

14.0 Access and Inclusive Design

14.4 Circulation and Wayfinding

The proposed development has been designed in accordance with the Building Regulations - Approved Documents Part M and Part B.

The horizontal circulation within the office is level throughout. Where gradients have been required externally around the office they have been designed to be lower than a 1:20 gradient.

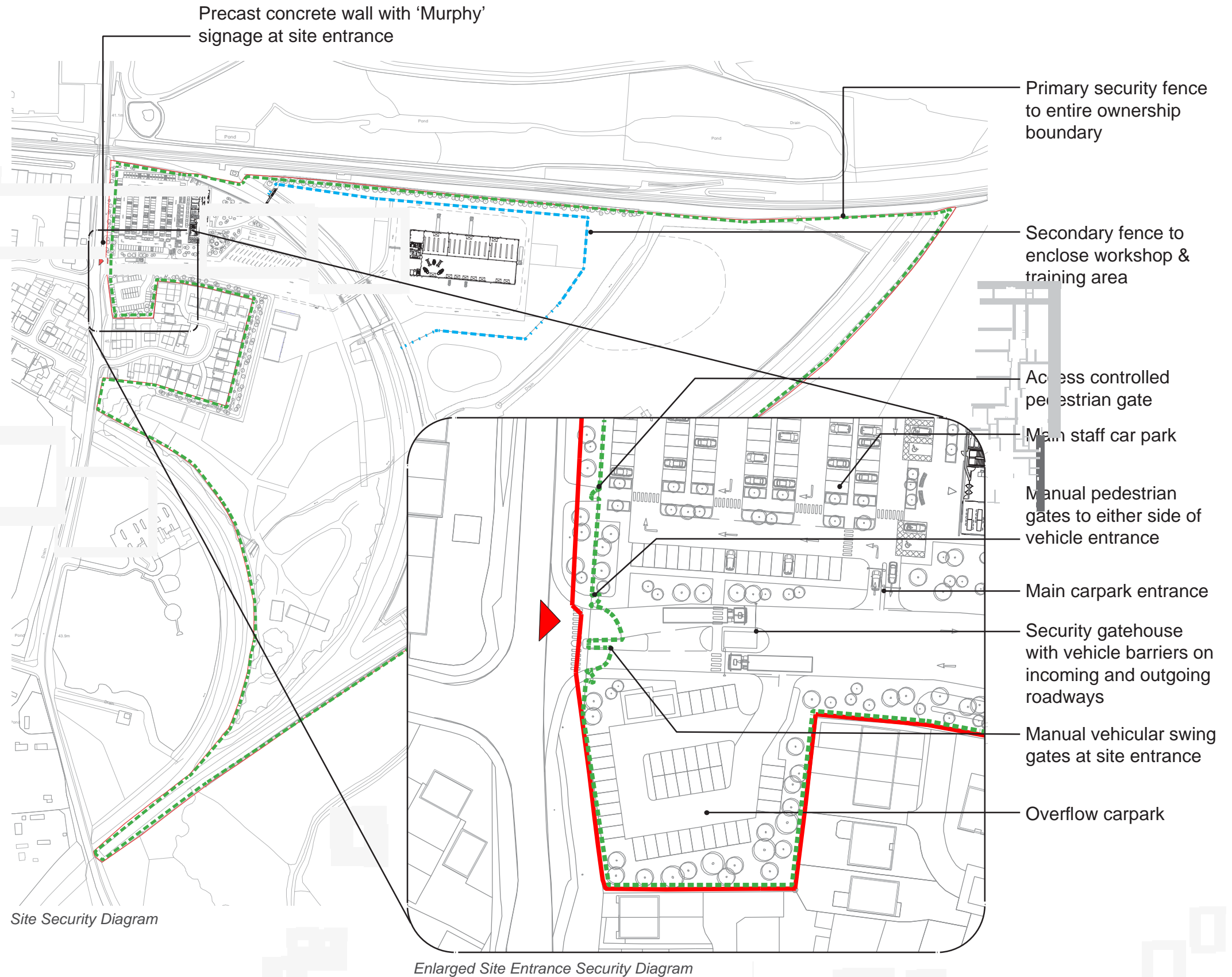
One lift in each new building will allow accessible vertical circulation. Lifts will be selected to maximise the opportunity for independent use by people with disabilities and will comply with the requirements of Building Regulations - Approved Document Part M.

A large Murphy branded sign will be positioned at the entrance for clear site legibility. Orientation signage will be provided in logical locations and sequence throughout the proposal. Signs will be identifiable against their background and will be of a suitable size.

