

# MIL2

## CyrusOne Data Center

📍 Via Raffaele Rubattino no. 90, 20134  
Milan, Italy



Indicative imagery based on initial studies

### Introduction

CyrusOne MIL2 is a brand-new state-of-the-art data center strategically located on a 79,639 sqm (19.68 acre) site within two Municipalities - Milan and Segrate - 4 miles east of the city center, close to Linate Airport. The facility will deliver 54 MW of IT capacity to 18,000 sqm of world class technical space within a single building over three floors with a total of six 9 MW data halls.



Indicative imagery based on initial studies



## Overview

- 54 MW IT capacity across a single 3 story building
- 18,000 sqm of total technical space
- The building is designed to achieve BREEAM “Very Good” certification
- Transfer 8,300 sqm of land to TERNA for Lambrate substation
- Energy supply will be procured from 100% renewable energy sources as in all CyrusOne’s data center portfolio in Europe since 2021
- Designed and built to recover waste heat for internal use, providing the option to distribute to local third parties
- Acoustic panels installed to minimize noise impact on local residents
- 30% of the parking spaces on site will be provided with EV charging points to encourage sustainable travel
- Campus equipped with over 500 sqm of solar panels to power ancillary areas
- Low PUE (<1.3) achieved through highly efficient design and equipment selections, utilising free-cooling technology and optimized operating temperatures in accordance with ASHRAE Standards
- Low WUE achieved through utilization of closed loop chilled water system and no evaporative cooling
- Offering approximately 30% of the overall site to the Municipality for planned landscaping enhancements

## Sustainable Design and Construction

### BREEAM CERTIFICATION

Sustainability and biodiversity will play a central role in the new data center, the campus is designed to achieve a BREEAM “Very Good” certification as a minimum ensuring it complies with multiple sustainable criteria including:

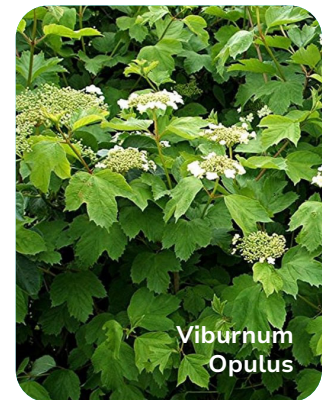
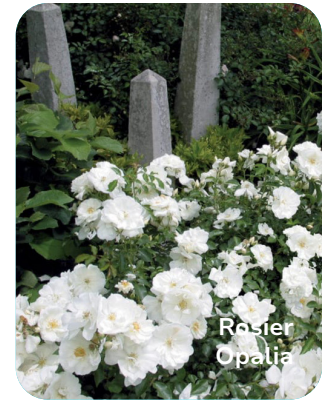
- Best practice site waste management delivered through a Site Waste Management Plan (SWMP) and a Zero Waste to Landfill (ZWL) plan with the use of recycled aggregates
- Utilizes building materials which provide optimum environmental performance with minimal environmental impact over the building’s full life cycle
- Staff and contractors sourced locally where possible to support the local economy
- Protection of existing ecological features to mitigate the impact to the environment throughout the construction process
- Best practice design for health, well-being, and occupancy ensuring thermal comfort, lighting and control, indoor air quality, and acoustic performance, and encouraging reduction in car travel through the provision of cyclist facilities.



## BIODIVERSITY AND COMMUNITY

In planning and developing the facility, CyrusOne is committed to supporting the local economy, prioritizing community opportunities, and protecting the environment through close collaboration with local authorities, including:

- Offering approximately 30% of the overall site to the Municipality for planned landscaping enhancements
- Equipping the campus with 'over' 500 sqm solar panels to power ancillary spaces
- Implementing acoustic panels to minimize noise impact on surrounding residential areas







Indicative imagery based on initial studies

## EMISSIONS AND RENEWABLE ENERGY

- Energy supply will be procured from 100% renewable energy sources as in all CyrusOne's data center portfolio in Europe since 2021
- A minimum of 30% of all parking spaces will be equipped with electric vehicle (EV) charging stations, ensuring enhanced accessibility and support for electric vehicle usage
- To reduce NOx emissions, all generators are provided with selective catalytic reduction (scr) systems and can run on HVO fuels procured from secondary oil sources. This typically reduces standard NOx emissions by up to five times

## HEAT RE-USE

The data center will be designed and built to recover waste heat, initially for use in ancillary spaces within the data center and providing the option to distribute to local third parties where demand exists.

