


REV.

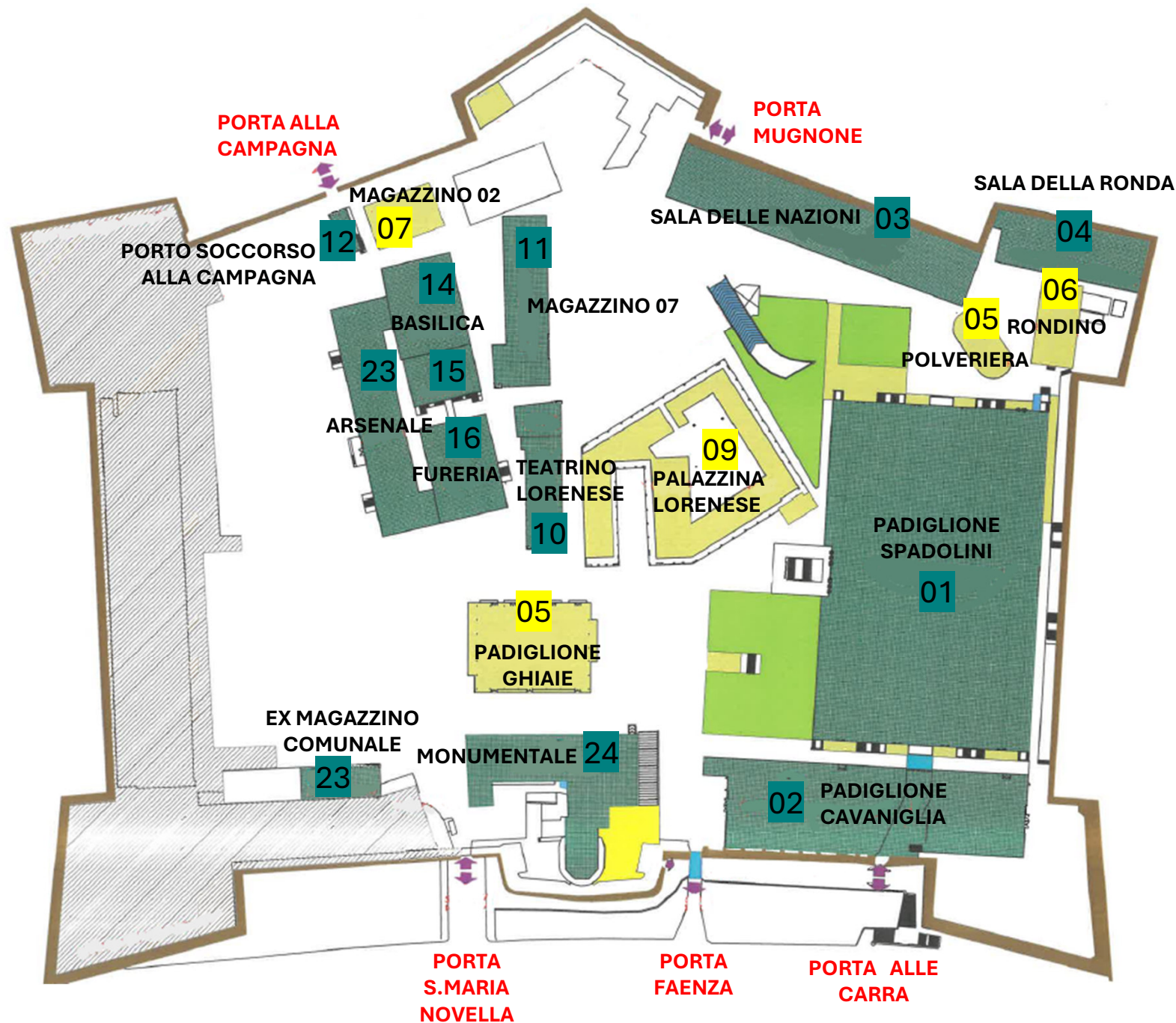
October 2025

 **ENGLISH VERSION**
LAYOUT
LOAD REVIEW

**-RIGGING STRUCTURES
-FLOOR LOAD**

**FORTEZZA DA BASSO
FLORENCE**

**FORTEZZA DA BASSO
LAYOUT**



ENGLISH VERSION
SCALE DRAWING: 1 : 1250



- PERIMETER OF THE WALLS
- PERIMETER OF THE NON-RELEVANT AREAS
- PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

- SPECIFIC PERMITTED LOADS

FLOOR LOAD:

- 3 kN/m² – 6.27 psf [USA]
- 4 kN/m² – 8.35 psf [USA]
- 4.5 kN/m² – 9.40 psf [USA]
- 5 kN/m² – 10.44 psf [USA]
- 15 kN/m² – 31.33 psf [USA]
- 20 kN/m² – 41.77 psf [USA]

- EMBANKMENT
- PEDESTRIAN ACCESS ONLY
- VEHICLE ACCESS

PURPOSE

RIGGING STRUCTURES AND FLOOR LOAD

The purpose of these plans is to indicate the maximum permitted loads for rigging structures and to illustrate the procedures to be followed during installation, including the limits on treadability in the areas managed by Firenze Fiera SpA at the Fortezza da Basso.

For this reason, a summary table has been drawn up for each individual room, setting out the limits and necessary observations for those responsible for setting up the stands in a concise and easily readable format.

DEFINITIONS

To help understand the documents, the symbols used here are those of the latest Circular Letter issued by the Italian Ministry of the Interior, Fire Department (Circular No15958 as of 30/10/23) on "Temporary or permanent public entertainment venues: Verification of the solidity and safety of suspended loads of 1 APRIL 2011", the definitions of which are given below:

Suspended load: any element (stage equipment, furniture or other) placed in the air or held or anchored in suspension or supported at height or moved mechanically, before and/or during the event, by means of cranes, winches, bridge cranes, work platforms and the like. For greater clarity and for the purposes of this note only, we list below the most common types of suspended loads and related suspension systems (simple or complex) normally used in permanent or temporary public entertainment venues or places, subject to the opinion of the Supervisory Commission for the purposes of the issue by the Municipality of the licence referred to in Articles 68 and 80 of the Italian Consolidated Law on Public Security (TULPS).

Fixed suspended load: suspended load attached to one or more points of a structure above or below, including ropes, tie rods, chains and brackets; **Suspended load secured to a lifting device:** suspended load attached by means of a mobile element, e.g. a rope, chain, strap and/or band, to a machine or a complex lifting system.

Dynamic suspended load: suspended load secured either by a machine-driven device or by a complex lifting system capable of moving in space in one or more directions.

These elements can be divided as follows:

SUPPORTING STRUCTURE:

- construction system to which loads are to be anchored;

TIE BETWEEN STRUCTURE AND MAIN CONNECTION:

- hook / eyebolt / eyelet/ etc.

MAIN CONNECTION

- load to be suspended, such as square trusses, loudspeakers, spotlights, projectors, etc.

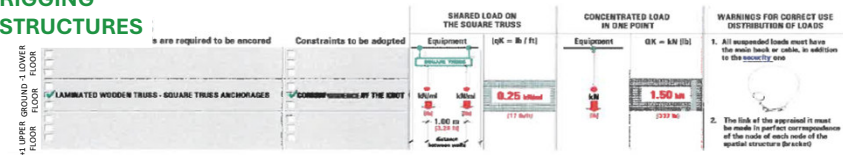
With regard to suspended loads and fixed or temporary structures intended for anchoring them, reference has been made to the provisions of the building safety regulations of Italian Ministerial Decree 17 January 2018 updating the Technical Standards for Construction; in addition, the regulations on health and safety at work, Consolidated Safety Act T.U.S. (Italian Legislative Decree 81/2008) were also considered applicable.

RIGGING STRUCTURES

According to the aforementioned regulations, Riggings are defined as the combination of the support structure, the ties between the structure and the main connection, including the foreseeable load.

For better readability of these plans, they are represented as follows, for example:

RIGGING STRUCTURES



Once the Floor or level has been defined, the recurring type of construction system to be used to adopt the type of tie required can be identified, bearing in mind that the graphic representation gives priority to:

- Everything in **black/green** is under Firenze Fiera's responsibility ;
- Everything in **red** is under the exhibitor's responsibility;

This plans shows the possible methods of rigging structure loads, depending on the exhibitor's requirements, with additional information (including explanatory sketches) on the actual load conditions permitted on the structure, where applicable.

FLOOR LOAD

Information is equally provided for load and overload conditions of the walkable surfaces both outdoor and indoor, identifying the maximum limits required by the afore mentioned regulations for each category.

FLOOR LOAD

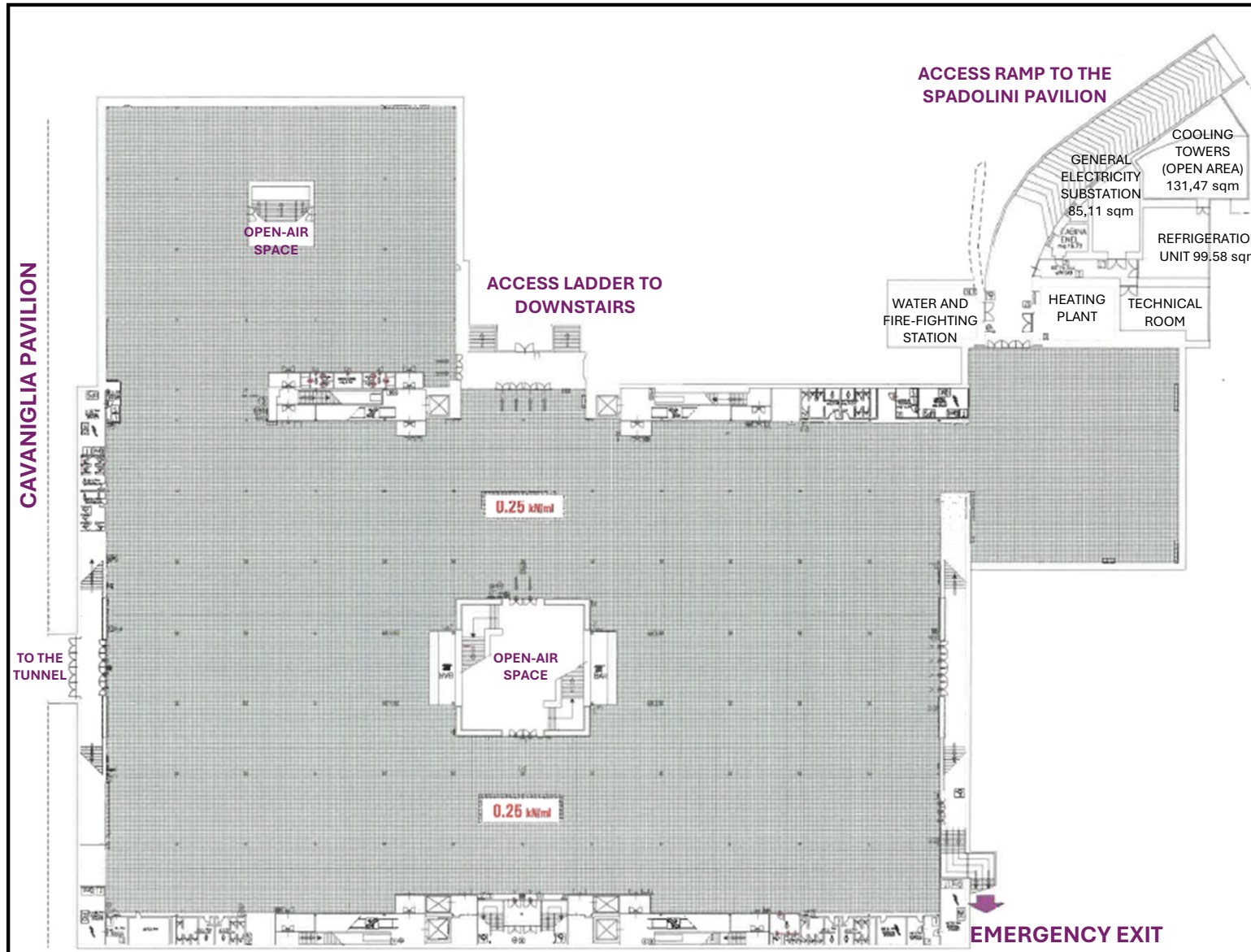
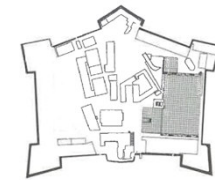
- For example:

