Project Title :	Interchange 26 - Bradford	**Project Ref :**	148
Main Contractor :	Winvic Construction		

TECHNICAL SUBMISSION

For

EV Charging

At

I26 - Bradford

ISSUE STATUS :	
PRELIMINARY	
APPROVAL	✓
CONSTRUCTION	

Document Reference : *P21025-LUR-XX-XX-TS-E-011*

Revision No. : *01*

Issue Date : *28.02.2022*

TECHNICAL SUBMISSION

Project Title :	Interchange 26 - Bradford	**Project Ref :**	148
Main Contractor :	Winvic Construction		

Main Contractor / Client : **Winvic Constrution**
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TECHNICAL SUBMISSION ISSUE REGISTER

Document Ref : P21025-LUR-XX-XX-TS-E-011

Technical Submission For : EV Charging

Rev	Issue	Date	Issued by
01	Issued for Comment	28.02.22	J. Wensley

Prepared by :	**John Wensley** **Senior Design Engineer**
Signed :	
Checked by :	**Ross Cheeseman** **Director**
Signed :	

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1.0 Introduction

This technical submission has been prepared to provide details of the proposed EV Charging to be installed to the car park.

The following information has been provided by our suppliers to give an overview of the equipment proposed.

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2.0 Proposal

The table below details the Vehicle Chargers proposed across the site at the i26 Bradford.

We have chosen Rolec to provide all charging points throughout as detailed below.

Manufacturer / Range	Location	Image
Rolec Quantum	Car Parks as detailed on external layouts	

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3.0 Manufacturers Literature

The following pages provide detailed manufacturers literature on each of the above ranges.

QUANTUM:EV

EV OPENCHARGE

Type 2, Mode 3 Charging Socket(s)
(GPRS/Ethernet Communication)
3.6kW or 7.2kW

ROLEC EV

MANUFACTURED IN THE UK

OCPP COMPLIANT

Unit shown: QUANTUM:EV
EV OPENCHARGE
2way Socket (Type 2) Charging Pedestal

The QUANTUM:EV OPENCHARGE pedestal is a sophisticated and resilient EV charging point, providing a combination of durability and impeccable design for all locations.

This ultra-modern OCPP compliant pedestal can offer a simple pay-to-charge solution via the EV driver's smartphone and/or RFID card/fob authorisation through any chosen OCPP back office management system.

Available in both 1way or 2way versions, providing Mode 3 fast charging in 3.6kW or 7.2kW speeds, this unit features a built in GPRS antenna and Ethernet connection.

PRODUCT FEATURES

- Mode 3 (IEC 61851-1) fast charging
- Available in 1way / 2way & 3.6kW (16A) / 7.2kW (32A) versions
- Type 2 (IEC 62196) charging socket(s) c/w security hatchlock(s)
- OCPP 1.6 compliant (Can integrate with any back office)
- Remote firmware updates
- Built-in RFID reader
- Photocell controlled LED amenity lighting head
- Surface or root mountable
- Built-in AC overload & fault current protection
- Built-in DC sensitive protection
- Built-in LED charging status indicator socket halo(s)
- Built-in class 1 **MID** compliant kWh meter(s)
- EV driver Pay-to-Charge smartphone integration
- OLEV Grant Fundable under the Workplace Charging Scheme
- Easy to install & maintain
- IP Rated, UV stabilised, fire retardant, IK10 impact & corrosion resistant

Chargepoint Management

Unless otherwise stated at time of order, EV OPENCHARGE units will be automatically programmed to operate via the Rolec EV CHARGE.ONLINE back office management system.

