

Community at the Core of Construction



West Byfleet Retirement Village Station Approach West Byfleet KT14 6NY

**Construction Logistics Plan** 



### **REVISION RECORD**

Rev	Date	Changes	Initial	
			Project Lead	HP
I	Feb 2022	Planning	NK	
2	Feb 2022	Update section 1.2	NK	
3	March 2022	Update on Applications for closures & licenses (page 15 + plans)	NK	
4	July 2022	Loading Bay 3 removed from all plans	NK	

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Ι.	Introduction4
2.	Context, Considerations and Challenges5
3.	Construction Programme Methodology6
4.	Vehicle Routing & Access7
5.	Strategies to Reduce Impacts
6.	Estimated Vehicle MovementsII
7.	Implementing, Monitoring and Updating

Figure 1: Local Context Plan	5/10
Figure 2: Regional Context Plan	9
Figure 3: Site Boundary Plan	
Figure 4: Construction programme	14
Figure 5: Regional vehicle route	17
Figure 6: Local vehicle route	18
Figure 7: Site Boundary Phased Logistical Plan	19-24
Figure 8: 10m Rigid Vehicle Swept Paths	25
Figure 9: 16.5m Articulated Vehicle Swept Paths	26
Figure 10: Estimated construction vehicles - monthly and daily	<u>30</u>
Figure 11: Number and vehicle type by phase of construction	31
Figure 12: Hourly arrival profile of vehicles during peak	31



#### I. Introduction

#### What is a Construction Logistics Plan (CLP) and what do we need one?

A CLP is an important management tool for planners, developers and construction contractors. The CLP focuses specifically on construction supply chains and how their impact on the road network can be reduced. The construction supply chain covers all movements of goods, waste and servicing activity to and from site.

#### The benefits of a good CLP:

- minimise the impact of construction logistics on the road network
- Environmental impact: Lower vehicle emissions and noise levels
- Road risk: Improving the safety of road users
- Congestion: Reduced vehicle trips, particularly in peak periods
- Cost: Efficient working practices and reduced deliveries

#### I.I CLP Objectives

- Lower emissions
- Enhance safety
- Reduce congestion
- Improve efficiencies

To support the realization of this objective, several sub-objectives have been agreed and include:

- Encourage the use of public transport for construction workers, no site parking will be provided
- Encourage cycle to work for more local construction workers, secure cycle storage will be provided throughout the build process
- Ensure greater use of greener delivery vehicles,
- Implementation of site specific delivery booking procedure, to coordinate and minimise impact to the surrounding environment
- Seek suspension of adjacent parking bays, closing of adjacent footpath and provide safe crossing points to ensure the public are safely away from construction delivery vehicles unloading and accessing/egressing the site
- Managing the on-going development and delivery of the CLP and enforcing with our supply chain

#### I.2 Site Context

The section of land is located within the center of West Byfleet, Surrey. KT146FD and is surrounded by a number of roads, Station Approach, Lavender Park Rd, Woking Road & Maderia Road.

The site originally consisted of Sheer House commercial office space, multi space car parking areas and ancillary buildings including a UKPN substation, these have all now been demolished and the site has been left as a flat piece of land with some areas of crushed reusable material.

The boundaries of the site have been left safe and are protected by plywood hoarding, with access gates.



#### I.3 Development Proposal

The scheme comprises of the D&B of 3 buildings of varying heights, including Basement and Lower Ground Floor elements to provide a total of 196nr residential units for later living / retirement living with associated amenity space. Including balconies, roof terraces, Public Realm, car parks, plantrooms, cycle & refuse storage together with the provision of a new electricity sub-station. Alterations to vehicular and pedestrian access from Maderia Road / Old Woking Road including some off-site improvement works as more specifically covered within the S278 works.

The Public Realm works include multi-level parking (basement, lower ground & first floor levels), Public Square, I Inr retail / commercial units of varying sizes, gym, swimming pool, sauna, steam room & fitness studios, Café, Restaurant and a Community Facility to include a new Library.