Permissible values referring to the different categories of use R.T.C. 2018 Tab. 3.1.1)	UNIFORMLY DISTRIBUTED LOAD		VERTICAL CONCENTRATED LOADS n 2 landing footprints 1.80 m apart		WARNINGS FOR ACCESS OF FORK-LIFTS AND VEHICLES FORKLIFTS, TELESCOPIC AND VEHICLES WITH SPECIAL CONSTRUCTION FOR HIGH PLATFORMS
	Category	OK = kN/m² (kN/m²)	square footprint	OK = kN (kN)	
✓ ENVIRONMENTS WITH TABLES, OFFICES, RESTAURANTS AND STAND SUBJECT TO GRONDING	C 1	3 kN/m²	0.50 x 0.50 m	3 kN	
✓ ENVIRONMENTS AND ROOMS WITHOUT OBSTACLES TO MOVEMENT, SUITED FOR LARGE CRONES	C 2	5 kN/m²	0.50 x 0.50 m	5 kN	
	C 3				
	G				
	F				

DOCUMENTATION

The file required for setting up rigging structure safely is attached, indicating the suspension methods according to the permitted loads:

- defining the type and consistency of the rigging structure loads, diagrams of the suspension/hanging systems as indicated in the aforementioned decrees;
- highlighting, where applicable, complex systems (e.g. support structures suspended from others, such as lighting trusses);
- referring to workplace safety standards in case of loads stabilisation handled during the setup phase of the areas.



NOTE: NO RIGGING STRUCTURES ARE PERMITTED ON THE FALSE CEILING

RIGGING STRUCTURES

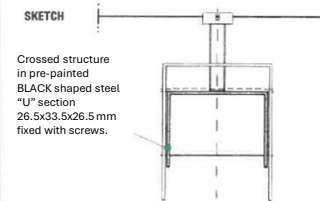
Construction system to which loads are to be anchored:

-1 LOWER FLOOR	<ul style="list-style-type: none"> ONLY TO THE CROSSED STRUCTURE 1.20x1.20 m grid. "U" SHAPED STEEL SECTION THICKNESS 5 mm.
GROUND FLOOR	
+1 UPPER FLOOR	

Ties to be used:

- SHAPED EYELET
- EYEBOLTS, SHACKLES, NOOSE
- S-HOOK

UNIFORMLY DISTRIBUTED LOAD	LOAD CONCENTRATED AT THE JOINT	WARNINGS FOR THE CORRECT DISTRIBUTION OF LOADS
<p>Equipment</p> <p>$qK = kN/m$ (lb/ft)</p> <p>0.25 kN/m</p> <p>(17 lb/ft)</p> <p>1.00 m (3.28 ft)</p>	<p>Equipment</p> <p>$QK = kN$ (lb)</p> <p>0.25 kN</p> <p>(56 lb)</p>	<p>1. All suspended loads must have a hook or main cable in addition to the safety cable</p> <p>2. The hanging connection must be made in perfect correspondence with the node of the spatial covering structure</p>



□ PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

■ SPECIFIC PERMITTED LOADS

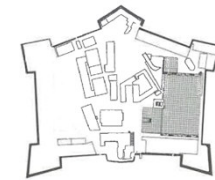
FLOOR LOAD:

- 3 kN/m² – 6.27 psf [USA]
- 4 kN/m² – 8.35 psf [USA]
- 4.5 kN/m² – 9.40 psf [USA]
- 5 kN/m² – 10.44 psf [USA]
- 15 kN/m² – 31.33 psf [USA]
- 20 kN/m² – 41.77 psf [USA]

■ EMBANKMENT

➡ PEDESTRIAN ACCESS ONLY

➡ VEHICLE ACCESS



□ PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

■ SPECIFIC PERMITTED LOADS

FLOOR LOAD:

- 3 kN/m² – 6.27 psf [USA]
- 4 kN/m² – 8.35 psf [USA]
- 4.5 kN/m² – 9.40 psf [USA]
- 5 kN/m² – 10.44 psf [USA]
- 15 kN/m² – 31.33 psf [USA]
- 20 kN/m² – 41.77 psf [USA]

▨ EMBANKMENT

➡ PEDESTRIAN ACCESS ONLY

➡ VEHICLE ACCESS

ACCESS RAMP TO THE SPADOLINI PAVILION WITH PRECAUTIONS (*)

COOLING TOWERS (OPEN AREA) 131.47 smq

GENERAL ELECTRICITY SUBSTATION 85.11 sqm

REFRIGERATION UNIT 99.58 sqm

WATER AND FIRE-FIGHTING STATION

HEATING PLANT

TECHNICAL ROOM

3.94 ft
or 3.90

3.94 ft
or 3.90

5 kN/m²

CAVANIGLIA PAVILION

OPEN-AIR SPACE

5 kN/m²

ACCESS LADDER TO DOWNSTAIRS

5 kN/m²

OPEN-AIR SPACE

5 kN/m²

EMERGENCY EXIT

TO THE TUNNEL

FLOOR LOAD

Permitted values for different categories of use:
N.T.C 2018 Tabella 3.1.11

- ACCESS AND TRAFFIC TO CROWDING AREAS
- AREAS SUSCEPTIBLE TO CROWDING
- EXHIBITION ROOMS FREE OF OBSTACLES TO THE MOVEMENT OF PEOPLE, EXHIBITION ROOMS
- AREAS WITH BUILDINGS ADJACENT TO THE EMBANKMENT
- ACCESS RAMP BASEMENT FOR INTENSIVE TRAFFIC – LOADING/UNLOADING AREA

UNIFORMLY DISTRIBUTED LOAD		VERTICAL CONCENTRATED LOADS in 2 loading footprints 1.80 m apart	
Category	qK = kN/m ² (lb/ft ²)	square footprint	QK = kN (tn)
C 1			
C 2			
C 3	5 kN/m ² (110.44 psf)	0.50 x 0.50 m.	5 kN (1.12 tn)
C			
F	15 kN/m ² (31.33 psf)	1.00 x 1.00 m.	20 kN (4.48 tn)
G			

WARNINGS FOR ACCESS AND TRANSIT OF FORKLIFTS FOR CORRECT MANOEUVRING (*)

FORKLIFTS, TELESCOPIC LIFTS AND INTERNAL COMBUSTION ENGINE VEHICLES ARE NOT PERMITTED.



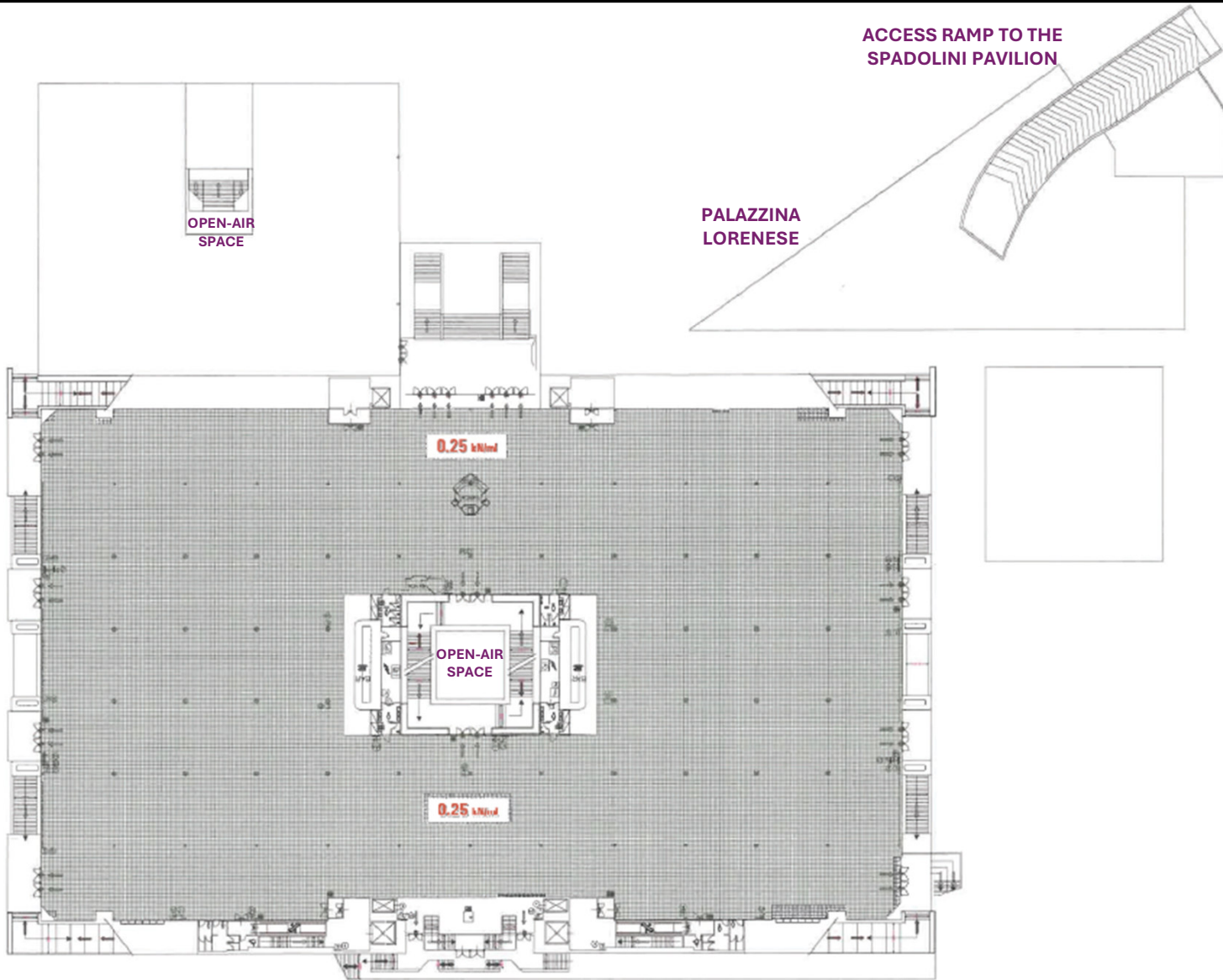
VEHICLES WITH INTERNAL COMBUSTION ENGINE HAND TROLLEYS 15% SLOPE

CONTACT THE PORTERAGE SERVICE AT THE TECHNICAL OFFICE

REQUIREMENTS FOR THE USE OF FORKLIFTS IN EXHIBITION SPACES

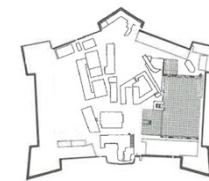


CAVANIGLIA PAVILION



RIGGING STRUCTURES

b 1
GROUND FLOOR
SPADOLINI PAVILION



□ PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

■ SPECIFIC PERMITTED LOADS

FLOOR LOAD:

- 3 kN/m² – 6.27 psf [USA]
- 4 kN/m² – 8.35 psf [USA]
- 4.5 kN/m² – 9.40 psf [USA]
- 5 kN/m² – 10.44 psf [USA]
- 15 kN/m² – 31.33 psf [USA]
- 20 kN/m² – 41,77 psf [USA]

■ EMBANKMENT

➡ PEDESTRIAN ACCESS ONLY

➡ VEHICLE ACCESS

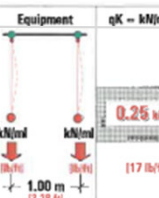
RIGGING STRUCTURES

Construction system to which loads are to be anchored:

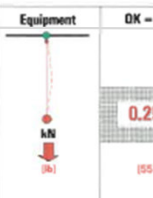
Ties to be used:

-1 UPPER FLOOR		
-1 LOWER FLOOR		
0 GROUND FLOOR	✓ STRINGERS AND LARGE REINFORCED CONCRETE TILES	✓ ONLY PRE-SET BRACKET
+1 UPPER FLOOR		

LOAD DISTRIBUTED ALONG THE PROFILE OF THE BEAM

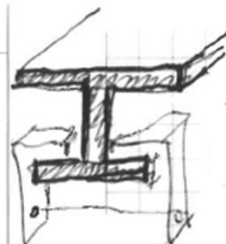


LOAD CONCENTRATED AT THE BRACKET



WARNINGS FOR THE CORRECT DISTRIBUTION OF LOADS

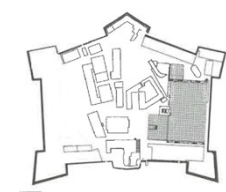
1. All suspended loads must have a hook or main cable in addition to the safety cable
2. The hanging connection must be made in perfect correspondence with the node of the spatial covering structure



SKETCH

DETAIL OF THE BRACKET ANCHORING A HANGING TO THE BOTTOM PROFILE OF THE BEAM

FLOOR LOAD
GROUND FLOOR
SPADOLINI PAVILION



□ PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

■ SPECIFIC PERMITTED LOADS

FLOOR LOAD:

- 3 kN/m² – 6.27 psf [USA]
- 4 kN/m² – 8.35 psf [USA]
- 4.5 kN/m² – 9.40 psf [USA]
- 5 kN/m² – 10.44 psf [USA]
- 15 kN/m² – 31.33 psf [USA]
- 20 kN/m² – 41.77 psf [USA]

■ EMBANKMENT

➔ PEDESTRIAN ACCESS ONLY

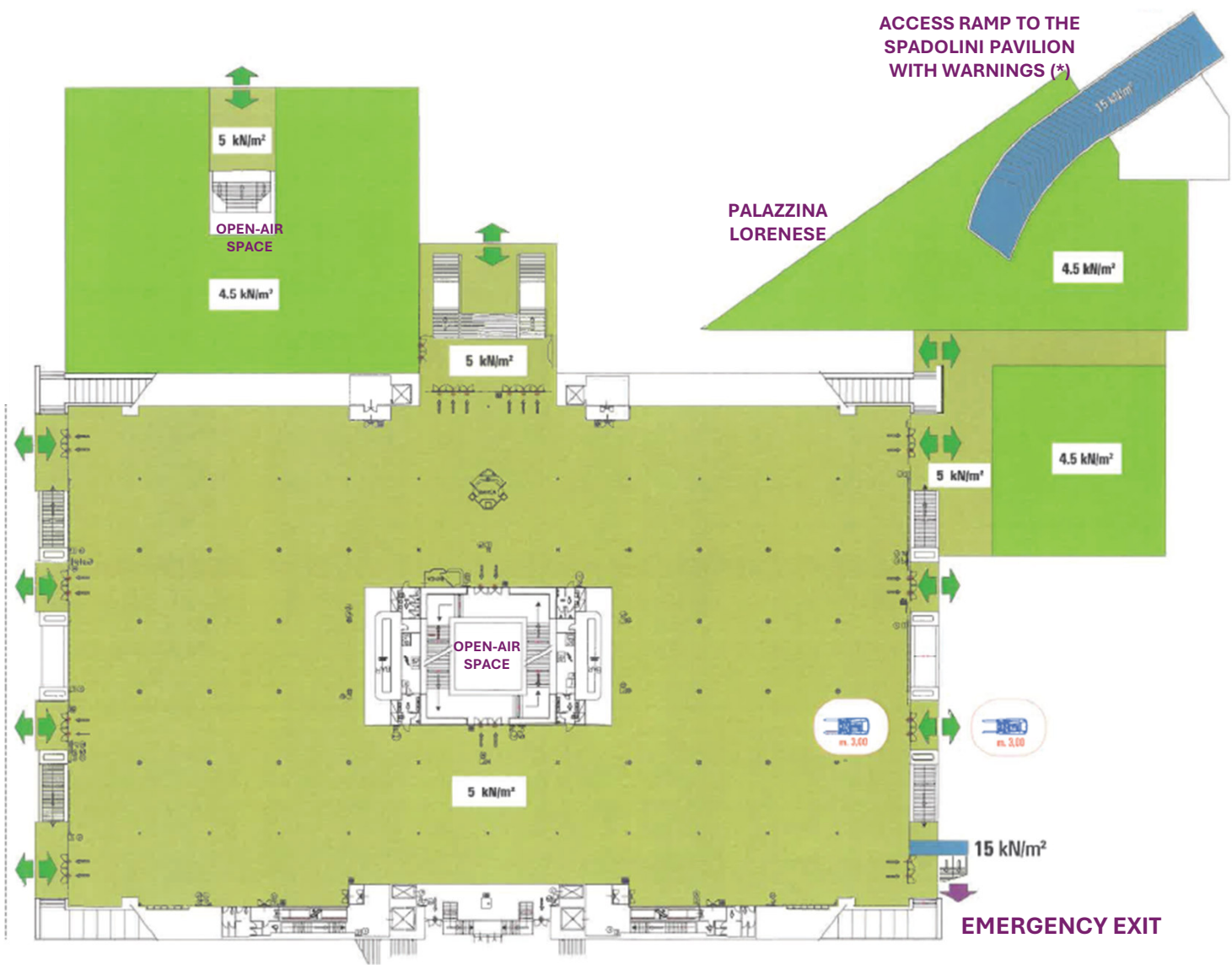
➔ VEHICLE ACCESS

ACCESS RAMP TO THE SPADOLINI PAVILION WITH WARNINGS (*)

PALAZZINA LORENESE

EMERGENCY EXIT

CAVANIGLIA PAVILION



FLOOR LOAD

Permitted values for different categories of use: N.T.C 2018 Table 3.1.1I

AREAS SUSCEPTIBLE AND TRAFFIC AREAS	PERMITTED VALUES
EXHIBITION ROOMS FREE OF OBSTACLES TO THE MOVEMENT OF PEOPLE, EXHIBITION ROOMS	4.5 kN/m ²
COMMON ROOMS, BALCONIES AND GALLERIES WITH THE FOLLOWING LIMITS: 4.00 KN	4.5 kN/m ²
ACCESS RAMP BASEMENT FOR INTENSIVE TRAFFIC – LOADING/UNLOADING AREA	15 kN/m ²

Category	UNIFORMLY DISTRIBUTED LOAD	VERTICAL CONCENTRATED LOADS	QK – kN
	qk – kN/m ² (lb/ft ²)	2 loading footprints 1.80 m apart square footprint	
C 1			5 kN (11.02 k)
C 2			4.50 kN (10.01 k)
C 3	5 kN/m ² (104.82 psf)	0.50 x 0.50 m.	5 kN (11.02 k)
C	4.5 kN/m ² (94.02 psf)		4.50 kN (10.01 k)
F	15 kN/m ² (313.33 psf)	1.00 x 1.00 m.	20 kN (44.48 k)
G			

WARNINGS FOR ACCESS AND TRANSIT OF FORKLIFTS FOR CORRECT MANOEUVRING (*)

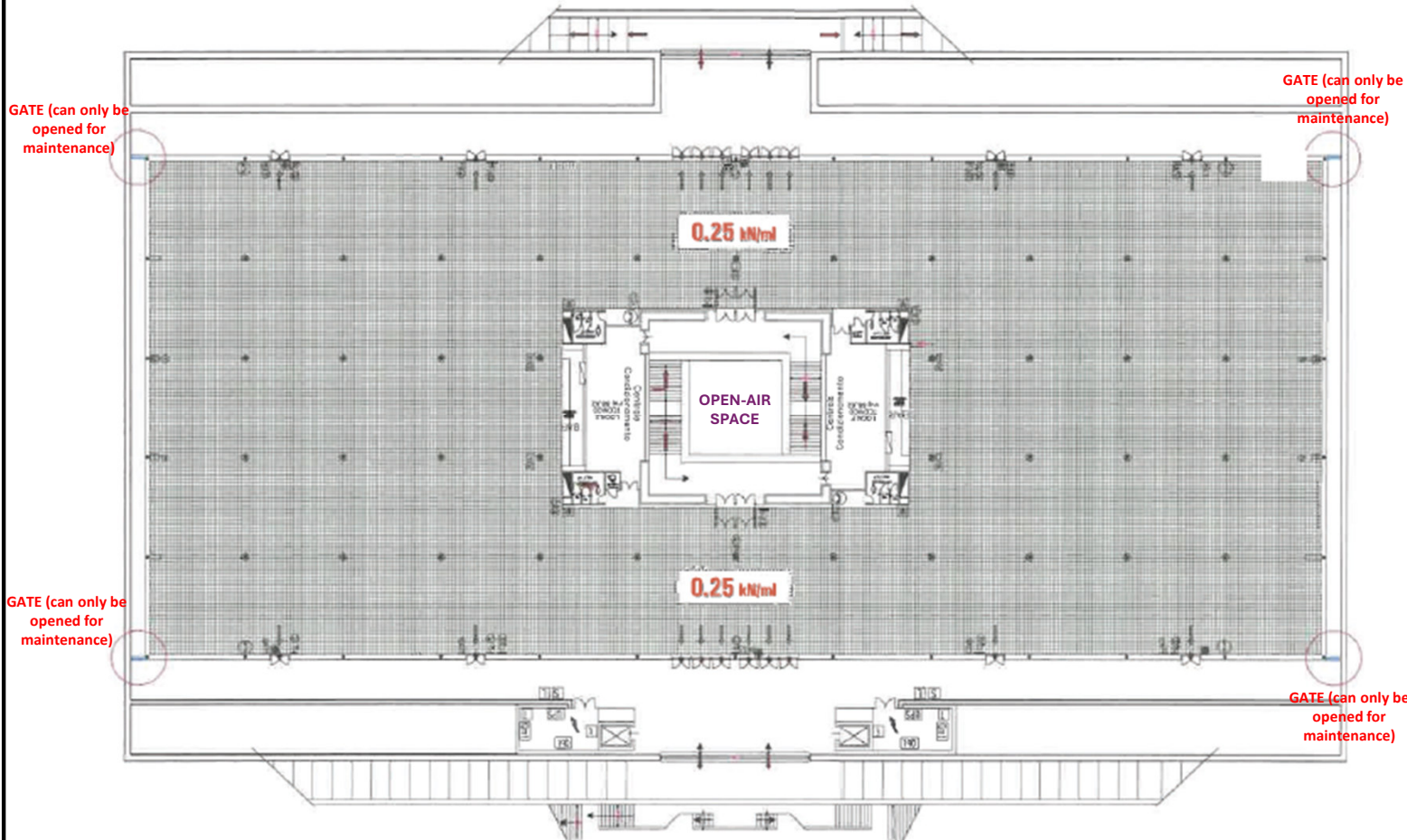
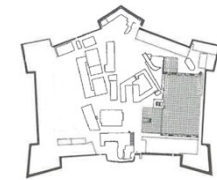
FORKLIFTS, TELESCOPIC LIFTS AND INTERNAL COMBUSTION ENGINE VEHICLES ARE NOT PERMITTED.

