16A LYNDHURST GARDENS GARDENS, NW3

REPORT: CONSTRUCTION MANAGEMENT PLAN & SWEPT PATH ANALYSIS

CONSULTANT: WEBB ARCHITECTS / TTP CONSULTING

VABEL

16a Lyndhurst Gardens

Construction Management Plan 02
revision 02

Aims

We have been instructed to prepare a Construction Management Plan (CMP) to explore and outline how construction work will be carried out and how this work will be serviced (e.g. delivery of materials, set down and collection of skips), with the objective of minimising traffic disruption and avoiding dangerous situations for pedestrians and other road users.

No contractor has been appointed for this project yet and all aspects of this CMP are preliminary.

Our background

WEBB ARCHITECTS LIMITED are a small architectural Practice based in north-west London. We have acted as Architects on a number of new-build residential projects within the Borough of Camden nand elsewhere. We have been involved with the construction of several of these buildings.

Planning history

A previous application (2011/2459/C) for the development of this site with a single private dwelling was withdrawn after initial feedback from the planning department. Extensive feedback was provided by the planning department regarding this withdrawn application. All feedback has been taken into consideration for the new designs for the proposed house and response to comments is within supporting documentation including the Construction Management Plan.

Feedback

The planning case officer stated that greater detail was required in the Construction Management Plan.

Barton Willmore, on behalf of the Marie Curie Hospice, commented on the application. With regard to construction they suggested that a more robust Construction Management Plan is provided.

Response

An enhanced Construction Management Plan (CMP 02.00) was prepared. This was issued to Camden Highways department who assessed the documents and commented:

'Whilst the CMP is generally satisfactory, an updated version will need to be submitted once a contractor has been appointed. We would expect the CMP to be secured via the Section 106 Agreement. Whilst the CMP is generally satisfactory, an updated version will need to be submitted once a contractor has been appointed. We would expect the CMP to be secured via the Section 106 Agreement.'

They also requested that a construction vehicle tracking plan be prepared. This has been undertaken by the specialist company TTP Consulting. The CMP was adjusted to respond to the results of the vehicle tracking plan and this document is the resulting version.

Further assessment of the impact of the development may be controlled by the Council in accordance with DP28 of the Development Policies Document. It is suggested that detailed Noise and Vibration Assessment and Air Quality Assessment are prepared as part a condition of planning approval and at a time when more detailed methodologies can be agreed with the appointed contractor.

Existing Site

The existing site comprises single storey bungalow with integral garage. The existing property has a pitched roof.

Planning permission for the property was granted in 1978 and we believe that it was constructed two or three years after this. It is our opinion that the existing building is of no architectural merit.

The property is set back from Lyndhurst Gardens and is accessed through a vehicle gate. The house is not easily visible from the public realm. Trees and shrubs are present in the front of the property (see arboricultural report).

One neighbouring property (South East side) no.16 Lyndhurst Gardens has a Grade: II Listing including front garden walls and gate piers. This is a detached house which is now divided into flats. c1886. Red and buff bricks, rubbed brick and terracotta dressings; tiled roofs with tall stacks. 3 storeys with attic in roof, L-shaped asymmetrical plan with projecting bay under gable to right. Timber sash windows. Also Listed are the dwarf garden wall in front with plinth, buttresses and polygonal piers topped by terracotta finials.

William Willett and Son, builder-developers built this house as well as nos 12 and 14. The Willett houses in Lyndhurst Gardens form a compact and powerful group.

The other neighbouring property (North East side) no. 18 Lyndhurst Gardens is a detached house also divided into flats that is of a similar period to no. 16.

The land to the south of the site falls away in a stepped terrace manner.

A school playground is to the east of the site.

Programme
Start and end dates for each phase of construction.

12 month construction programme:

Month 1-3 - enabling, access and excavation
Month 4-7 - structure
Month 8-12 - fit out

Working hours

As set out out by Local Authority.

Time period for vehicle access to site

Vehicles will be accessing the site within the standard working hours set out by the Local Authority.

Access to site
The access arrangements for vehicles.

Swept paths analysis have been carried out for a small and large tipper lorry manoeuvring through the junction between Fitzjohn's Avenue/Lyndhurst Gardens/Akenside Road and also in/out of the site access. The large tipper is akin to a 20 tonne vehicle and the small tipper included for comparative purposes.

The swept paths on drawing AT-102 demonstrate that the small tipper is able to negotiate the Fitzjohn's Avenue/Akenside Road junction satisfactorily but that it is not possible with a large tipper, which would over-run the central refuge islands.

With regards to the access, the swept paths indicate that it would be necessary to suspend the on-street parking on both the east and west sides of the carriageway in the vicinity of the site. The width of the access would appear to be sufficient to accommodate the 2.5 metre wide lorries.

