within this CMP are intended to minimise the impacts of demolition and ensure that neighbouring residents and businesses are informed of the demolition programme and timescales, it is possible that complaints may be raised concerning works at the Site. As previously detailed, contact details will be provided to local residents and businesses, and the Site Manager will be available to meet and explore issues with concerned parties directly via appointment.
- 5.14 Any complaints received will be taken seriously and addressed immediately by the project team. All complaints that are received will be reviewed in weekly site meetings to ensure that any required actions are communicated to all employees.

## NOISE & VIBRATION CONTROL

- 5.15 The Contractor will endeavour to keep noise levels to a minimum at all times. Best practicable means, as defined in Section 72 of the Control of Pollution Act 1974, will be employed at all times to reduce and control noise and vibration. The quietest and lowest impact processes that are reasonably practicable will be employed on-site in the undertaking of all demolition works. Measures that will be implemented as a means of minimising noise include:

- The quietest vehicles and plant shall be used as far as is reasonably practicable;
- Minimal use of radios and other noise-generating devices on-site;

- Keep voices and conversation outside of the perimeter of the Site to a minimum and low in volume;
  - No banging of doors, gates, scaffolding, or other objects;
  - No machinery will be permitted to start up on-site before the designated core working times;
  - Include within material and subcontractor requisitions details of permitted vehicle arrivals (i.e. during designated loading and servicing time periods as detailed in **Section 4**);
  - No engines left running whilst vehicles are stopped within the loading and unloading location;
  - Using low impact and low volume machinery and tools where possible; and
  - Local residents will be advised of the start and finishing dates and times of particularly noisy works and these will be timed to minimise the disruption to local residents as far as possible.
- 5.16 Noisy works are anticipated to be associated with the use of munchers and crushers for demolition, and will be undertaken between the hours of 08:00 to 13:00 and 14:00 to 18:00. Noise and vibration monitoring will be carried out at the Site during demolition activity. In the event that a complaint or concern is raised by a local resident, business or LBC, an immediate review will be carried out to establish the degree of noise created and to establish how to best develop a solution.

## AIR POLLUTION, DUST & DIRT CONTROL

- 5.17 The control of dust is a prime concern for all construction and demolition projects, particularly during periods of dry and windy weather. Best practice guidance contained within the Greater London Authority's 'The Control of Dust and Emissions from Construction and Demolition' and 'Dust and Air Mitigation Measures' guidance provided by the Institute for Air Quality Management will be employed to control dust generation.
- 5.18 Dust emissions will be monitored visually throughout working hours. If dust is observed either in the air or deposited on vehicles or other sensitive receptors, works will be immediately suspended and working practice reviewed to determine a method to prevent the issue reoccurring. Dust generating activities will be minimised and carried out a safe distance from adjoining properties and site boundaries. Where possible, dust generating activities will be undertaken off-site. Power tools used in dust-generating activities will be fitted with vacuum bags to minimise dust.
- 5.19 During works the primary air pollution emissions relate to dust generated when building materials are broken up and fumes generated by machinery. All spoil and waste materials stored temporarily within skips will be covered at all times.
- 5.20 Machinery exhaust emissions will be kept as low as is practicable by using well maintained vehicles and machinery at all times. All on-road vehicles travelling to and from the Site will comply with the requirements of the London Low Emission Zone.
- 5.21 The use of compressors, generators and portable petrol cut off saws can also have impacts in terms of air pollution and emissions. Any compressor and generator tools used will be of the latest design available with low emission ratings. All machinery will be switched off when not in use to minimise both noise and emission generation. Portable petrol cut off saws will be operated with an automatic water applicator. The water application is designed to dampen any arising debris and dust as well as reduce wear to the blade.
- 5.22 Mud and debris on the road is regarded as one of the main environmental nuisances and safety problems arising from construction works. All vehicles removing spoil and debris associated with the demolition phase of construction will be fully sheeted to minimise the risk of any debris over spilling onto the highway. Manual cleaning will be undertaken if required.
- 5.23 Wheel washing facilities will be provided within the Site boundary for vehicles to use prior to exiting onto Wellesley Road.

- 5.24 The footway fronting the Site on both Haverstock Road and Wellesley Road will be swept daily, with the need for sweeping continuously monitored throughout the day, in light of the nature of demolition works being undertaken and weather conditions. Goods and waste material will be secured and covered prior to being transported to and from the Site to prevent the escape of debris and dust.
- 5.25 The Site Manager will undertake daily inspections of the Site and the roads surrounding the Site to ensure that dust control measures are complied with. The Site Manager will record and respond to all complaints regarding dust and air quality pollutant emissions and will maintain a log of such complaints and any action taken to resolve them. The frequency of inspections will increase when activities with a high potential to produce dust are being carried out, as well as during periods of prolonged dry or windy conditions.

## FUEL CONSUMPTION / EMISSIONS

- 5.26 The Contractor will strive to procure local contractors for demolition works at the Site, thereby minimising transport costs and impact on the local environment. The use of a booking system for deliveries will also help to ensure that the Site is serviced in an efficient manner, helping to minimise the number of vehicle movements generated.

## LIGHTING

- 5.27 External lighting at the Site will be kept to a minimum, with any outside lighting directed away from adjacent buildings in order to minimise impact.

## STORAGE OF MATERIALS

- 5.28 Policies and procedures for the storage and handling of materials on-site that will be employed at the Site throughout demolition include:
- Providing dedicated material storage areas and suitable containers and covers that prevent / minimise the risk of contamination from spilled materials;
  - Using 'just in time' delivery regime and effective co-ordination between contractors and suppliers to prevent materials being spoiled, lost and/or wasted; and
  - All storage areas (and the Site in general) will be secured to prevent unauthorised access and dissuade vandalism.

## SITE SECURITY

- 5.29 The Site will be covered by CCTV at all times throughout the demolition period, and the Site frontage will be enclosed with hoardings to a height of 2.44 metres. The Site will be secured whenever personnel are not present on-site.
- 5.30 The potential for providing 24 hour manned security on-site will also be investigated by the Client.

## WASTE MANAGEMENT

- 5.31 Waste will be stored in covered skips, and sorted off-site by an external specialist company. Contractors will be required to minimise waste at source and maximise recycling and re-use of site clearance and materials wherever possible and practicable; such instances will be dealt with in a manner that reduces environmental effects and maximises potential re-use of materials. As such to reduce the number of vehicle trips that are generated, aggregates generated on-site during the site clearance and piling phase of the development will be re-used wherever practical.

- 5.32 All waste material that cannot be reused or recycled, including contaminated soils and materials, will be disposed of in accordance with legislation and best practice. All waste materials will be collected and stored in suitable receptacles before they are taken off-site. Waste materials will not be allowed to accumulate on-site due to the resultant fire and vermin risk.
- 5.33 The supply chain will include specialist waste carriers that provide services off-site to separate waste into materials that can be recycled and who then deal with the segregated waste appropriately.
- 5.34 Whenever delivery activity is taking place, banksmen will be used to ensure pedestrian safety and to ensure that no dirt or rubbish is left on the highway.