14.5 Security

Due to the nature of Murphy's operations, valuable equipment will be stored on site. A secure perimeter fence will be installed around both the yard and car park to prevent unwanted access. Access through this perimeter fence will be controlled by lockable gates which will be locked outside of normal operating hours.

Vehicular access to the yard will be controlled by a security hut located at the entrance from Newark Road. Barriers to either side of the gatehouse will be fitted with ANPR, and the main pedestrian entrance gate will be access controlled.



On-Site Energy Generation

15.0 On-Site Energy Generation

Photovoltaic Panels

As part of Murphy’s long term energy strategy on site, photovoltaic (PV) panels are proposed to be installed to the roofs of both new buildings and across the car park.

The incorporation of PV systems in the design demonstrates Murphy’s commitment to sustainable energy generation. By integrating PVs on-site, the project aligns with environmental stewardship and energy efficiency goals.

The innovative design serves as a tangible demonstration of Murphy’s dedication to renewable energy sources. The PVs contribute to on-site electricity generation which can be used across all buildings and workshops on site, reducing the project’s carbon footprint and promoting environmental responsibility.

This strategic choice reflects Murphy’s commitment to creating a sustainable and resilient built environment. The PV array over the carparks is integral to the outward facing frontage onto Newark Road, fostering a balance between design aesthetics and ecological consciousness.

- PV Carport Canopies
- PVs to roofs [subject to coordination with rooflights and fall restraint systems]



Reference image: Photovoltaic Carport

Sustainability

16.0 Sustainability

16.1 Sustainability Strategy

The energy strategy has been developed using the ‘be lean, clean and green’ energy hierarchy which utilises a fabric first approach to maximise reduction in energy through passive design measures. Thoughtful use of thermal mass, insulation, and high-performance building materials helps regulate temperature and reduce the need for excessive heating or cooling.

Through the implementation of passive techniques, the buildings are not only minimizing their ecological footprint but also demonstrating a commitment to sustainable practices. This shift towards environmentally conscious design not only aligns with global efforts to combat climate change but also serves as a testament to the Murphy’s adaptability and responsibility in fostering a more sustainable future.

The layouts for both the workshop building and the office and training building have undergone extensive design development, focussing on creating internal spaces which are tailored to the required operations. Offices, social spaces and meeting rooms have been positioned to maximise daylight and minimise solar gain, thus reducing their reliance on mechanical heating and cooling.

