NDC

AN ALTAREA GROUP BRAND

Data Center NDC Vélizy

DELIVERY: H1 2027

NDC VÉLIZY

NDC continues its expansion with a new strategic site in the Île-de-France (Greater Paris) region, in Vélizy-Villacoublay.

Designed by Silvio d'Ascia Architecture and Egis for NDC, this new-generation data center offers unprecedented cooling flexibility, from 100% air cooling to 100% DLC (direct liquid cooling), to meet a wide range of cooling requirements.

Fitting seamlessly into its urban environment, the site recycles its waste heat to provide heating for the nearby student residence, built by IF Architectes for Cogedim.

This project embodies an exemplary approach to urban integration, and illustrates the expertise offered by Altarea Group, the French leader in low-carbon urban transformation.

Target IT Power: 7 MW IT

IT Area: 2 268 sqm

Capacity: 1,152 racks

Annual PUE: 1.2

Waste heat recovery:

Transferred to the district heating network including the Cogedim student residence.

Dual cooling supply:

— Cooling produced by refrigeration units with N+2 redundancy including free cooling

— Possibility of connection to the town's future district cooling network

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1. The Altarea Group: Leader in low-carbon urban transformation

A MULTI-SECTOR PLATFORM

Altarea is currently the leader in regional transition in France.

Our performance is underpinned by a unique model. A multi-sector model based on strong and expert development capabilities meet the needs of towns and cities in an integrated way.

Entrepreneurial spirit at the heart of the Group's values

Founded in
1994

IPO
2004

Employees
2000

€3 billion
in equity

€5 billion
in real estate assets incl. partners

#1
developer in France

€14 billion
in real estate pipeline

MULTI-ASSET CLASS OPERATOR

Residential		Residential / Serviced residences / Social housing **8,000 to 12,000 units/year**
Commercial property		Offices / Logistics / Schools **60 projects, €5 billion potential value**
Retail		**€5.2 billion** in assets managed (43 properties) **€2.2 billion** owned by the Group
Infrastructure & Energy		Data centers / Renewable Energy **5 secured DC projects** **500+ MW secured** **over 1 GW in pipeline**