In summary, although it may be possible for a large tipper lorry to access the site, it is likely to experience difficulty negotiating the surrounding roads. Whilst the swept paths provide a robust assessment this can often be bettered 'on the ground'. The small tipper lorry provides a suitable alternative in terms of manoeuvrability. Its disadvantage is that it has a lower gross vehicle weight, which would result in a greater number of lorry loads during the construction period.

It is proposed that the gate- posts and walls will be protected with a hoarding. When site access is not possible through the existing vehicle gate for larger lorries then it is proposed that deliveries and collections will need to be made from suspended parking bays in Lyndhurst Gardens. It is anticipated that a mini piling rig and 1.5 tonne 360 degree digger will be able to access site. The driveway will be strengthened with hardcore. Where the vehicle access crosses a root protection zone then the surface will be protected according to the guidelines set out in BS 5837. Banksmen will be used to ensure safe vehicle movements to and from the delivery area, with delivery times structured so as not to interfere with local traffic. Reinforced metal sheets will be laid to protect pathway damage outside the vehicle access gates and the roadway will be cleaned where necessary.

The existing gates will be removed and set aside for re-use. These will be replaced with temporary plywood site access gates.

The trees along the left hand side of the drive will be protected with a hoarding.

See attached diagrams.

Route to site
Proposed routes for vehicles between the site and the Transport for London Road Network (TLRN). Consideration should also be given to weight restrictions, low bridges and cumulative affects of construction on the highway.

Small tipper lorries (eg 6 wheeler, 6.5m long muck-away lorries):

Access to the site along Lyndhurst Gardens via Rosslyn Hill and Lyndhurst Road and exit along Lyndhurst Gardens, Arkenside Road to Fitzjohn's Avenue or the reverse.

The vehicles will use the Transport for London Road Network (TLRN) in any of the following ways:

North = A41, A1
North = A502, A406, A1
West = A41, A40
West = A502, A400, A501, A40

East = A502, A503
East = A41, A5205, A503

See attached diagram.

Size and frequency of vehicles
Sizes of all vehicles and the frequency and times of day when they will need access to the site, for each phase of construction.

The largest vehicle will be a 6 wheel muck-away lorry. We anticipate approximately 1820m3/ 3640 tonnes of soil removal which at maximum 16 tonnes per load will require 227 vehicles attendances. This will be at a frequency of 3no vehicles/ day for 75 days.

Delivery vehicles will be at an approximate frequency of 1no per day.

Smaller sub-contractor vans will attend the site at varying frequency.

Manoeuvering near the site
Swept path drawings for any tight manoeuvres on vehicle routes to the site.

See attached vehicle track and sweep plan by TTP Consulting.

Small 6 wheel tipper lorries and 1.5 tonne 360 degree diggers will be able to access the site. Swept path drawings for a small tipper vehicle prepared by TTP Consulting are attached to this document.

Access is not possible through the existing vehicle gate for larger lorries - it is proposed that deliveries and collections will need to be made from two suspended parking bays in Lyndhurst Gardens.

See attached plan.

Works to highway
Details (including accurate scaled drawings) of any highway works necessary to enable

construction to take place.

A temporary concrete crossover to strengthen the existing pavement is proposed.

Parking and loading
Parking and loading arrangement of vehicles and delivery of materials and plant to the site.

Delivery vehicles will access the site and off-load on site.
Some on-site parking will be provided.
See attached plan.

Affect on parking bays
Details of proposed parking bays suspensions and temporary traffic management orders.

Two parking bay opposite the site entrance will need to be suspended to a large proportion of the construction period.

Projection over highway
Proposed overhang (if any) of the public highway (scaffolding, cranes etc.)

No scaffolding or site accommodation will project over the pavement or highway.

Hoardings
Details of hoarding required or any other occupation of the public highway.

Hoardings protecting the existing gate post(s) and building will be installed up against these existing structures. Temporary access gates will open into the site. They will not impede use of the pavement of highway.

Hoardings will be ertected around the entire perimeter of the site and to isolate root protection areas.

Hoarding will be 2.4m high plywood.

Mesh will be fitted above the hoardings adjacent to 16 and 18 Lyndhurst Gardens to minimize Dust movement.

Pedestrian and cyclist safety
Details of how pedestrian and cyclist safety will be maintained, including any proposed alternative routes (if necessary), and any banksman arrangements.

Cyclists and pedestrians will use Lyndhurst Gardens as usual at most times. There may be occasional need to close the pavement with barriers either side of the site access. A banksman will be used for seeing vehicles in and out of the site.

Traffic Management
Details of how traffic associated with the development will be managed in order to reduce congestion. Details of any other measure designed to reduce the impact of associated traffic (such as the use of construction material consolidation centres).

