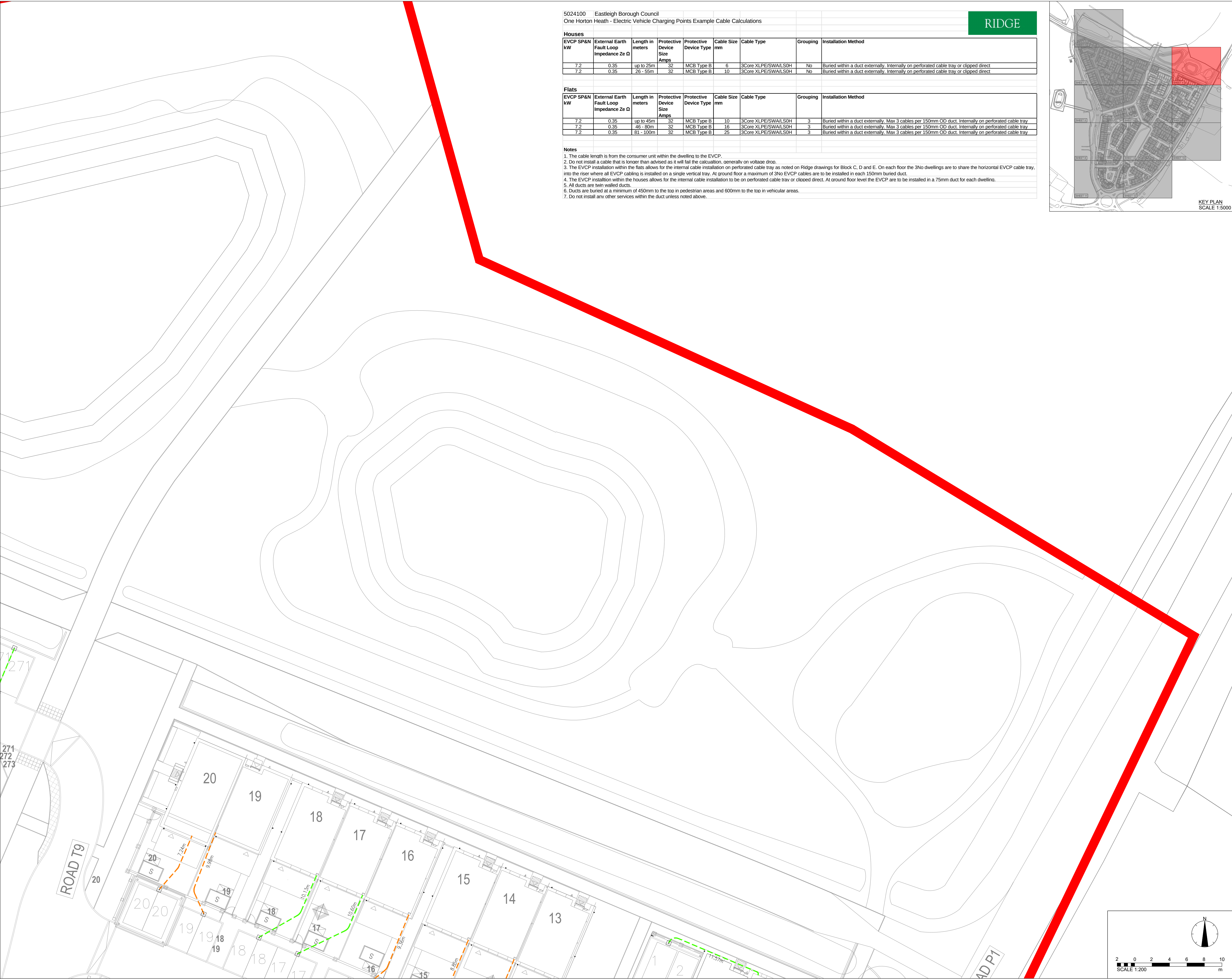




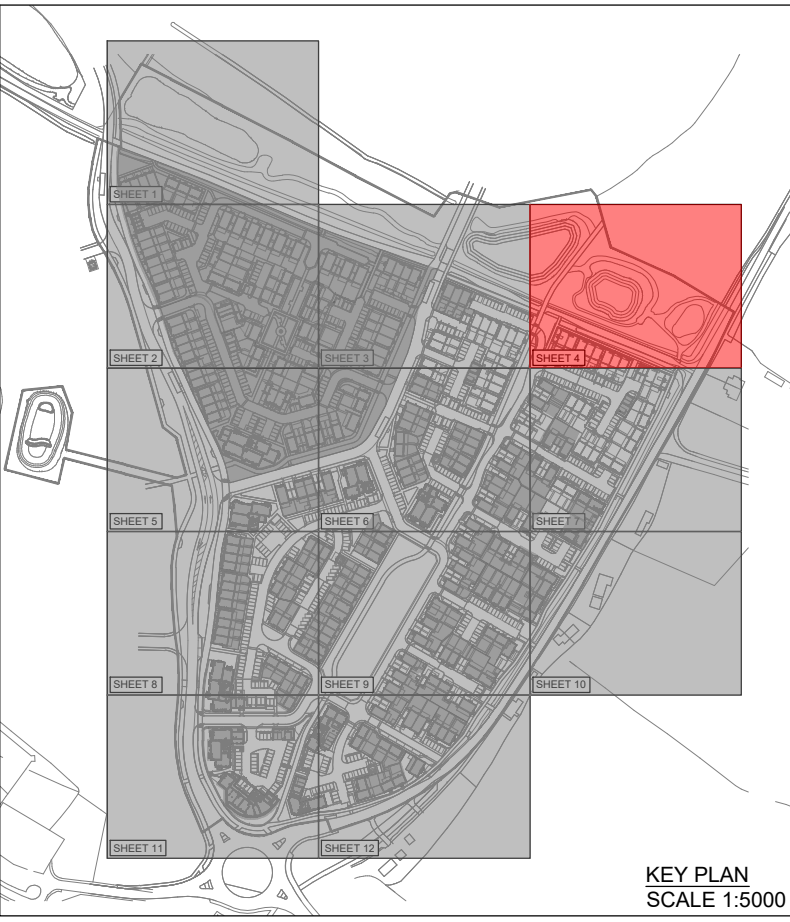
5024100 | Eastleigh Borough Council
One Horton Heath - Electric Vehicle Charging Points Example Cable Calculations

RIDGE

Houses								
EVCP SPAN kW	External Earth Fault Loop Impedance Ze Ω	Length in meters	Protective Device Size Amps	Protective Device Type	Cable Size mm	Cable Type	Grouping	Installation Method
7.2	0.35	up to 25m	32	MCB Type B	6	3Core XLPE/SW/LSOH	No	Buried within a duct externally. Internally on perforated cable tray or clipped direct
7.2	0.35	26 - 55m	32	MCB Type B	10	3Core XLPE/SW/LSOH	No	Buried within a duct externally. Internally on perforated cable tray or clipped direct

Flats								
EVCP SPAN kW	External Earth Fault Loop Impedance Ze Ω	Length in meters	Protective Device Size Amps	Protective Device Type	Cable Size mm	Cable Type	Grouping	Installation Method
7.2	0.35	up to 45m	32	MCB Type B	10	3Core XLPE/SW/LSOH	3	Buried within a duct externally. Max 3 cables per 150mm OD duct. Internally on perforated cable tray
7.2	0.35	46 - 80m	32	MCB Type B	16	3Core XLPE/SW/LSOH	3	Buried within a duct externally. Max 3 cables per 150mm OD duct. Internally on perforated cable tray
7.2	0.35	81 - 100m	32	MCB Type B	25	3Core XLPE/SW/LSOH	3	Buried within a duct externally. Max 3 cables per 150mm OD duct. Internally on perforated cable tray