REIT-INVESTOR | DEVELOPER | ASSET MANAGER

NDC VÉLIZY

2. An ideal location

ADDRESS

10 avenue Morane Saulnier
78140 Vélizy-Villacoublay

ROAD ACCESS

A 86 N 118 N 12
D 906

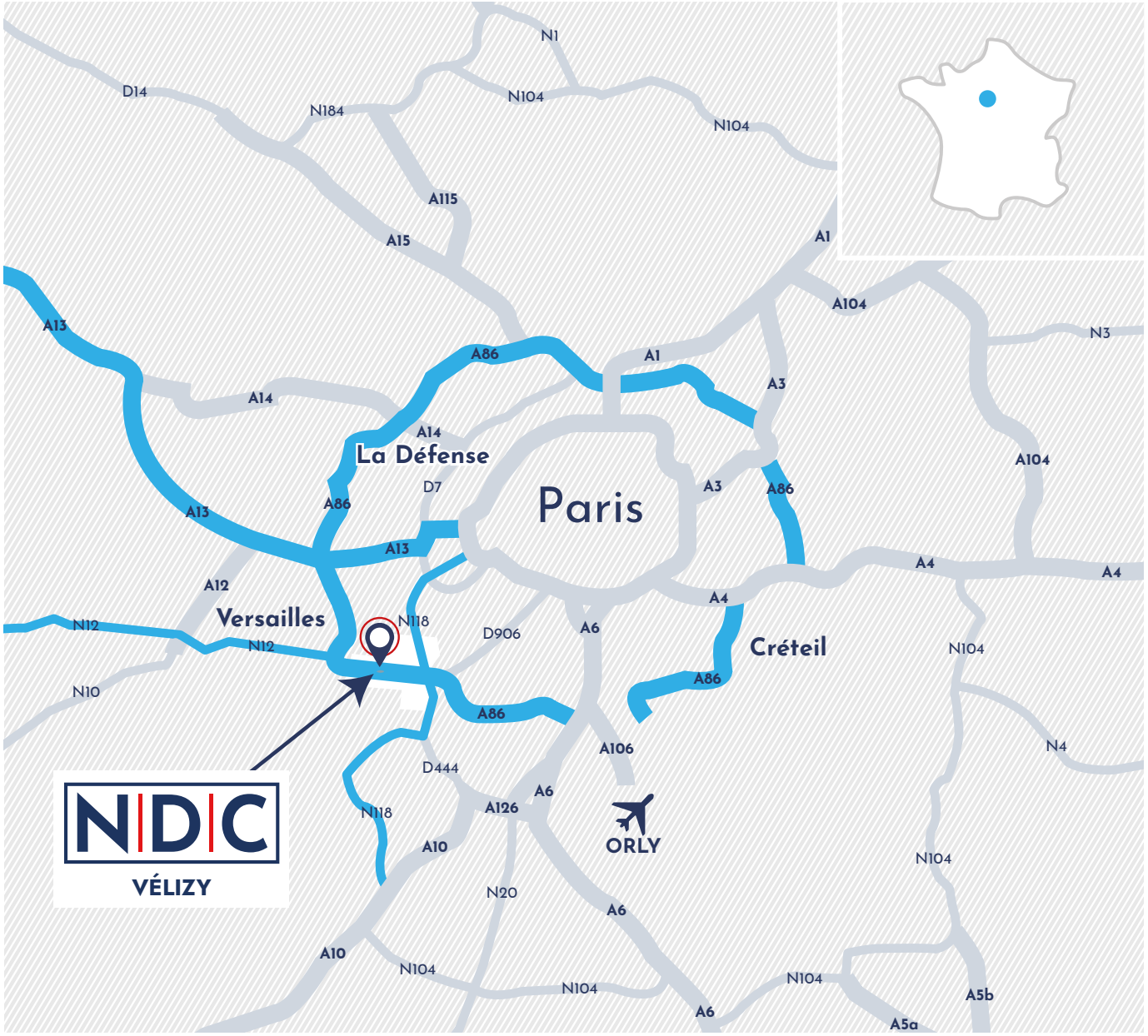
ACCESS BY PUBLIC TRANSPORT

T6 4 min

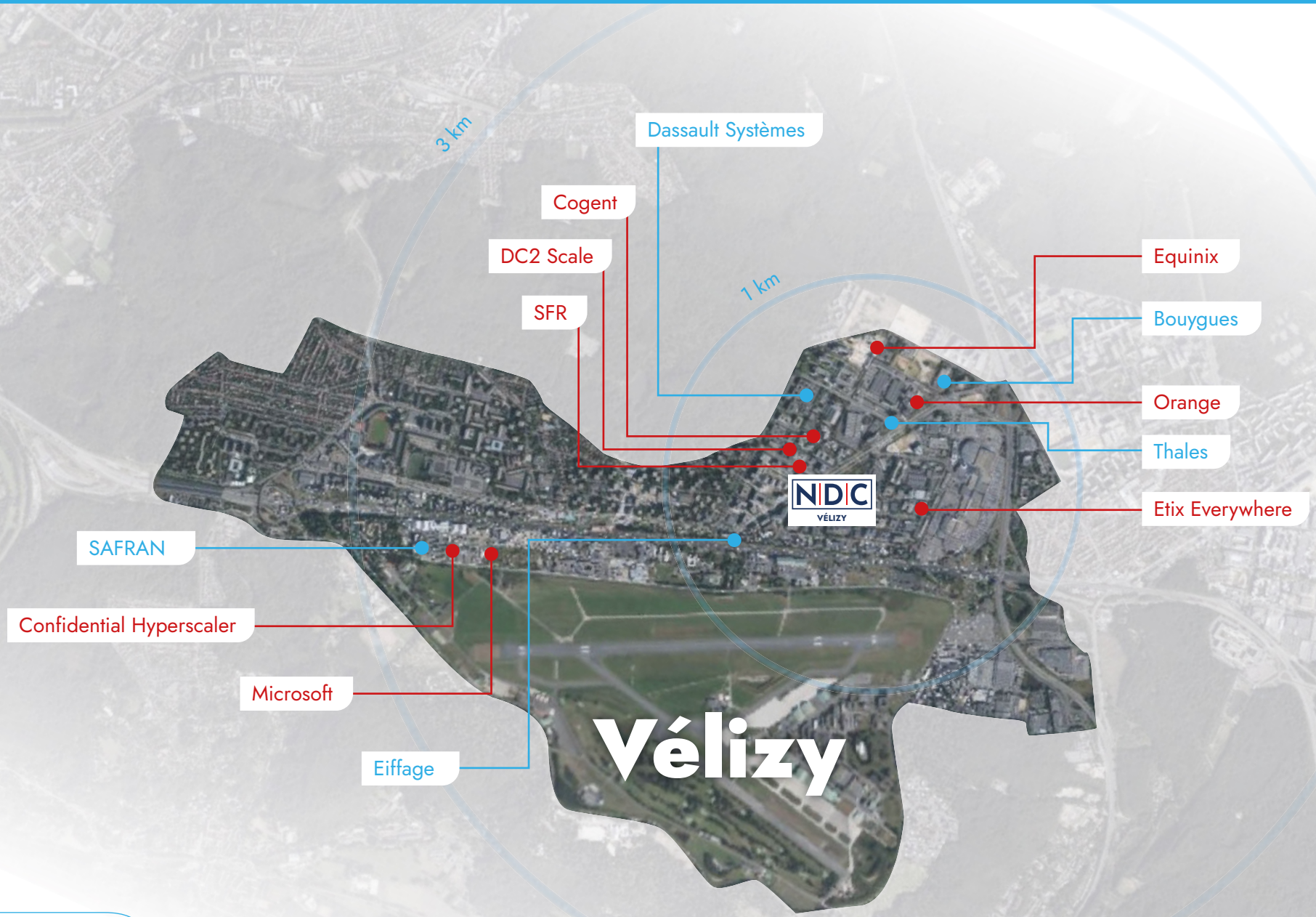
L N U 17 min +

RER C 17 min +

BUS 6123 6140 4 min
291 6 min



3. A rich ecosystem



Firms

Data centers

NDC VÉLIZY

4. Vélizy Data Center

RESPONSIBLE

— Annual PUE: 1.2
— Waste heat transferred to the Cogedim student residence

POWER SUPPLY

— 10 MW with dual feed from the 20 kV public power grid
— N+1 redundancy on backup diesel generators
— 4N/3 architecture: enables hosting of AI clusters (e.g., NVIDIA DGX PODs)

COOLING

— Chilled water loop distribution to the IT rooms
— Hot aisle containment for PODs with venting via plenum
— Distribution terminals on FanWall units (N+2) and/or CDU (N per POD)
— Dual cooling supply
    > Chilled water production via 8 chillers units in N+2 redundancy, including free cooling
    > Possibility of connection to the future urban district cooling network

CONNECTIVITY

— Tier 3-type design (EN 50600), 2 meet-me-rooms with multiple redundant entries and no SPOF
— Nearby operators: SFR, Zayo, Nexloop, Ielo, Exa Infra, Covage, Orange, Sipartech, Eurofiber, Colt, Bouygues, Prizz Infra, Verizon, Eunetworks

SECURITY

— 24/7 on-site fire and security personnel (SIAAP compliant)
— Defense-in-depth approach with high-security fencing (H: 3.5 m) and perimeter intrusion detection
— CCTV coverage across all indoor and outdoor areas
— Single-person airlock style security doors and two-far authentication in compliance with ANSSI (including biometrics)

TARGETED CERTIFICATIONS

— ISO 27001 / HDS / ISO 14001 / ISO 50001 / European Code of Conduct

5. Technical specifications and floor plans

IT power:
7 MW IT (3 kW/m²)

