

Boyd Brothers

(Fauldhouse) Ltd.

Electric Vehicle & Active Travel
Infrastructure **Specialists**

**PART OF THE
BRITISH ENGINEERING
SERVICES GROUP**



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ENGINEERING
SERVICES GROUP**

EV Infrastructure, what's involved?

Matthew MacDonald, Head of Commercial

06/10/22

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An aerial photograph of a large-scale construction project for an electric vehicle charging station. The site is a paved parking lot with several charging stations already installed and others under construction. Workers in orange safety vests are visible on the ground. In the background, there are trees, a road with a car, and a large body of water with a ship. The sky is clear and blue. A red zigzag line graphic is overlaid on the image, starting from the left edge and ending on the right edge, with a peak in the center.

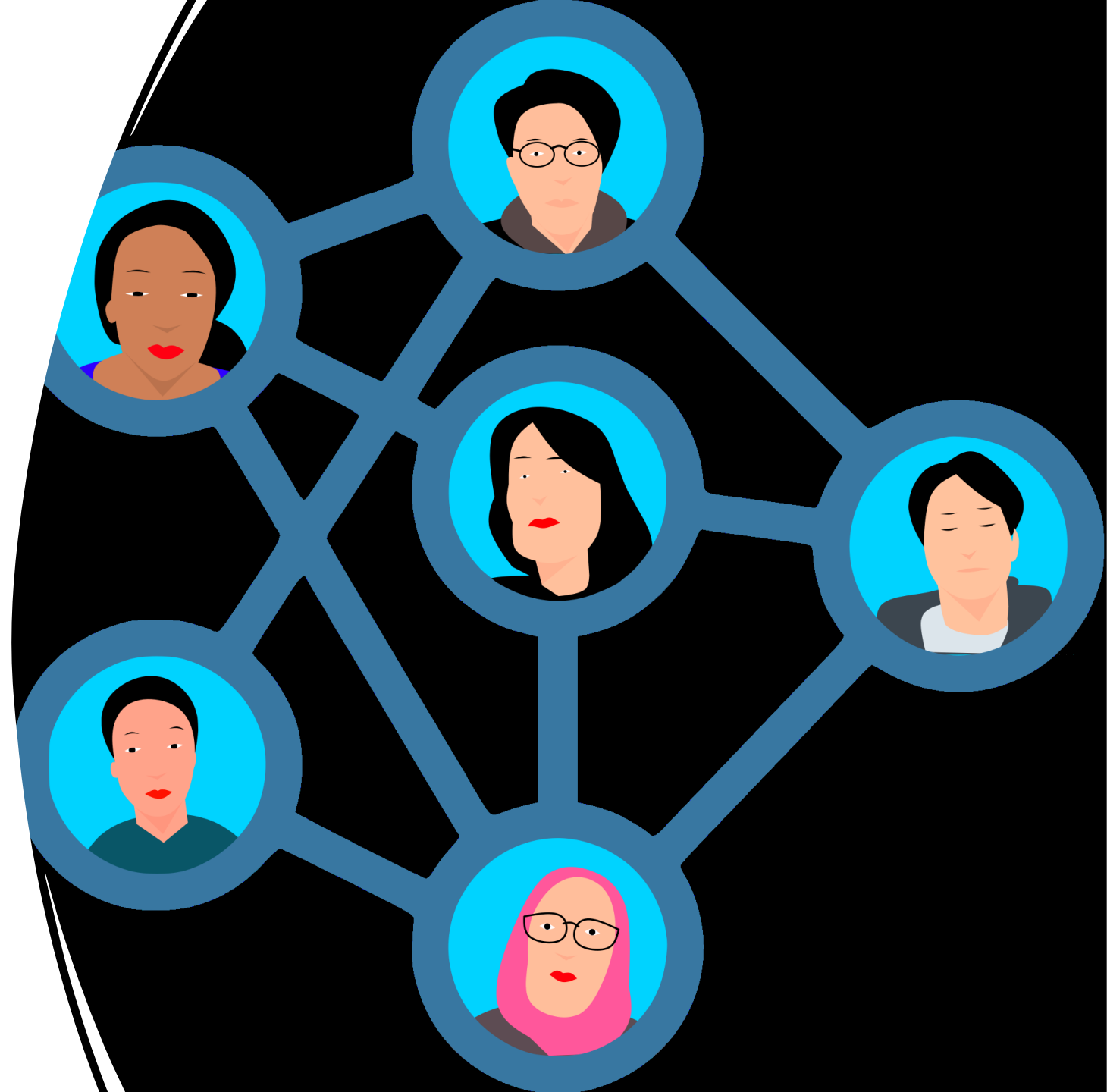
Electric vehicle and active travel infrastructure specialists