## EFFICIENT FREIGHT

- 5.35 The Department for Transport (DfT) have published guidance relating to the efficient use of freight on the network. Review of low carbon technologies for heavy goods vehicles (2009) sets out a number of HGV technologies with the potential for reducing carbon emissions. Within this DfT report it assesses a number of vehicle technologies and driver behavioural styles for reducing the environmental impact of HGVs. Some of these measures could be incorporated into the vehicle fleet in order to reduce the environmental impact of construction and demolition traffic. Such measures would include (where not used already by the contractor / haulier):
- Aerodynamic improvement to Trailers – Reduce the aerodynamic drag of the vehicle;
  - Spray Reduction Mud Flaps – Reduces Spray and Provides Aerodynamic Benefits;
  - Low Rolling Resistance Tyres – Can reduce CO2 emissions by up to 5%;
  - Automatic Tyre Pressure Adjustment – Automatically monitors and adjusts tyre pressures which could provide carbon dioxide reductions of between 7% and 8%;
  - Predictive Cruise Control – Improves fuel efficiency of vehicles; and
  - SAFED Driver Training Scheme – Aims at improving accident prevention and reduction and improved fuel consumption.
- 5.36 All suppliers and contractors employed at the Site will be members of the TfL Fleet Operator Recognition Scheme (FORS). As such all contractors and suppliers working on the site will be committed to safer and more efficient ways of working.

## CONSTRUCTION LOGISTICS AND CYCLIST SAFETY (CLOCS)

- 5.37 The Construction Logistics and Cyclist Safety (CLOCS) Standard for construction logistics: Managing work related road risk (WRRR) is the direct result of collaboration between developers, construction logistic operators and industry associations. CLOCS aims to achieve a visionary change in the way the construction industry manages work related road risk. This is being achieved through three industry led work streams:
- Improving vehicle safety through design and manufacture of safer new vehicles and fitment of appropriate safety equipment to existing vehicles;
  - Addressing the safety imbalance in the construction industry through ensuring road safety is considered as important as health and safety on site; and
  - Encouraging wider adoption of best practice across the construction logistics industry through taking best in class examples, developing a common national standard and embedding a new cultural norm.
- 5.38 The Site Manager will ensure that all contractors and fleet operators at the site sign up to the CLOCS standards for managing WRRR. All vehicles over 3.5 tonnes accessing the site will be required to have the vulnerable road user safety kit.

- 5.39 The Site Manager or Banksmen will undertake checks of vehicles travelling to and from the Site. In the event that a vehicle arrives at the Site and is not fitted with the above safety kit then the vehicle may be sent away and a non-conformance report completed.
- 5.40 The Site Manager and Contractor will ensure that all subcontractors and fleet operators accessing the Site have received the correct level of training and have had driver license checks.

## PEDESTRIAN SAFETY MEASURES

- 5.41 Maintaining pedestrian safety throughout the demolition programme is of great importance. To ensure pedestrian safety whilst vehicles enter and exit the Site and during periods of loading and unloading activity, banksmen will be present to minimise the likelihood of conflict with pedestrians. Warning signage will be provided in the vicinity of the Site to ensure that vehicles, pedestrian and cyclists are aware that demolition works are taking place. The hoarding of the Site will help to ensure that unauthorised access to the Site is not possible.
- 5.42 Additional banksmen will be located at the junction of Wellesley Road and Malden Road as vehicles arrive and depart the Site, to ensure pedestrian safety and ensure moments of conflict with other road users do not arise.
- 5.43 The CLOCS measures outlined above to be installed on all vehicles travelling to and from the Site will also have added pedestrian safety benefits.

## FIRE PRECAUTIONS

- 5.44 A fire marshal will also be appointed prior to the commencement of works. The fire marshal will ensure that all fire escapes are signed and the appropriate extinguishers are in place and an escape plan produced. The fire marshal will inspect all areas of the Site at least once a day and report and put right any deficiencies. An assembly point will be designated prior to commencement of work and will be clearly signed and kept clear of materials at all times.

## SAFETY

- 5.45 All personnel will be required to wear safety helmets whilst on-site, and safety instructions will be strictly adhered to. All precautions will be taken to ensure the safety of working personnel, visitors and the general public.
- 5.46 All relevant COSHH regulations will also be enforced. Manual handling regulation will also be implemented. Plant operatives are to be fully aware of all potential hazards, such as overhead cables, uneven ground, operatives and basements.
- 5.47 Operatives are to work from a firm secure platform at all times, especially when working at height. Roof ladders or crawling boards will be used when working on roofs. Service drawings will also be available on-site to make all personnel aware of potential hazards on-site including any live services.
- 5.48 The Site will be assessed for the presence of rodents prior to commencement of any works. Should any rodent/vermin issues arise an external contractor will be appointed to appropriately deal with these.
- 5.49 A full dilapidation report will be undertaken of the Site prior to works commencing. An asbestos survey has been carried out at the Site.
- 5.50 A pre-start environmental survey will be carried out. If any other materials aside from asbestos are found that could potentially be hazardous, work will stop and the Client will be notified.



## **CMP MONITORING**

- 5.51 The CMP will be regularly reviewed and monitored, with feedback provided to LBC at pre-agreed intervals. Further reviews will be discussed with LBC as appropriate.

# Appendix A

## PROPOSED ARCHITECT PLANS



**CLIENT**  
London Borough of Camden  
Housing & Adult Social Care Department

**DATE**  
08/02/13

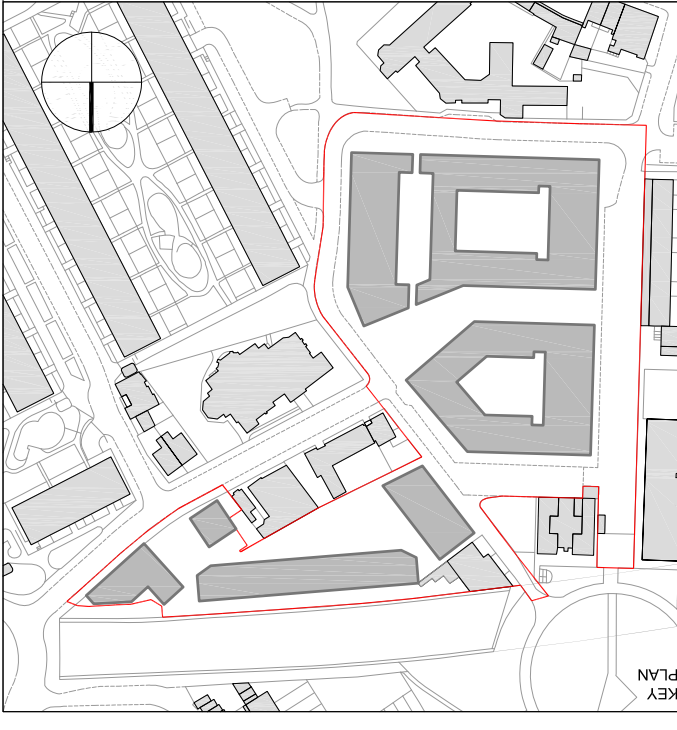
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**PROJECT NUMBER**  
202