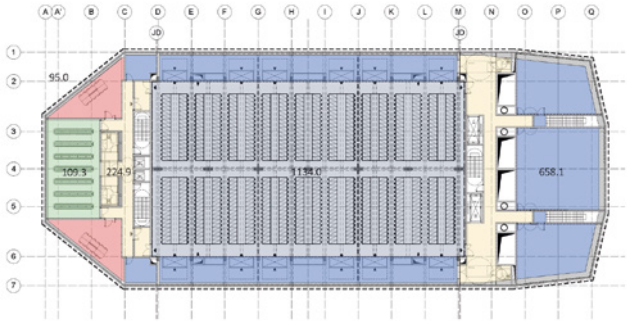
Capacity:
1.152 racks

IT power per rack:
6 to 10 kW/rack

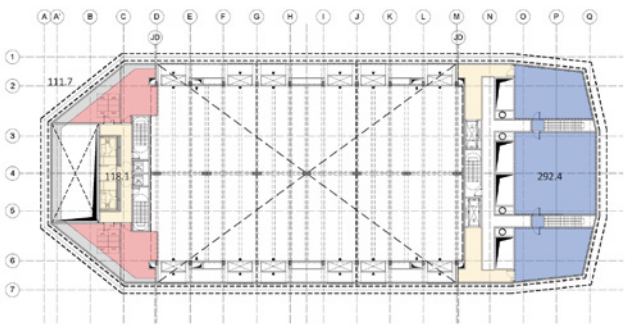
Annual PUE:
1.2

IT rooms	30.4%	**2 268 m²**
Technical rooms	43%	**3 198 m²**
Office areas	6.8%	**510 m²**
Corridors – Restrooms	17%	**1 276 m²**
Greenhouses	2.8%	**209 m²**
		+ 110 m² (TT)
Total floor area		**7 461 m²**