No specific measures are yet planned.

Highway cleaning
Details of how any significant amounts of dirt or dust that may be spread onto the public highway will be cleaned or prevented.

A wheel washing station will be set up at the exit from the site and will be used throughout the muck-away period of construction. Lyndhurst Gardens will be swept and washed down at the end of each working day.

Noise and Vibration and Air Quality

Concerns have been raised regarding the impact of construction on both St Christopher's School at the rear of the site and The Marie Curie Hospice which is opposite the site entrance.

High hoardings will be erected to ensure complete physical protection and reduce impact of noise and dust.

The developer and contractor commit to working with the school to undertake these works at times to be agreed with the school, within reason.

The hospice is shielded from the main construction site by other buildings. The potential exposure to noise nuisance is from vehicles accessing and existing the site entrance. The movement of vehicles will be intermittent. The developer and contractor commit to working with the hospice to control vehicle to times to be agreed with the hospice, within reason.

It is suggested that detailed Noise and Vibration Assessment and Air Quality Assessment are prepared as part a condition of planning approval and at a time when more detailed methodologies can be agreed with the appointed contractor. The detailed construction programme coupled with these assessments will allow the developer and contractor inform and agree control of works in a more meaningful way.

Construction Working Group
Details of any Construction Working Group that maybe required, addressing the concerns of surrounding residents, as well as contact details for the person responsible for community liaison on behalf of the developer, and how these contact details will be advertised to the community.

Contact with immediate neighbours will be established once a contractor is appointed and contact details will be issued at this stage.

Considerate Contractors Scheme
Details of any schemes such as the "Considerate Contractors Scheme" that the project will be signed up to.

Contractors tendering for the project will be expected to be members of the Considerate Contractors Scheme.

Other developments
How your approach to servicing takes into consideration the cumulative effects of other developments local to your site with regard to traffic and transport.

No other developments are known to be within the immediate vicinity of the site.

Other information

Site Preliminaries

Site office, safety equipment, toilet and welfare facilities will be installed within the hoarded site area. Above this an area will be set aside for site storage. This will be a flexible area used for waste, materials and plant machinery.

Structural Preparation

A mini piling rig will pile the perimeter of the site with concrete for the piles being either mixed on site of pumped down the driveway from a trailer mounted pump fed from concrete trucks parked in the delivery area. Structural steel will be previously delivered and assembled within the storage area.

A 1.5 tonne 360 degree digger will then remove waste soil, which will be loaded on to a conveyor belt going up and out of the excavated area. An awaiting dumper truck which will then transport spoil along the drive to skips adjacent to the delivery area. Once spoil is removed a mini crawler crane with a 2.5 tonne capacity [Maedia LC785-6] will then lift the digging machine from the excavated area.

Structure Formation

The building structure will be built with a combination of reinforced concrete retaining walls, steel beams, columns and pre-cast concrete slabs which will be assembled in-situ on site. Alternatively a reinforced concrete frame with insitu reinforced concrete slab to the upper storeys.

The mini crawler crane will be used to unload materials from vehicles located in the delivery area. The crane will then move materials and place them in situ on the site. Depending on requirements the crane may be replaced with a forklift truck with extendable delivery arm.

Utilities Connection

A site water and electricity connection will be provided. This will serve the site for the majority of the construction period until formal utility connection is established. Drain connection will be directly into an established foul and surface water drain.

