

Design and Access Statement

Solar PV Carports, Abermorlais Car Park, Merthyr Tydfil

Full planning permission Application Reference: PP-14867447
Applicant: Merthyr Tydfil County Borough Council



Document Control

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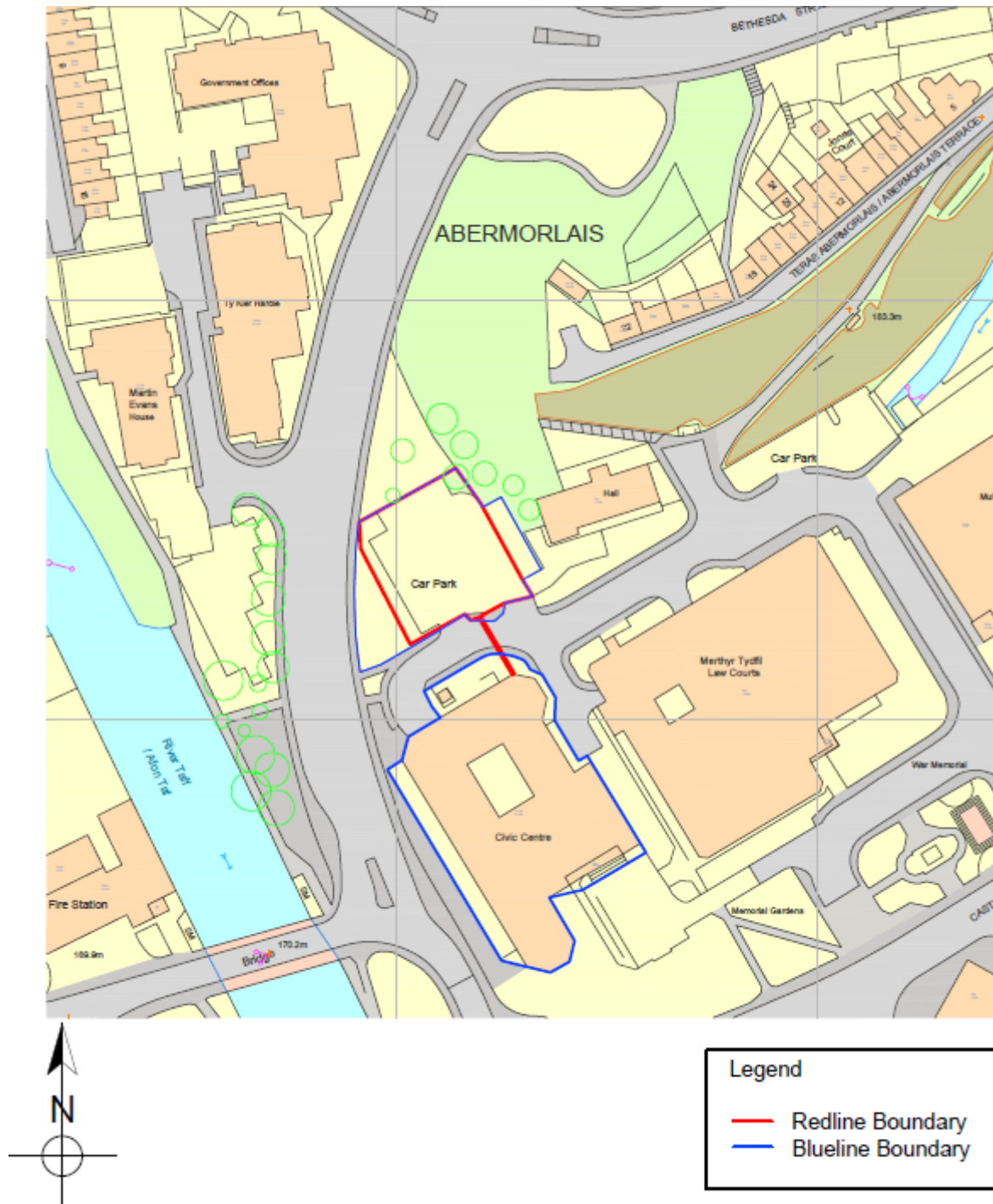
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1 Introduction

This Design and Access Statement (DAS) has been prepared to support a planning application for the installation of solar photovoltaic (PV) carports at **Abermorlais Car Park, Civic Centre, Castle Street, Merthyr Tydfil, CF47 8AN**.

The application site is identified on the submitted Location Plan (Drawing No. ABERC_P70-1) and comprises an existing car park serving the Civic Centre.



This DAS has been prepared in accordance with Welsh planning requirements and provides a clear explanation of the design principles, site context, and access considerations of the proposed development.

2 Site Description and Context

The site comprises an existing surfaced car park located within the urban centre of Merthyr Tydfil.