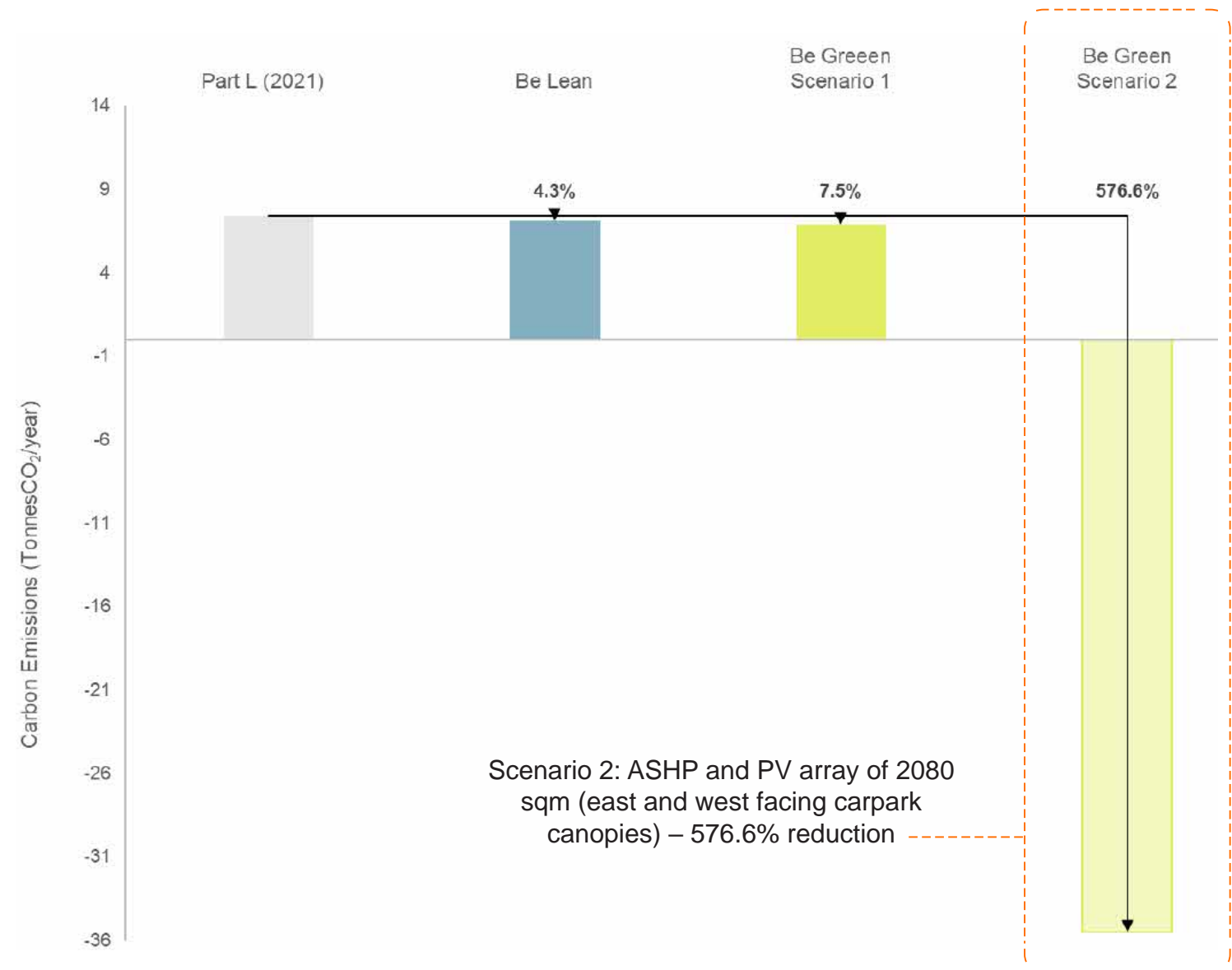
16.2 Heating, Cooling & Ventilation

Embracing the “Be Lean, Be Clean, Be Green” strategy, sustainable heating, cooling, and ventilation in this model are anchored in cutting-edge technologies. Electric air source heat pumps efficiently harness ambient air for both heating and cooling, minimizing reliance on conventional energy sources.

This sustainable approach aligns with the Brukl model, a comprehensive tool for assessing building performance. By integrating these technologies and practices, the model calculates and demonstrates reduced energy consumption, carbon emissions, and operational costs. Through this holistic strategy, the building not only exemplifies environmental responsibility but also showcases the economic advantages of embracing sustainability within the industrial framework.



The Energy Hierarchy



Carbon reduction summary: Office and Training Building

16.0 Sustainability

16.3 Lighting

The office and training building benefits from floor to ceiling windows at ground and first floor. There is also a rooflight over the reception space. These features allow for maximised daylight which helps contribute to a reduction in power usage. The performance of the glazing has been considered to maximise light transmittance whilst keeping solar gain to a minimum.

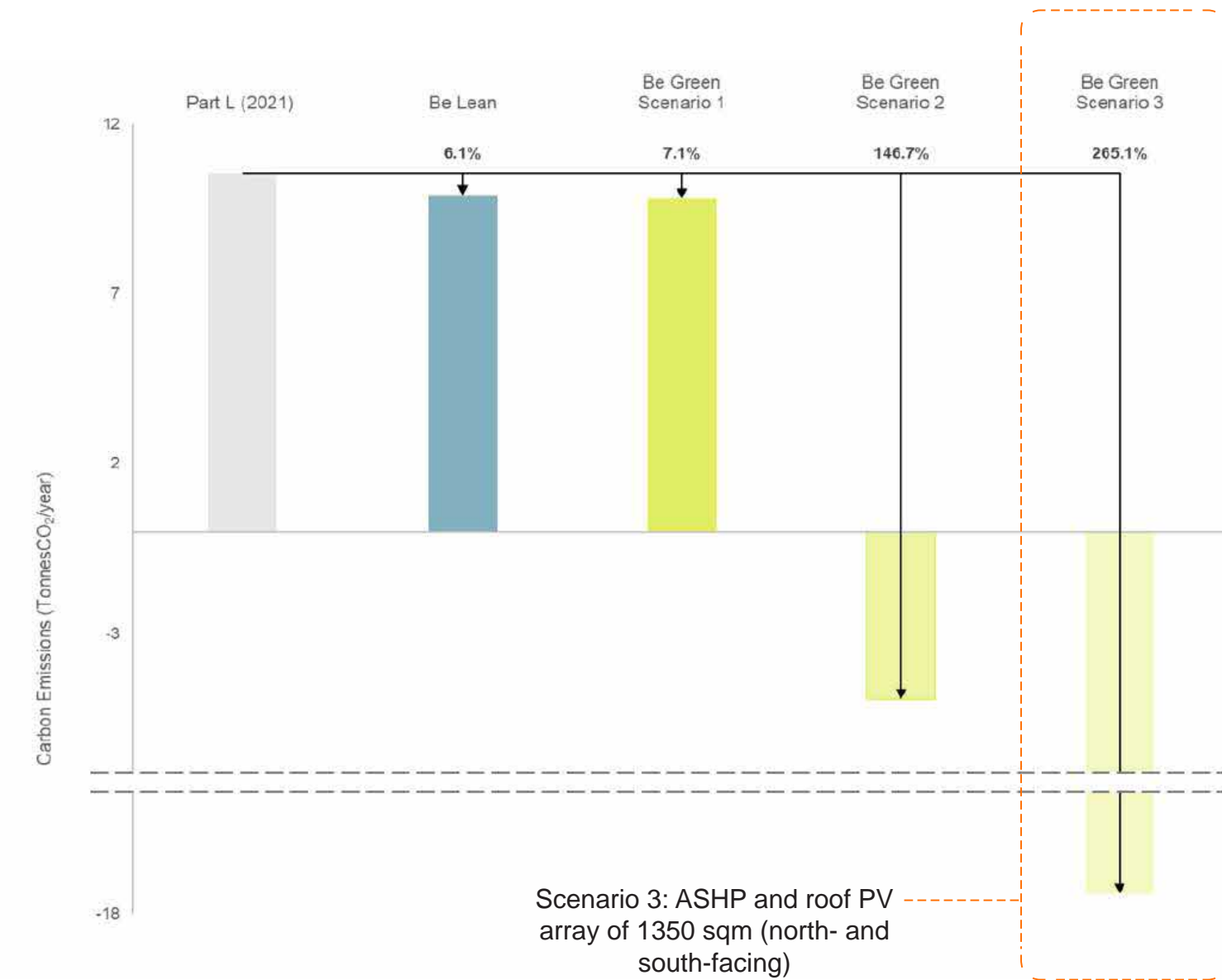
The workshops building has both rooflights and wall lights, which will provide high levels of light without requiring support from electric lighting for large parts of the year.