A bit about us



Engagement

- Loss of spaces 😞
- Reasonable adjustments
- Active travel

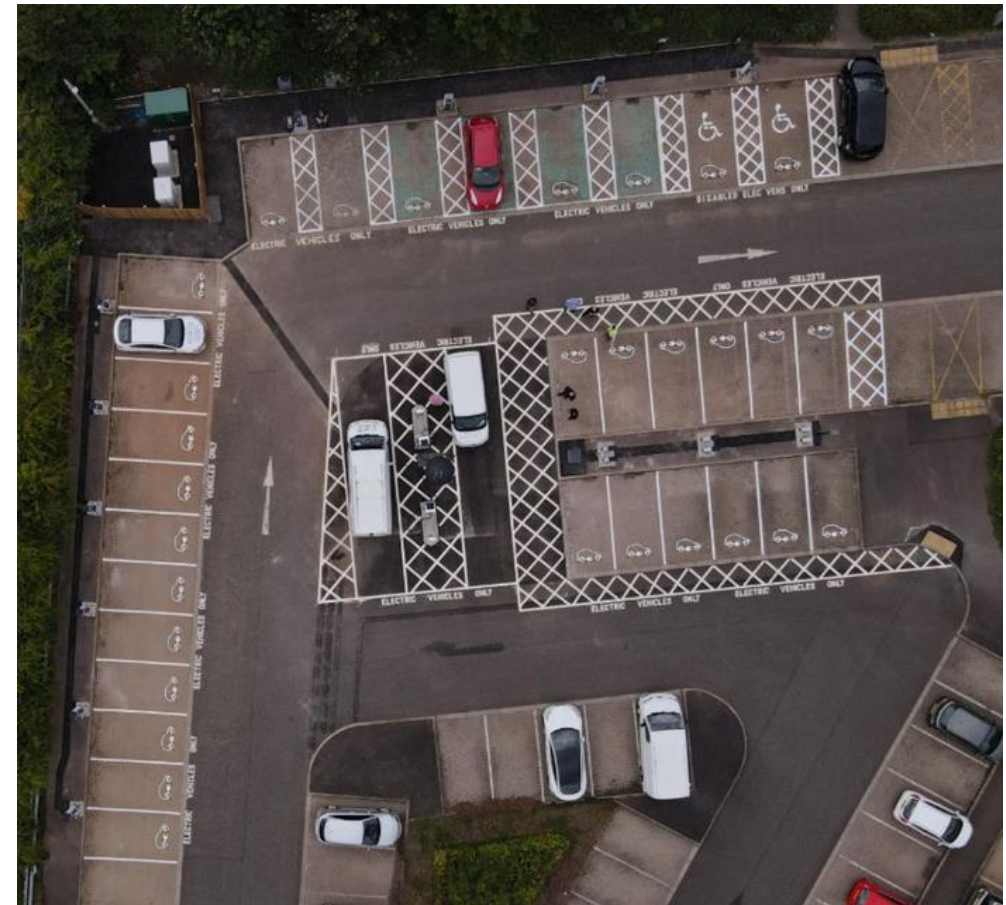




- Balance Hubs with On-street
- Trip generators
- EV ownership
- Public housing
- Accessibility