**REVISION**

01	Commercial units ten stores added	08.02.13
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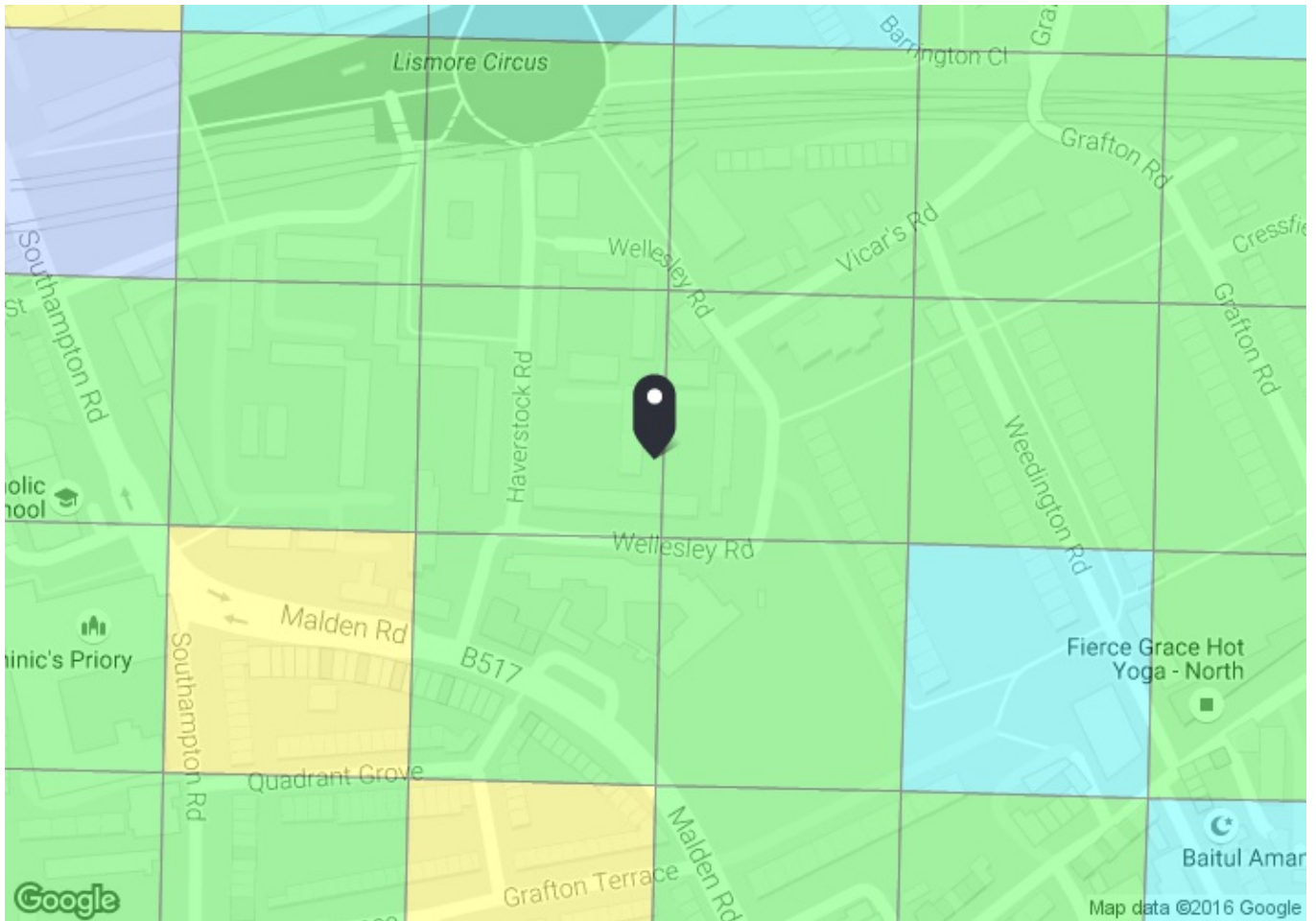
**ARCHITECTS**  
karakusevic carson architects  
15 Kingsway Place, 5th Floor, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000





# Appendix B

## PTAL ASSESSMENT



PTAL output for 2011 (Base year)  
3










104 Wellesley Rd, London NW5 4PL, UK

Easting: 528093, Northing: 185226


Grid Cell: 105312

Report generated: 05/09/2016

**Map key - PTAL**

 0 (Worst)	 1a
 1b	 2
 3	 4
 5	 6a
 6b (Best)	

**Map layers**

 PTAL (cell size: 100m)

Calculation Parameters

Day of Week	M-F
Time Period	AM Peak
Walk Speed	4.8 kph
Bus Node Max. Walk Access Time (mins)	8
Bus Reliability Factor	2.0
LU Station Max. Walk Access Time (mins)	12
LU Reliability Factor	0.75
National Rail Station Max. Walk Access Time (mins)	12
National Rail Reliability Factor	0.75

Calculation data

Mode	Stop	Route	Distance (metres)	Frequency(vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	AI
Bus	AGINCOURT ROAD FLEET RD	C:11	566.63	7.5	7.08	6	13.08	2.29	0.5	1.15
Bus	ST DOMINICS PRIORY	24	123.19	10	1.54	5	6.54	4.59	1	4.59
Bus	ST DOMINICS PRIORY	46	123.19	6	1.54	7	8.54	3.51	0.5	1.76
Rail	Gospel Oak	'BARKING-GOSPLOK 2J00'	650.83	4	8.14	8.25	16.39	1.83	1	1.83
Rail	Gospel Oak	'GOSPLOK-BARKING 2J07'	650.83	4	8.14	8.25	16.39	1.83	0.5	0.92
Rail	Gospel Oak	'CLPHMJ2-STFD 2L50'	650.83	3.67	8.14	8.92	17.06	1.76	0.5	0.88
Rail	Kentish Town West	'STFD-CLPHMJ2 2Y11'	936.22	3.67	11.7	8.92	20.63	1.45	0.5	0.73
<b>Total Grid Cell AI:</b>										<b>11.85</b>