All light fittings are low energy usage LED luminaires, and PIR (Passive Infrared) lighting is used strategically to ensure energy efficiency by responding to occupancy, optimizing illumination only when needed.

16.4 Building Fabric Performance

The target building fabric performance is detailed below:

Parameter	Value
Fabric Air Permeability (m ³ /m ² ·h at 50Pa)	3.00
External Wall U-value (W/m ² ·K)	0.15
Ground / Exposed Floor U-value (W/m ² ·K)	0.10
Roof U-value (W/m ² ·K)	0.15
Glazing U-value (W/m ² ·K)	1.20
Skylight U-value (W/m ² ·K)	1.30
Glazing g-value	0.35
Glazing light transmittance	70%
Glazing Frame percentage	10%
Solid Door U-value (W/m ² ·K)	1.60
Vehicular Access Doors U-value (W/m ² ·K)	1.30



Carbon reduction summary: Workshop Building

Servicing

17.0 Servicing

17.1 Drop off Points and Deliveries

Vehicle access for the car park is past the security gatehouse and immediately left towards the office and training building. This allows all visitors to pass the security guard on entry to the site.

Access to the yard, refuse store, and delivery area will also be controlled by the security gatehouse and associated barriers.

17.2 Refuse and Recycling

The office and training building refuse store is located to the east of the building within close proximity to the kitchen and cafeteria space.

A further refuse storage area will be provided adjacent to the workshop building in the service yard area. Murphy staff will be on site at times for refuse collection to manage safe access for the collection vehicle.

For information on the refuse and recycling strategy see the Waste Management Strategy prepared by TPP.

Key

- Refuse Storage Area
- Refuse collection and good delivery area
- Vehicular access route
- Pedestrian office access route