Hubs: summary

PROS	CONS
Can include a range of charger types	Large initial investment
Can utilise derelict/brownfield sites	Additional maintenance burden, the roads and public realm, not the chargers...
People understand the concept	Require space
Addresses issues for people without off-street parking	Often require new power supply
Can be designed to accommodate a range of vehicle sizes	Need services near by for people waiting for a charge
White-listing can be effective in targeting key users	
Can include Solar PV + Storage	



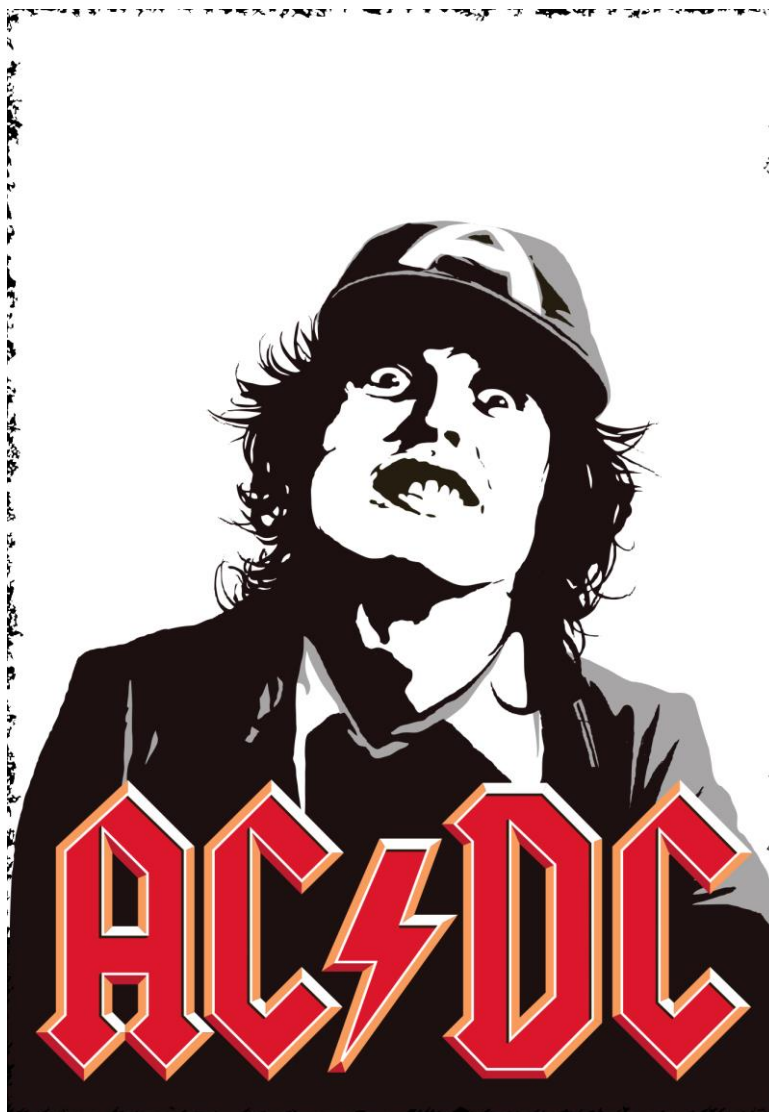
On Street: summary



Pros	Cons
Use existing spaces	Use existing spaces
Can be relatively low cost	Can negatively impact public realm
Can be sited closer to trip generators	Often require TM to install
Often lower power, long stay	Tracking`

Civil Engineering





Tracking

- Power supply
 - TM
- Surface type
- Cable size



Electrical Engineering

- Power supply, review power required for EV chargers but consider future proofing
- DNO
- Battery storage and energy generation, solar/wind
- DLM and load balancing
- Institute of Engineering and Technology Code of Practice & BS7671 regulations
- DCC Substation, excavated site HV Ring for that area of site passed by site DNO were going to connect, when excavated the cables were 100mm beneath surface
- PU drawings essential but take with a pinch of salt



The future

- V2G
- Battery storage
- Hydrogen
- MaaS

**BACK
TO
THE FUTURE**





Thank you

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