



Design and Access Statement

32 Bowring Park Road

Wildstone
October 2016



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Introduction & Concept

The proposal is for a micro service station for Electric Vehicles (EV's) at a decommissioned Petrol Filling Station (PFS) currently in temporary use as a car wash.

The concept of a micro service station is a unique and innovative approach towards addressing the issue of waiting times associated with EV charging times and creating a new commercial opportunity from the captive audience this provides.

The proposal offers an opportunity to make efficient use of contaminated brownfield land, which otherwise would have limited development potential, being both constrained by its location and subject to a high degree of disturbance in terms of noise and air quality.

The site was initially identified as being suitable to support digital advertising, giving its prominent location at the end of the M62. However, this would have necessitated the removal of the existing structures on the site and would not have made the most efficient use of land. As such, the investment potential generated by the advertising opportunity has led to a proposal which will be self sustaining, will generate employment and will bring the site back to life.

This Statement has been prepared to explain the evolution of the scheme's detailed design.



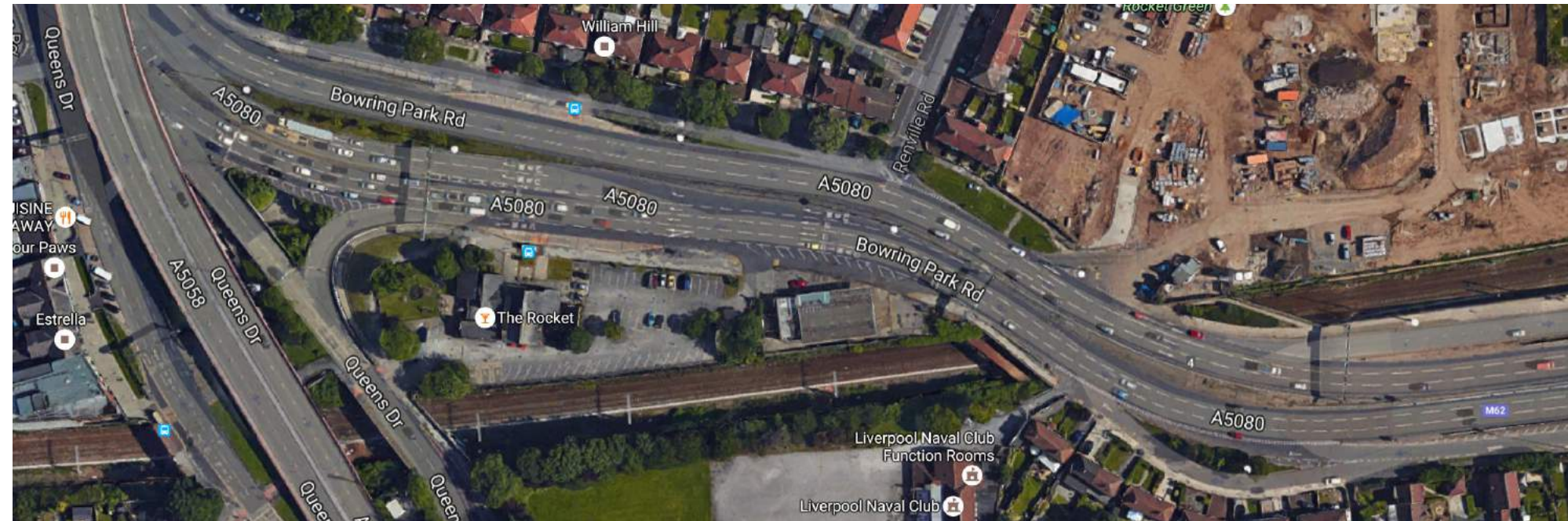
The Site

The site is located on Bowring Park Road and consists of a former Petrol Filling Station (PFS) which is now in use as a hand car wash. Although the pumps have been removed the site retains the look and feel of a PFS, and has a large forecourt area served by a small retail area to the rear of the site.

The site is not well maintained and an initial investigation has highlighted the likelihood of ground contamination and potentially Japanese knotweed.