Refuse Strategy Diagram

17.0 Servicing

17.3 Car Parking

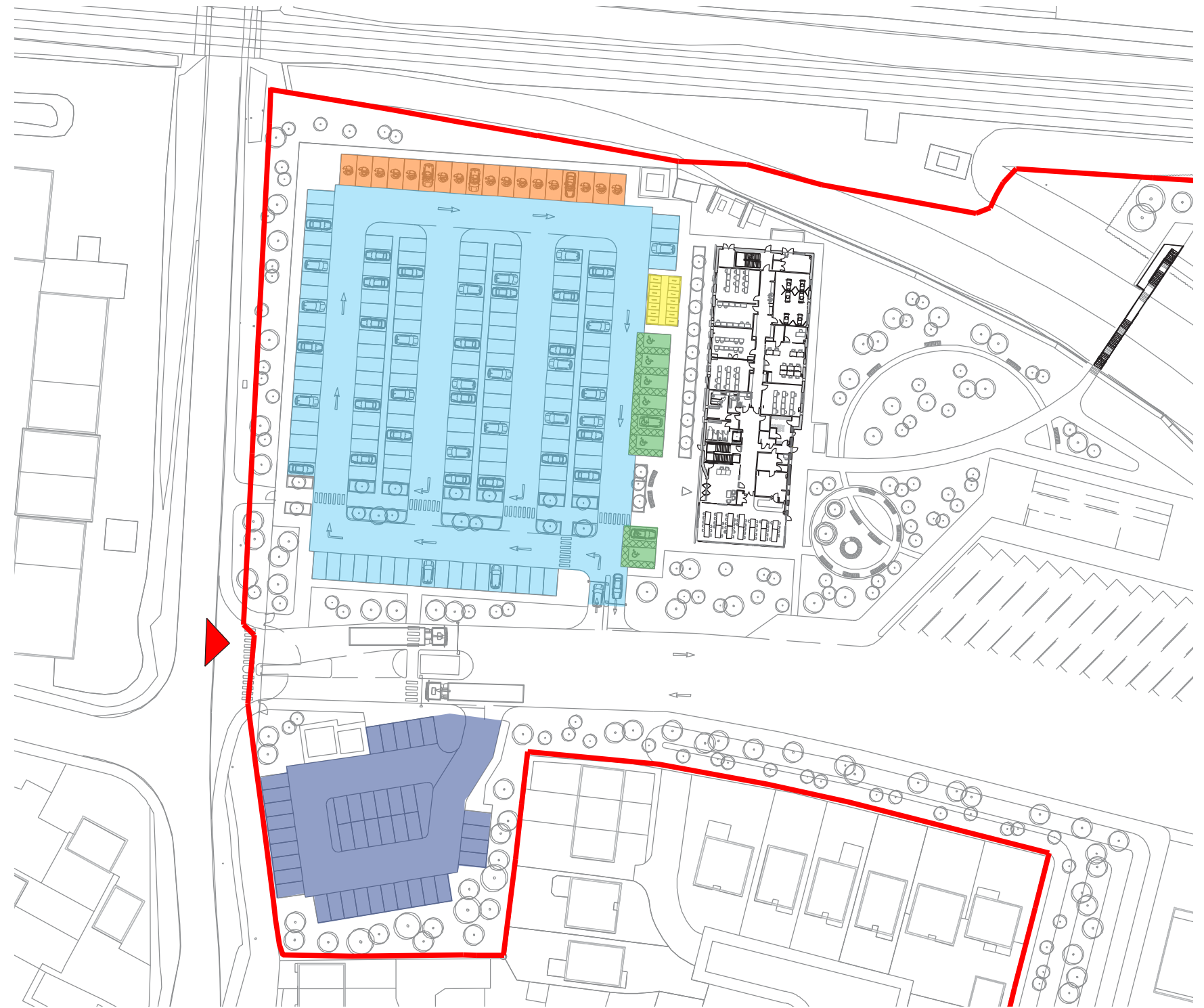
The One Murphy Hub will include a car park west of the office and training building. 177 car parking spaces will be provided in the primary car park, including 8 space for people with disabilities. 18 of the spaces will allow for the charging of electric vehicles through a mix of fast and standard chargers.

As a national training facility, the One Murphy Hub will occasionally be used for training large groups or hosting company events. Therefore, to meet these fluctuations in expected demand, 40 overspill car parking spaces will be provided in a secondary car park to the south.

For further information on cycle parking principles please refer to the Transport Assessment, which accompanies the Planning Application.

Key

- Car Parking Space
- Accessible Parking Space
- Overspill Parking Space
- Electric Charging Parking Space
- Bicycle storage - see next page for details



