Gareth Jones
ARCHITECTURE & PROJECT MANAGEMENT

Erection of three storey front extension to create 3 no. additional dwellings with associated alterations to car parking at 5 Cotton Hill, Manchester, M20 4XR

Approval Notice: 33107/FO/2022

Planning Condition 6.

Above-ground construction works shall not commence until details of the measures to be incorporated into the development to allow for the provision of electric vehicle charging points have been submitted to and approved by the City Council as Local Planning Authority.

The 3 EV charging points to be provided for the development will be secure by design compliant. "Secure by Design" (SBD) refers to protection against both physical theft/vandalism and cybersecurity (preventing unauthorized grid access or data breaches). This will be achieved by choosing certified smart chargers, safely positioning the unit, and installing lockable or cable-tethered options.

1. Physical Security

- **Lockable Sockets & Tethered Cables:** Tethered chargers (where the cable is permanently attached to the unit) lock securely to the vehicle while charging, making it harder for opportunistic thieves to steal the cable. If you choose an untethered version, look for units with mechanical locking mechanisms that immobilize the socket.
- **Tamper-Resistant Casings:** Ensure your charger is rated appropriately for your environment (minimum **IP54** for weather and dust protection) and features robust, impact-resistant casing, ideally constructed with flame-retardant polymers.
- **Positioning:** Mount the charger in a well-lit area on your driveway or in your garage, keeping it out of immediate, easy reach of public view or passing pedestrian traffic.

2. Cybersecurity & Digital Protection

- **Encrypted Smart Charging:** Modern regulations dictate that smart chargers feature encrypted communication. Ensure your device uses secure Wi-Fi or cellular connections to prevent hacking or malicious data interception.
- **User Authentication:** Choose a model that requires user authentication (via a smartphone app, RFID card, or pin code) before power flows. This ensures that unauthorized individuals cannot use your electricity.
- **Over-the-Air (OTA) Updates:** Buy a charger that supports OTA software updates so the manufacturer can patch future security vulnerabilities as they arise.

3. Electrical & Regulatory Compliance (UK)

- **Authorised Installers:** By law in the UK, installations must comply with BS 7671 IET Wiring Regulations. Always use a **Competent Person** registered with an SBD-approved scheme (e.g., NICEIC, STROMA) and ensure they are OZEV-approved.
- **DNO Notification:** Your installer must legally notify the Distribution Network Operator (DNO) so they can verify your main cutout fuse is safe to handle the additional electrical load (typically drawing an extra 32 Amps).

Secure by Design Approved Chargers

The chargers to be supplied will be one of the following or similar and approved, they will have built-in physical and digital security features tailored for domestic installations:

- **Hypervolt Home 3 Pro:** Features dynamic load management and comprehensive app locking.

- **Wallbox Pulsar Plus:** Offers excellent scheduling, app PIN protection, and smart locking to manage access remotely.

- **Simpson & Partners Home Series:** Known for hardware-level microchip intelligence and advanced digital security features