The surrounding area is characterised by:

- Civic and public buildings, including the Civic Centre and Law Courts
- Commercial and town centre uses
- Associated infrastructure including roads, footways and parking areas

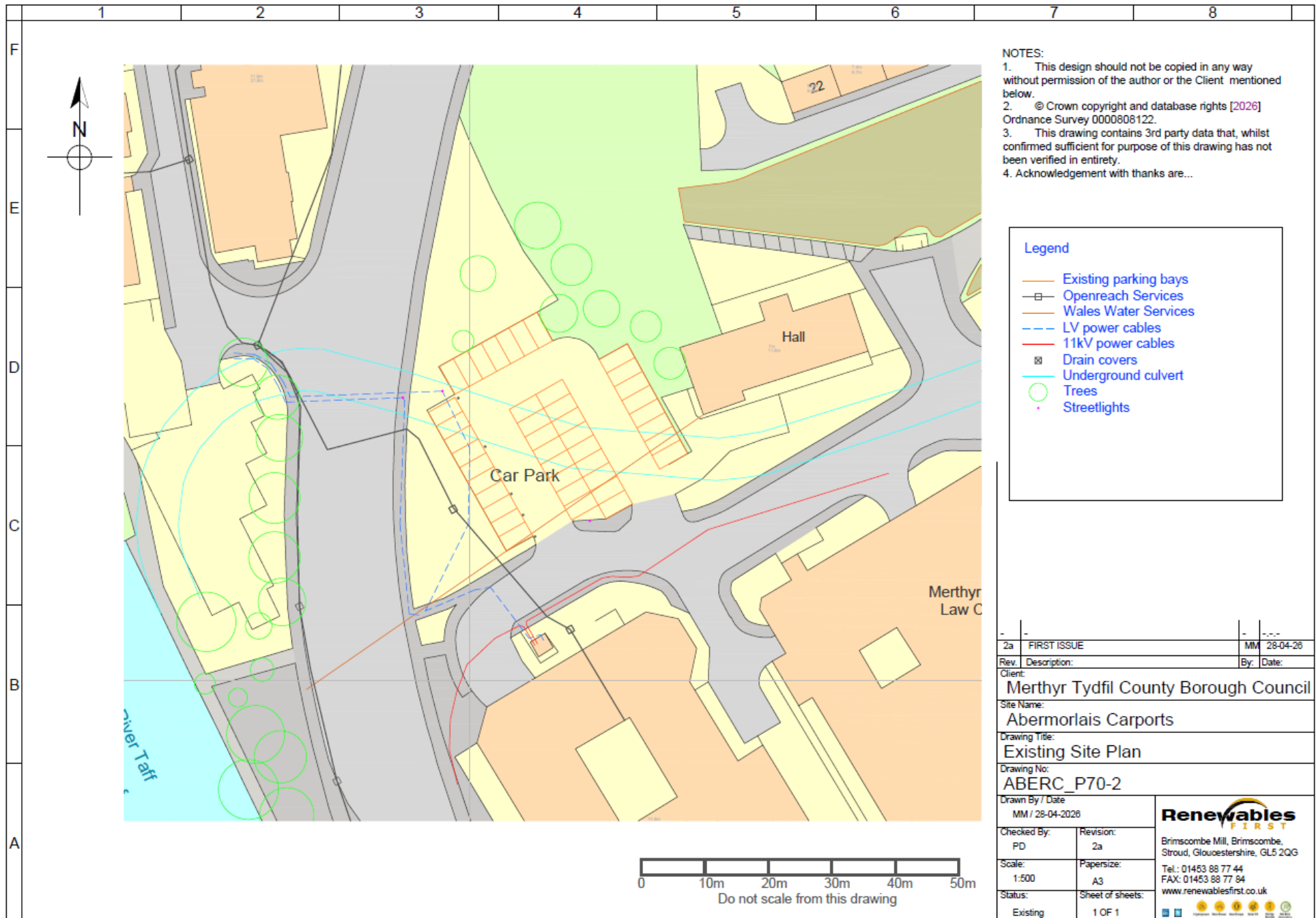
The character of the area is therefore **predominantly urban and developed**, with hardstanding and built form dominating.

The Existing Site Plan (Drawing No. ABERC_P70-2) shows the current layout, including:

- parking bays
- drainage features
- underground culvert
- services and utilities

The site is not located within a Conservation Area and is approximately **200 m from the Town Centre Conservation Area**. The **nearest listed building is over 190 m away**, and there are no heritage assets within the immediate setting of the site.

There are no trees within the footprint of the proposed development.



3 The Proposed Development

The proposal comprises the installation of solar PV carports over an existing car park, as shown on the Proposed Site Plan (Drawing No. ABERC_P70-3).