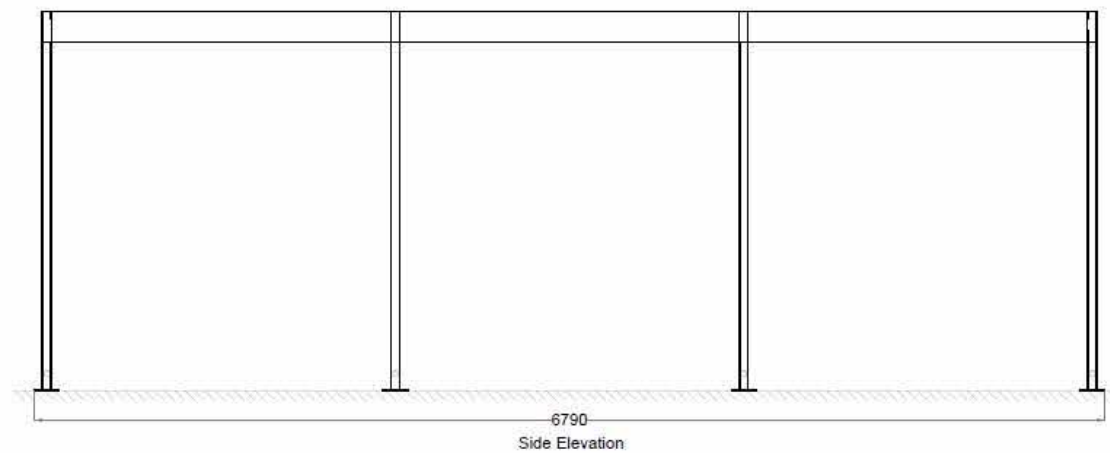
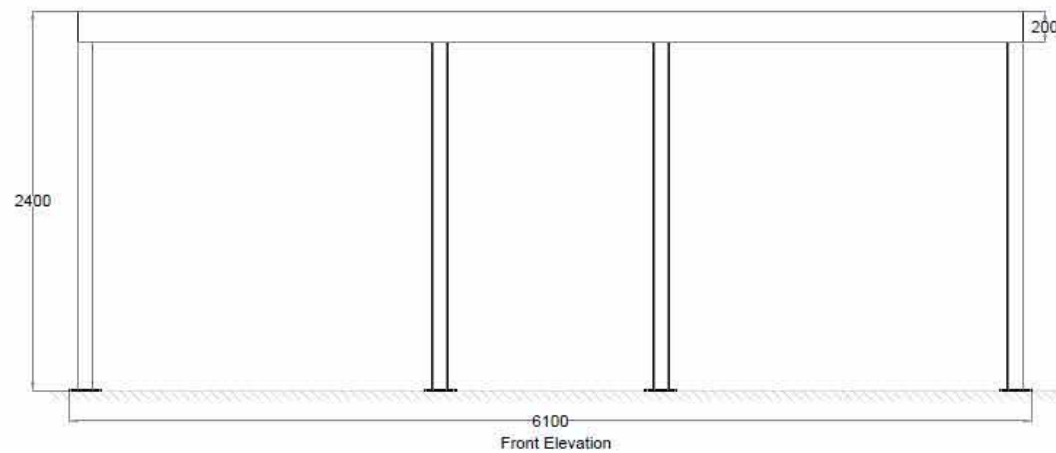
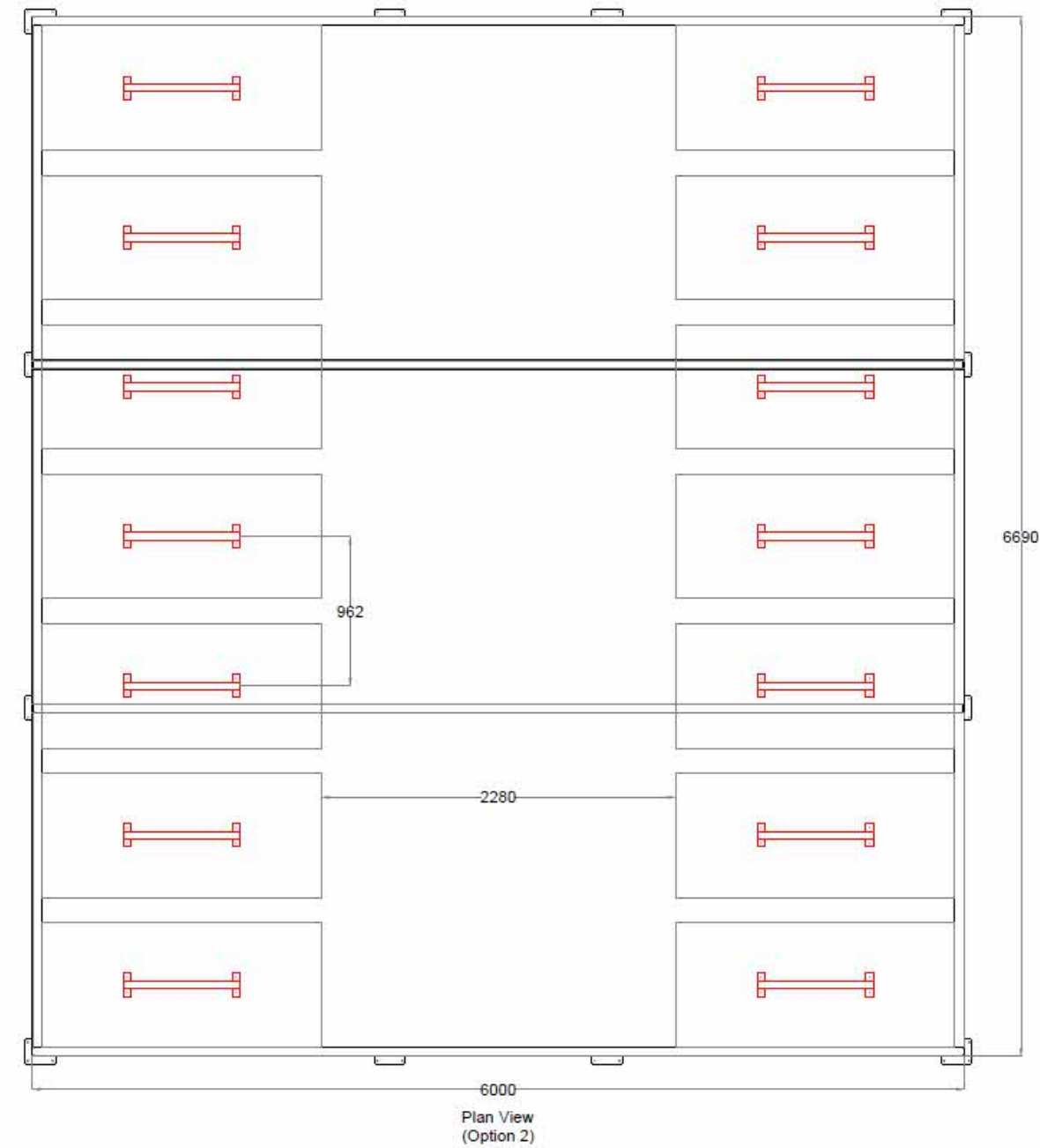
Car Parking Strategy Diagram