- Notes
1. The cable length is from the consumer unit within the dwelling to the EVCP.
 2. Do not install a cable that is longer than advised as it will fail the calculation, generally on voltage drop.
 3. The EVCP installation within the flats allows for the internal cable installation on perforated cable tray as noted on Ridge drawings for Block C, D and E. On each floor the 3No dwellings are to share the horizontal EVCP cable tray, into the riser where all EVCP cabling is installed on a single vertical tray. At ground floor a maximum of 3No EVCP cables are to be installed in each 150mm buried duct.
 4. The EVCP installation within the houses allows for the internal cable installation to be on perforated cable tray or clipped direct. At ground floor level the EVCP are to be installed in a 75mm duct for each dwelling.
 5. All ducts are twin walled ducts.
 6. Ducts are buried at a minimum of 450mm to the top in pedestrian areas and 600mm to the top in vehicular areas.
 7. Do not install any other services within the duct unless noted above.



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DRAWING NOTES:

CDM REGULATIONS 2015

SIGNIFICANT OR NON-OBVIOUS RISKS AND RISKS WHICH ARE DIFFICULT TO MANAGE ARE IDENTIFIED ON THIS DRAWING USING THE FOLLOWING SYMBOL, IDENTIFIED TO THE RIGHT WITH BRIEF ACCOMPANYING TEXT. FOR FURTHER DETAILS OF THE RISKS IDENTIFIED BY DESIGNERS, REFERENCE SHOULD BE MADE TO CDM HAZARD REGISTER.

EXTERNAL REFERENCES:

THIS INFORMATION & RIDGE & PARTNERS LLP CIVIL 3D & ASSOCIATED 3D OUTPUTS ARE BASED UPON THE FOLLOWING INFORMATION FROM THE DESIGN TEAM

ARCHITECT REFERENCE:

- **AXIS MASON DRAWING No. 4101-AXM-00-00-DR-A-0500 REV. T3** (DATED 11/09/2023)

SURVEY REFERENCE:

- **SURVEY DWG No. ENC/ONE-HH-FEB21** (FEBRUARY 2021)

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THIS INFORMATION IS CURRENT PRIOR TO CONSTRUCTION

LEGEND

EV DUCT ROUTE 0-5m	HOUSES - 100mm DUCT
EV DUCT ROUTE 5-10m	FLATS - 150mm DUCT FOR UP TO 3 CABLES PER DUCT.
EV DUCT ROUTE 10-15m	WHERE MORE THAN 3 UNITS SERVED PER RUN AN ADDITIONAL DUCT IS TO BE PROVIDED
EV DUCT ROUTE 15-20m	FLATS - 150MM DUCT FOR UP TO 3 CABLES PER DUCT
EV DUCT ROUTE 20-25m	MORE THEN 3 UNITS SERVED PER RUN AN ADDITIONAL DUCT IS TO BE PROVIDED
EV DUCT ROUTE 25-30m	
EV DUCT ROUTE 30-35m	
EV DUCT ROUTE 35-40m	

SACRIFICIAL EV CHARGING POST SLAB 100mm THICK. DUCT TO BE TURNED UP TO THE CENTRE OF THE SLAB AND CAPPED OFF AND THE SLAB CAST IN SITU.

PROPOSED ATTACH TO WALL

C01	INITIAL ISSUE	09/04/2025	JF
REV	DESCRIPTION	DATE	DRAWN

ORIGINATOR:



1 ROYAL COURT
KINGS WORTHY
WINCHESTER
SO23 7TW

TEL: 01962 834400
WWW.RIDGE.CO.UK

CLIENT:



IN ASSOCIATION WITH:

PROJECT:
**PROPOSED RESIDENTIAL DEVELOPMENT
ONE HORTON HEATH
FIRST RESIDENTIAL PARCEL**

TITLE:
**EV DUCT ROUTE
SHEET 4**

TECH:	CSE: Chris Livers	ICSE:	SCALE: 1:200	@ A1
JF	11m reviewed 10m 10/04/2025	11m reviewed 10m 10/04/2025	INITIAL ISSUE: 09/04/2025	

STATUS:
A5-SUITABLE FOR CONSTRUCTION

DRAWING No:	PROJECT:	ORG:	ZONE:	LEVEL:	TYPE:	ROLE:	NUMBER:	REV:
5015560	RDG	Z01	ST	DR	C	0524	C01	