#### **General Construction Notes:**

- Piled Foundations with Contiguous Piled Basement Car Park.
- RC Insitu Post Tension Slabs
- Facing Bricks 5 different types (Red, Buff, Black, Multi-Black & Red/Buff Mix)
- Soldier course detailing (single, double & triple courses)
- Plinth course brick detail
- Recessed brick detail
- Brick corbelling
- Reconstituted Stone Surrounds
- Composite Aluminium Windows & Doors (Black Frames)
- Mix of projecting & recessed balconies with black PPC metal railings
- Dark Bronze PPC coated metal panels
- Single Ply Membrane Roofing / Green Roofs
- PPC Aluminium Rainwater Gutters and Downpipes
- Communal Glazing Aluminium
- Extensive Community Facilities
  - I Inr Retail / Commercial Units
  - Public Library
  - o Café
  - o Restaurant
  - Gym, Pool & Wellbeing Studio
  - Multi-Function Community Space
- Extensive Communal Facilities
  - Communal Roof Terrace & BBQ Area
  - Shared Kitchen & Lounge
  - Library / Reading Space
  - Arts & Crafts Room
  - o Sky Bar
- Car Park across 3 levels (Basement, Lower Ground & First Floor) providing a total of 199 Car Spaces + 1 Minibus Space.

#### Mechanical & Electrical Notes:

- Air Source Heat Pumps
- MVHR with Acoustic Enclosures
- Electric Panel Heaters
- Underfloor Heating
- Sprinklers throughout
- Solar PV Panels
- Utility Room Pods



- AOV's & Smoke Extract System
- Access Control
- CCTV System
- Induction Loops
- Dry Riser
- 10nr Lifts of varying heights
- New Sub-Station Shown in Lower Ground Floor.



#### 2. Context, Considerations and Challenges

#### 2.1 Policy Context

#### National Policy:

#### The Traffic Management Act 2004 (TMA)

The act makes 'provision in relation to the management of road networks; to make new provision for regulating the carrying out of works and other activities in the street'. It acknowledges that highways may be occupied due to construction activities and identifies appropriate changes levied for any extended occupation.

#### Designing for Deliveries, Freight Transport Association 2006

Published in 2006, Designing for Deliveries, provides specifications for the size of delivery vehicles, turning radii and clearance requirements and should be used to ensure that delivery vehicles can safely and efficiently access the construction site.

#### Construction Logistics & Community Safety (CLOCS)

The CLOCS Standard is the direct result of collaboration between the construction and fleet sectors to address shared issues. It draws together evolving and applied best practice from a number of standards, policies and codes of practice to provide one industry standard that can be implemented by regulators, clients, principal contractors and fleet operators.

#### CLOCS mission and primary goals

Ensuring the safest construction vehicle journeys

- zero collisions between construction vehicles and the community
- improved air quality and reduced emissions
- fewer vehicle journeys
- reduced reputational risk

#### Fleet Operator Recognition Scheme (FORS)

FORS is a unique, industry-led, membership (bronze, silver, gold) scheme to help van and lorry operators become safer, more efficient and more environmentally-friendly. It's relevance to the CLP is via its mention in the Mayor's Transport Strategy and requirements will be relayed to all operators engaged during the development.

#### **Regional Policy**

Although the scheme just falls out of the M25 we will still refer to this policy because several of our supply chain will either live within or will travel through the London area and because this policy requires high standards we will continue to use it.

#### The London Plan (2011)

Addressing the key trends and challenges that London will face, this Mayor's document pays particular attention to encouraging sustainable modes of travel. Policy 6.3 states that CLPs should be secured in line with the London Freight Plan and should be co-ordinated with Travel Plans. In addition, Policy 6.14 stresses the need to promote movement of freight by rail and waterway. Development proposals promoting the uptake of the Fleet Operators Recognition Scheme (FORS), CLPs and Delivery and Servicing Plans (DSP) to consolidate freight will be encouraged.

#### The Mayor's Transport Strategy 2010



Freight and servicing is frequently mentioned throughout this document which contains a strategy considering all methods of freight delivery including road, rail, pipeline, water, bicycles and air. The document especially highlights the importance of the London Freight Plan, DSPs, CLPs and FORS to encourage improved efficiency and provide a framework for incentivisation and regulation.