The surrounding area is mixed in character but dominated by the road and rail transport infrastructure. The southern boundary to the site is bounded by a rail line which runs local services, whilst the A5080 Bowring Park Road crosses over the rail line and runs along the northern boundary of the site. To the west of the site is the car park to The Rocket Public House which is a local landmark.

On the opposite side of the rail line (to the south) is the Liverpool Naval Club, which sits within a predominantly residential area. On the opposite side of the dual carriageway (to the north) there is more residential development, with Broad Green Hospital beyond this. Approximately 200m west of the site Bowring Park Road meets Queen's Drive which is the Liverpool Ring Road. There is a small parade of shops on the opposite side of Queen's Drive which serve the local area. The nearest railway station to the site is Broad Green, which is located approximately 300m to the east.



Proposal & Operational Use

In its simplest form, the proposal seeks to reinstate the previous use of the site to provide support infrastructure for the next generation of vehicles.

The proposal seeks to address the question of how to deal with extended waiting times for EV charging, and to address the primary factor discouraging people from buying EV's, being a perceived lack of charging points (see Appendix 1). As the site offers prominence, it will raise the profile of EV's in general and has the potential to encourage growth in ownership.

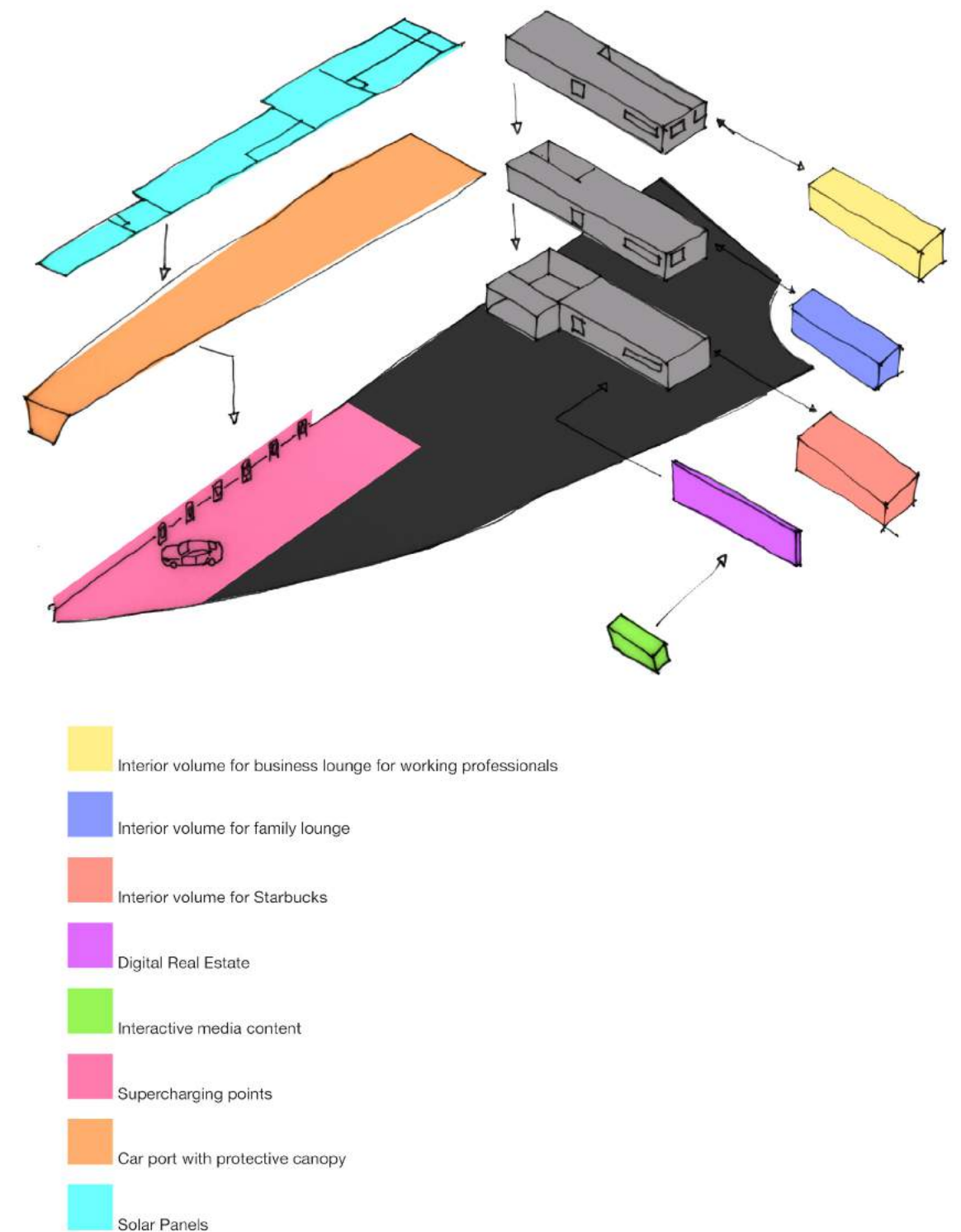
The diagram opposite illustrates the proposal broken down into its constituent parts. In summary this will include:

- Coffee Shop
- Family lounge
- Business Lounge
- Toilets and baby changing facilities
- Seven EV charging points
- Hand car wash
- Digital LED signage
- Canopy supporting solar panels

Each individual element of the proposal supports one another. The signage will increase the prominence of the site and provide income from advertising. The charging points and car wash will bring customers to the coffee shop, whilst the coffee shop and waiting areas will provide services which encourage the use of the former.

In terms of the operation of the site, vehicles would park up at the designated charging points, which will also act as general parking for those wishing to visit the café or have their car valeted.

The proposed ground floor café would be open to use by the public, with access restricted to the upper floors to those using the charging facility. This will be managed on site via the issuing of an access code. In addition to this, it would be possible to offer exclusive access to owners of certain vehicles via their electronic key fob. This would ensure that the use of the lounges on the first and second storey is controlled and that people can enjoy a relatively quiet and private space while they wait for their vehicle to charge.

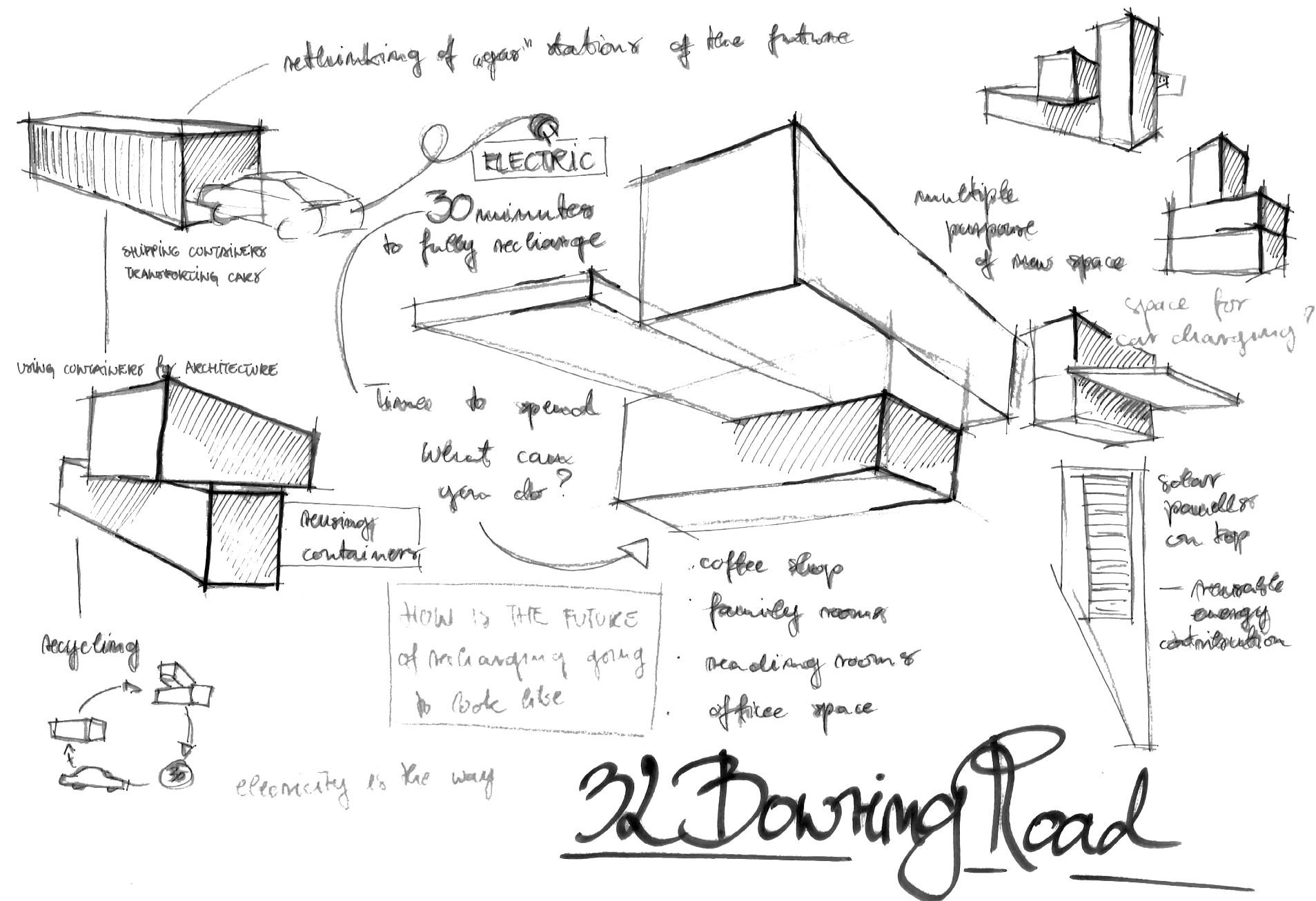


Design Development

The mixed character of the area and the relative isolation of the site provides an opportunity for a creative approach towards design, architecture and materials. Nevertheless, the context of the area must be taken into consideration in terms of the prevailing building heights and density of development.