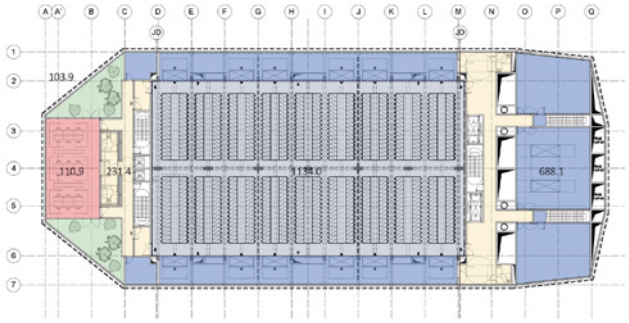
2nd floor



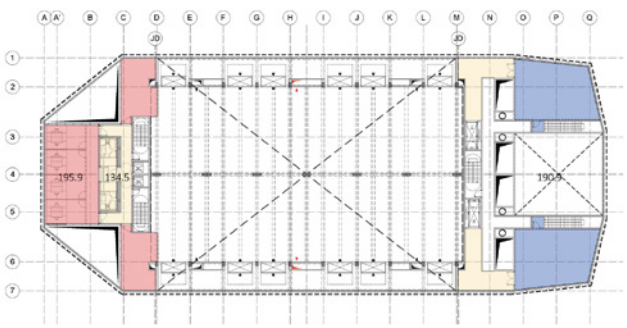
2nd floor mezzanine



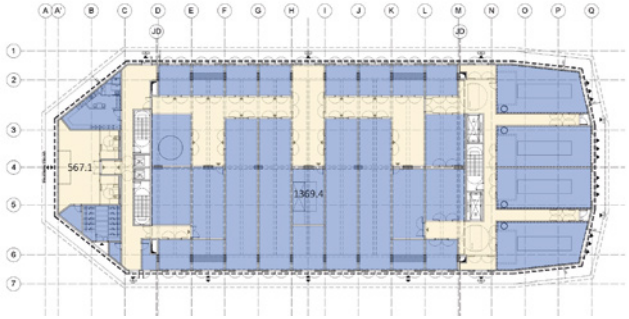
1st floor



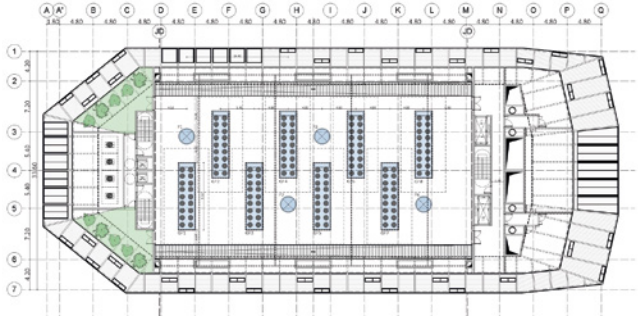
1st floor mezzanine



Ground floor



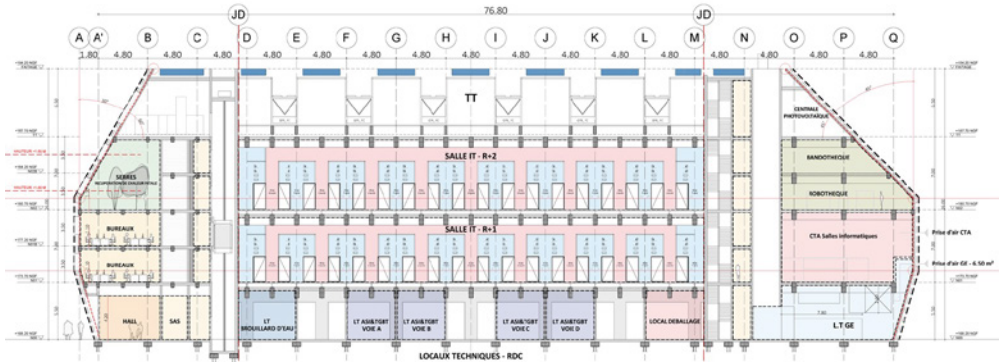
Roof



NIDC
VÉLIZY


Social student residence
COGEDIM
cdc habitat
Data Center
NDC
VÉLIZY

6. Installation configuration principles



Technical on ground room, IT rooms 1st and 2nd floors, office and stock on both ends.

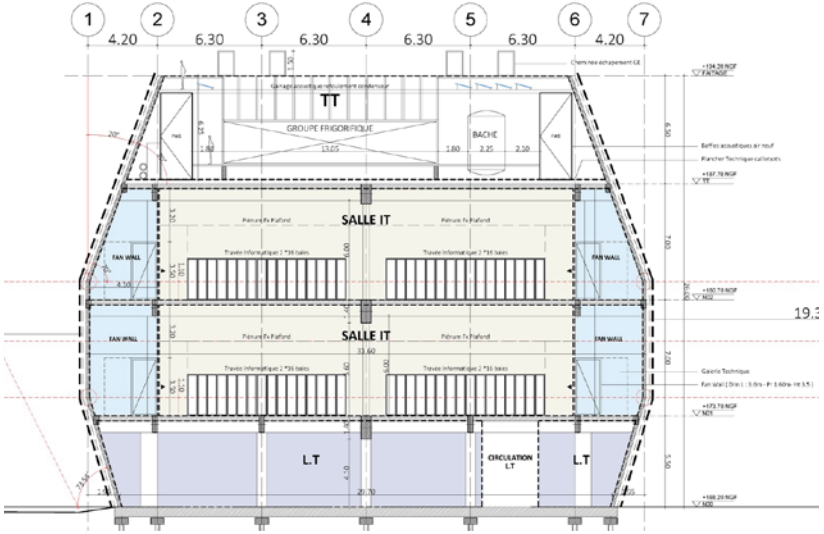
7-meter-high floors:
- Clear height under structure: **5.70 m**
- Ceiling height: **4.70 m**

Density: 3.0 kW/m²

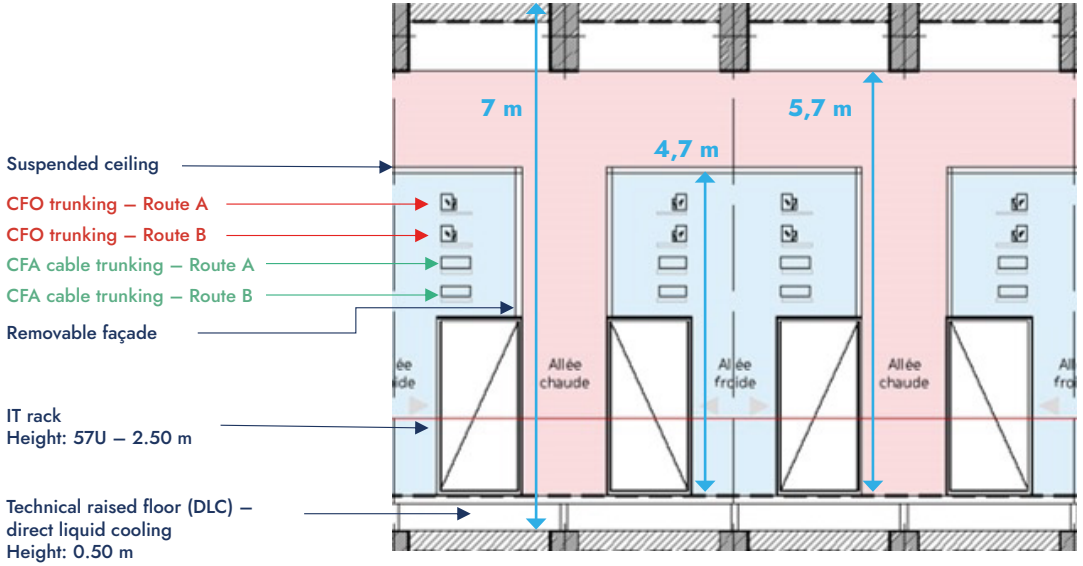
Hot aisle containment with return plenum