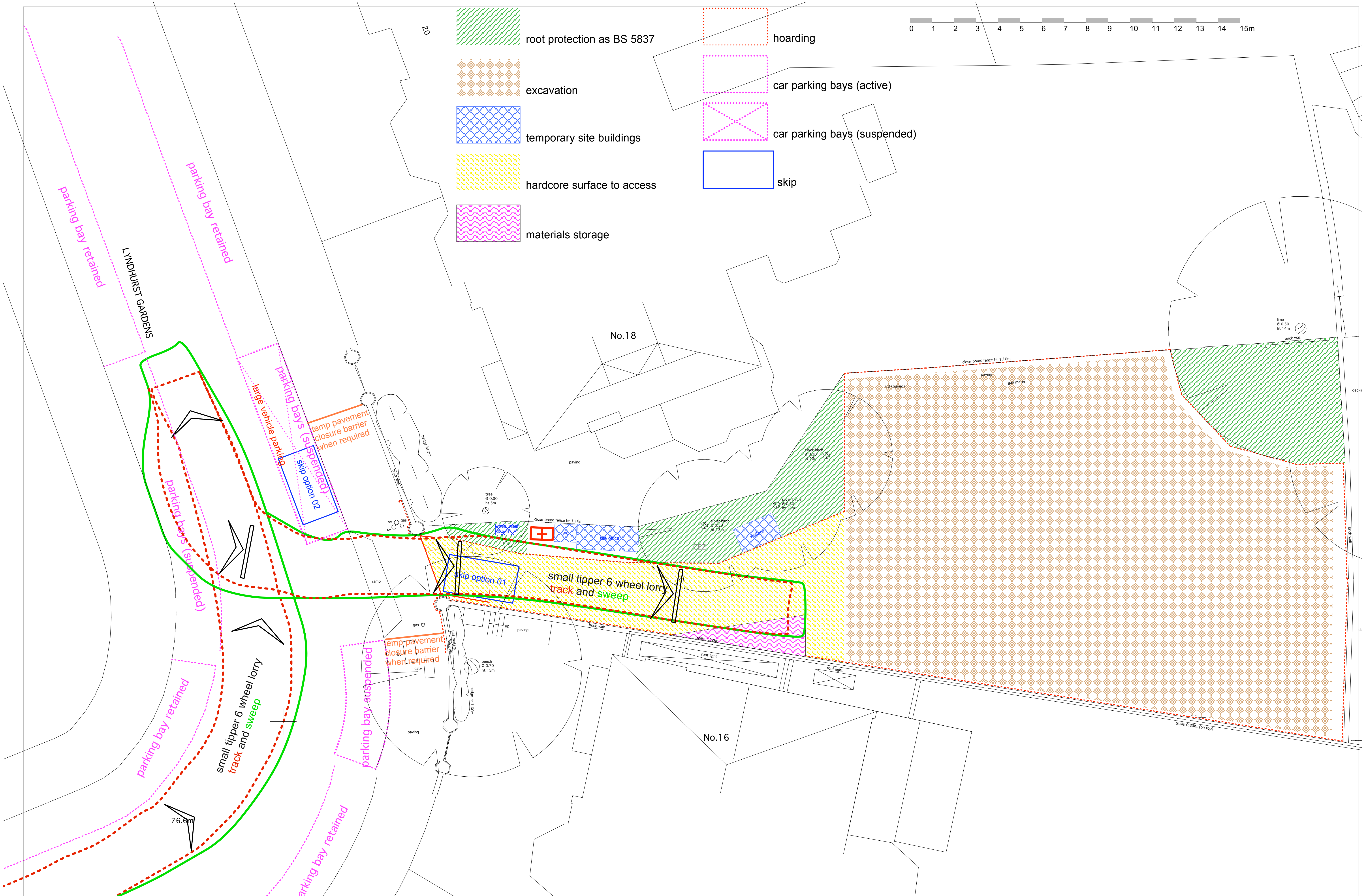
Trees

There are protected trees within the site as indicated on the attached drawing. The trees will have an established root protection zone and the surface will be protected according to the guidelines set out in BS 5837.

Statement

"The agreed contents of the Construction Management Plan must be complied with unless otherwise agreed with the Council. The project manager shall work with the Council to review this Construction Management Plan if problems arise in relation to the construction of the development. Any future revised plan must be approved by the Council and complied with thereafter."

(Note the term 'vehicles' used refers to all vehicles associated with the implementation of the development, e.g. demolition, site clearing, delivering of plant & material and construction etc. The terms construction as used refers to any work, including demolition, associated with the implementation of the development)



root protection as BS 5837
excavation
temporary site buildings
hardcore surface to access
materials storage
hoarding
car parking bays (active)
car parking bays (suspended)
skip
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15m
20
LYNDHURST GARDENS
parking bay retained
parking bay retained
parking bays (suspended)
large vehicle parking
skip option 02
temp pavement closure barrier when required
parking bays (suspended)
No.18
No.16
skip option 01
small tipper 6 wheel lorry
track and sweep
small tipper 6 wheel lorry
track and sweep
temp pavement closure barrier when required
parking bay suspended
parking bay retained
parking bay retained
76.6m
close board fence ht 1.10m
close board fence ht 1.10m
paving
ramp
brick wall
roof light
roof light
trellis 0.85ht (on top)

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WEBB ARCHITECTS LIMITED

Drawing to be read in conjunction with consultants information.
Do not scale from drawing.
All dimensions to be checked on site.
Drawing only to be used for purposes indicated.
Notify Architect of any discrepancies.
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REV

