



# CARDO

## Roofing Case Study

<b>PROJECT</b>	<b>OVERVIEW</b>
<b>CLIENT</b>	Swindon Borough Council
<b>LOCATION</b>	Throughout Swindon
<b>SECTOR</b>	Social Housing: Primarily Street Properties
<b>SCOPE</b>	Roof Tiling Replacement and Solar PV Installation - 114 properties to date
<b>VALUE</b>	£3.7m
<b>TIMESCALE</b>	March 2024 – February 2027



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## Project Details

Cardo was contracted to supply and fit new pitched roof tiles and solar PV systems to Swindon Borough Council's housing stock, primarily comprising street properties, using:

- Wienerberger Sandtoft concrete interlocking tiles (Calderdale Edge, Double Roman, Lindum, Danum)
- GSE In-Roof PV mounting systems
- Jinko Tiger Neo 430W Mono All Black solar panels
- Solax X1 Hybrid G4 Inverters (single phase, 3.7kw)

Pre-start meetings with our client and solar PV installers greatly assisted us with planning from the outset. We received a full property list at the start of each year, which facilitated programming and sequencing, as well as allowing us to confirm subcontractor capacity and operational site locations based on stock distribution.



## Scope of Works

Our team conducted a forward survey programme to determine tile types and specifications, and refurbishment & demolition surveys were also conducted in advance to identify any asbestos. Materials were pre-ordered to mitigate lead times, ready for calling off when works to each property commenced, and sufficient stock was maintained at our site compound throughout to guarantee availability for each week's work.

The coordination of our roofing works with subcontracted trades (scaffolding, asbestos removals, and solar PV installation) has been a crucial aspect of this project's success. Cardo's site manager coordinated works with key subcontractor representatives daily and weekly, providing updates on progress and the anticipated timescales at each property, including dates for scaffold erection, PV installation, and scaffold striking, allowing our subcontractors to effectively plan resources.

Properties were occupied throughout the works, and a Communication Plan was agreed along with procedures to engage, consult, and keep the residents fully informed, with support from our RLO to identify any special requirements or needs.



## The Results

*"I couldn't be happier with the work: very kind, professional, and finished very quickly."*

- Downton Road resident

Outcome	Key Result
<b>Programme Delivery</b>	Continued successful execution of this large-scale roofing contract, ahead of schedule – two years into a five-year framework, Cardo is already working on properties designated for its fourth year.
<b>Energy Efficiency</b>	An annual generation of 2,923 kWh is estimated from the 3.48 kWp solar PV systems installed - a strong yield for climatic conditions in the UK.
<b>Client Satisfaction</b>	Workmanship quality has been a key driver of success, achieving <b>98.8%</b> satisfaction with the finished product. Daily quality inspection forms were completed via our works management system, and manually tailored to reflect manufacturer installation instructions for both roofing and solar PV, ensuring their accuracy.
<b>Resident Satisfaction</b>	Resident satisfaction levels to date average <b>97.2%</b> . Any issues raised via our surveys have been quickly relayed to the relevant personnel and resolved to drive continuous improvement.
<b>Value Delivered</b>	Successful management of the <b>£3.7m budget</b> , demonstrating cost-effective, large-scale delivery for the local authority.