Key elements include:

- One single-row cantilever carport
- One double-row cantilever carport
- Associated electrical infrastructure (feeder pillar and cabling)

The carports will:

- cover approximately 30 parking bays
- have a total canopy area of approximately 485 m²
- have a maximum height of 4.262 m
- provide vehicle clearance between 2.58 m and 3.604 m

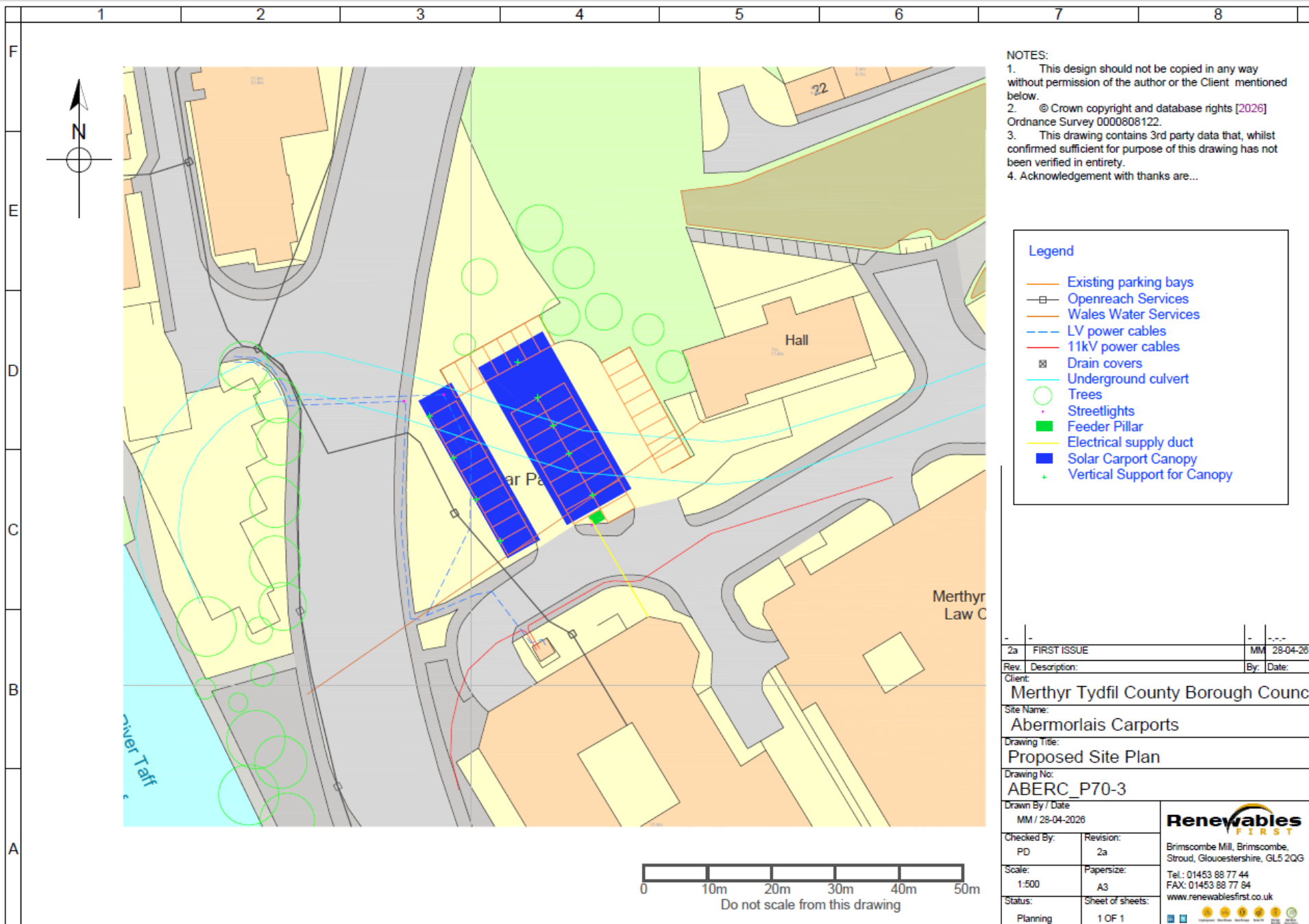
The structures are formed from galvanised steel, supporting dark blue-black PV panels with black frames.

The proposal results in the loss of one parking space, which has been agreed with the site operator.

The use of cantilever structures avoids side columns adjacent to vehicles, improving usability and reducing visual clutter. Manufacturer examples are provided within the supporting brochure.



Similar double-row solar carport structure to that proposed in this application. The single-row carport also proposed is essentially one-half of what is shown for the double-row.



4 Planning Policy Context

The development aligns strongly with national and local planning policy.

