CARBANA

CLEAN CAR, CLEAN CONSCIENCE

Design and Access Statement

Eco-friendly, Self-service Car Wash Facility
At: 1, SALOP ROAD, WREXHAM, LL13 7AF



Aerial photograph of the site (not to scale).

April 2024
V1.2

Carbana Limited
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What is Carbana

Carbana's mission is to professionalise car cleaning in the UK with a high quality, technology driven, eco-friendly self-serve car washing service. First to market with a unique design concept in the UK, consumers will enjoy a professional consumer facing offering that is legal, compliant, and eco-friendly. Carbana has clear and smart ESG credentials from bio-degradable washing solutions, recycling, waste collection solutions and solar power, plus all employees will be via PAYE which helps to remove the issues the sector faces around modern day slavery.

Site overview

The application site comprises of approximately 1460 square meters of land at the corner of Salop Road (A525) and Rivulet Road. The site is roughly bound by Rivulet Road to the north, the River Gwenfro to the south and east, and Salop Road (A525) to the west.
The site was historically used as by the Wrexham Musical Theatre Society but has been vacant since 2016 following the demolition of the musical societies building. Since then, the site has become derelict, overgrown and is known as a hot spot for anti-social behavior.
Given the unique requirements of our business, we are in a position to redevelop and utilise small-scale and unusually shaped sites such as this which could otherwise remain undeveloped for many years.

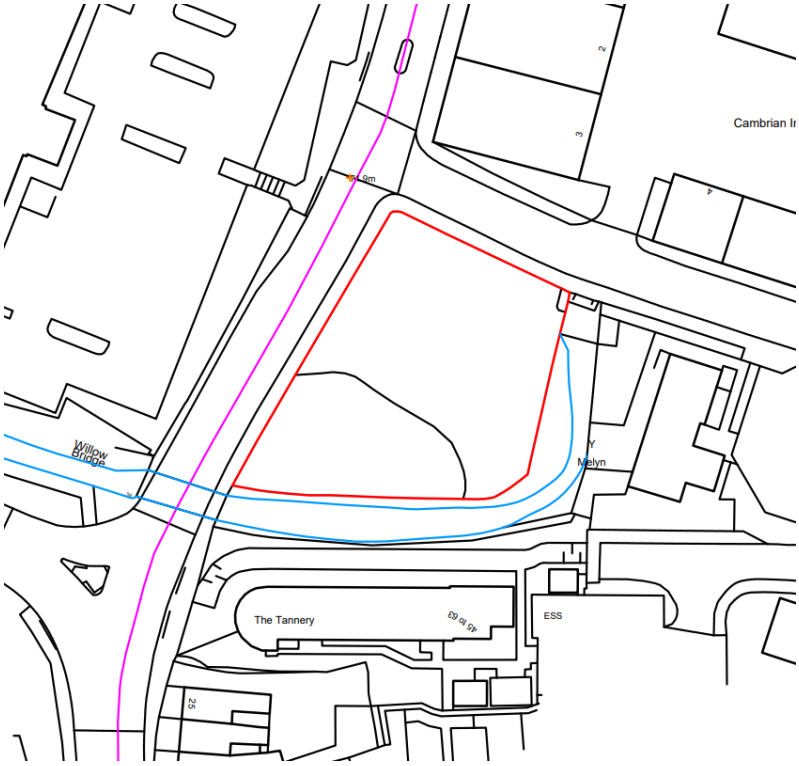


Fig 1. Location plan (not to scale).

Project overview

This proposal should be considered in the context that permission for the same use on the same land has already been granted under approval WRC P/2021/0306, which is still extant. This proposal suggests a different location for buildings on the site to allow for a five metre easement to the River Gwenfro, this has been agreed with the Flood Risk team at the council. It also considers highway safety and the access and egress of delivery vehicles.

The proposed development is for an eco-friendly, self-service car wash and associated ancillary works. We propose to install four wash bays (three covered & one open) with an associated pump room, two valeting bays with a vacuum on each with a tyre inflator on the first and an air dryer on the second. There will also be a security hut for staff and a storage area for bins and cleaning solutions. Also proposed is a small tyre fitting facility which will be run by a separate entity, P1 Speedyfit.

Carbana has already found great success with a similar site in Royal Wootton Bassett, offering many desired facilities to the local area which have been extremely well received by the local residents.



Fig 2. Photo showing part of the site in its existing state.

The need

Carbana will serve the local area where residents do not have facilities to safely wash their vehicles at home or at compliant locations. The site is well served by a robust road network and will no doubt benefit from visitors to the nearby shopping centre as well as passing traffic visiting the nearby shops and restaurants.
As well as private cars, shared vehicles and taxis also need to be cleaned.