16A LYNDHURST GARDENS
EXISTING SITE PLAN-
CONSTRUCTION MANAGEMENT

NTS / A3

FOR INFORMATION

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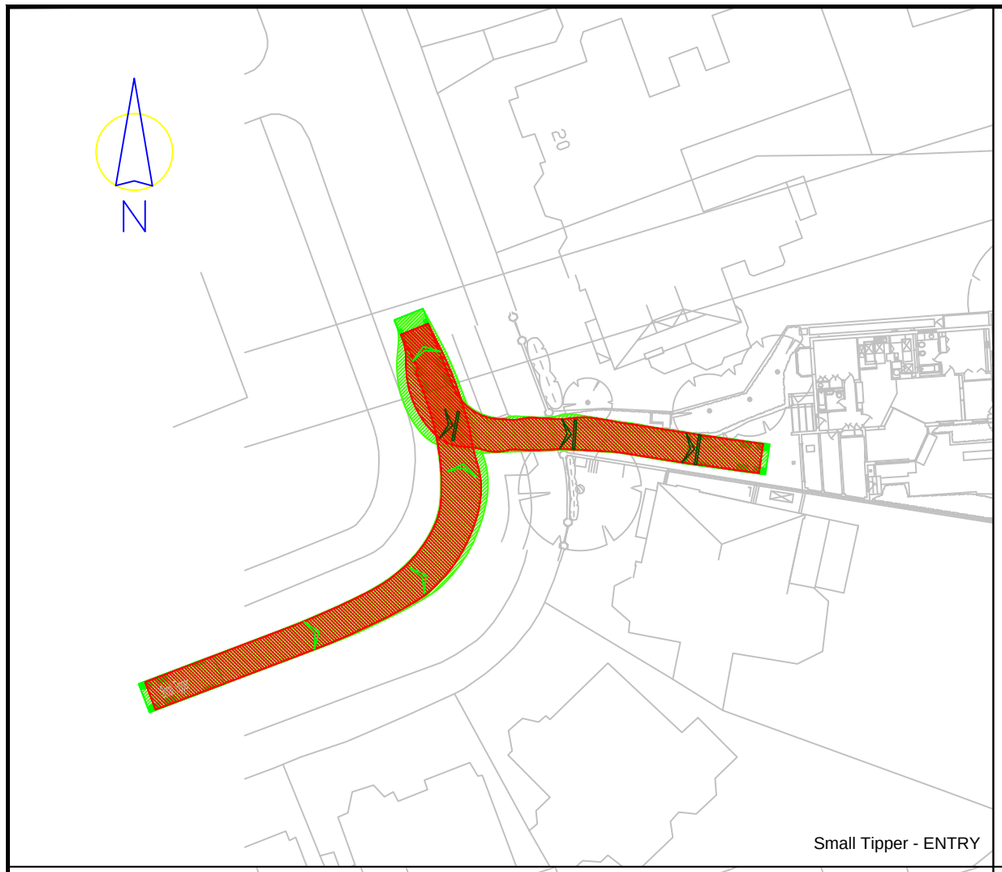
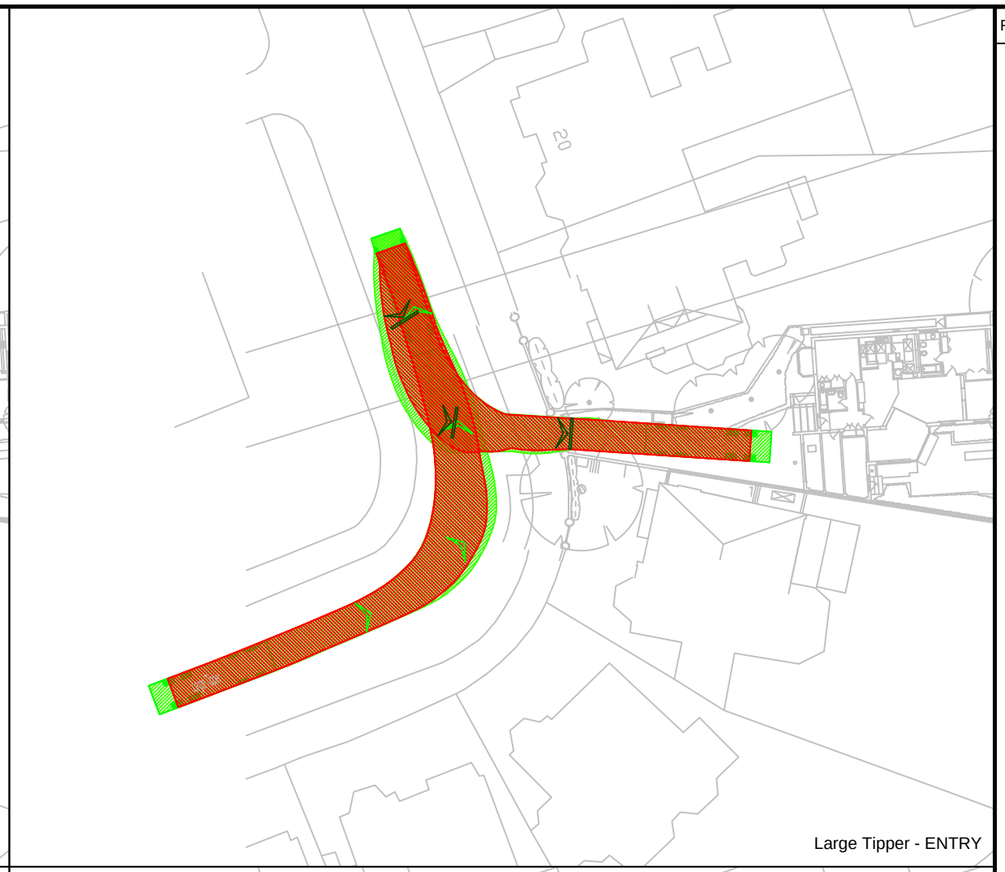