# Appendix C

## PROJECT PROGRAMME



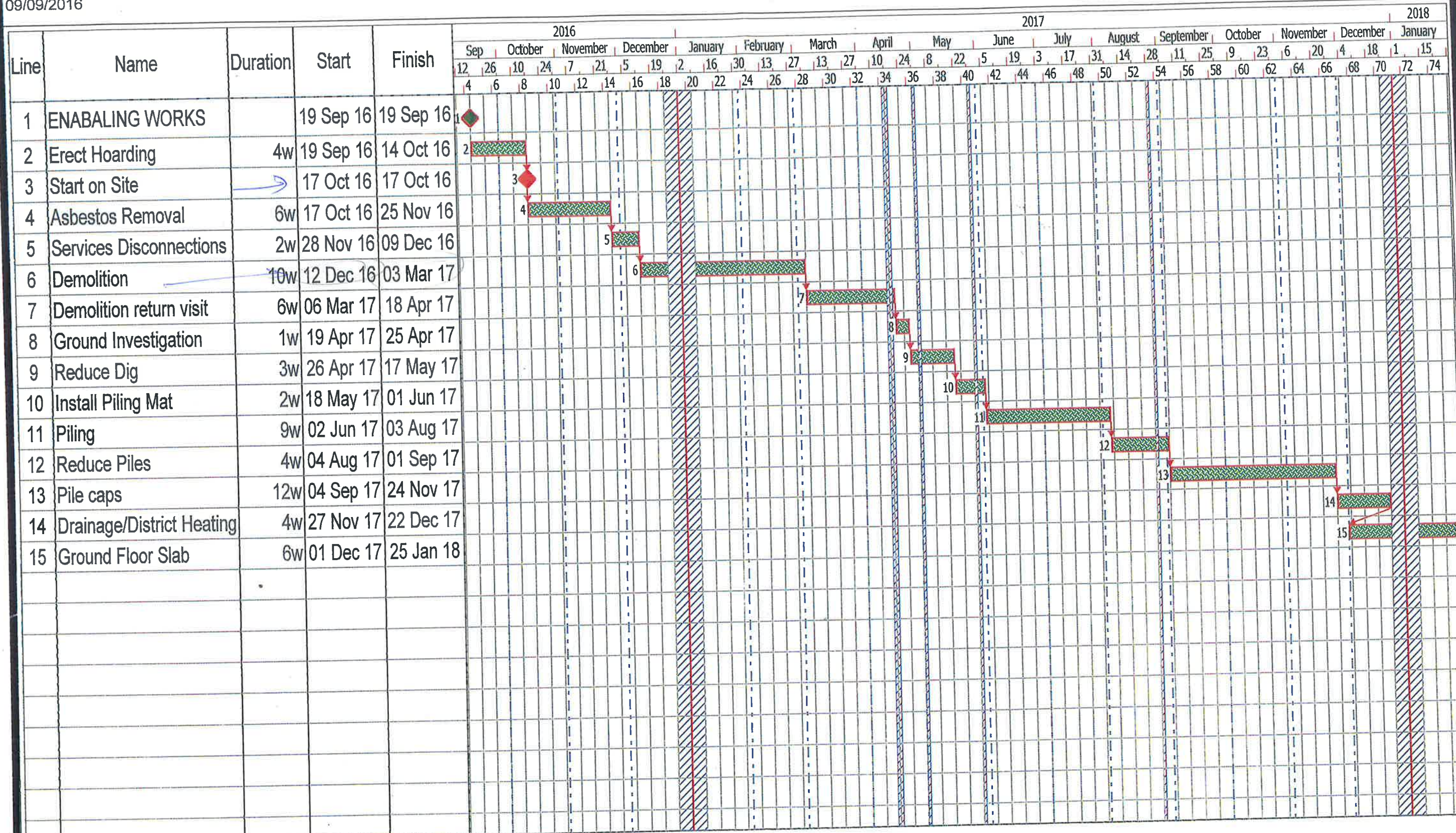
# Bacton Low Rise

9/9/2016

Brett Ford

09/09/2016

Camden Council



### Enabling works

[Green hatched box] Pankhurst	[Red box] Start on Site	[Green hatched box] Maldon	[Green hatched box] UKPN	[Green hatched box] Tamdown	[Green hatched box] Watkins
-------------------------------	-------------------------	----------------------------	--------------------------	-----------------------------	-----------------------------

Drawn by: Planner - Chart Properties

Dwg No. 00001

Revision No. A

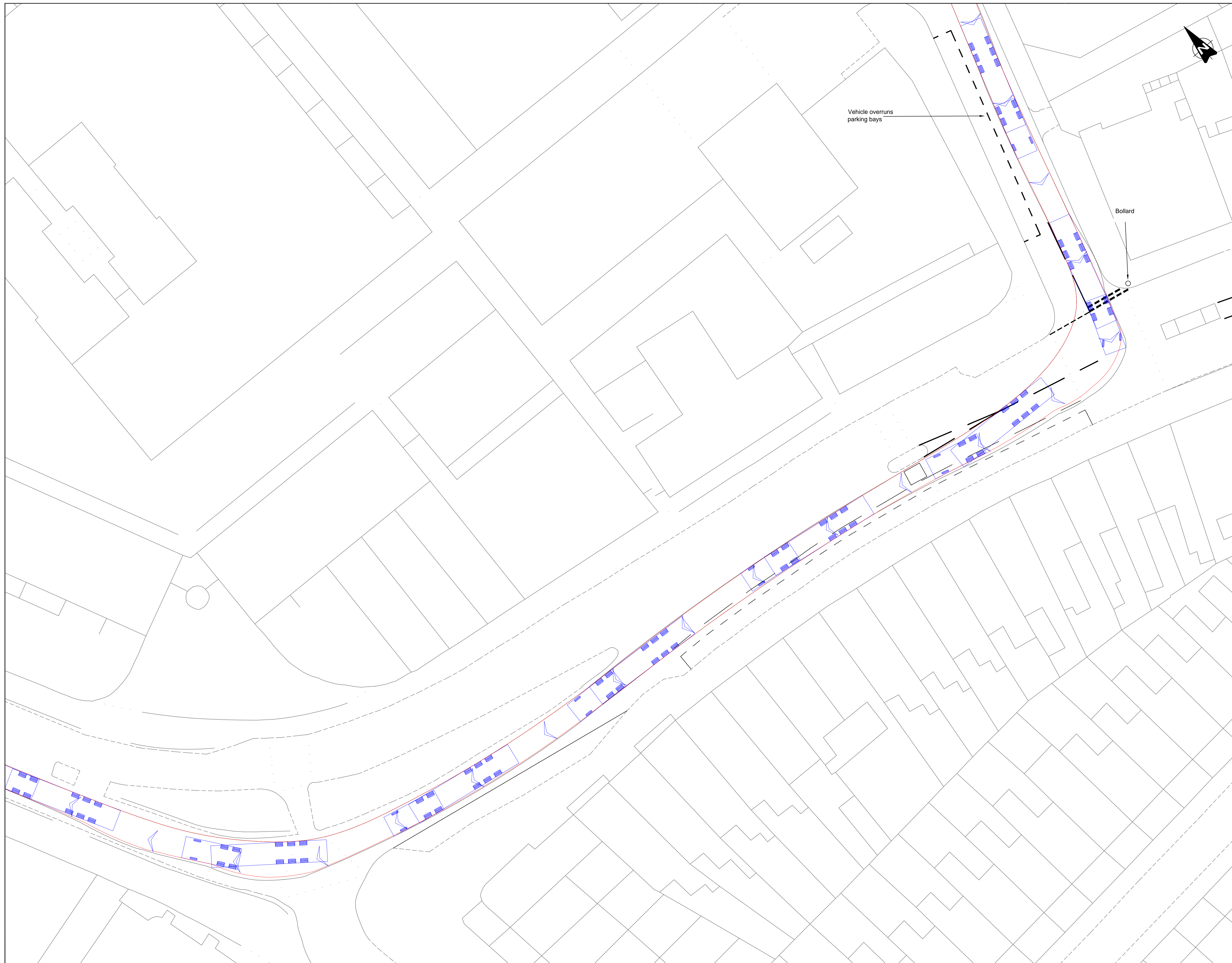
Notes: Comment - Chart Properties

Planned by Asta Powerproject



# Appendix D

## SWEPT PATH ANALYSIS



Notes

Max Legal Articulated Vehicle (16.5m)  
 Overall Length 16.500m  
 Overall Width 2.500m  
 Overall Body Height 3.632m  
 Min Body Ground Clearance 0.396m  
 Max Track Width 2.500m  
 Lock to Lock Time 6.00 sec  
 Kerb to Kerb Turning Radius 6.870m