In this regard the surrounding development is two to three storeys and generally development sits within a large plot. The proposed use requires a large forecourt area, with slightly different requirements to a traditional PFS. As waiting times tend to be longer (min. 30 minutes) there is a requirement for vehicles to park up, which is more efficiently achieved through a linear row of parking spaces. The PFS canopy has therefore been removed and replaced with a canopy along the back edge of the site. The canopy will be finished in Corten steel and will be a design feature in its own right, as well as providing shelter and shade. The large surface area of the canopy will support solar panels which would feed energy back into the grid.

In considering the design and layout of the structures on the site, a three storey limit was considered appropriate. Consideration was made of the need for a solid supporting structure to support the digital display in the optimal viewing location. The use of shipping containers provides a low cost solid structure that will not require substantial foundations and will not require the removal of underground tanks associated with the former PFS use. Whilst in this regard they could be termed as "temporary" structures, they are hard wearing and typically have a lifespan of over 15 years. In addition to this, there is a ready association with the City and a direct link with the end user, as shipping containers are typically used to transport cars to the UK.



Design Inspiration

The use of shipping containers in architecture has expanded greatly over recent years with many examples of innovative uses ranging from housing and workspaces to entire shopping malls (see images opposite).

In addition, the choice of shipping containers for the site provides a ready association with the location, being at the entrance to Liverpool, a major port with commercial docks and large container terminals. Specifically, the design intent is to reuse the actual containers used to ship Electric Vehicles into the country, thereby providing a direct link with the use of the site.