2. In relation to the load-bearing capacity of the floor, access by telescopic handlers and other vehicles (forklifts) is only permitted with a working load capacity of 7 kN so that the total weight is < 38 kN (own weight 30 kN).

3. If there is more than one forklift truck inside the Pavilion, a safety distance of at least 3.00 m must be kept between the vehicles.

REQUIREMENTS FOR THE USE OF FORKLIFTS IN EXHIBITION SPACES

- 1. MAXIMUM OVERALL WEIGHT up to 3000 kg
- 2. MINIMUM CLEARANCE BETWEEN PAVILION WALLS up to 3.00 m
- 3. SPEED MAXIMUM VELOCITY AT WORK STOP



□ PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

■ SPECIFIC PERMITTED LOADS

FLOOR LOAD:

- 3 kN/m² – 6.27 psf [USA]
- 4 kN/m² – 8.35 psf [USA]
- 4.5 kN/m² – 9.40 psf [USA]
- 5 kN/m² – 10.44 psf [USA]
- 15 kN/m² – 31.33 psf [USA]
- 20 kN/m² – 41.77 psf [USA]

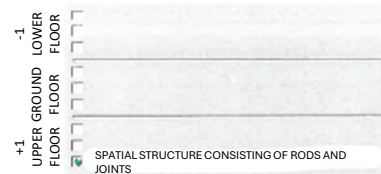
■ EMBANKMENT

➡ PEDESTRIAN ACCESS ONLY

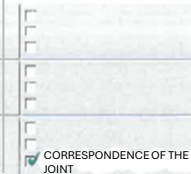
➡ VEHICLE ACCESS

RIGGING STRUCTURES

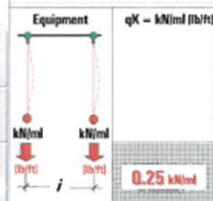
Construction system to which loads are to be anchored:



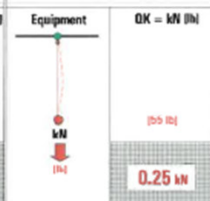
Ties to be used:



LOAD DISTRIBUTED BETWEEN SUCCESSIVE JOINTS



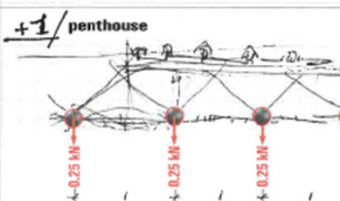
LOAD CONCENTRATED AT THE JOINT

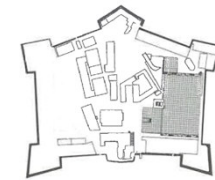


WARNINGS FOR THE CORRECT DISTRIBUTION OF LOADS

1. All suspended loads must have a hook or main cable in addition to the safety cable
2. The hanging connection must be made in perfect correspondence with the node of the spatial covering structure

SKETCH SPATIAL STRUCTURE OF THE ROOF (BEAMS AND NODES)





□ PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

■ SPECIFIC PERMITTED LOADS

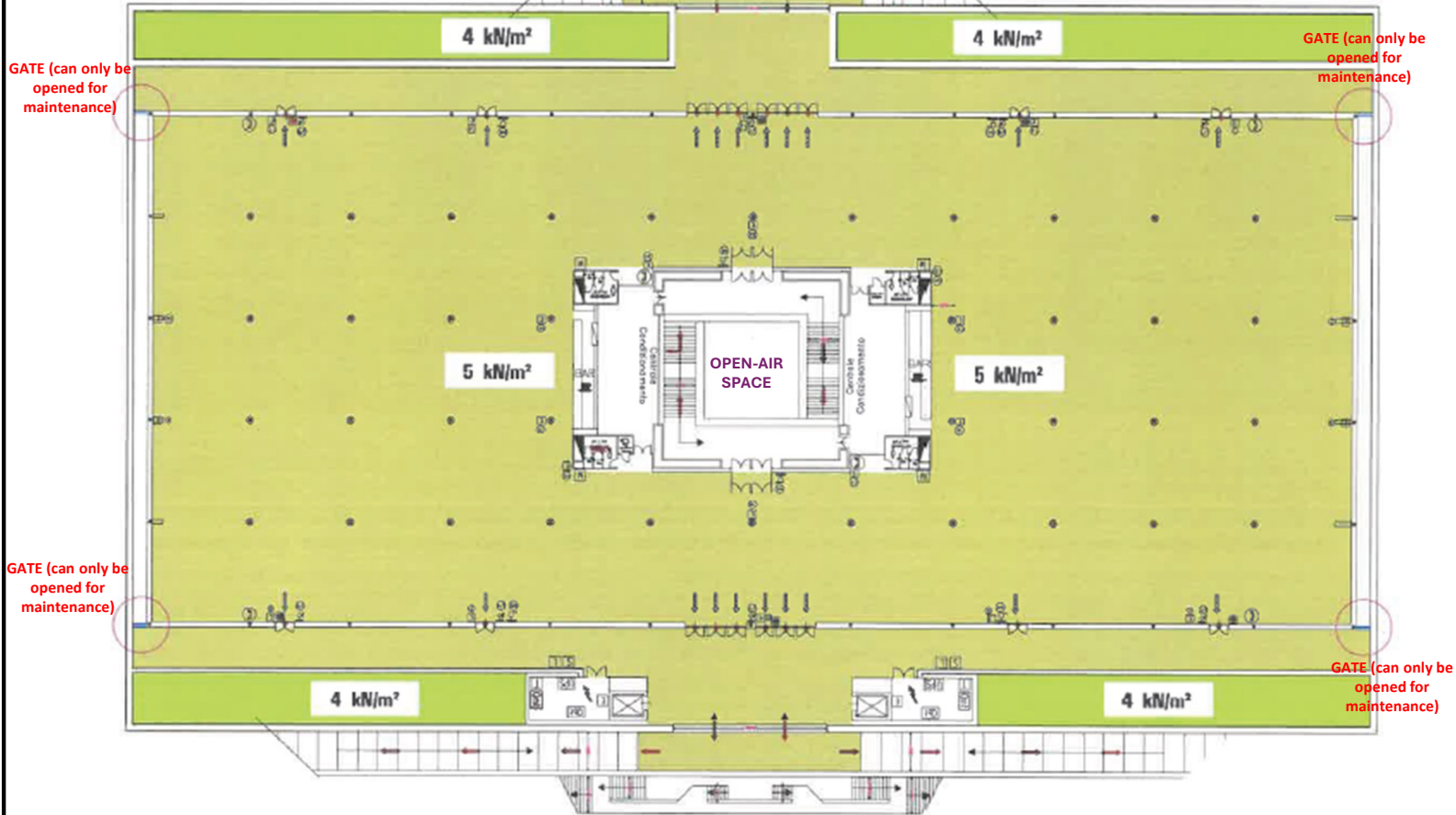
FLOOR LOAD:

- 3 kN/m² – 6.27 psf [USA]
- 4 kN/m² – 8.35 psf [USA]
- 4.5 kN/m² – 9.40 psf [USA]
- 5 kN/m² – 10.44 psf [USA]
- 15 kN/m² – 31.33 psf [USA]
- 20 kN/m² – 41.77 psf [USA]

■ EMBANKMENT

➡ PEDESTRIAN ACCESS ONLY

➡ VEHICLE ACCESS



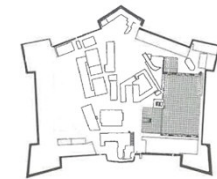
FLOOR LOAD

Permitted values for different categories of use: N.T.C 2018 Table 3.1.II

UNIFORMLY DISTRIBUTED LOAD **VERTICAL CONCENTRATED LOADS**
2 loading footprints 1.80 m apart

Category	qK = kN/m ² (lb/ft ²)	square footprint	QK = kN (in)
C 1			
C 2	4 kN/m ² (8.35 psf)		4 kN (8.8 lb)
C 3	5 kN/m ² (10.44 psf)	0.50 x 0.50 m	5 kN (11.2 lb)
C			
F			
G			
-			

AREAS SUSCEPTIBLE AND TRAFFIC AREAS TO GROUNDING	DESCRIPTION
■	AREAS WITH PERMANENT SEATS, THEATRES, CINEMAS, CONFERENCE AND WAITING ROOMS, LECTURE HALLS
■	EXHIBITION ROOMS WITHOUT OBSTACLES TO THE MOVEMENT OF PEOPLE, EXHIBITION ROOMS



□ PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

■ SPECIFIC PERMITTED LOADS

FLOOR LOAD:

- 3 kN/m² – 6.27 psf [USA]
- 4 kN/m² – 8.35 psf [USA]
- 4.5 kN/m² – 9.40 psf [USA]
- 5 kN/m² – 10.44 psf [USA]
- 15 kN/m² – 31.33 psf [USA]
- 20 kN/m² – 41.77 psf [USA]

■ EMBANKMENT

➡ PEDESTRIAN ACCESS ONLY

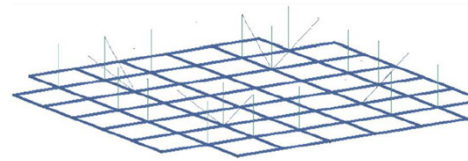
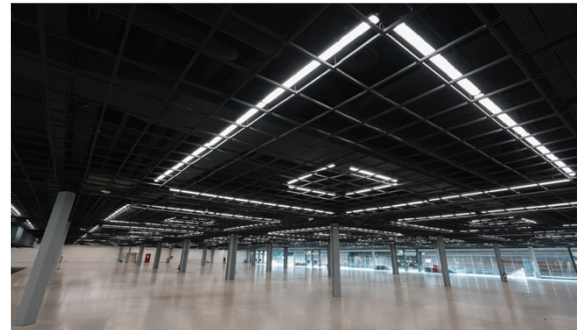
➡ VEHICLE ACCESS

- UPPER FLOOR-



NO RIGGING STRUCTURES ALLOWED FROM THE FALSE CEILING

-GROUND FLOOR-



Local loads up to 80 N/ml can be suspended from the structure; however, loads up to 4000 N can be suspended from the entire structure.