Rev.	Date	Revision details	Drawn	Checked	Approved

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**JMP**  
 27-32 Old Jewry  
 London  
 EC2R 8DQ  
 T 020 3714 4400  
 E london@jmp.co.uk  
 W www.jmp.co.uk

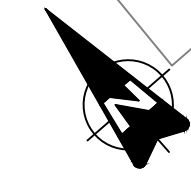
Client  
**Rydon Group Ltd**

Project  
**Bacton - Phase 2 & Phase 3 Combined**

Title  
**Swept Path Analysis  
 Max Legal Articulated Vehicle  
 Sheet 2 of 5**

Drawn	DH	Checked	DW	Approved	PWJ
Original dwg size	A1	Date	27/09/2016	Scale	1:200
Drawing Status	Preliminary	Drawing Number	ST16446-16	Rev.	-





Notes

Max Legal Articulated Vehicle (16.5m)  
 Overall Length 16.500m  
 Overall Width 2.500m  
 Overall Body Height 3.632m  
 Min Body Ground Clearance 0.396m  
 Max Track Width 2.500m  
 Lock to Lock Time 6.00 sec  
 Kerb to Kerb Turning Radius 6.870m

Rev.	Date	Revision details	Drawn	Checked	Approved

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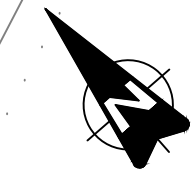
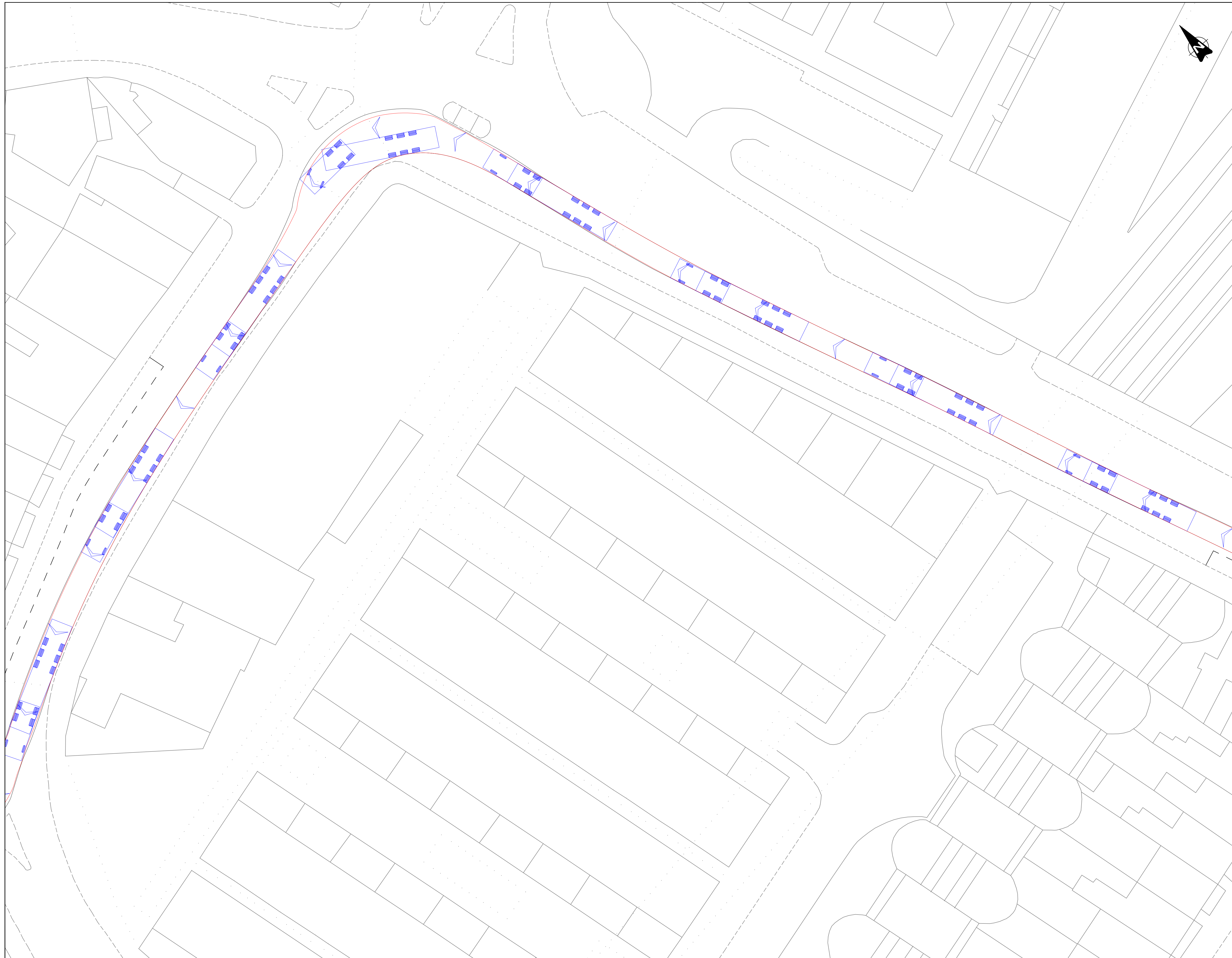
Client  
**Rydon Group Ltd**

Project  
**Bacton - Phase 2 & Phase 3 Combined**

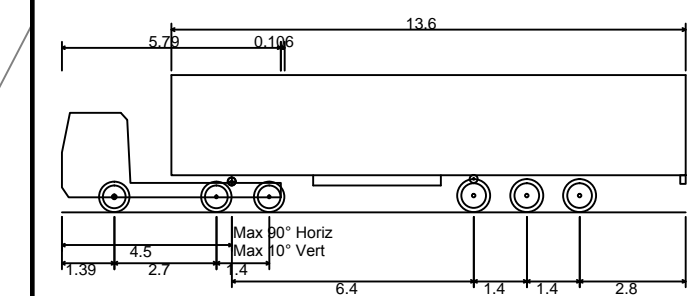
Title  
 Swept Path Analysis  
 Max Legal Articulated Vehicle  
 Sheet 2 of 5

Drawn	DH	Checked	DW	Approved	PWJ
Original dwg size	A1	Date	27/09/2016	Scale	1:200
Drawing Status	Preliminary	Drawing Number	ST16446-17	Rev.	-





Notes



- Max Legal Articulated Vehicle (16.5m)
- Overall Length 16.500m
- Overall Width 2.500m
- Overall Body Height 3.632m
- Min Body Ground Clearance 0.396m
- Max Track Width 2.500m
- Lock to Lock Time 6.00 sec
- Kerb to Kerb Turning Radius 6.870m