Proposal 117 acknowledges the incorporation of DSPs, CLPs and the FORS; "the Mayor, through TfL, and working with the London boroughs, and other stakeholders in the public and private sectors, will improve the efficiency and effectiveness of freight operations through the promotion of 'delivery and servicing plans', 'construction logistics plans', the Fleet Operator Recognition Scheme and other efficiency measures, across London".

#### The London Freight Plan (2007)

The vision for sustainable freight distribution in London over the next five to ten years is for: "...the safe, reliable and efficient movement of freight and servicing trips to, from, within, and, where appropriate, through London to support London's economy, in balance with the needs of other transport users, the environment and Londoners' quality of life". The Plan identifies FORS, DSPs, CLPs and the Freight Information Panel (FIP) as key projects for delivering freight more sustainably in London.

Outline any relevant policies

2.2 The maps below highlight the routes from M25, to the site location & the redline boundary of the site



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#### 2.3 Local Access Including Highway, Public Transport, Cycling and Walking

#### 2.3.1 Highways, Carriageways and Footways

Parking restrictions surround the site and stays are limited, use of local all-day car parks is not cost effective and the surrounding roads are heavily congested. Due to site constraints parking will not be made available for site operatives, public transport has been identified as the most suitable as means of home-to-work travel and therefore our key consideration is impact from site delivery vehicles.

#### 2.3.2 Overground & National Rail

West Byfleet is linked to London via the overground National Rail directly out of Waterloo, all links to Waterloo can be made via underground and bus.

The train timetable and bus map and timetable will be available on site.

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#### 2.3.3 Cycling & walking

Site will provide secure storage for bicycles during all construction phases and promote more sustainable means of travel such as cycling and walking to and from work or part of the way.

We will be looking to find local maps of cycle routes to support this.

#### 2.3.4 Electric car charging points

We will encourage those who need to drive to use hybrid or electric vehicles and we will ensure these are displayed on site for those that need them and shared with people visiting the sites.

The link to the local charge points is below and a list of the charge points is included.

https://www.zap-map.com/locations/west-byfleet-charging-points/



### List of charge points in West Byfleet, Surrey

• •	•	-	
Nordic Wood Ltd	Unit 2 Glen Court	0 x 3kW 13/16A Unknown	Pod Point
	West Byfleet	0 x 3kW 13A 3-Square pin	
	Surrey	0 x 3kW 13A Commando	
	KT14 7JL	0 x 3kW 16A Type 2 Mennekes	
	-	0 x 3kW 16A Type 1 Yazaki	
		0 x 7kW 32A Commando	
		1 x 7kW 32A Type 2 Mennekes	
		0 x 22kW 32A Commando	
		0 x 22kW 32A Type 2 Mennekes	
		0 x 7kW 32A Tesla Type 2	
		0 x 11kW 16A Tesla Type 2	
		0 x 22kW 32A Tesla Type 2	
		0 x 7kW 32A Type 1 Yazaki	
		0 x 43kW 63A Type 2 Mennekes	
		0 x 50kW 125A JEVS (CHAdeMO)	
		0 x 120kW (Tesla) Tesla Type 2	
		0 x N/A H35 or equiv	
		· · · · ·	

0 x N/A H70 or equiv 0 x 50kW 125A CCS (Combo)

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#### 3. Construction Programme Methodology

The CLP Tool should be used to generate a construction programme diagram to be accompanied by an explanatory narrative. The construction methodology must be described for the duration of the development using the following six phases of construction. Phases for Buildings and Infrastructure projects have been identified.

#### **Building Phases:**

- 1. Basement excavation and piling Typically includes removing excavated material from the site and excavating the basement. As the basement is being dug, piling is required to form the basement walls and structural footings of the building.
- 2. Sub-structure Below ground works include foundations and basement walls. Plant installation can also occur.
- 3. Super-structure Above ground works including the structural elements of the building including floors.
- 4. Cladding Cladding includes the external elements of the building including the façade, roof and glazing.
- 5. Fit out, testing and commissioning This stage includes all mechanical, electrical, and plumbing installation and testing of newly installed systems

#### FIGURE 4: Construction Programme



Construction phase	Start	End
Excavation and piling	April 22	Aug 22
Sub-structure	July 22	Nov 22
Super-structure	Aug 22	July 23
Cladding	Sept 22	June 24
Fit-out, testing and commissioning	Dec 23	July 24

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#### 4. Vehicle Routing and Site Access

#### Site Access/ Egress



The primary access route to site from the M25 is as follows: Exit the M25 at Junction 10 on to the A3 towards London, then head towards Byfleet on the A425 before arriving to the site on the Old Woking Road. This route avoids any low bridges/ tunnels (height restrictions).