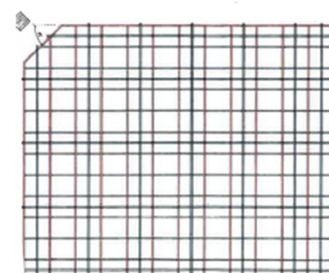
- LOWER FLOOR-

NO RIGGING STRUCTURES ALLOWED FROM THE FALSE CEILING



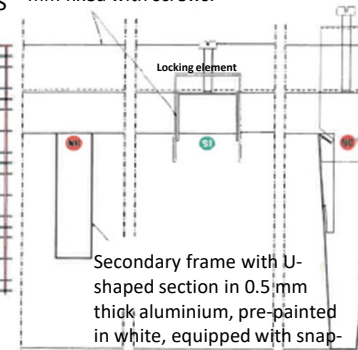
TYPICAL SPAN DIAGRAM

CENTRE DISTANCE OF PRIMARY TRUSSES
CENTRE DISTANCE OF SECONDARY TRUSSES



RIGGING STRUCTURES PERMITTED ONLY ON THE CROSSED STRUCTURE ABOVE THE FALSE CEILING (grid of approx. 1.00 x 1.20 m)

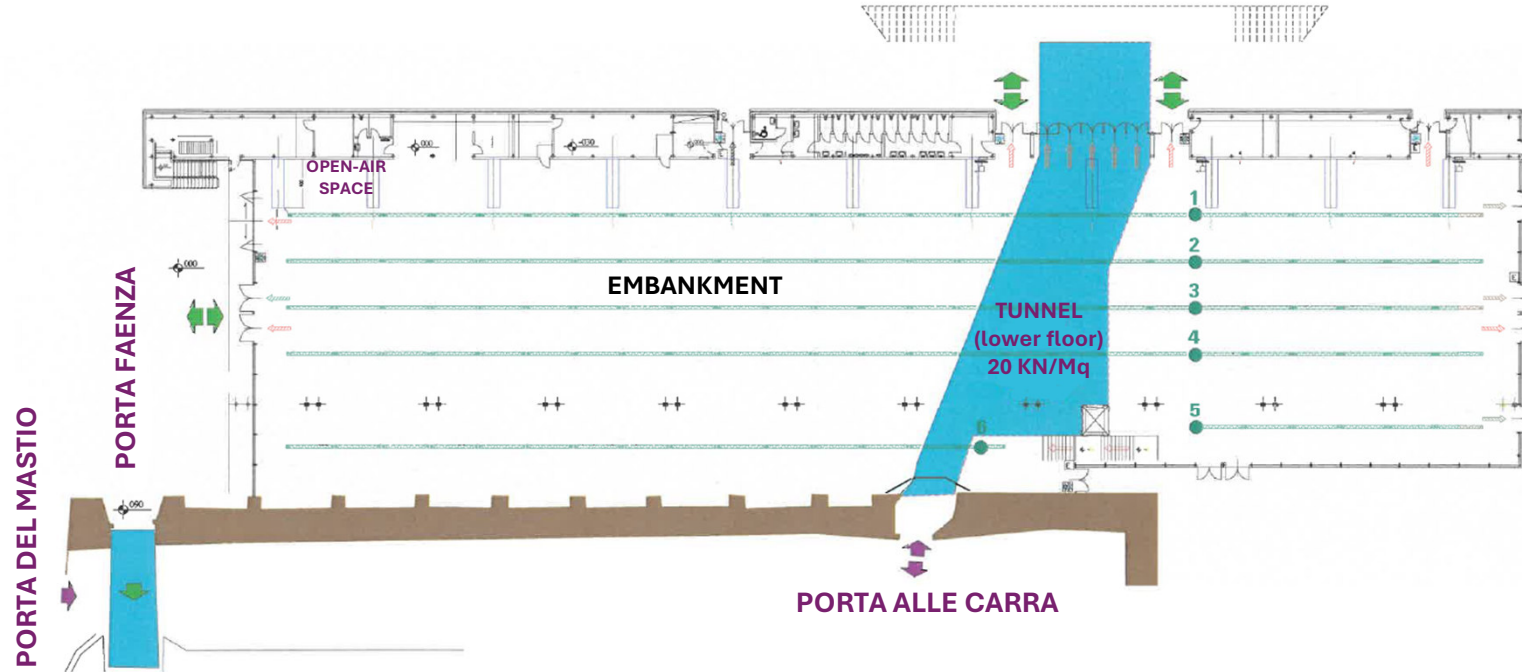
Crossed structure in pre-painted BLACK shaped steel "U" section 26.5x33.5x26.5 mm fixed with screws.



Secondary frame with U-shaped section in 0.5 mm thick aluminium, pre-painted in white, equipped with snap-on fasteners.

SPAN SECTION

ENTRANCE FROM THE LOWER FLOOR OF THE SPADOLINI PAVILION



RIGGING STRUCTURES		LOAD DISTRIBUTED ON THE LIGHTING TRUSSES		LOAD CONCENTRATED AT THE JOINT		WARNINGS FOR THE CORRECT DISTRIBUTION OF LOADS
		Equipment	[qK = lb / ft]	Equipment	[QK = lb]	
-1 LOWER FLOOR			0.32 kN/ml		0.32 kN	1. All suspended loads must have a hook or main cable in addition to the safety cable 2. The hanging connection must be made in perfect correspondence with the node of the spatial covering structure
GROUND FLOOR	LAMINATED WOOD TRUSSES - LIGHTING TRUSS ANCHORS		0.32 kN/ml		0.32 kN	
+1 UPPER FLOOR						DETAIL OF THE SQUARE TRUSS (to which the loads are to be anchored) Example of double-safety 5 mm steel cable Safety HD34 SQUARE TRUSS - Increased wall thickness for main tubes of 3 mm - Increased loading compared to FD34 (up to 50%) - Also available as HD34 Tower Truss - TÜV approved
Ties to be used:		TO THE LIGHTING TRUSSES				

FLOOR LOAD		UNIFORMLY DISTRIBUTED LOAD		VERTICAL CONCENTRATED LOADS 2 loading footprints 1.80 m apart		WARNINGS FOR ACCESS BY FORKLIFTS AND VEHICLES
		Category	qK = kN/m ² [lb/ft ²]	square footprint	QK = kN [lb]	
C 1						FORKLIFTS, TELESCOPIC LIFTS AND INTERNAL COMBUSTION ENGINE VEHICLES ARE NOT PERMITTED.
C 2						
C 3						
C						
F						
G		20 kN/m²	2.00 x 2.00 m.	20 kN	10 kN	

AREAS SUSCEPTIBLE TO CROWDING	
<input type="checkbox"/>	AREAS WITH BUILDINGS ADJACENT TO THE EMBANKMENT: EMBANKMENT
<input checked="" type="checkbox"/>	ACCESS AND STORAGE AREAS FOR GOODS, WAREHOUSES AND DEPOSITS
<input type="checkbox"/>	AREAS WITH BUILDINGS ADJACENT TO THE EMBANKMENT: EMBANKMENT

AREAS SUSCEPTIBLE TO CROWDING	
<input type="checkbox"/>	AREAS WITH BUILDINGS ADJACENT TO THE EMBANKMENT: EMBANKMENT
<input checked="" type="checkbox"/>	ACCESS AND STORAGE AREAS FOR GOODS, WAREHOUSES AND DEPOSITS
<input type="checkbox"/>	AREAS WITH BUILDINGS ADJACENT TO THE EMBANKMENT: EMBANKMENT



PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

SPECIFIC PERMITTED LOADS

FLOOR LOAD:

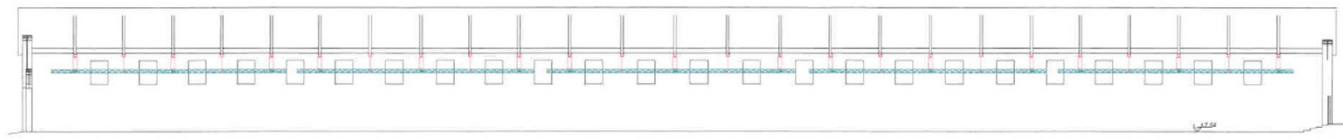
- 3 kN/m² - 6.27 psf [USA]
- 4 kN/m² - 8.35 psf [USA]
- 4.5 kN/m² - 9.40 psf [USA]
- 5 kN/m² - 10.44 psf [USA]
- 15 kN/m² - 31.33 psf [USA]
- 20 kN/m² - 41.77 psf [USA]

EMBANKMENT

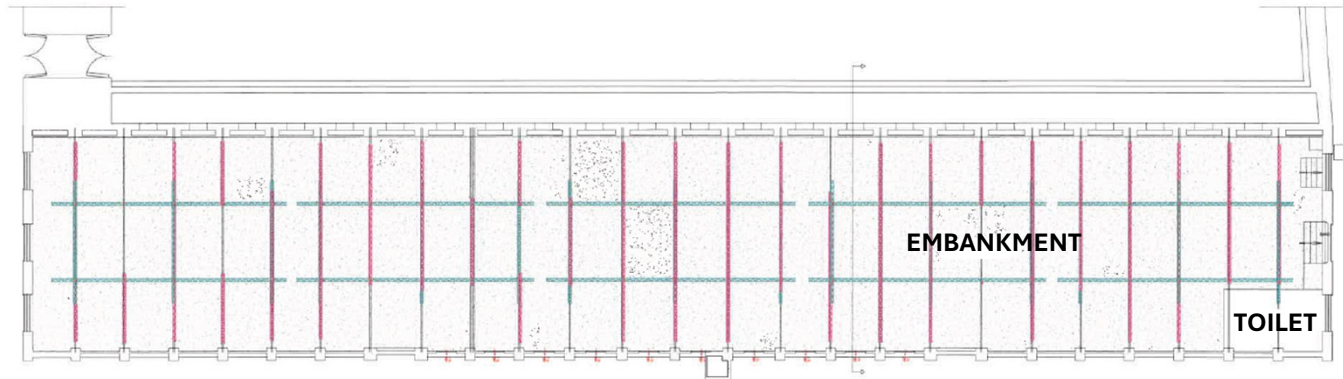
PEDESTRIAN ACCESS ONLY

VEHICLE ACCESS

ENTRANCE FROM THE LOWER FLOOR OF THE SPADOLINI PAVILION



LONGITUDINAL CROSS-SECTION



GROUND FLOOR



SKETCH TIES FOR RIGGING STRUCTURES



PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

SPECIFIC RIGGING PERMITTED LOADS

FLOOR LOAD:

3 kN/m ²	6.27 psf [USA]
4 kN/m ²	8.35 psf [USA]
4.5 kN/m ²	9.40 psf [USA]
5 kN/m ²	10.44 psf [USA]
15 kN/m ²	31.33 psf [USA]
20 kN/m ²	41.77 psf [USA]

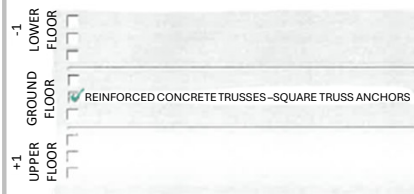
EMBANKMENT
 PEDESTRIAN ACCESS ONLY
 VEHICLE ACCESS

1. THE HANGING MUST BE CONNECTED EXACTLY AT THE STRUCTURAL JOINT (REINFORCEMENT PLATE) OF THE REINFORCED CONCRETE TRUSS
 2. THE SQUARE TRUSSES ARE ANCHORED AND MADE SAFE ONLY IN THE SPANS OF THE HOISTS. THE OTHER SPANS ARE ALREADY PRE-SET WITH STEEL CABLES, BUT NOT YET CONNECTED TO THE SQUARE TRUSSES
 3. TO ACHIEVE THE TOTAL SPECIFIED CARRYING CAPACITIES:
 - WEIGHT OF 3.60 kN FOR EACH CONNECTION
 - NO. 2 CONNECTIONS MAX PER TRUSS
 ONE MUST THEREFORE, AT THE TIME OF SETTING UP, ANCHOR AND MAKE SAFE THE LOADS USING STEEL CABLES ANCHORING THEM TO THE SQUARE TRUSSES

RIGGING STRUCTURES

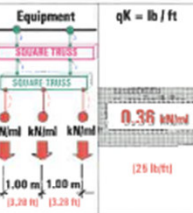
Construction system to which loads are to be anchored:

Ties to be used:

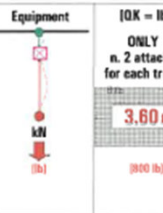


TO BEARING SQUARE TRUSSES
 TO "EDISON" SQUARE TRUSSES

LOAD DISTRIBUTED ON THE LIGHTING TRUSSES



LOAD CONCENTRATED AT THE JOINT



WARNINGS FOR THE CORRECT DISTRIBUTION OF LOADS

1. All suspended loads must have a hook or main cable in addition to the safety cable
 2. The hanging connection must be made in perfect correspondence with the node of the spatial covering structure