Shipping Containers being loaded onto a ship



Barneveld Noord Railway Station, Netherlands



ContainerVille, Shoreditch, London



Tesla Shipping Container



Boxpark, Shoreditch, London



Coca Cola Pop-Up Shipping Container



Tesla Pop Up Store



Starbucks, Seattle



Restaurant, London

Materials & Landscaping

The open part of the site will be hard landscaped, with new low level soft landscaping along the boundary. As the land is likely to be contaminated planters are considered to be the best solution to improving the boundary treatment of the site.

Each of the shipping containers will powder coated black. Aside from complementing the modern design, using black will minimise the potential for discolouration from vehicle fumes in this location.

The windows and main entrance will be framed by extrusions of Corten Steel which will add design detail. The use of Corten complements the industrial nature of the shipping containers as well as the modern styling of the other elements on site, such as the charging points, solar panels and digital display. As such, Corten is also proposed to be used for the canopy, which has become one of the main design features of the site.

1. Painted Shipping Containers



2. Corten



3. Solar Panels



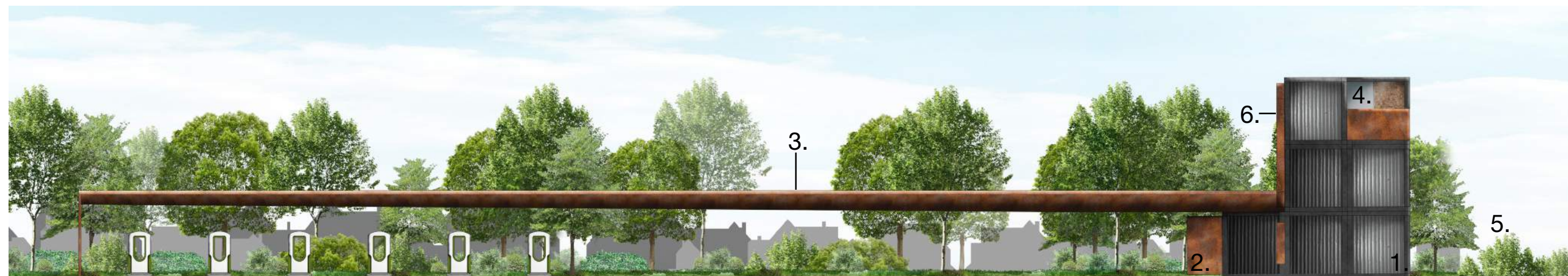
4. Glass



5. New Landscaping



6. Screen



Signage Details & Control

The digital display will be a low energy LED product which will be remotely controlled to display static, sequential images only (i.e. no moving images or flashing lights) on a maximum rotation of six adverts per minute. The changeover between adverts will be instantaneous.

The brightness of the display would be fully controllable and can be reduced to within 1% of its maximum output (50cd/sqm). It is proposed that in this location the signs should have a maximum luminance that does not exceed 300cd/sqm at night in line with Institute of Lighting Professional Guidelines. The screen will be fitted with light sensors to ensure that the level of luminance of the advertisement is sensitive to the change in daylight from sunrise to sunset and would, therefore, not result in any glare for drivers.

The display will be used for commercial advertising, but may be dedicated to one particular brand associated with the site if demand dictates. In this regard the display provides the opportunity for a vehicle manufacturer to take ownership of the whole site, or simply to purchase individual slots to promote their association with Electric Vehicles.

There would also be an opportunity to agree to emergency use of the display should there ever be a requirement to get rapid information out to the public for safety reasons (e.g. disaster response) or in response to a particular event. This in particular would be a valuable resource to the City.