Server technology flexibility: **100% Air / Hybrid / 100% DLC**

Raised floor option: **0.5 m height for DLC**



Fan wall (or CDU) on both ends of the IT room.



Hot aisle containment with return plenum and raised floor option **for DLC**

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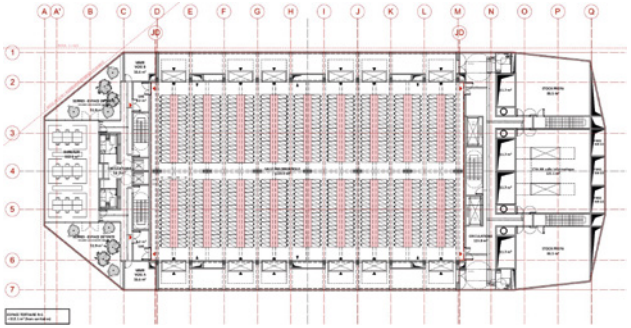
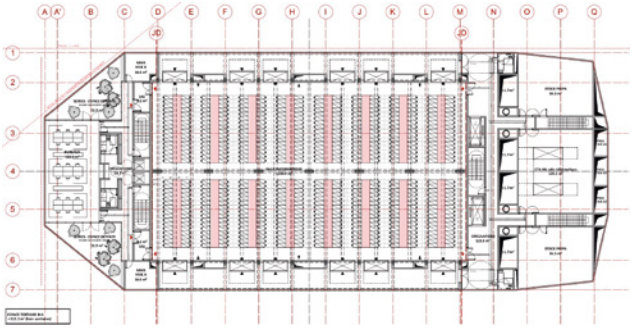
FLEXIBLE CONFIGURATION CAPABLE OF HOSTING ALL TYPES OF NEEDS INCLUDING DLC

Cold aisles 1.20 m wide – 100% Air



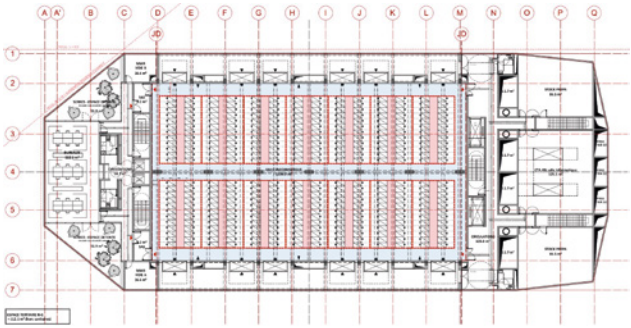
18 PODs of 32 racks
576 racks 600*1200
Avg: **6 kW/rack**

Cold aisles 2.40 m wide – 100% Air



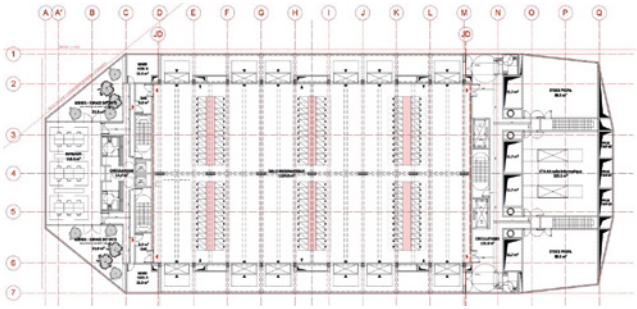
14 PODs of 24 racks
336 racks 800*1200
Avg: **10.4 kW/rack**