17.0 Servicing

17.4 Cycle Parking

A covered bicycle store will be provided adjacent to the office and training building with the capacity for 28 bikes.

For further information on cycle parking principles please refer to the Transport Assessment, which accompanies the Planning Application.



17.0 Servicing

17.5 Maintenance

The proposal has been designed to ensure safe and accessible maintenance strategies can be implemented.

Workshop Maintenance

- Gutters will be maintained from a MEWP access way arranged around the buildings
- Internal high level access will also be maintained using MEWP
- Roof will be accessed from a designated spot by MEWP with the operative attached to a Latchway system designed to give full access to areas with PVs.
- Any greater maintenance requirements such as roof light replacement will require detailed development of edge protection and individual method statements to be developed.

Guarding from moving vehicles in the yard:

- Designated pedestrian access routes will be guarded and marked where crossing points are planned of vehicular movement areas, guarding will be used to prevent accidental damage to the base of the cladding
- Guarding will prevent accidental falls in to pits in the vehicle maintenance areas
- Gas storage will be located in secure cages away from escape routes

Office Maintenance

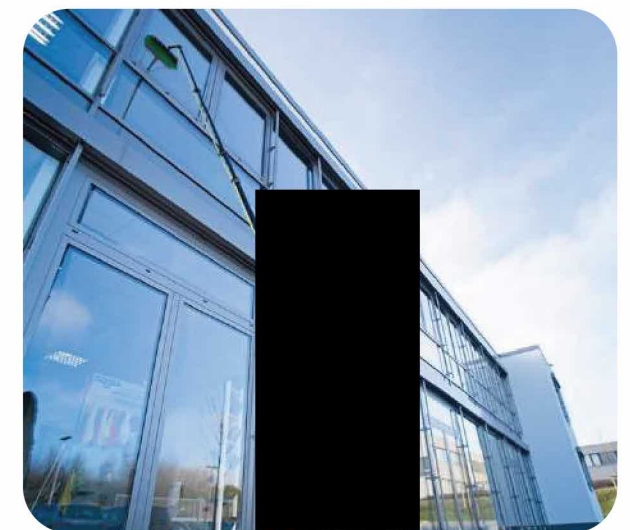
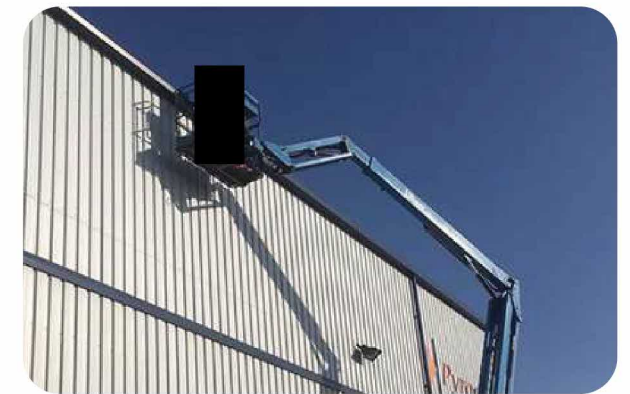
- Roof access is provided via a common stair to be used by maintenance staff only.
- A parapet with a handrail at 1100mm afl is provide to prevent edge falls from the main areas of the roof
- Plant areas are accessed via doors at ground floor level on the northern elevation.