The site is located on a busy interface junction of the following roads: Old Woking Road, Parvis Road and Camphill Rd (Height Restrictions 2.8m), Station Approach, Lavender Park Rd.

The site is an island site – with no vehicular access from Old Woking Road, however there are existing vehicular cross overs on Station Approach (two way road), Madeira Rd (two way road) and Lavender Park Rd (Part two way/ one way road)

It is suggested that delivery vehicles approach the site use Lavender Park Rd to access site, as this is one way road and then turn into Madeira Rd and then turn into Station Approach Exiting back on to the A245 and essentially creating a one way system/ traffic route. This also minimises any interface with members of the public going to the station, Waitrose and health centre all which are accessed via Station Approach.

There are some sharp 90 degree turn on the roads surrounding the site and whilst articulated vehicles will be able to access these roads, they will need to cross over on to the opposite site of the roads to make the turn and therefor rigid lorries for deliveries are recommended as the base solution.

Parking bay suspensions will be required on Madeira Rd and Lavender Park Rd to facilitate unloading areas. Along station approach the permanent S278 highway works to form the new proposed loading bay area will have to be implemented to create additional width in the highway to enable other vehicles to pass uninterrupted at the traffic light junction.

Just in time deliveries will be required to prevent waiting vehicles in the surrounding roads which would otherwise create congestion on the surrounding road network.

Initial during the substructure phase, vehicular access onto site is permissible up until the structure starts coming out of the ground. NB other than the under-croft parking areas, there is no parking or vehicular access within the site.

There is limited parking provision in the vicinity of the site with restricted time parking in the adjacent Waitrose Supermarket Store and limited car parking provision at West Byfleet Station. The use of cars will be avoided where possible and the use of public transport will be promoted.



There will be no onsite parking provided for both the main contractor and the supply chain.

#### Site Deliveries/ Loading Areas



It is our intention to establish a one-way route around the site for deliveries via Lavender Park Rd from Old Woking Rd, turning left into Madeira Rd and then left onto Station Approach and then back on to Old Woking Rd.

We have identified that we will require 2 loading bay areas to facilitate the construction of the proposed development.

Both loading bays will be in place at the beginning of the scheme. Loading Bays 2 will utilise the space currently occupied by the 4-5 carparking bays on Madeira Road which will require suspending.

Key nearby considerations in respect to construction delivers are the Waitrose Supermarket, Health Centre, Station (Commuters), Nearby School and Nurseries in respect to one-way routes and timings of deliveries. We propose to minimise the interface and impact by utilising: Just in time deliveries, Booking In System for deliveries and for deliveries to avoid school drop off and collection periods. The deliveries, waste removals and material distribution about the site will be managed by a logistics manager who will coordinate these activities.

Deliveries will be unloaded from the loading bays via the respective tower cranes (TCI-3) and as such the footpaths along Lavender Park Rd, Madeira Rd and Station Approach will have the footpaths temporarily suspended to eliminate any lifting activities over members of the public on the footpath. It is key to note that the footpath will be maintained along the Old Woking Road for connectivity for pedestrians in the area around the site.

During the substructure phase, vehicular access onto site is permissible we will ensure that any vehicle entering the site upon exiting undergoes wheel washing to ensure that no materials are transferred on to the public highway and to support this street cleaning will be provided to supplement this during this period.

We have made allowance at each gate/ loading bay area for a gateman/ traffic marshal to be citied to control both access to site and manage construction vehicles arriving and departing from site.



#### Site Setup, Site Offices & Welfare Provisions

From the outset of works commencing on site, the site will be fully hoarded to prevent unauthorised access and to secure the site.

A scaffold gantry/ crash deck will be erected over the pedestrian footpath along Old Woking Road once the structure comes out of the ground to protect pedestrian from nearby lifting activities from the crane and similarly any falling debris from the structure or envelope works.