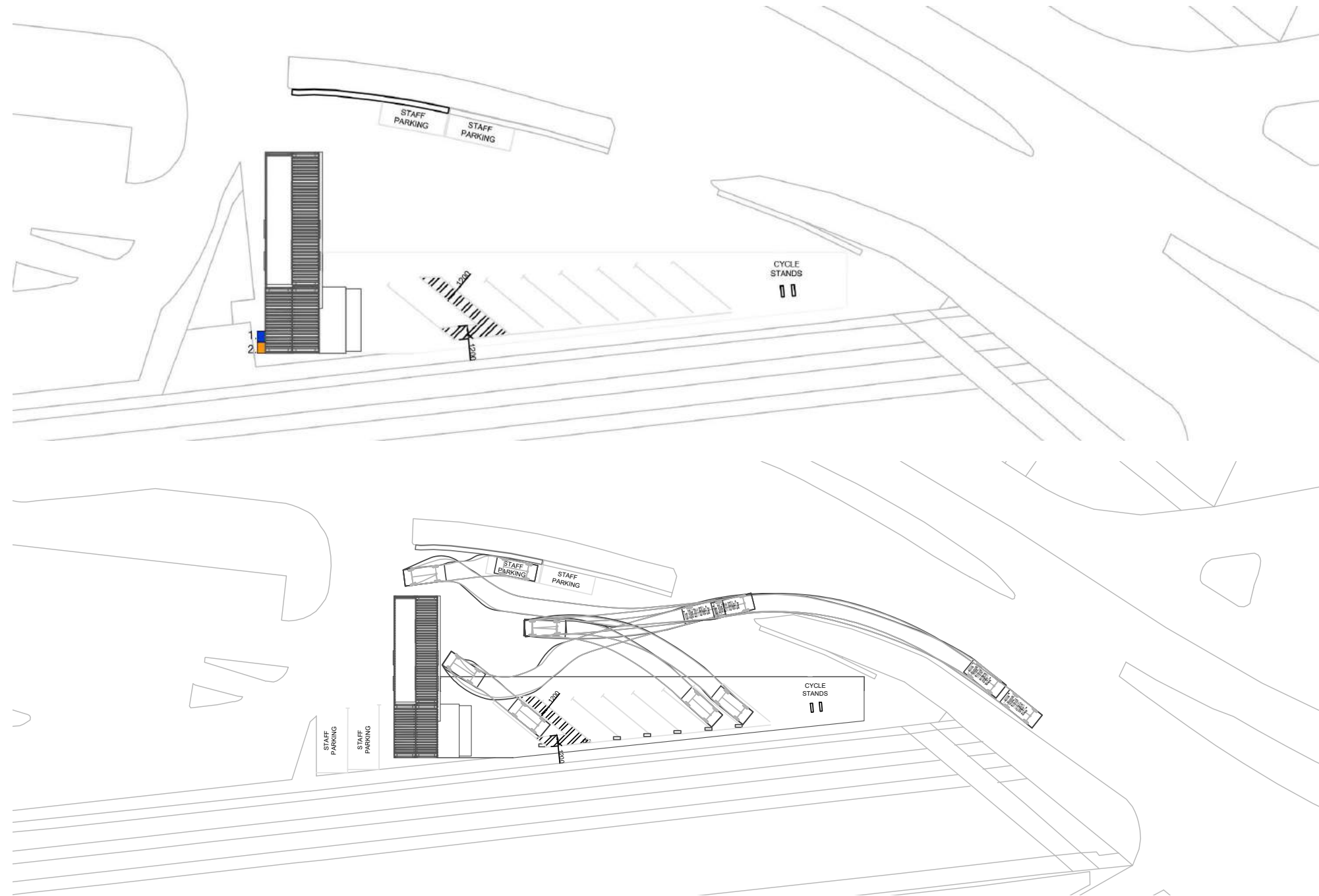
Access

The site is accessed via Bowring Park Road at the end of the M62 Motorway where it meets the local road network entering Liverpool from the east of the City. The site is accessible either by car or by foot, although due to the nature of the development, it is envisaged that the vast majority of visitors will arrive via car. No changes to the approach road or pedestrian access are required. The access and egress will also remain as existing.

The charging stations have been repositioned side-by-side due to the wait times required for charging. In order to ensure that there is no vehicle conflict at the entrance to the site, the parking space have been angled to direct vehicles to reverse into the space and leave in first gear. Six of the charging point spaces are standard size, with the remaining space larger to accommodate disabled visitors.

Level access is provided from the charging points and to the public areas of the building. Toilet facilities are located on each level of the building.