Cold aisles 1.80 m wide – 100% Air



16 PODs of 32 racks
512 racks 600*1200
Avg: **6.8 kW/rack**

Full DLC



6 PODs of 24 racks
144 racks
Avg: **20 to 140 kW/rack**

IT Power: **7 MW IT**
Density: **3.0 kW/m²**
Technology flexibility: **100% Air / Hybrid / 100% DLC**

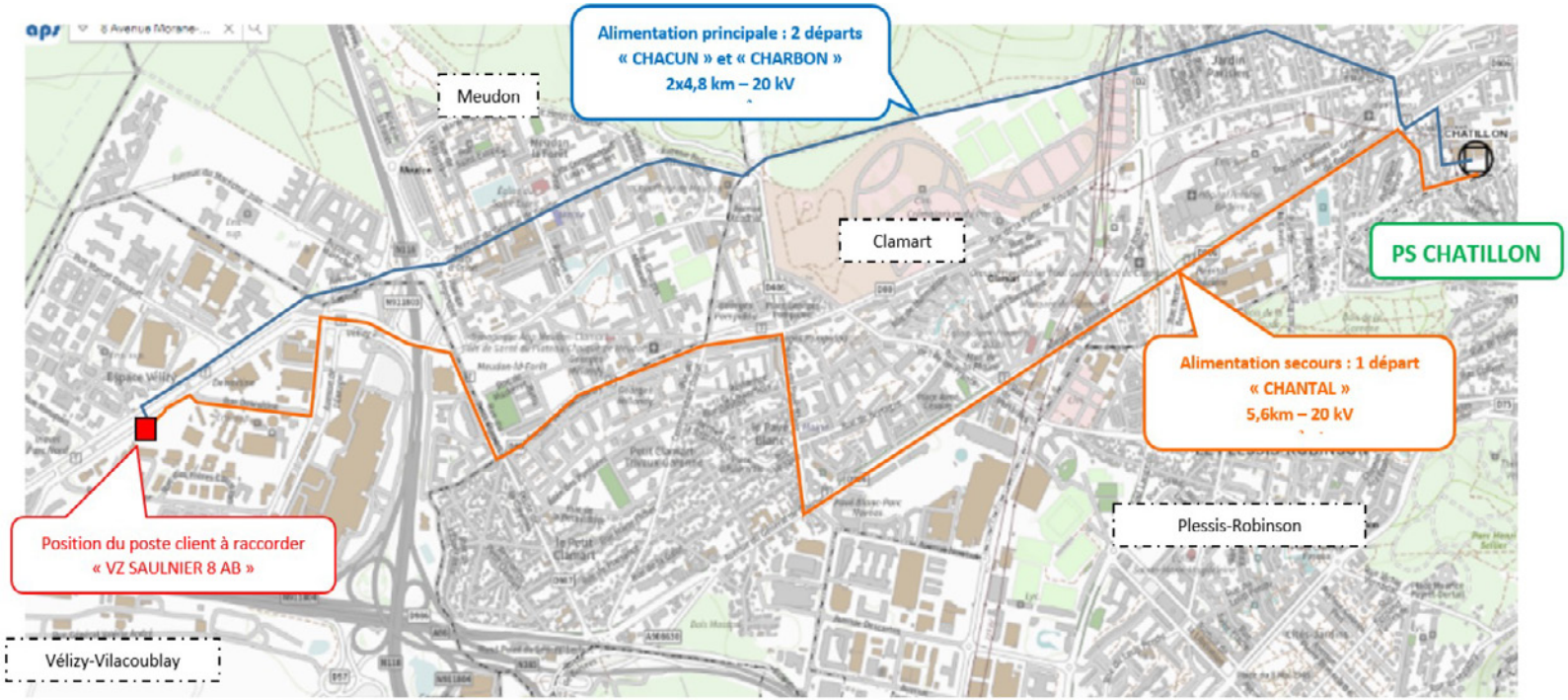
7. A secure power connection

A SECURE ELECTRICAL CONNECTION THROUGH SEPARATE ROUTINGS

Underground power supply at **20 kV.**

Primary power supply 10 MW: connection of the delivery substation in radial configuration via the creation of two 20 kV feeders from the CHATILLON substation, using 2 × 4,800 m of underground 240 mm² AL medium-voltage cables. Additionally, rerouting of an existing medium-voltage feeder at the CHATILLON substation is required.