FLOOR LOAD

Permitted values for different categories of use: N.T.C 2018 Table 3.1.II



UNIFORMLY DISTRIBUTED LOAD

Category	qK = kN/m ² (lb/ft ²)
C 1	
C 2	
C 3	
C	
F	
G	

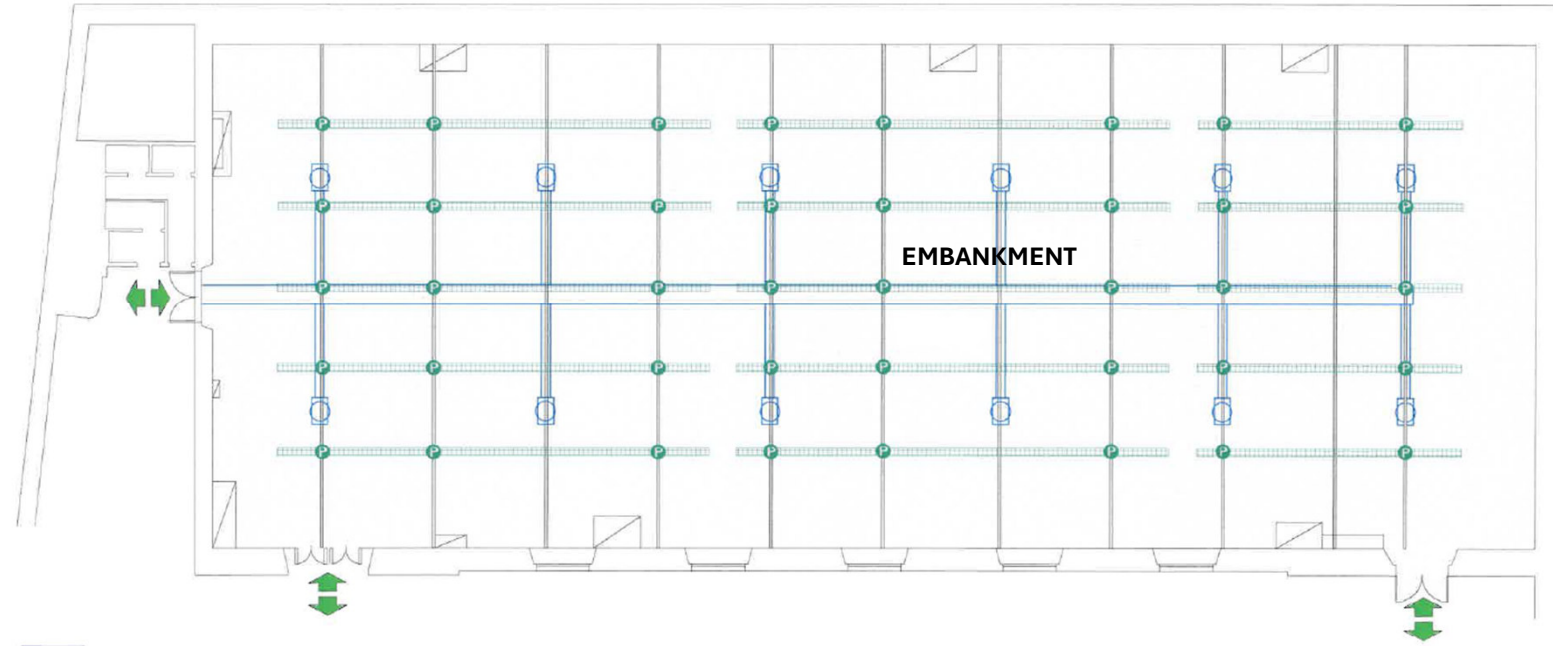
VERTICAL CONCENTRATED LOADS 2 loading footprints 1.80 m apart

Category	square footprint	QK = kN (lb)
C 1		
C 2		
C 3		
C		
F		
G		

WARNINGS FOR ACCESS BY FORKLIFTS AND VEHICLES

FORKLIFTS, TELESCOPIC LIFTS AND INTERNAL COMBUSTION ENGINE VEHICLES ARE NOT PERMITTED.





RIGGING STRUCTURES

Construction system to which loads are to be anchored:

-1 LOWER FLOOR		
GROUND FLOOR	REINFORCED CONCRETE TRUSSES - SQUARE TRUSS ANCHORS	MAX No. 4 SQUARE TRUSSES
+1 UPPER FLOOR		

Ties to be used:

LOAD DISTRIBUTED ON THE LIGHTING TRUSSES

Equipment	[qK = lb / ft]	Equipment	QK = kN [lb]
SQUARE TRUSS	0.36 kN/m (25 lb/ft)		2.50 kN (550 lb)

1.00 m (3' 3 3/8")

WARNINGS FOR THE CORRECT DISTRIBUTION OF LOADS

SKETCH TIES FOR RIGGING STRUCTURES

FLOOR LOAD

Permitted values for different categories of use: N.T.C 2018 Table 3.1.II

Category	UNIFORMLY DISTRIBUTED LOAD		VERTICAL CONCENTRATED LOADS 2 loading footprints 1.80 m apart	
	qK = kN/m ²	(lb/ft ²)	square footprint	QK = kN [lb]
C 1				
C 2				
C 3				
C				
F				
G				

WARNINGS FOR ACCESS BY FORKLIFTS AND VEHICLES

FORKLIFTS, TELESCOPIC LIFTS AND INTERNAL COMBUSTION ENGINE VEHICLES ARE NOT PERMITTED.

□ PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

■ SPECIFIC PERMITTED LOADS

FLOOR LOAD:

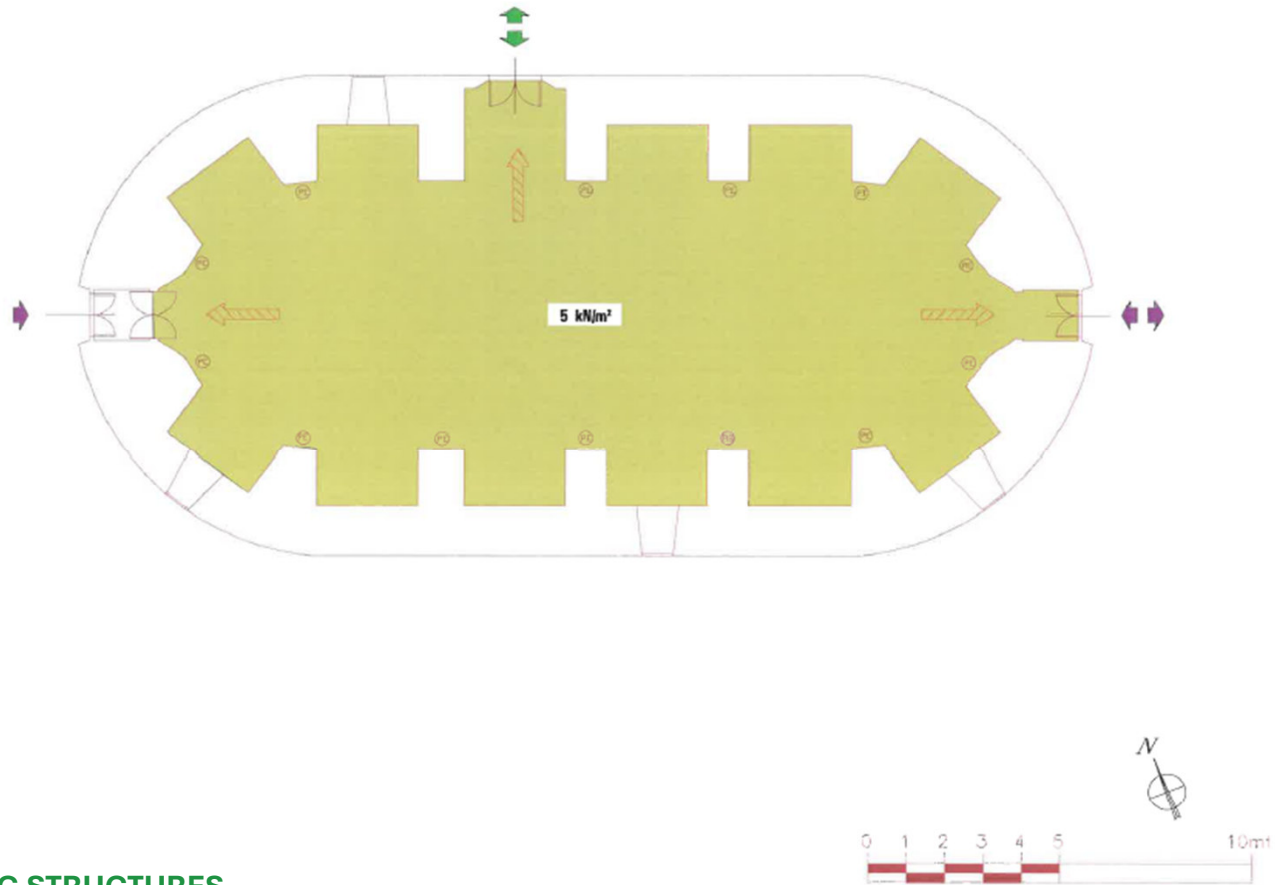
- 3 kN/m² - 6.27 psf [USA]
- 4 kN/m² - 8.35 psf [USA]
- 4.5 kN/m² - 9.40 psf [USA]
- 5 kN/m² - 10.44 psf [USA]
- 15 kN/m² - 31.33 psf [USA]
- 20 kN/m² - 41.77 psf [USA]

■ EMBANKMENT

➡ PEDESTRIAN ACCESS ONLY

➡ VEHICLE ACCESS

PIAZZALE NORD OVEST




RIGGING STRUCTURES

NO RIGGING STRUCTURES ALLOWED

FLOOR LOAD

Permitted values for different categories of use: N.T.C 2018 Table 3.1.II

AREAS SUSCEPTIBLE TO CROWDING	EXHIBITION ROOMS FREE OF OBSTACLES TO THE MOVEMENT OF PEOPLE, EXHIBITION ROOMS
ACCESS AND TRAFFIC AREAS	AREAS WITH BUILDINGS ADJACENT TO THE EMBANKMENT: EMBANKMENT

Category	UNIFORMLY DISTRIBUTED LOAD	VERTICAL CONCENTRATED LOADS	WARNINGS FOR ACCESS BY FORKLIFTS AND VEHICLES
	qK - kN/m² (lb/ft²)	2 loading footprints 1.80 m apart square footprint QK - kN (lb)	
C1			FORKLIFTS, TELESCOPIC LIFTS AND INTERNAL COMBUSTION ENGINE VEHICLES ARE NOT PERMITTED. 
C2			
C3	5 kN/m² (118.44 psf)	0.50 x 0.50 m, 5.00 kN (1120 lb)	
C			
F			
G			



PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

SPECIFIC PERMITTED LOADS

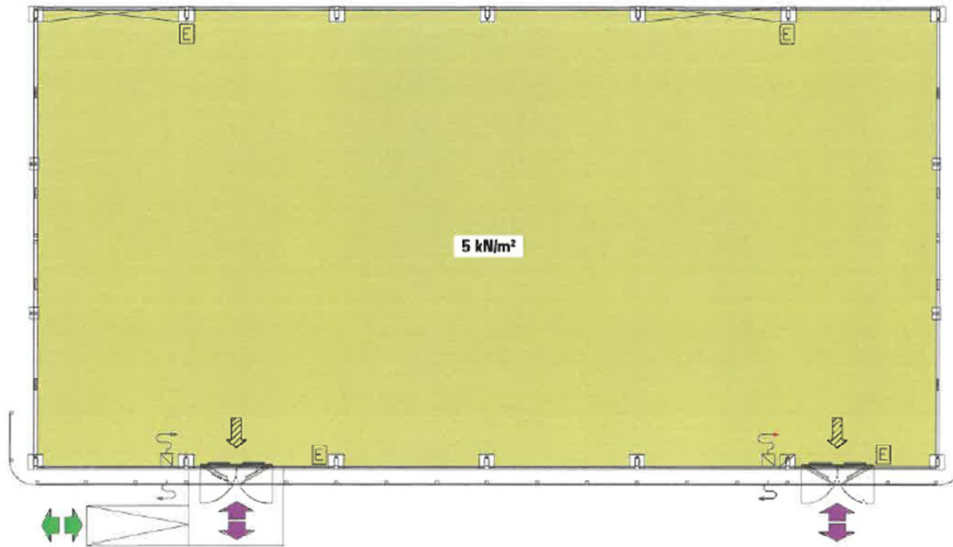
FLOOR LOAD:

- 3 kN/m² - 6.27 psf [USA]
- 4 kN/m² - 8.35 psf [USA]
- 4.5 kN/m² - 9.40 psf [USA]
- 5 kN/m² - 10.44 psf [USA]
- 15 kN/m² - 31.33 psf [USA]
- 20 kN/m² - 41.77 psf [USA]

EMBANKMENT

- PEDESTRIAN ACCESS ONLY
- VEHICLE ACCESS

PIAZZALE NORD OVEST




RIGGING STRUCTURES

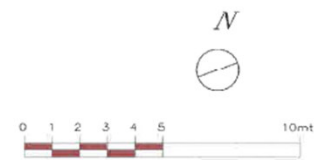
IT MUST BE CHECKED EVERY TIME

FLOOR LOAD

Permitted values for different categories of use: N.T.C 2018 Table 3.1.II

AREAS SUSCEPTIBLE TO CROWDING	EXHIBITION ROOMS FREE OF OBSTACLES TO THE MOVEMENT OF PEOPLE, EXHIBITION ROOMS
ACCESS AND TRAFFIC AREAS	AREAS WITH BUILDINGS ADJACENT TO THE EMBANKMENT: EMBANKMENT

Category	UNIFORMLY DISTRIBUTED LOAD	VERTICAL CONCENTRATED LOADS	WARNINGS FOR ACCESS BY FORKLIFTS AND VEHICLES
	qK - kN/m² (lb/ft²)	2 loading footprints 1.80 m apart square footprint QK - kN (k)	
C1			FORKLIFTS, TELESCOPIC LIFTS AND INTERNAL COMBUSTION ENGINE VEHICLES ARE NOT PERMITTED. 
C2			
C3	5 kN/m² (10.44 psf)	0.50 x 0.50 m, 5.00 kN (1120 lb)	
C			
F			
G			
-			



PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

SPECIFIC PERMITTED LOADS

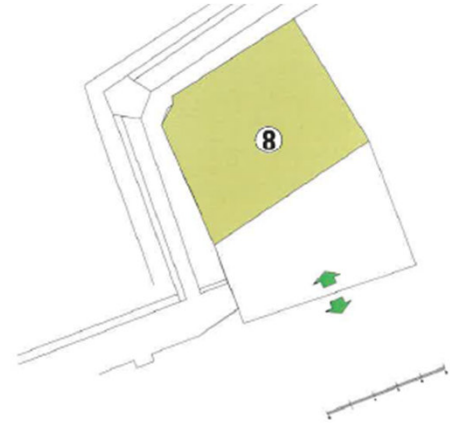
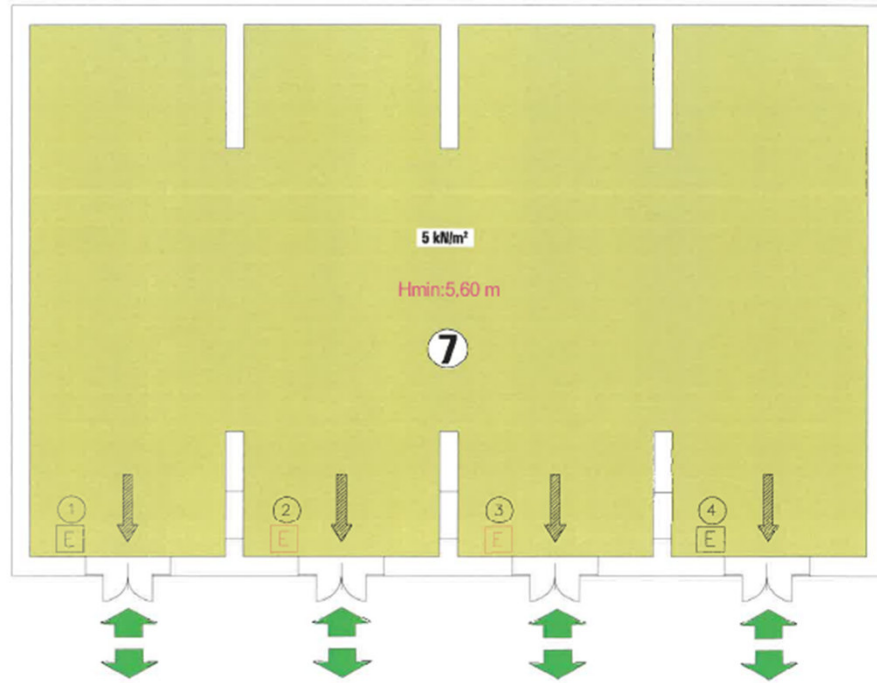
FLOOR LOAD:

- 3 kN/m² - 6.27 psf [USA]
- 4 kN/m² - 8.35 psf [USA]
- 4.5 kN/m² - 9.40 psf [USA]
- 5 kN/m² - 10.44 psf [USA]
- 15 kN/m² - 31.33 psf [USA]
- 20 kN/m² - 41.77 psf [USA]

EMBANKMENT

PEDESTRIAN ACCESS ONLY

VEHICLE ACCESS



BATTERY CHARGING ROOM

MAGAZZINO 02


RIGGING STRUCTURES

NO RIGGING STRUCTURES ALLOWED

FLOOR LOAD

Permitted values for different categories of use: N.T.C 2018 Table 3.1.II

AREAS SUSCEPTIBLE TO CROWDING	EXHIBITION ROOMS FREE OF OBSTACLES TO THE MOVEMENT OF PEOPLE, EXHIBITION ROOMS
ACCESS AND TRAFFIC AREAS	AREAS WITH BUILDINGS ADJACENT TO THE EMBANKMENT: EMBANKMENT

Category	UNIFORMLY DISTRIBUTED LOAD	VERTICAL CONCENTRATED LOADS	WARNINGS FOR ACCESS BY FORKLIFTS AND VEHICLES
	qK - kN/m² (lb/ft²)	2 loading footprints 1.80 m apart square footprint QK - kN (lb)	
C1			FORKLIFTS, TELESCOPIC LIFTS AND INTERNAL COMBUSTION ENGINE VEHICLES ARE NOT PERMITTED. 
C2			
C3	5 kN/m² (118.44 psf)	0.50 x 0.50 m	
C			
F			
G			
-			



PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

SPECIFIC PERMITTED LOADS

FLOOR LOAD:

- 3 kN/m² - 6.27 psf [USA]
- 4 kN/m² - 8.35 psf [USA]
- 4.5 kN/m² - 9.40 psf [USA]
- 5 kN/m² - 10.44 psf [USA]
- 15 kN/m² - 31.33 psf [USA]
- 20 kN/m² - 41.77 psf [USA]

EMBANKMENT

- PEDESTRIAN ACCESS ONLY
- VEHICLE ACCESS



□ PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

■ SPECIFIC PERMITTED LOADS

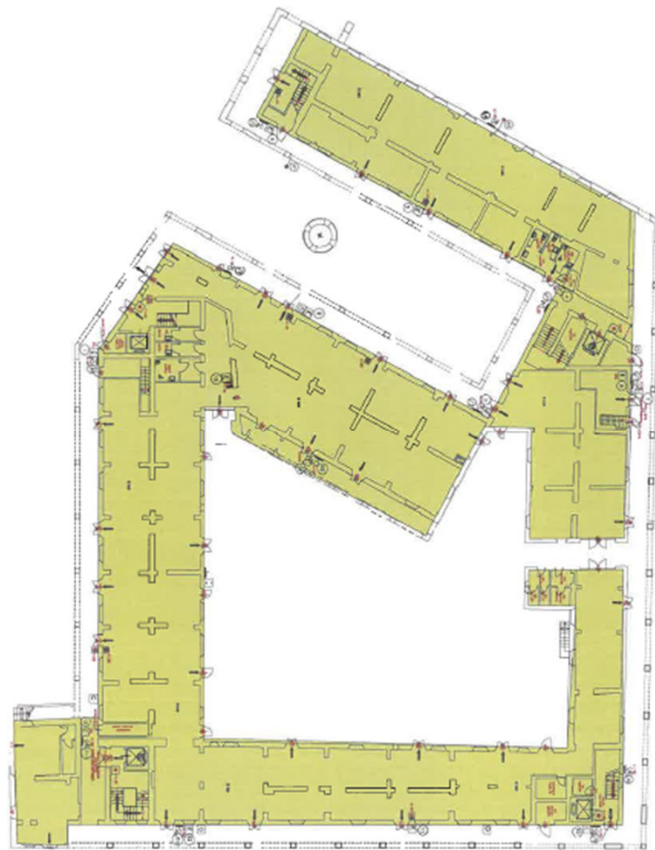
FLOOR LOAD:

- 3 kN/m² – 6.27 psf [USA]
- 4 kN/m² – 8.35 psf [USA]
- 4.5 kN/m² – 9.40 psf [USA]
- 5 kN/m² – 10.44 psf [USA]
- 15 kN/m² – 31.33 psf [USA]
- 20 kN/m² – 41.77 psf [USA]