See the EV CHARGE.ONLINE Overview for details

OCPP 1.6 Compliant

Grant Fundable

GPRS / Ethernet Connectivity

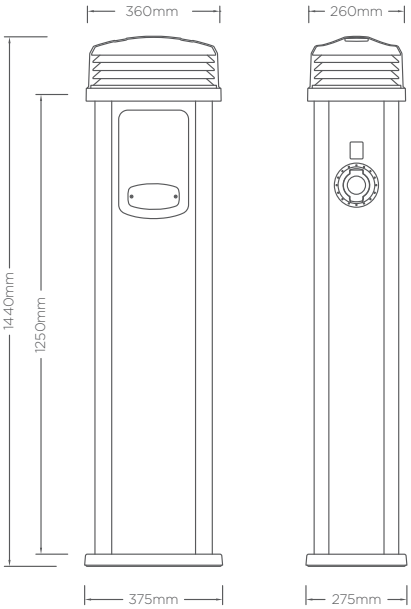
Branding & Colour Options Available

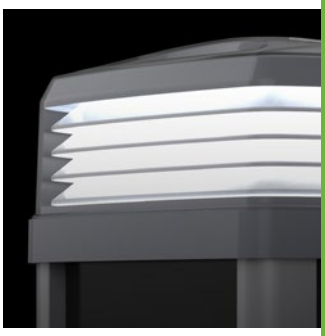
LED Amenity Lighting

IP Rated & UV Stabilised

SPECIFICATIONS

Product Code	OCPP0410	OCPP0411	OCPP0420	OCPP0421
Charging Socket(s)	1x Type 2 (IEC 62196)		2x Type 2 (IEC 62196)	
Rated Output	3.6kW	7.2kW	3.6kW	7.2kW
Rated Current	16A	32A	16A	32A
Charge Protocol	Mode 3			
Input Voltage	230V AC/50Hz (Single Phase)			
AC Overload Protection	1x 20A	1x 40A	2x 20A	2x 40A
AC Fault Protection	30mA			
DC Fault Protection	6mA			
Cable Terminals	3 x 35mm			
Communications	GPRS (Recommended signal strength of 14 CSQ or above) RS232 ethernet connection			
Standby Consumption	Approx 0.4kWh per day			
Certifications & Compliances	EV Charging Compliance – EN 61851-1:2011, BS EN 62196-1:2014, BS EN 62196-2:2017 Wiring Regulations – BS 7671 EMC Compliance – EN 301 489-01 V2.2.0, EN 301 489-03 V2.1.1, EN 301 489-52 V1.1.0, EN 50470-1:2006 (1x Skt) or EN 55032:2012 (2x Skts) Spectrum/Telecom – EN 301 511 V9.0.2, EN 300 330 v2.1.1 RED – 2014/53/EU – EN 62311:2008 Safety Compliance (LVD) – 2014/35/EU Impact Rating – IK10 (BS EN 62262) Environmental Protection – Enclosure IP66, Socket IP54 (BS EN 60529:1992+A2:2013)			
Dimensions	382.5mm x 1440mm x 262.5mm (W x H x D)			
Substructure Material	2.5mm thick, high quality 6063 extruded aluminium with a 25 micron hard anodised protective cosmetic finish			
Lens Material	High impact resistant 3mm polycarbonate			
Base Material	High impact resistant, heavy-duty 5mm polycarbonate			
Lid/Sandwich Material	High impact resistant polycarbonate			
Operating Temperature	-30°C to +50°C			
Standard Body Colour	Black (Other colours available upon request)			





EV OPENCHARGE

- Smart charging control via mobile phone and/or RFID
- Can integrate with any chosen OCPP back office management system
- Open Charge Point Protocol 1.6 (OCPP 1.6)
- On board GPRS modem with antenna
- Ethernet connection

OPTIONS & ACCESSORIES

- RFID card/fobs
- Load Manager system (electrical distribution management)
- Corporate branding (colours, logo badge, etc.)
- Galvanised steel ground mounting base
- Protection barriers
- Charge point signage
- EV charging cables (Type 1 to Type 2 or Type 2 to Type 2)

OCPP COMPLIANT

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4.0 Calculations

Refer to previously issued calculation submission

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5.0 Drawings

Please refer to the following layout for details.

- P21025-LUR-EX-XX-DR-E-6302 - External Lighting & Power Layout