

Electric Vehicle Charge Point & Infrastructure Strategy

Erection of a 1,979 sq.m (gross) Retail Unit (Use Class E)

Former Goldthorpe Primary School, High Street, Goldthorpe

This Electric Vehicle Charge Point & Infrastructure Strategy has been prepared to accompany a full planning application for the erection of a Lidl foodstore (1,979 sq.m gross) at the former Goldthorpe Primary School, High Street, Goldthorpe (LPA Ref. 2022/0056).

The Barnsley Sustainable Travel SPD confirms that, as a minimum, new retail and commercial developments will be required to provide electric vehicle charging points (EVCP) at a ratio of 10% of the total number of parking spaces proposed and the Air Quality and Emissions Good Practice Planning Guidance confirms the LPA will seek a minimum specification of Mode 3, 7kW, 32 amp.

The proposed foodstore will be served by a total of 121 car parking spaces, which would equate to

a requirement of 12 No. EVCP bays under the provisions of the Barnsley Sustainable Travel SPD. The current application proposals will deliver a total of 6 No. EVCP bays, as illustrated on the adjacent extract from the submitted Proposed Site Plan.

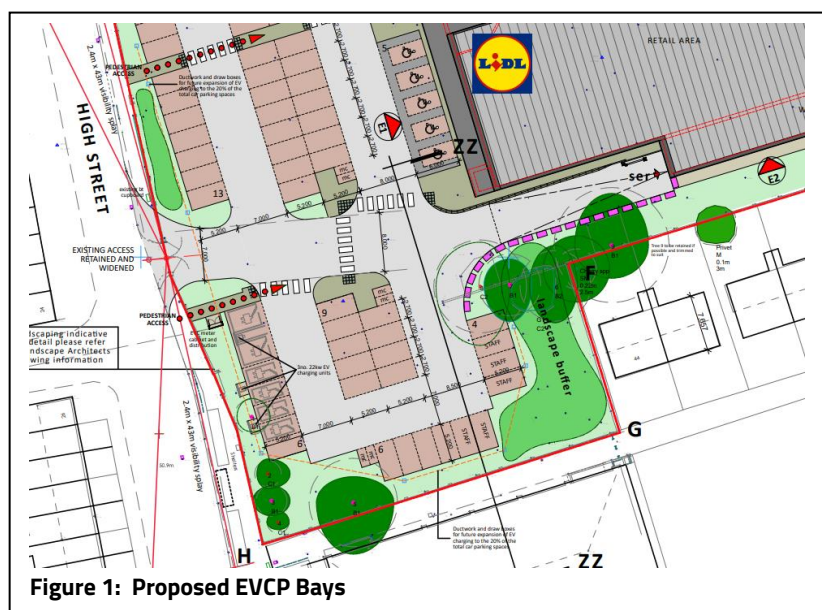


Figure 1: Proposed EVCP Bays

Lidl are fully supportive of the provision of an appropriate level of EVCP infrastructure across their Estate to support the transition towards a zero emission transport future. The current proposals involve the delivery of a 1,979 sq.m Lidl store and, based on their extensive market knowledge of EVCP provision across their existing stores, they generally seek to install 2 No. 22kW EVCP bays within the car parks of stores of this size, which are equipped with multiple connections to suit different types of vehicle.