Planning Policy Wales (Edition 11)

PPW11 places strong emphasis on:

- decarbonisation
- renewable energy generation
- climate resilience

The proposal directly supports:

- Chapter 5 (Productive and Enterprising Places)
- Chapter 6 (Distinctive and Natural Places)
- Chapter 3 (Strategic and Spatial Choices)

by delivering on-site renewable energy within an existing urban location.

Future Wales: The National Plan 2040

Future Wales identifies the need to:

- maximise renewable energy generation
- support low carbon infrastructure
- prioritise development within existing settlements

The proposal represents:

- efficient use of previously developed land
- integration of renewable energy within existing infrastructure

Local Development Plan (Merthyr Tydfil CBC)

The proposal accords with local development plan policies supporting renewable energy development and sustainable design within settlement boundaries including:

- sustainable design
- renewable energy development
- efficient land use

The proposal is consistent with policies supporting:

- low carbon energy generation
- development within settlement boundaries
- use of brownfield land

5 Design Principles

Layout

The layout has been carefully designed to:

- integrate within the existing parking arrangement
- maintain circulation routes
- minimise disruption to existing use

The arrangement of single and double-row carports reflects:

- the geometry of the site
- existing parking configuration

Scale and Appearance

The scale of the development is appropriate to the site context.

Key characteristics:

- maximum height comparable to lighting columns and urban infrastructure
- open-sided structure reduces visual mass
- lightweight steel frame

The PV panels are:

- dark blue-black in colour
- low reflectivity

The appearance is consistent with modern infrastructure within an urban civic setting.

Visual Impact

The development is located within an enclosed urban environment and is not prominent in wider views. The scale and form of the development are consistent with typical car park infrastructure and do not appear incongruous within the urban town centre context.

A Glint and Glare Assessment confirms:

- no glint or glare impacts on receptors
- no mitigation required

Overall, visual impact is considered low and acceptable.

6 Access and Movement

There will be:

- no change to site access
- no change to circulation routes

The development maintains:

- existing vehicle movements
- safe access arrangements

Vehicle clearance heights ensure:

- continued usability for cars and small vans
- alternative uncovered spaces remain available for taller vehicles

No disabled parking spaces are affected.

7 Drainage and Sustainable Drainage Systems (SuDS)

The development does not materially increase impermeable area. Surface water runoff from the carport canopies will be managed via a Sustainable Drainage System (SuDS).

A linear attenuation / filter trench is proposed within the adjacent grassed area, receiving runoff from both carport structures.

Detailed design will be undertaken and approved by the SuDS Approval Body (SAB) in accordance with Schedule 3 of the Flood and Water Management Act 2010 and the Welsh Government Statutory SuDS Standards.

It is anticipated that SAB approval will be progressed in parallel with the planning application. A planning condition is proposed to secure SAB approval prior to commencement.

8 Flood Risk

A Flood Consequences Assessment (FCA) has been prepared in support of the application.

This confirms:

- **the site lies within Flood Zone 1 (low risk)**
- the development is appropriate

The proposal:

- does not alter ground levels
- does not displace floodwater
- will not increase flood risk elsewhere

The open structure ensures flood flows are not obstructed.

9 Ground Conditions and Constraints

The site includes:

- areas of made ground associated with historic culverting of Nant Morlais
- an underground culvert beneath the site

Foundation design will account for these constraints.

A ground investigation is proposed, including:

- trial pits
- plate load testing

Pad foundations are anticipated (approx. 2.1 m x 2.1 m x 1.05 m).

A CON29M report confirms:

- **no coal mining risk at the site**

Existing services have been identified and will be protected during construction.

10 Energy and Sustainability

The development will deliver:

- 101.5 kWp installed capacity
- 90 kW AC output
- ~92.8 MWh annual generation

Approximately:

- **80% of electricity will be consumed on-site**
- remainder exported to grid

Carbon savings are estimated at:

- **17.94 tonnes CO₂ per annum**

The development contributes directly to:

- decarbonisation of council operations
- reduction in grid demand

11 Ecology and Environmental Considerations

The site is existing hardstanding.

The proposal:

- does not require vegetation removal
- has no ecological impact

Noise and air quality impacts are limited to:

- short-term construction activity

No operational impacts are anticipated.

12 Construction and Programme

Construction will be undertaken in phases.

Key elements:

- foundation works: approx. 8–10 days
- structure and solar PV installation: approx. 8–10 days
- electrical works: minimal disruption

The car park will:

- remain operational where possible
- experience temporary partial closures only

13 Conclusion

The proposed development represents a **sustainable and policy-compliant scheme** that:

- delivers renewable energy within an existing urban site
- supports Welsh Government decarbonisation objectives
- maintains existing site function and access
- has minimal environmental and visual impact

The proposal is therefore considered to be **fully compliant with national and local planning policy** and acceptable in planning terms. The development represents an appropriate and sustainable form of development on previously developed land and should be supported.