Small Tipper - ENTRY



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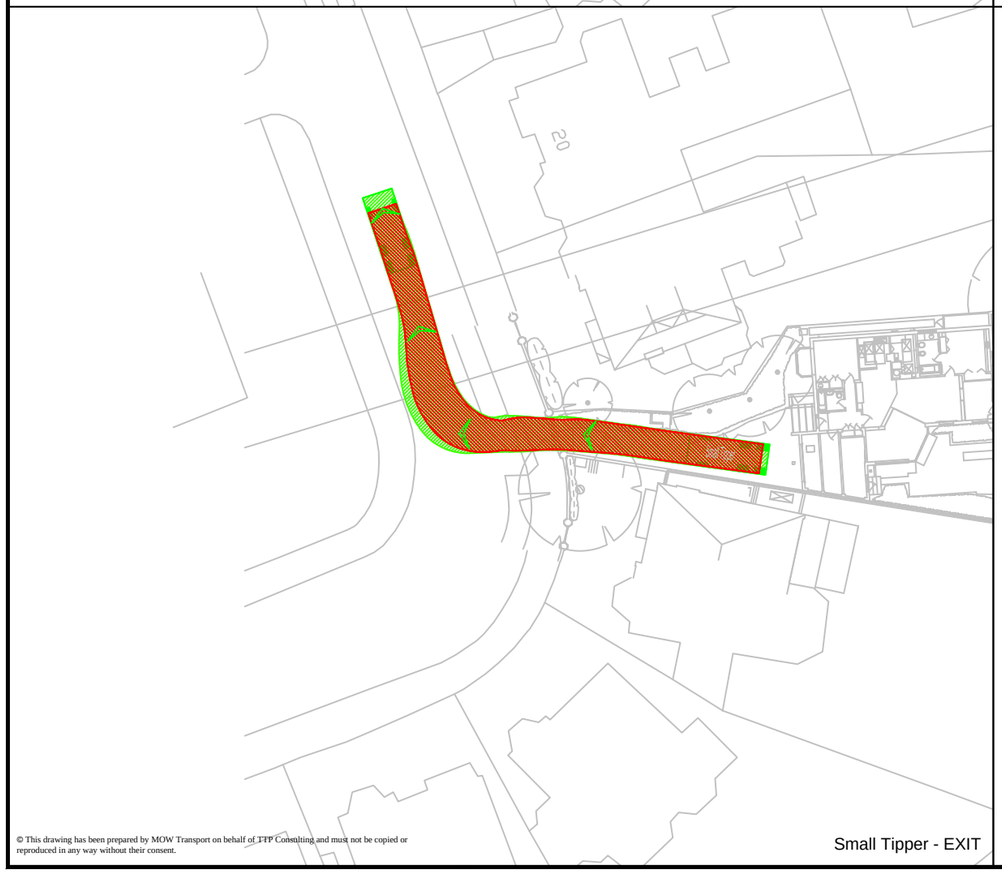
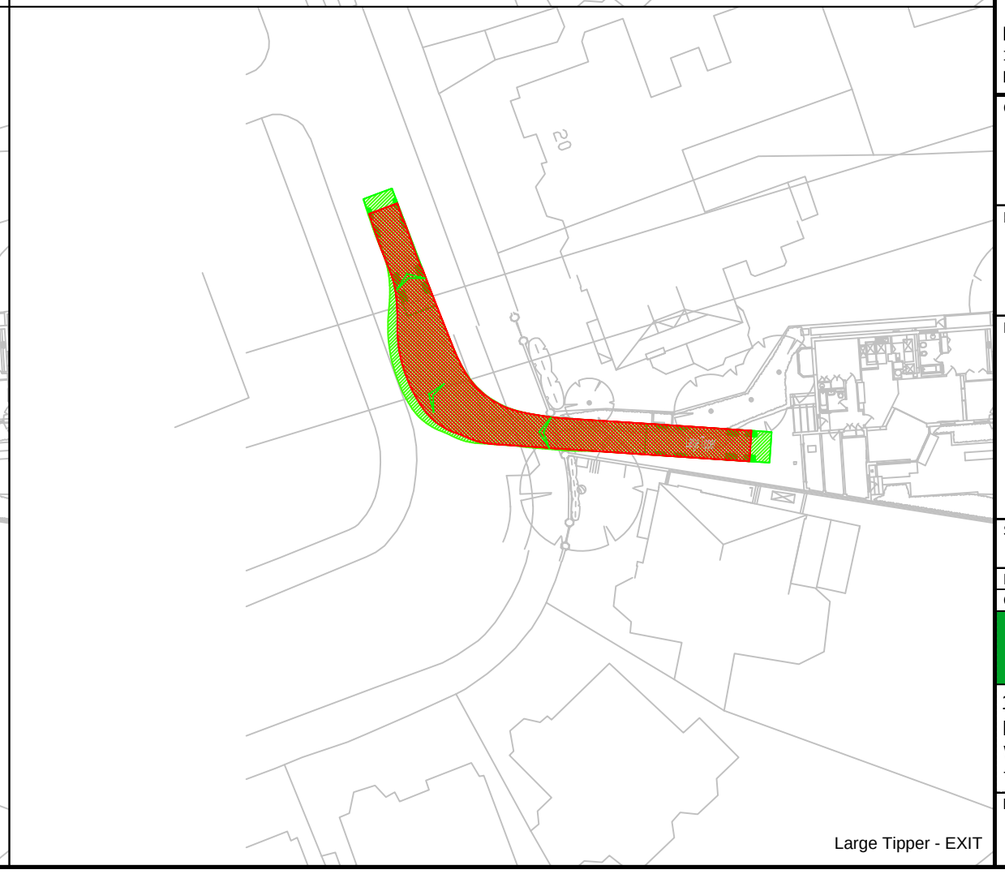