Plant maintenance and replace:

- Large scale plant elements can be removed or lifted on to the roof from the adjacent car park areas out of standard hours.

Cleaning:

- Windows are to be cleaned by pole wash from MEWP
- Interior access to high level for cleaning and maintenance will be by Spider MEWP



CGIs

18.0 CGIs



View east towards the office and training building

18.0 CGIs



Aerial view east towards street scene and workshop areas

18.0 CGIs



View approaching the workshop building through the proposed embankment penetration

18.0 CGIs



View south towards the pylon training facility

18.0 CGIs



View south towards storage buildings and OHL workshop

Appendices

19.0 Appendices

19.1 Drawing List

size	Drawing Title/Description	Drawing No.	Scale				
Site							
A1	Location Plan	117-GTH-01-ZZ-DR-A-2001	1:2500	-	A	A	A
<u>A1</u>	Site Plan - Existing	117-GTH-01-ZZ-DR-A-2010	1:2000	-	A	A	A
<u>A1</u>	Site Plan - Proposed	117-GTH-01-ZZ-DR-A-2011	1:2000	-	A	B	C
<u>A1</u>	Site Plan - Proposed Office Area	117-GTH-01-ZZ-DR-A-2012	1:500	-	A	B	B
<u>A1</u>	Site Plan - Proposed Workshop Area	117-GTH-01-ZZ-DR-A-2013	1:500	-	A	B	C
<u>A1</u>	Site Plan - External Finishes Plan	117-GTH-01-ZZ-DR-A-2014	1:500			A	B
<u>A1</u>	Site Sections - Section 1	117-GTH-01-ZZ-DR-A-2051	1:200			-	-
<u>A1</u>	Site Sections - Section 2	117-GTH-01-ZZ-DR-A-2052	1:200			-	-
<u>A1</u>	Site Sections - Section 3	117-GTH-01-ZZ-DR-A-2053	1:200			-	-
<u>A1</u>	Site Sections - Section 4	117-GTH-01-ZZ-DR-A-2054	1:200			-	-
<u>A1</u>	Site Sections - Section 5	117-GTH-01-ZZ-DR-A-2055	1:200			-	-
A1	Site Sections - Section 6	117-GTH-01-ZZ-DR-A-2056	1:200			-	-
<u>A3</u>	Typical Training Pylon Elevation	117-GTH-01-ZZ-DR-A-2070	1:200			-	-
Office & Training Building							
<u>A1</u>	GA Plan - Ground Floor	117-GTH-02-00-DR-A-2100	1:100	-	A	B	B
<u>A1</u>	GA Plan - First Floor	117-GTH-02-01-DR-A-2101	1:100	-	A	B	B
<u>A1</u>	GA Plan - Roof Plan	117-GTH-02-02-DR-A-2102	1:100	-	A	A	A
A1	Sections	117-GTH-02-GF-DR-A-2110	1:100	-	A	B	B
A1	Elevations	117-GTH-02-GF-DR-A-2111	1:100	-	A	B	B
A1	Illustrative Elevations	117-GTH-02-GF-DR-A-2112	1:100	-	A	B	B
Workshop Building							
<u>A1</u>	GA Plan - Ground Floor	117-GTH-03-GF-DR-A-2200	1:200	-	A	A	A
<u>A1</u>	GA Plan - First Floor	117-GTH-03-01-DR-A-2201	1:200	-	A	A	A
<u>A1</u>	GA Plans - Ground & First Floor	117-GTH-03-ZZ-DR-A-2202	1:200	-	A	A	A
A1	GA Plan - Roof Plan	117-GTH-03-02-DR-A-2203	1:200	-	A	A	A
A1	Elevations	117-GTH-03-ZZ-DR-A-2210	1:200	-	A	A	A
A1	Illustrative Elevations	117-GTH-03-ZZ-DR-A-2211	1:200	-	A	A	A
A1	Sections	117-GTH-03-ZZ-DR-A-2212	1:200	-	A	A	A
Gatehouse							
<u>A1</u>	GA Plan	117-GTH-04-GF-DR-A-2300	1:25			-	-
<u>A1</u>	Sections	117-GTH-04-GF-DR-A-2310	1:25			-	-
A1	Elevations	117-GTH-04-GF-DR-A-2311	1:25			-	-
Training Viewing Area							
<u>A1</u>	GA Plan	117-GTH-05-GF-DR-A-2400	1:100			-	-
<u>A1</u>	Sections	117-GTH-05-GF-DR-A-2410	1:50			-	-
A1	Elevations	117-GTH-05-GF-DR-A-2411	1:100			-	-