Design

All built elements will be of a contemporary design and will be easily recognised, in essence, as a car wash and tyre fitting depot. The enclosed wash bays will be circa 4.5m high with the external bay (marked open bay) on our layout drawing, having apparatus to a height of around 5m. A small hut will be provided to provide shelter and facilities for the site manager. The Speedyfit building will be circa 5.2 meters high at the ridge.

The site itself will flow clockwise, with cars entering via the entry lane with queueing for wash bays to the right upon entry and access to the valet bays for vacuuming etc to the left. Vehicles wishing to use Speedyfit's services or those that have used the valet bays but will not be washing their cars, will continue in a clockwise fashion around the perimeter of the site where they can access Speedyfit's building or exit the site. Cars will then drive along a hatched area (to signify no stopping) along the back of the bays where they will be guided to the site exit. We do not anticipate any issues in this regard as not only is visibility very good from the wash bays, all traffic moving through the site will be slow. The surface will be marked in a similar fashion to the layout drawing with directional arrows and information. We anticipate using a traffic light system on each wash bay to clarify which bays are free, to speed up flow and indicate which bays contain a vehicle.



Fig 3. Photograph of a Carbana site in Royal Wootton Bassett.



Fig 4. Internal photograph of the Adriateh 'Tertis' wash bay.

Signage

Flood warning signage to be located in the car parking areas, all signage and other totems will be covered under a separate application.

Environmental sustainability

Currently, most hand car wash facilities are not purpose-built and do not benefit from correct drainage or capture of wash debris. Carbana wash stations offer a sustainable and eco-friendly solution.

The Adriateh wash equipment being used has, reduced water and energy consumption and has advanced drainage systems. These systems use silt traps to capture wash debris, three-stage interceptors, and water recycling for some of the process.

Interceptors take the form of chambers, which work thus:
The water and oil pass through three chambers. Each chamber is designed to allow oil within the water to rise to the top, with the cleaner water moving through to the next chamber. These chambers incorporate a vent above them to release the vapour build-up. Finally, the oil-free water passes through to the outlet.
Interceptors will be emptied approximately every two to three months along with the silt traps. Emptying the interceptor at regular intervals such as this will ensure that it never gets near capacity.

The key by-product of our cleaning process is spent water. We are acutely aware of this and the need for this most basic and valuable of resources to be conserved and respected. To that end, all solutions supplied by the manufacturer (Adriateh) as of 22/02/2022 and used in the washing process will pass the criterion for primary biodegradability according to Regulation (EC) No 648/2004 of the European Parliament and of the Council, of March 31, 2004, on detergents and the requirements of Regulation (CE) No 1907/2006 (REACH regulation) and subsequent modifications. The pass criterion for primary biodegradability shall be a level of at least 80% and surfactants in detergent shall be considered biodegradable if the level of surfactant ultimate biodegradability (mineralization) is at least 60% within 28days.

Landscaping

The finished levels of the site will remain broadly the same as existing. The existing areas of tarmac are of suitable quality to be used as a sub base and as such we will resurface over this with a fresh finishing layer of tarmac, retaining the existing slopes and leaving the levels mostly unchanged. The surface of the southern portion of the site that is overgrown is currently crushed stone and rubble that has been left from the demolition of the old

building and run into the ground. This area will be laid with tarmac as per the rest of the site.

The FCA dictates that the Speedyfit building will need to be an average of 150mm above the surrounding natural levels, it goes on to explain why this will be acceptable.

Flood risk and drainage

Flood risks have been acknowledged and mitigations have been made where appropriate. Please see the Flood Consequences Assessment for further information.

There is an existing well on site which is now redundant and will be de-commisioned.

Surface drainage will be via the existing assets into the River Gwenfro. It has been accepted by the Flood Officer, Cathryn Hughes, that the existing brown field run-off rates will be unchanged and that surface water does not need to be attenuated.

Foul water will be discharged to the combined sewer in Rivulet Road, full specifications to be agreed.

Noise and lighting

In consideration of the housing situated south of the proposed site on Willow Bridge Court and east of the site on Cefn-y-Nant, we have taken a measured approach to all noise and lighting trespass issues. Our equipment has been specifically designed for use in residential areas and is much quieter than household style jet washers as a result. Noise from the pumps and motors is isolated by the plant room. In addition to this, our site will be operating on restricted hours, reducing the likelihood of noise disruption in the evening or late at night. Similarly, due to the restrictive hours, lighting on the site will be dimmed or reduced outside of operating hours so as to prevent disruption to the local residents.

Dust management

The proposed works are unlikely to require dust management due to the nature of the works. However, if works do begin to show signs of dust, water suppression will be used either across the site or for the isolated works.