Small Tipper - EXIT



Large Tipper - EXIT

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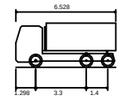
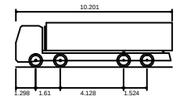


Small Tipper

Overall Length	6.528m
Overall Width	2.495m
Overall Body Height	2.877m
Min Body Ground Clearance	0.327m
Track Width	2.393m
Lock to Lock Time	6.00 sec
Kerb to Kerb Turning Radius	7.850m



Large Tipper

Overall Length	10.201m
Overall Width	2.500m
Overall Body Height	2.893m
Min Body Ground Clearance	0.343m
Max Track Width	2.500m
Lock to Lock Time	6.00 sec
Kerb to Kerb Turning Radius	11.550m

Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.

Client

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Project

Lyndhurst Gardens

Drawing Title

Swept Path Analysis Using a Large & Small Tipper

Scale

1:500 at A3

Drawn	Initial	Date
Checked	Initial	Date

TTP Consulting Limited

131-151 Great Titchfield Street
London
W1W 5BB
Tel. No. 020 3008 8940

Drawing Number	Rev
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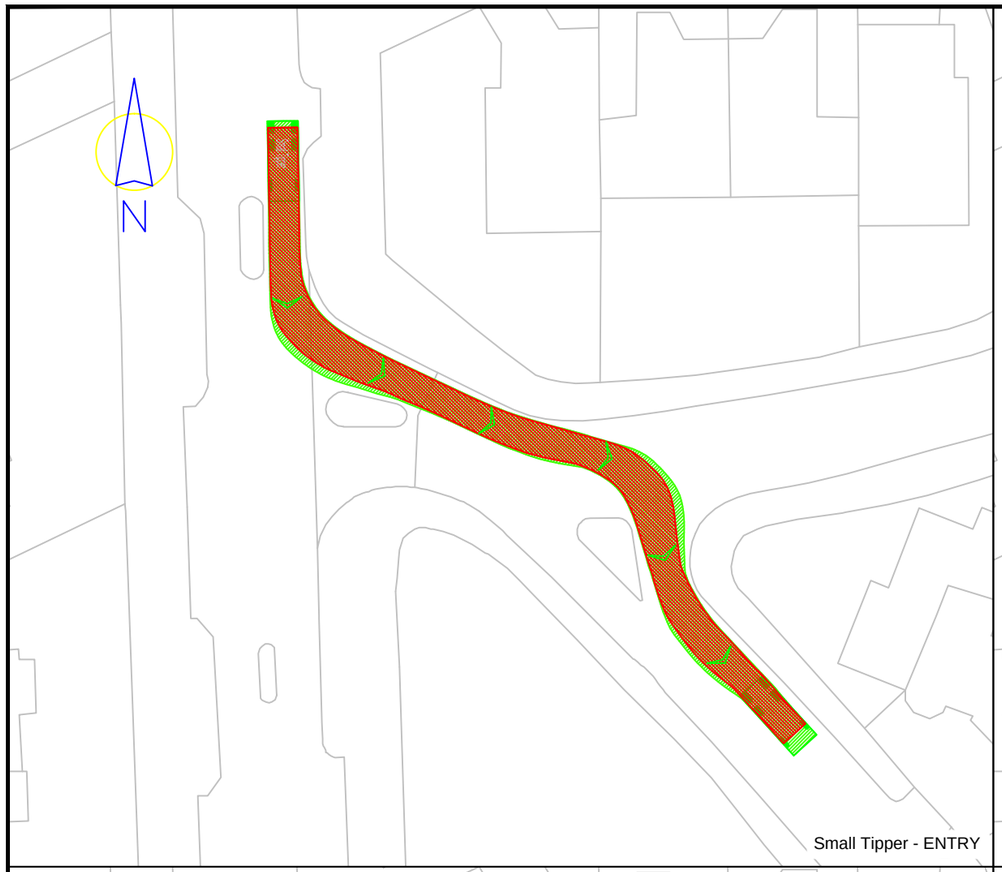
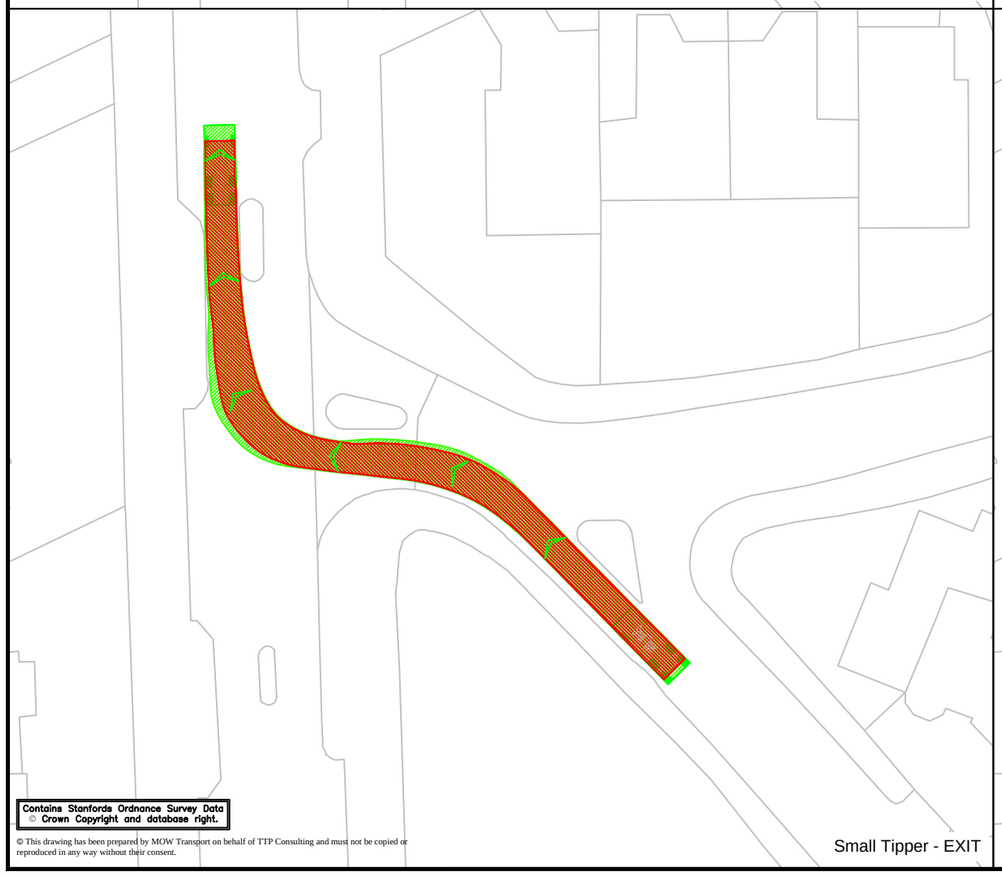


Small Tipper - ENTRY

Large Tipper - ENTRY



Small Tipper - EXIT

Large Tipper - EXIT

Rev	Details	Drawn	Checked	Date
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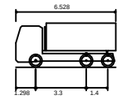

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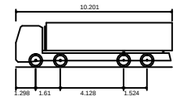

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Project

Lyndhurst Gardens

Drawing Title

Swept Path Analysis Using a Large & Small Tipper

Scale

1:500 at A3

Drawn	Initial	Date
Checked	Initial	Date

TTP Consulting Limited

131-151 Great Titchfield Street
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Drawing Number	Rev
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