Rev.	Date	Revision details	Drawn	Checked	Approved

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 E london@jmp.co.uk  
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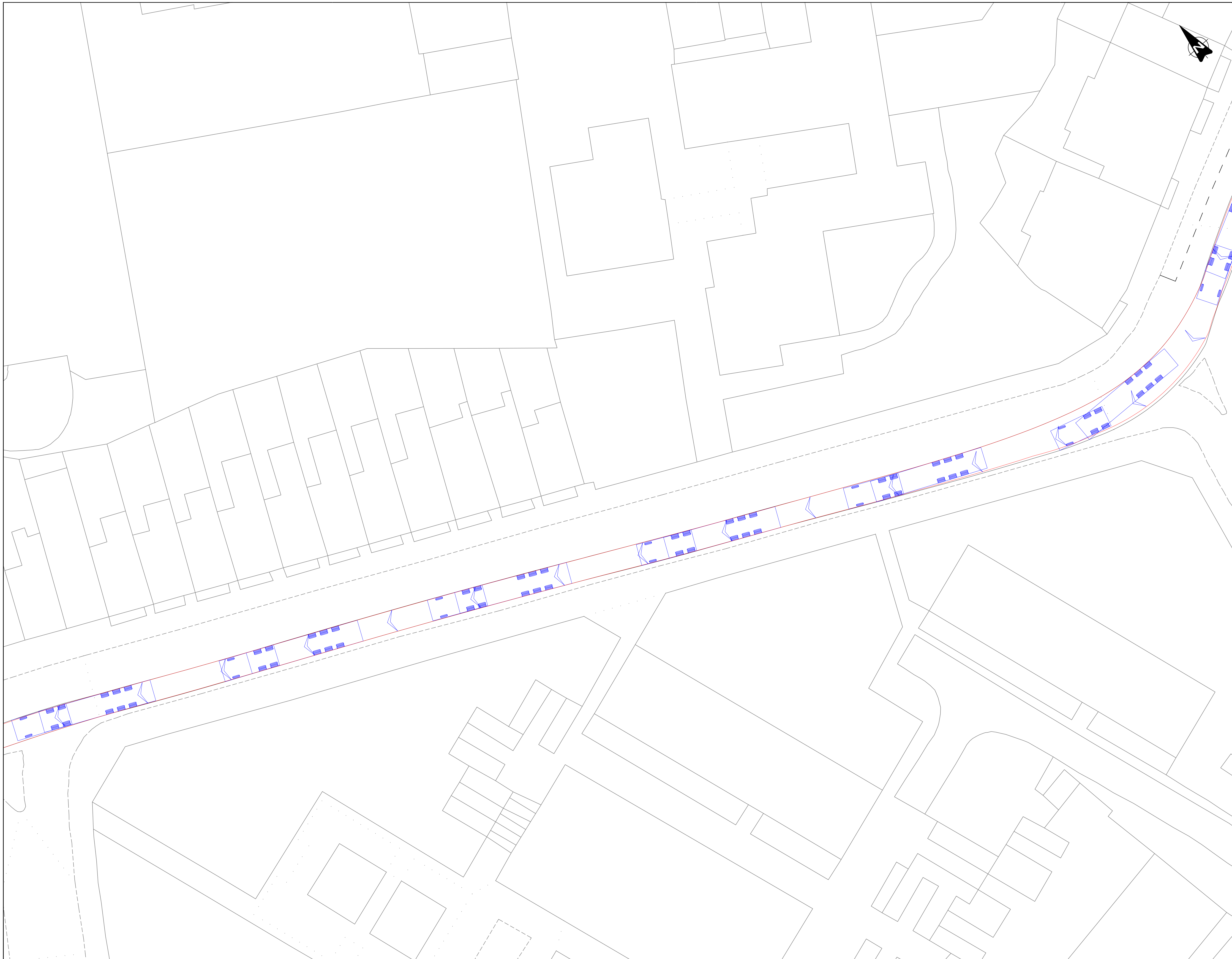
Client  
**Rydon Group Ltd**

Project  
**Bacton - Phase 2 & Phase 3 Combined**

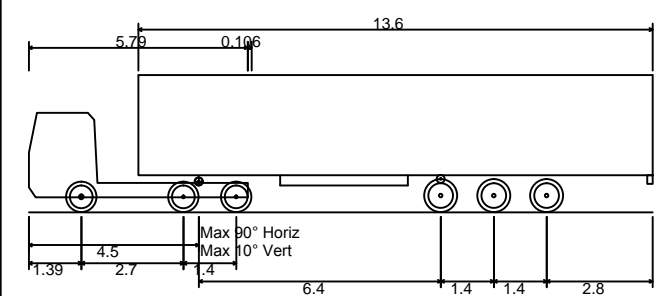
Title  
 Swept Path Analysis  
 Max Legal Articulated Vehicle  
 Sheet 2 of 5

Drawn	Checked	Approved
DH	DW	PWJ
Original dwg size	Date	Scale
A1	27/09/2016	1:200
Drawing Status	Drawing Number	Rev.
Preliminary	ST16446-18	-





Notes



Max Legal Articulated Vehicle (16.5m)  
 Overall Length 16.500m  
 Overall Width 2.500m  
 Overall Body Height 3.632m  
 Min Body Ground Clearance 0.396m  
 Max Track Width 2.500m  
 Lock to Lock Time 6.00 sec  
 Kerb to Kerb Turning Radius 6.870m

Rev.	Date	Revision details	Drawn	Checked	Approved

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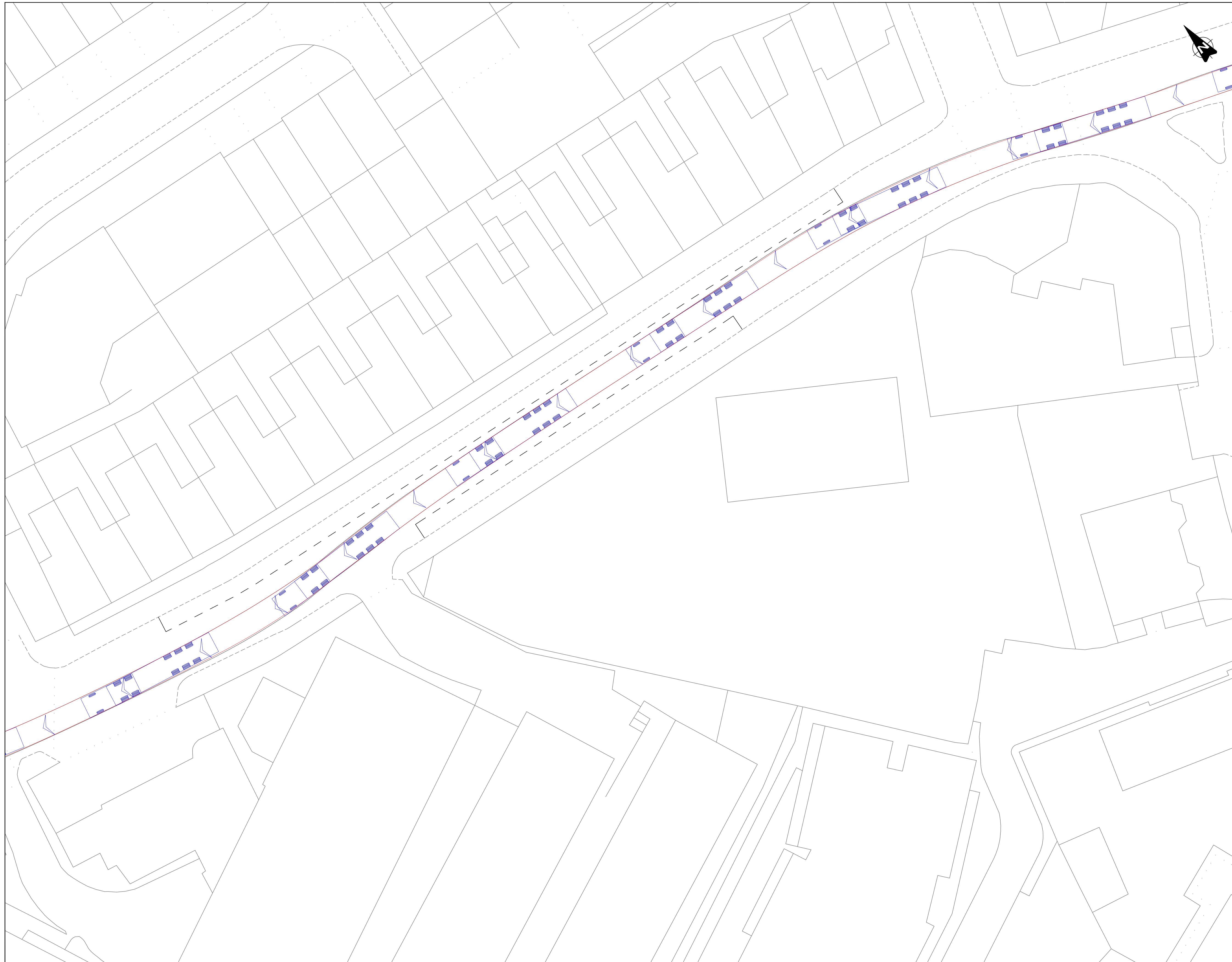
Client  
**Rydon Group Ltd**