Areas have been allocated for general waste and recycling to the rear of the main building on the site, but for ease of access servicing will take place using the main forecourt. The forecourt will also serve as a congregation point in the event of an emergency.



Conclusion

The proposal will transform a difficult site in a prominent location into an attractive flagship development. It will raise the profile of EV's and encourage new ownership, whilst providing necessary infrastructure for existing owners.

Each individual element of the site supports one another, making best and most efficient use of land, generating investment, employment opportunities, and providing local services.

The proposal is a positive example of advertising led regeneration and will act as a catalyst to further regeneration on this key route into Liverpool.



CGI

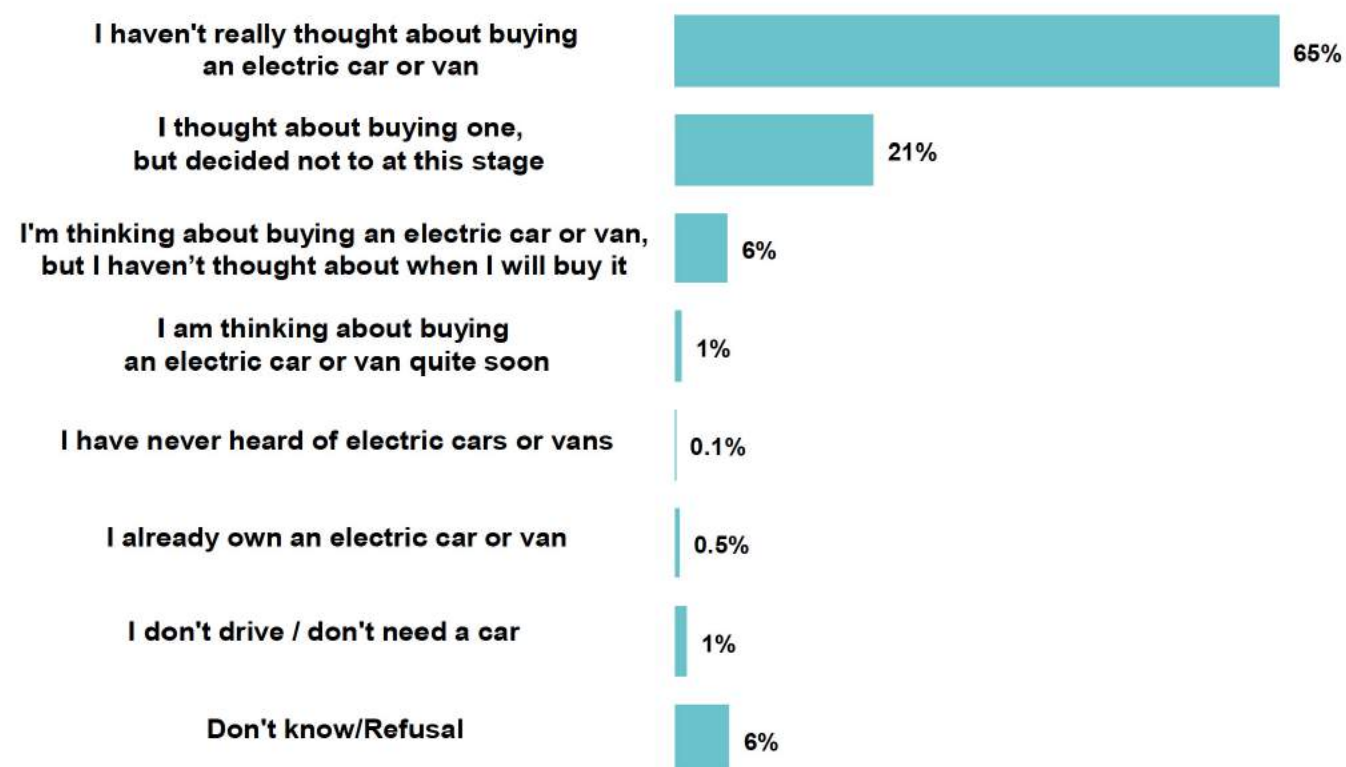


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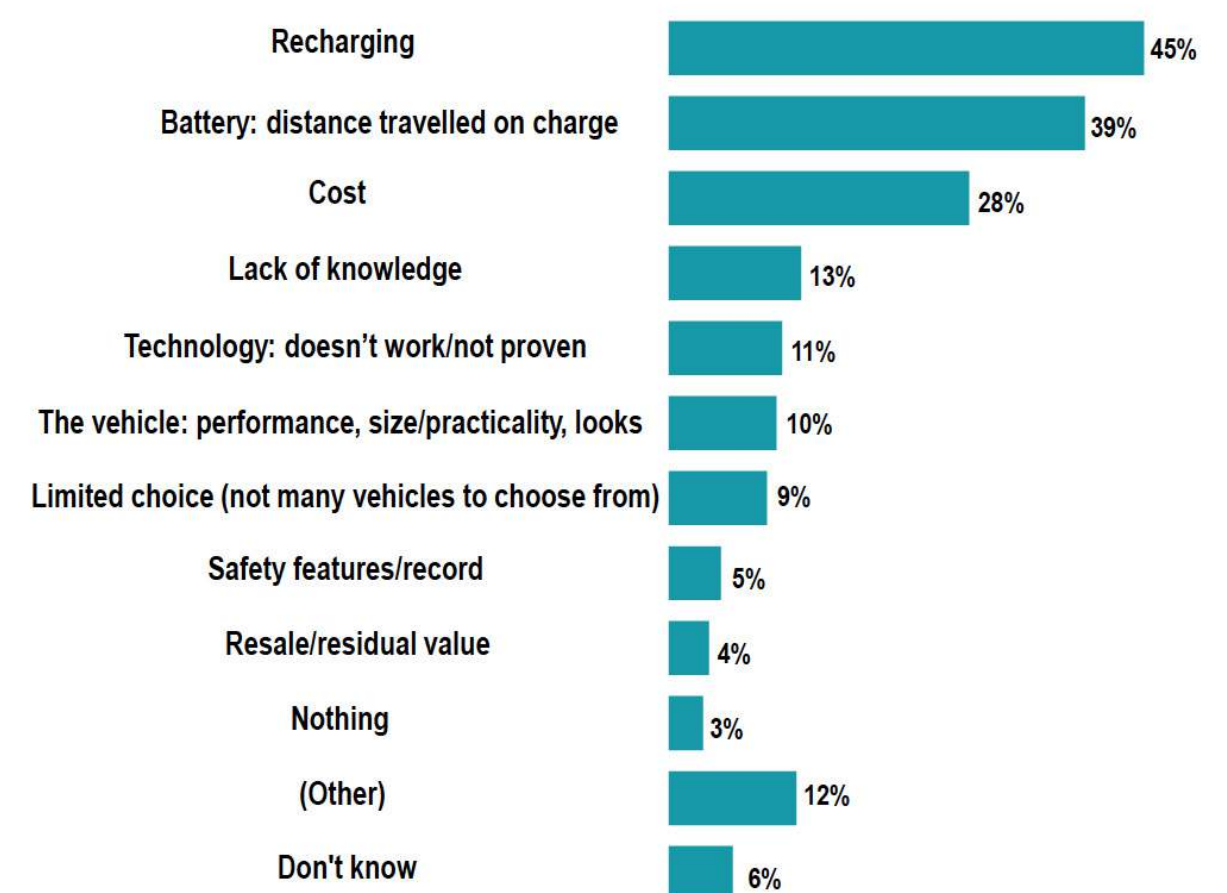
Appendix 1

Current attitudes towards buying an electric car or van, driving licence holders only: 2016 results



Source: ONS Omnibus Survey February 2016. Unweighted base: 654 (full licence holders).

Factors deterring people from buying an electric car or van, driving licence holders: 2016 results



Sources ONS Omnibus Survey February 2016. Unweighted base: 649 (full licence holders only). Up to 3 responses coded from each respondent hence total will add up to more than 100%.