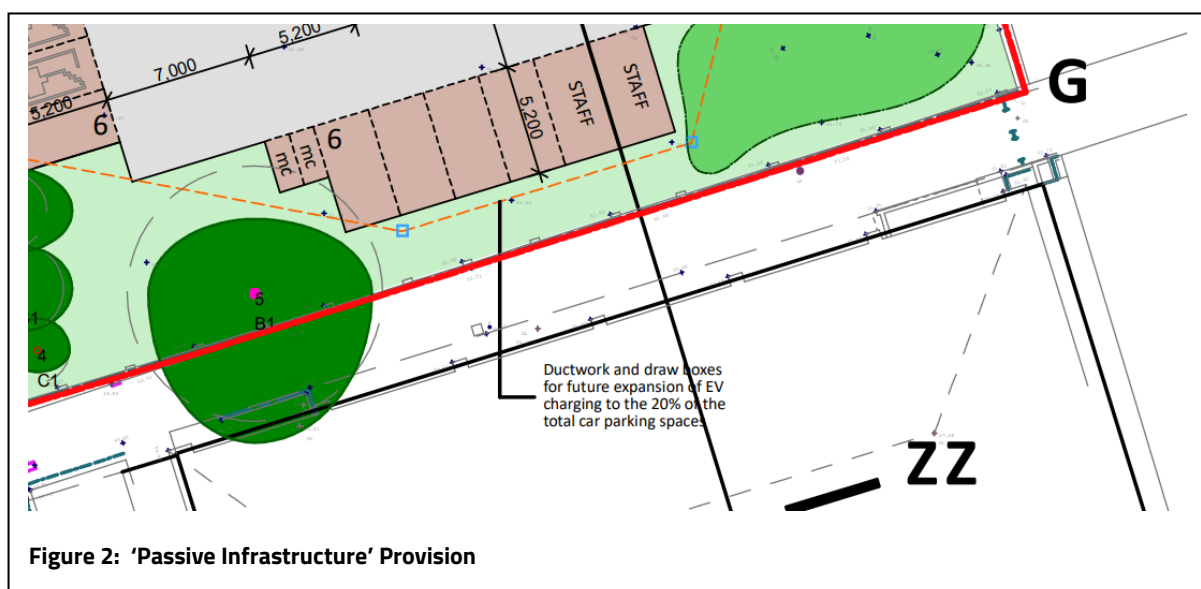
However, in recognition of the requirements of the Barnsley Sustainable Travel SPD, it is proposed to increase the level of provision to 6 No. EVCP bays served by 22kW charging points at the Goldthorpe site. It is acknowledged that the level of provision falls below the minimum requirement of the Sustainable Travel SPD in quantitative terms, however, it is important to note the type of EVCP proposed. The Sustainable Travel SPD requirements are based on a minimum specification of 7kW bays, however, the proposed development will deliver 22kW charge points, which will ensure that customers are able to secure a much greater level of charge during a short duration shopping trip than would be the case with the LPA standard chargers.

Charging times are generally calculated by dividing the battery size of the vehicle by the charger power and the table below therefore provides an overview of the charging times of different types of electric vehicle using the LPA's minimum specification 7kW charging point and the 22kW fast chargers that are proposed as part of the scheme:

Vehicle	Battery Size	Charging Time (7kW Charger)	Charging Time (22kW Charger)
Nissan Leaf	56kw	8 hours	2h 30m
Hyundai Kona	64kW	9 h 6 m	2h 54m
Volkswagen ID4	77kW	12h 48m	3h 30m

The above table therefore clearly demonstrates that charging times are significantly reduced with the proposed 22kW fast chargers in comparison to the LPA's minimum specification 7kW chargers and will therefore ensure that customers are able to achieve a much greater level of charge in the duration of their shopping trip, which would not generally exceed 30 minutes, than would be achievable with a 7kw charger. By way of illustration, 12 No. 7kW charging bays (i.e. the LPA's policy requirement) could fully charge twelve small electric vehicles (56kW) within an eight hour period, whereas the proposed 22kW chargers could fully charge 19 vehicles across the same period. On this basis, there is clearly sufficient justification to provide a lower number of bays in view of the higher specification 22kW chargers proposed.

Moreover, Lidl recognise that demand for EVCP is likely to increase over time as the sale of new petrol and diesel cars is phased out from 2030. On this basis, 'passive infrastructure' will be provided to allow fast charging EVCP bays to be provided across 20% of the total number of parking spaces across the site as demand arises, as illustrated on the below extract from the submitted Proposed Site Plan.



The level of active and passive EVCP space provision to serve the proposed development is therefore considered to be entirely appropriate and will clearly support wider objectives of

promoting sustainable transport choices, reducing emissions and supporting the transition towards a zero emission transport future.