Biodiversity

The site surface is largely laid to tarmac, there is an area of rubble on the site of the former Musical Theatre as a result of its demolition. In this particular area of hardstanding, which is a surface typically resistant to vegetation, we are observing the emergence of plant life. However, the species that have taken root are of a very low quality in terms of ecological contribution. These are classed as ruderal species—plants that are the first to colonise disturbed lands but offer little to no benefit for biodiversity or ecosystem services. They don't provide food or habitat for wildlife, nor do they contribute to soil health or water regulation. Essentially, their presence doesn't enhance the ecological value of the area; they simply exist without supporting a thriving ecosystem. The loss of these plants would be negligible in biodiversity terms.

Access and movement

The site will be accessed from Rivulet Road via the A525 Salop Road via a two-way all-movements access across a pedestrian footpath. The existing site access will be migrated east along Rivulet Road to give a 25 metre visibility splay west towards Salop Road junction. Prior to first use of development, a pavement crossing to the site shall be constructed in strict accordance with Highway Authority adoptable standards. The vehicular access will be a minimum width of 7.2 metres with a dropped curb. Part of our proposal is a scheme to provide a yellow box on Rivulet Road to aid unencumbered access and egress to and from the site. This is all as per advice on the previous permission P-2021-0306.

The site is planned to be open from 8am until 7pm Monday to Friday, 9am until 6pm Saturdays and 10am until 5pm on Sundays or Bank Holidays. It is expected that between 40 and 85 cars will access the site to use the wash facilities per day.

Visitors will be entering the site at the access point to the north to use the car wash facilities. The site will operate in a one-way fashion similar to that of a petrol station or fast-food drive-thru, as such, this is a concept that users will be familiar with. In addition to this, weight must be given to the fact that the visibility of the site from the access road will be very good as the existing brick wall will have been removed. Any potential users that do not wish to queue, will be able to see if a queue is present before entering the site and make a judgement.

All traffic using the site access/egress areas would be travelling at a very low speed, and the complications experienced would be no more than typical parking arrangements.

Swept Path Analysis suggests that in principle vehicles from the highway direction could comfortably make all the necessary maneuvers to access wash bays, valet bays and the Speedyfit depot. The complications experienced in this case would be no more than typical petrol service station arrangements.

A large area of yellow box hatching will be painted in front of the wash bays to ensure that cars do not stop in this area. This coupled with the traffic light system on bays, as well as the good visibility from bays due to their width, will ensure that cars exiting the bays can do so safely.

The presumption in favour of sustainable development is a central theme running through the NPPF and transport planning policies are seen as a key element of delivering sustainable development as well as contributing to wider sustainability and health objectives. One of the core principles of the NPPF is to 'ensure opportunities to promote walking, cycling and public transport use are identified and pursued.'

The site is accessible by foot, bicycle and bus, this is more relevant for employment opportunities given the nature of the business. Three parking spaces have been included for employees and occasional visitors.

We have considered NPPF Section 9: Promoting Sustainable Transport which states:
111. Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.
We consider that any impacts would be slight and likely would not impact the road network. The only impact would be a negligible increase in junction usage at Salop Road and Rivulet Road.

Car Wash Trip Generation

Time Period		Estimated washes
08:00	09:00	3
09:00	10:00	4
10:00	11:00	4
11:00	12:00	8
12:00	13:00	8
13:00	14:00	9
14:00	15:00	10
15:00	16:00	10
16:00	17:00	12
17:00	18:00	9
18:00	19:00	8

The estimates above equate to circa 85 car washes per day, circa 31000 washes for the year.

We consider that any impacts would be slight and likely would not impact the road network.

Assessment

The proposed scheme will develop an underutilised, sustainably located site to provide an eco-carwash facility and tyre fitting depot. A use previously permitted under decision notice P-2021-0306. The scheme has been carefully considered to respect local residents and businesses as well as the City of Wrexham. The site is perfectly located to ensure that many visits the site are via linked trips and those who need to utilise the facility on passing through the area. The proposals use all possible existing resources and available technology to maximise its sustainability to provide a state-of-the-art community facility.

We feel that this community facility will complement Wrexham's bustling economy and vibrant community.

There are no significant impacts on the highway system, little to no impact upon amenity and no technical reasons that could not be overcome via condition. The local community will benefit from additional jobs and the wider community will benefit from the proposed, state-of-the-art, community facility.

Conclusion

This scheme represents important additional community facility in this under utilised location along with complementary uses. The location is key to its sustainability with Salop Road being a main route into Wrexham. The design is striking, modern but functional and every impact has been appropriately considered during the design phase to minimise any negative impacts or amenity issues. This is a scheme that will benefit both the local and wider community and at the same time will be an example of how to defeat the illegalities in the car wash sector, such as modern-day slavery, planning violations, tax avoidance / money laundering, health & safety, environmental negligence and damage.