Project  
**Bacton - Phase 2 & Phase 3 Combined**

Title  
 Swept Path Analysis  
 Max Legal Articulated Vehicle  
 Sheet 2 of 5

Drawn	Checked	Approved
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Original dwg size	Date	Scale
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Drawing Status	Drawing Number	Rev.
Preliminary	ST16446-19	-





Notes

Max Legal Articulated Vehicle (16.5m)  
 Overall Length 16.500m  
 Overall Width 2.500m  
 Overall Body Height 3.632m  
 Min Body Ground Clearance 0.396m  
 Max Track Width 2.500m  
 Lock to Lock Time 6.00 sec  
 Kerb to Kerb Turning Radius 6.870m

Rev.	Date	Revision details	Drawn	Checked	Approved

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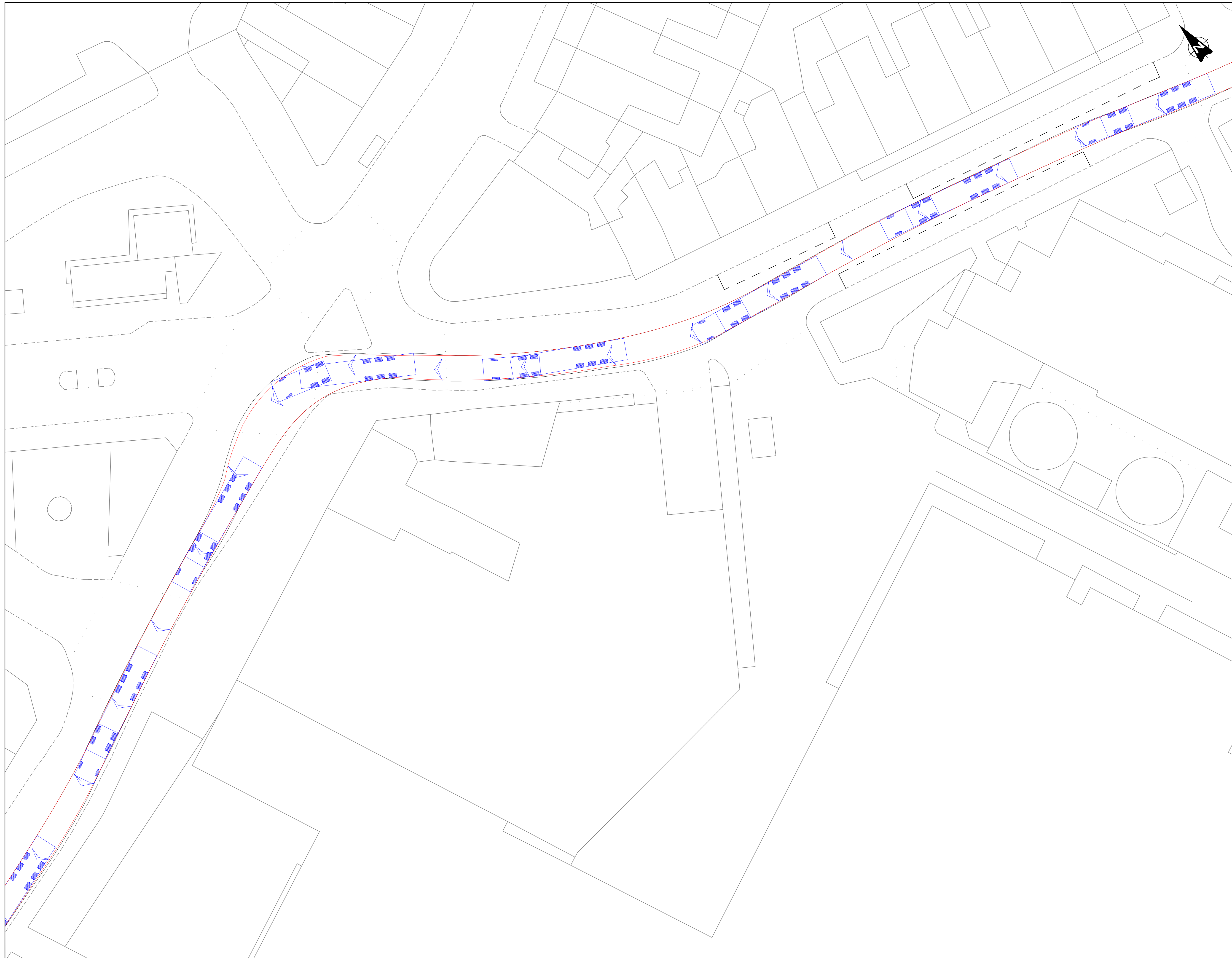
Client  
**Rydon Group Ltd**

Project  
**Bacton - Phase 2 & Phase 3 Combined**

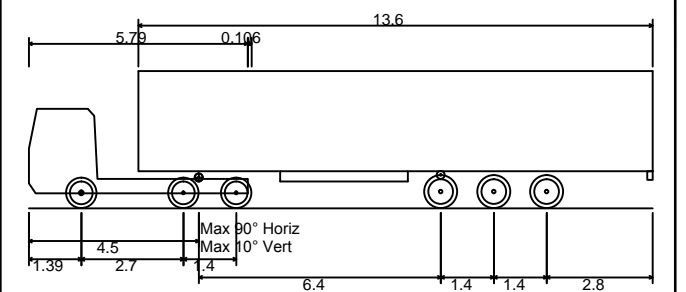
Title  
 Swept Path Analysis  
 Max Legal Articulated Vehicle  
 Sheet 2 of 5