## OPERATED TO INTERNATIONAL STANDARDS

- ISO 14001 Environmental Management
- ISO 27001 Information Security Management
- ISO 9001 Quality Management
- ISO 50001 Energy Management

## Technical Specifications

### POWER

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- Derived from 100% renewable energy sources
- Mains power supplied via 100% rated A&B 220 kV incomers diversely routed active / active with a capacity of 90 MVA
- Low PUE (<1.3) achieved through highly efficient design and equipment selections, utilizing free-cooling technology and optimized operating temperatures in accordance with ASHRAE TC9.9 A1
- All IT power metered and charged as consumed
- 9 MW block redundant topology with 7 independent and compartmentalised power blocks per data hall
- 99.999% reliability with the ability for concurrent maintainability
- IT power supplies are derived from primary and reserve feeds from each block via STS's creating a meshed IT distribution topology between all 7 blocks in an N+1 configuration
- Block redundant UPS topology with 1500kW UPS system per power stream
- Fully rated block redundant LV back-up generators with 48-hour fuel autonomy, capable of continuous running, paired with each power stream
- Re-fuelling contracts to ensure timely replacement

### COOLING

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- Low WUE achieved through utilization of closed loop chilled water system and no evaporative cooling
- Block redundant N+1 free cooling air cooled chillers
- Critical cooling distributed via multiple pipework rings per data hall for maximum resilience
- 9 MW IT capacity cooling solution per hall
- Computer Room Air Handling Units at N+2 per Data Hall
- Chilled water circulation pumps N+1
- Cooling infrastructure individually managed and linked to BMS

- Independently regulated temperature and humidity within each hall
- Power supplies to cooling equipment for full redundancy configured in a block redundant topology

### CONNECTIVITY

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- Carrier neutral access and diverse fibre connectivity to active A&B Meet-Me-Rooms from multiple telecommunications providers
- Four diverse fibre routes onto site
- Diverse fibre rings around entire facility to permit multiple building/hall connectivity

### FIRE DETECTION AND SUPPRESSION

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- VESDA (Very Early Smoke Detection Apparatus) for early warning, and double-interlock fire suppression systems in critical spaces (data halls and MMRs.)
- VESDA (Very Early Smoke Detection Apparatus) for early warning, in LV/UPS Pods
- Fire detection in all rooms, in air plenums and in voids as required and to meet local regulations
- Nitrogen filled pre-action sprinkler system to data halls and MMRs
- Wet sprinklers pre-charged in offices and ancillary spaces
- Fire detection and suppression systems interconnected to central BMS for additional monitoring and alarms

### BUILDING & ENERGY MANAGEMENT SYSTEM (BMS & EMS)

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- Power and building monitoring systems to provide alarms and live visual graphics in command center
- Data collection and trend logging for reporting purposes and equipment condition monitoring
- Power surge management
- 24x7x365 on-site M&E engineers undertaking Planned Preventative Maintenance (PPM) Program
- Real-time monitoring of electrical and mechanical systems

## SECURITY

- 2.5-metre-high security perimeter fence cast within concrete base
- Vehicle lock at the entrance to site with PAS 68 rated gates to protect from physical attack
- Gatehouse at the entrance to site for both vehicle and pedestrian management
- Extensive external CCTV to cover external areas of the buildings, roadways and site extents including the perimeter fence
- 24x7x365 on-site security located in a secure control room, with mobile patrols
- Extensive CCTV and access control throughout the facility
- Progressive layers of security to restrict access through the site
- Mantraps with biometric readers into data halls and other areas as required

## Site Plan