Backup power supply 10 MW: connection of the delivery substation in radial configuration via the creation of one feeder from the CHATILLON substation using 5,600 m of underground 240 mm² AL medium-voltage cables.



Two separate routings that do not intersect

Substation:
The backup will be supplied by **a separate medium-voltage (MV) switchgear and a high-voltage/medium-voltage (HV/MV) transformer different from the main supply.** Backup cables will be laid in a separate trench from the main power supply cables.

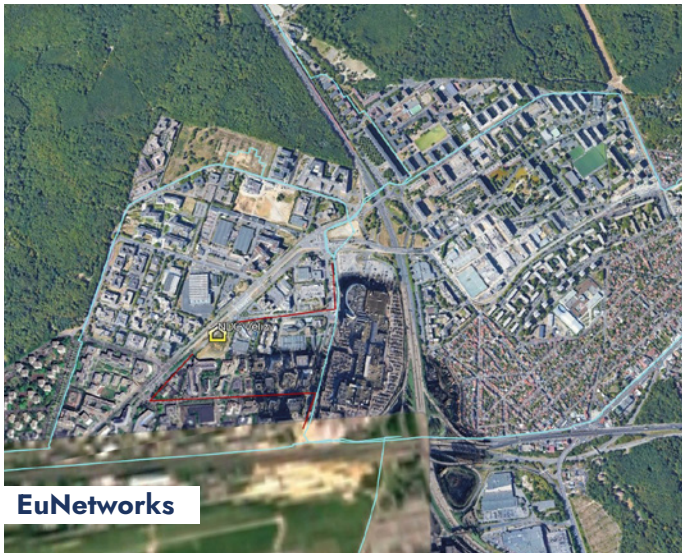
8. Connectivity

THE SITE BENEFITS FROM EXCELLENT TELECOM OPERATOR DENSITY

The following operators are present:

Number	Operator	Conduit	Cable	Distance
1	SFR	X	X	< 50ml
2	ZAYO		X	< 50ml
3	NEXLOOP		X	< 50ml
4	IELO		X	< 50ml
5	EXA INFRA		X	< 50ml
6	COVAGE		X	< 50ml
7	OWF/ORANGE	X	X	< 50ml
8	SIPARTECH	X	X	< 50ml
9	EUROFIBER		X	< 50ml
10	COLT	X	X	< 50ml
11	BOUYGUES		X	< 50ml
12	PRİZZ INFRA		X	< 50ml
13	Verizon		X	< 50ml
14	Eunetworks		X	< 50ml

Proposal for connectivity by **EuNetworks** and **Sipartech:**



9. Risk Assessment

MAJOR RISKS

There are no major risks in Vélizy; therefore, the town is not required to prepare a DICRIM (Municipal Information Document on Major Risks)

— Flood Risk: **NON**

— SEVESO Industrial Risk: **NON**

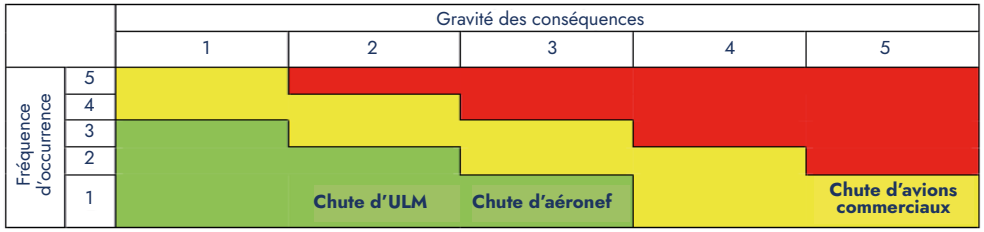
— Landslide Risk: **NON**

AIRCRAFT CRASH RISK

The data center **is not located within the takeoff or landing cone** of Vélizy-Villacoublay airport.

It is located 800 meters laterally from the runway.

With the various aircraft crash scenarios, it is possible to determine the criticality of these scenarios:



Therefore, the risk of an aircraft crash is not considered major.

NDC

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Architects : **Silvio d'Ascia Architecture** and **IF Architectes**. Conception technique : **Egis**. Perspectives : **Glamodrama**.