Drawn	Checked	Approved
DH	DW	PWJ
Original dwg size A1	Date 27/09/2016	Scale 1:200
Drawing Status Preliminary	Drawing Number ST16446-20	Rev. -





Notes



- Max Legal Articulated Vehicle (16.5m)
- Overall Length 16.500m
- Overall Width 2.500m
- Overall Body Height 3.632m
- Min Body Ground Clearance 0.396m
- Max Track Width 2.500m
- Lock to Lock Time 6.00 sec
- Kerb to Kerb Turning Radius 6.870m

Rev.	Date	Revision details	Drawn	Checked	Approved

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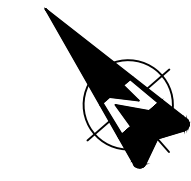
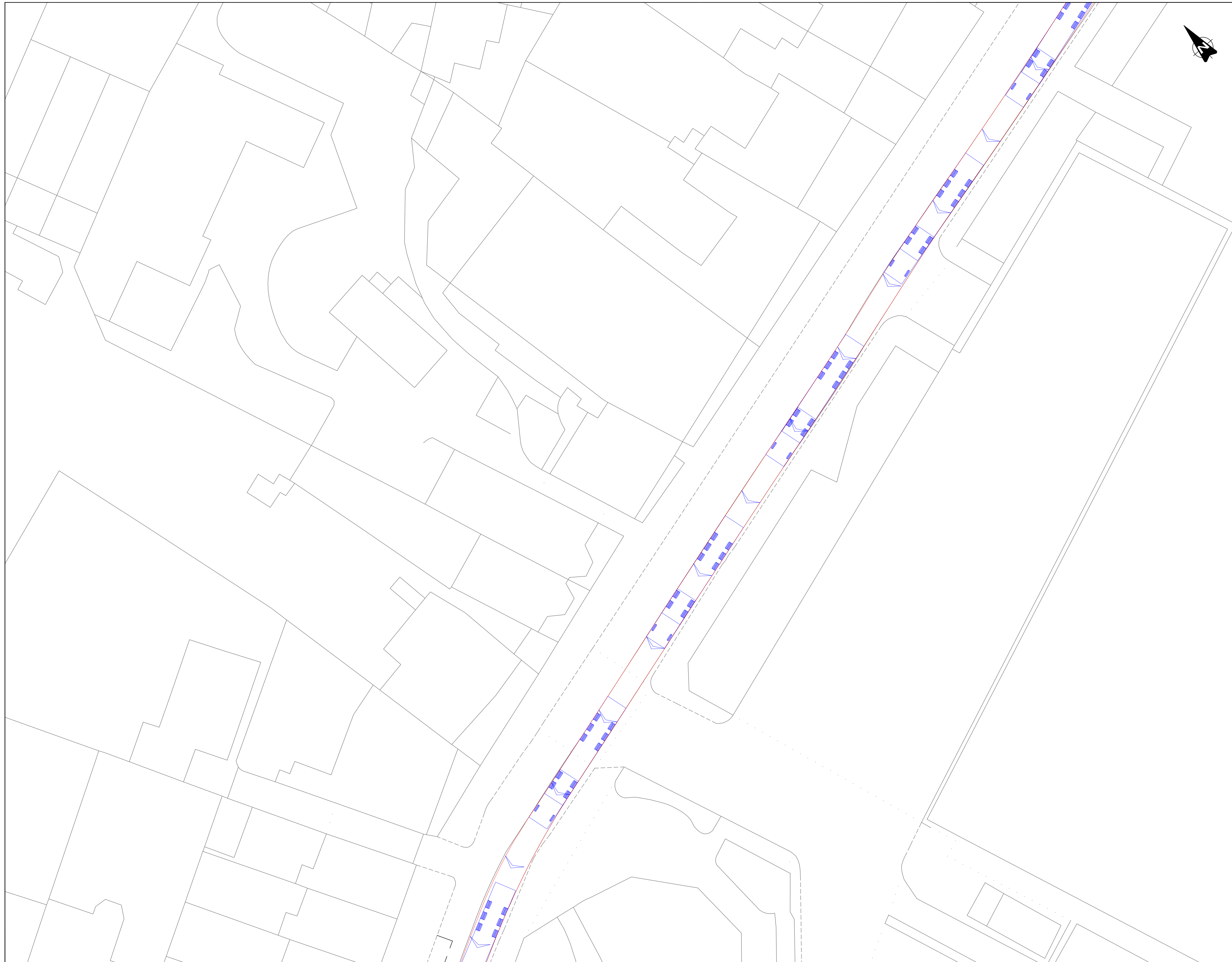
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Title  
 Swept Path Analysis  
 Max Legal Articulated Vehicle  
 Sheet 2 of 5

Drawn	DH	Checked	DW	Approved	PWJ
Original dwg size	A1	Date	27/09/2016	Scale	1:200
Drawing Status	Preliminary	Drawing Number	ST16446-21	Rev.	-



Notes

Max Legal Articulated Vehicle (16.5m)	16.500m
Overall Length	16.500m
Overall Body Height	3.632m
Overall Width	2.500m
Min Body Ground Clearance	0.396m
Max Track Width	2.500m
Lock to Lock Time	6.00 sec
Kerb to Kerb Turning Radius	6.870m

Rev.	Date	Revision details	Drawn	Checked	Approved

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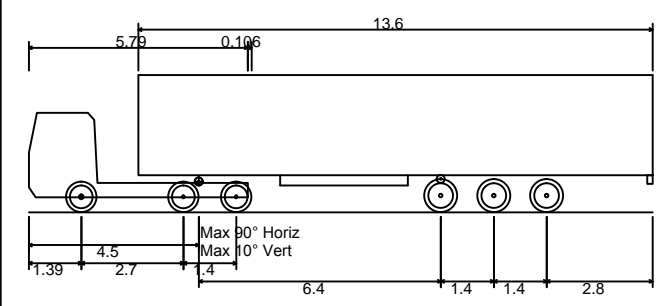
Title  
**Swept Path Analysis  
Max Legal Articulated Vehicle  
Sheet 2 of 5**

Drawn	DH	Checked	DW	Approved	PWJ
Original dwg size	A1	Date	27/09/2016	Scale	1:200
Drawing Status	Preliminary	Drawing Number	ST16446-22	Rev.	-





Notes



- Max Legal Articulated Vehicle (16.5m)
- Overall Length 16.500m
- Overall Width 2.500m
- Overall Body Height 3.632m
- Min Body Ground Clearance 0.396m
- Max Track Width 2.500m
- Lock to Lock Time 6.00 sec
- Kerb to Kerb Turning Radius 6.870m

Rev.	Date	Revision details	Drawn	Checked	Approved

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Project  
**Bacton - Phase 2 & Phase 3 Combined**

Title  
**Swept Path Analysis  
 Max Legal Articulated Vehicle  
 Sheet 2 of 5**

Drawn	Checked	Approved
DH	DW	PWJ
Original dwg size A1	Date 27/09/2016	Scale 1:200
Drawing Status Preliminary	Drawing Number ST16446-23	Rev. -