When reviewing the location to site the site offices and welfare provisions it was noted that there was limited external space within the site boundary which wasn't being built upon where we could leave the site accommodation in one place.

The only space which we identified which didn't interfere with the proposed loading bays was the public footpath between Blocks BI/B2 and Station Approach.

To ensure that we could obtain all necessary approvals from Highways to temporarily suspend the footpath and to obtain licence for cabins on the highway we are proposing to initially located temporary Oasis Units within the site during the early substructure phase which can be relocated to suit the phased works up until the time when the permanent setup can be established.

Highways/Council application updates (REV 3);

- Where sections of the footpath are to be closed, Lavender Park, Maderia Rds & Old Station Approach see hoarding plan below, to allow safe working areas & welfare/office location, these closures will be made via <u>www.surreycc.gov.uk/roads-and-transport/permits-and-licences/scaffolding-and-hoarding</u>; any hoarding will be erected using concrete 'Kelley' block system so that no damage will occur to the existing footpath. To ensure that drivers sight lines are retained on the junction of Madeira Road and Station Approach the section of hoarding will be splayed and recessed as noted on the hoarding plan below.
- The section of the footpath along Old Working Road is to remain open to allow public access, however to ensure safety a scaffolding fan/gantry will be installed as the building progresses, this application will be made via <a href="http://www.surreycc.gov.uk/roads-and-transport/permits-and-licences/scaffolding-and-hoarding">www.surreycc.gov.uk/roads-and-transport/permits-and-licences/scaffolding-and-hoarding</a>
- We will be applying for a temp loading bays (not the bays noted within the 278 works) these bays will be marked on the road to indicate as 'loading bay', these bays will be in use during working hours only (7:30am till 6pm Monday to Friday, 7:30am till 1pm for Saturday) to ensure that we separate our vehicles/pedestrians, red and white barriers will be deployed, this process will be overseen by our banksmen, applications will be made via the SCC Parking Team <u>www.surreycc.gov.uk/roads-and-transport/permits-and-licences/traffic-managementpermit-scheme;</u>
- Where the Tower Cranes oversail the public highway into the loading bay locations in Lavender Park, Maderia Rds & Old Station Approach to unload lorries we will be applying for an oversail licence will be applied for via <u>www.surreycc.gov.uk/roads-and-transport/permits-and-licences/crane-or-other-machinery</u>
- The 5 existing parking bays within Madera Rd will be suspended and the application will take place via the SCC Parking and Woking BC Parking Teams.
- The 2 existing traffic light signal controller cabinets on Old Working Rd, corners of Lavender Park Road & Station Approach will need to be relocated, these relocation will be made via the Traffic Systems Operations Team.
- Utility Company works this will require road space to be applied for through SCC's Streetworks and will be undertaken by each of the utility companies.

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#### 5. Strategies to Reduce Impacts

Measures should be detailed below.

Planned Measures Checklist	Committed	Proposed	Considered	
Measures influencing construction vehicles and deliveries				
Safety & environmental standards programmes	×			
FORS / CLOCS standards to be maintained on site and CL and site will be registered and will undertake monitoring vis fortnightly basis.	OCS compliance visits sits. H&S Inspections t	to be undertaken. C by in house H&S Man	CS Partner lager on a	
Adherence to designated routes	Х			
All orders are sent out with the site access route, especially be checked onsite when deliveries arrive.	y if there are key areas	we will want to avo	id. This will	
Delivery scheduling		x		
Deliveries all need to be booked in a minimum of 24 hours been logged.	in advance and will no	t be accepted unless	they have	
Re-timing for out of peak deliveries		x		
Re-timing out of peak time will aid the operational efficiency of the construction site and also the neighbouring area. We commit to attempting to re-time as many deliveries as possible out of the morning peak (07.00-09.30).				
Re-timing for out of hours deliveries		x		
We will only use our of hours deliveries where this is the s equipment and will seek permission where this is our only	afest possible option, i option.	e bringing in big iten	ns of plant and	
Use of holding areas and vehicle call off areas		x		
The site has a limited storage area and the congested nature of the site location, it is intended that a holding point local to the site will be allocated. This will allow vehicles to arrive early and delay their final approach to site until the pre-arranged delivery time. This will lead to greater logistical efficiency and reduced disturbance in the surrounding area.				
Use of logistics and consolidations centres		x		
We will investigate the use of a consolidation service and should it be required.				
Measures to Encourage Sustainable Freight				
Freight by Water			Х	
No local access to canals or rivers that would make this feasible.				



Freight by Rail			Х		
Initial discussion on the possibility of using a rail line as a freight network has been considered and found to be too difficult as there are no sidings nearby at which to unload					
Material Procurement Measures					
DfMA and off-site Manufacture		Х			
Reducing delivery numbers and effective delivery managements ite construction is always considered and used where poss	ent important to Higgir sible.	ns and therefore the	option of off-		
Re-use of material on site		×			
Where possible we will reuse material on site. Items such as pile mat will utilise the crush from the demolition. The welfare facilities are owned by Higgins and have come from a previously completed site. These all support out aim of recycling material to decrease environmental impacts and also to reduce the number of vehicles required to deliver to site.					
Smart procurement		x			
We will explore suppliers in the procurement stage that use water or rail freight (but road for last mile), as well as sourcing local suppliers to contribute to the local economy.					
Other Measures					
Collaboration with others sites in the area		×			
We will liaise with the Local Authority, and other contractor/developers in the area to minimise disruption, particularly where things like road closures etc may be required.					
Anti Idling Policy		×			
The site will operate an anti-idling policy to assist in ensuring that we minimise air pollution. Our gate man will ensure that this policy is adhered to by any vehicles delivering to site.					
Implement a staff travel plan		х			
There will be some on-site parking provided for site staff. Restrictions will be imposed to prevent on-street parking. As there are good transport links nearby, travel by public transport will be strongly encouraged.					



#### 6. Estimated Vehicle Movements

The number of vehicles accessing the site has been estimated according for each of the 6 stages of construction. Our construction expertise has been applied to the proposed programme and construction methodology tool to develop the estimates below. The estimated number of trips are summarised in the table below and illustrated in the chart below.

Construction phase	Period of stage	No. of trips (monthly)	Peak no. of trips (daily)
Site setup and demolition	Q2 2022 - Q2 2022	60	3
Basement excavation and piling	Q2 2022 - Q3 2022	400	18
Sub-structure	Q3 2022 - Q4 2022	90	4
Super-structure	Q3 2022 - Q2 2023	90	4
Cladding	Q3 2022 - Q2 2024	15	I
Fit-out, testing and commissioning	QI 2023 - Q3 2024	60	3
Peak period of construction	Q3 2022 - Q3 2022	535	24

Where possible, peak times will be avoided for deliveries. The above provides a summary of the average daily construction trips during each construction period. This estimate will be refined, once the contractor is appointed and the construction programme is finalised. The contractor will provide specific delivery schedule information when appointed.

#### FIGURE 10: Estimated Number of Construction Vehicles



During the peak months of construction April – Sept 22, approximately 480 construction vehicle will access the site. This equates to around 102 lorries per week. As shown on the site layout plan this will be easily accommodated on site and the maximum number of vehicles in any one peak hour should be less than 5 and this should ensure they each get a minimum of ten minutes on site.

Vehicles arriving at site will be of a variety of sizes. The anticipated number and type of vehicles accessing the site during each stages of construction are shown in Figure 11 below.





#### FIGURE 11: Number and vehicle type by phase of construction

FIGURE 12: Hourly arrival profile of vehicles during the peak





#### 7. Implementing, monitoring and updating

This CLP will be implemented, monitored and updated by the project team

This will include collecting data on:

#### Number of vehicle movements to site; collected through a delivery booking-in system

- Total
- By vehicle type/size/age
- Time spent on site
- Consolidation centre utilisation
- Delivery/collection accuracy compared to schedule

#### **Breaches and complaints**

- Vehicle routing
- Unacceptable queuing
- Unacceptable parking
- Supplier FORS accreditation

#### Safety

- Logistics-related accidents
- Record of associated fatalities and serious injuries
- Ways staff are travelling to site
- Vehicles and operations not meeting safety requirements
- Description of the contractor's handbook
- Description of the driver's handbook

The data collected will be reported back to the site team with full transparency to local government if required.