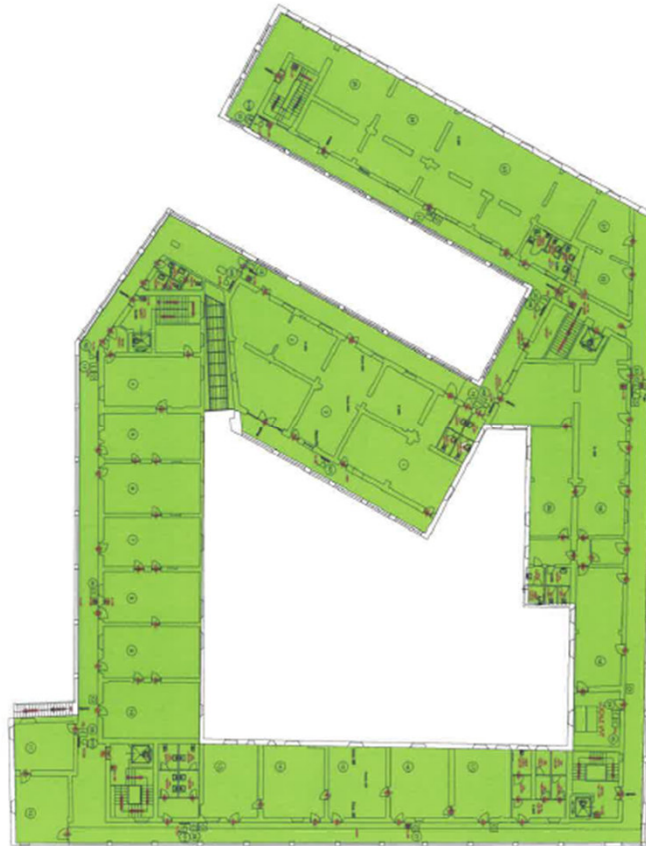
■ EMBANKMENT

➡ PEDESTRIAN ACCESS ONLY

➡ VEHICLE ACCESS



GROUND FLOOR



UPPER FLOOR


RIGGING STRUCTURES

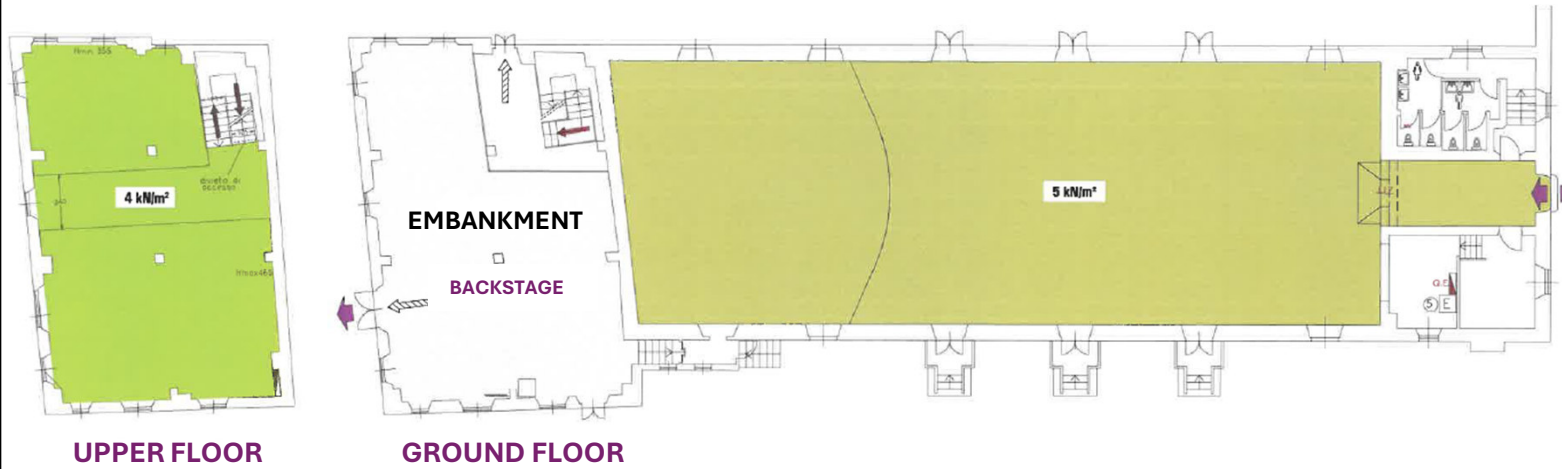
IT MUST BE CHECKED EVERY TIME

FLOOR LOAD

Permitted values for different categories of use: N.T.C 2018 Table 3.1.II

AREAS SUSCEPTIBLE TO CROWDING	AREAS WITH PERMANENT SEATS, THEATRES, CINEMAS, CONFERENCE AND WAITING ROOMS, LECTURE HALLS
	EXHIBITION ROOMS FREE OF OBSTACLES TO THE MOVEMENT OF PEOPLE, EXHIBITION ROOMS
ACCESS AND TRAFFIC AREAS	

Category	UNIFORMLY DISTRIBUTED LOAD	VERTICAL CONCENTRATED LOADS	WARNINGS FOR ACCESS BY FORKLIFTS AND VEHICLES
	qK = kN/m ² (psf)	2 loading footprints 1.80 m apart	
C 1			FORKLIFTS, TELESCOPIC LIFTS AND INTERNAL COMBUSTION ENGINE VEHICLES ARE NOT PERMITTED. 
C 2	4 kN/m ² (8.35 psf)	0.50 x 0.50 m	
C 3	5 kN/m ² (10.44 psf)		
C			
F			
G			
.			



RIGGING STRUCTURES

Construction system to which loads are to be anchored: Ties to be used:

FLOOR	CONSTRUCTION SYSTEM	TIES TO BE USED
LOWER FLOOR		
GROUND FLOOR	EARING STRUCTURE WITH BEAMS MADE OF COMPOUND WOOD	AT THE JOINT/ANCHORING BRACKET
UPPER FLOOR		

LOAD DISTRIBUTED ON THE LIGHTING TRUSSES

Equipment

$QK = \text{lb} / \text{ft}$

0.25 kN/m (17 lb/ft)

LOAD CONCENTRATED AT THE JOINT

Equipment

$QK = \text{kN} (\text{lb})$

2.50 kN (550 lb)

WARNINGS FOR THE CORRECT DISTRIBUTION OF LOADS

- All suspended loads must have a hook or main cable in addition to the safety cable.
- The hanging connection must be made in perfect correspondence with the node of the spatial covering structure.

SKETCH TIES FOR HANGINGS

maximum 4.00 ft (1.20 m)

2.50 kN (550 lb)

2.50 kN (550 lb)

NOTE (*)

IT IS ADVISABLE TO CONNECT THE LOADS AT THE JOINT BETWEEN THE CHAIN AND THE STRUT OF THE TRUSS

IN ANY CASE, THE MAXIMUM DISTANCE FROM THE SUPPORTS MUST NOT EXCEED 1.20 m.

FLOOR LOAD

Permitted values for different categories of use: N.T.C 2018 Table 3.1.II

Category	UNIFORMLY DISTRIBUTED LOAD		VERTICAL CONCENTRATED LOADS 2 loading footprints 1.80 m apart		WARNINGS FOR ACCESS BY FORKLIFTS AND VEHICLES
	$qK = \text{kN/m}^2$ (lb/ft ²)	$QK = \text{kN}$ (lb)	square footprint	$QK = \text{kN}$ (lb)	
C 1			0.50 x 0.50 m.	4 kN (900 lb)	FORKLIFTS, TELESCOPIC LIFTS AND INTERNAL COMBUSTION ENGINE VEHICLES ARE NOT PERMITTED.
C 2	4 kN/m ² (82 psf)			5 kN (1100 lb)	
C 3	5 kN/m ² (102 psf)				
C					
F					
G					

PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

SPECIFIC PERMITTED LOADS

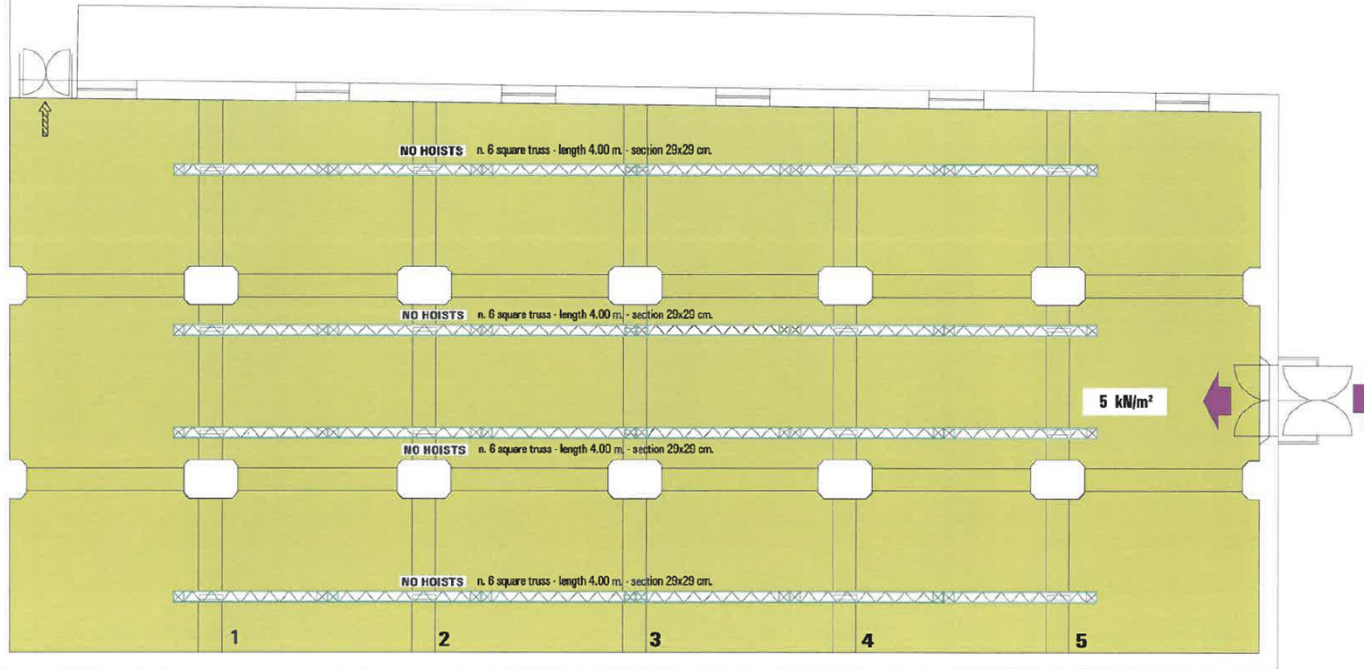
FLOOR LOAD:

- 3 kN/m² – 6.27 psf [USA]
- 4 kN/m² – 8.35 psf [USA]
- 4.5 kN/m² – 9.40 psf [USA]
- 5 kN/m² – 10.44 psf [USA]
- 15 kN/m² – 31.33 psf [USA]
- 20 kN/m² – 41.77 psf [USA]

EMBANKMENT

PEDESTRIAN ACCESS ONLY

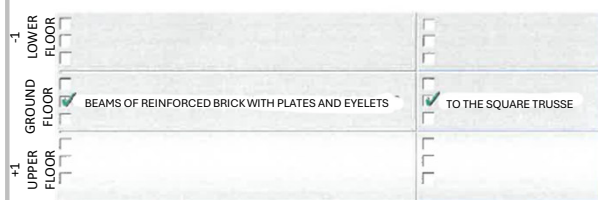
VEHICLE ACCESS



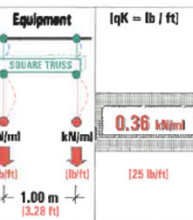
RIGGING STRUCTURES

Construction system to which loads are to be anchored:

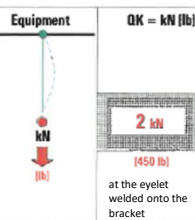
Ties to be used:



LOAD DISTRIBUTED ON THE LIGHTING TRUSSES



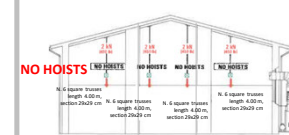
LOAD CONCENTRATED AT THE JOINT



WARNINGS FOR THE CORRECT DISTRIBUTION OF LOADS

1. All suspended loads must have a hook or main cable in addition to the safety cable
2. The hanging connection must be made in perfect correspondence with the node of the spatial covering structure

SKETCH TIES FOR HANGINGS



□ PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

■ SPECIFIC PERMITTED LOADS

FLOOR LOAD:

- 3 kN/m² - 6.27 psf [USA]
- 4 kN/m² - 8.35 psf [USA]
- 4.5 kN/m² - 9.40 psf [USA]
- 5 kN/m² - 10.44 psf [USA]
- 15 kN/m² - 31.33 psf [USA]
- 20 kN/m² - 41.77 psf [USA]

■ EMBANKMENT

➡ PEDESTRIAN ACCESS ONLY

➡ VEHICLE ACCESS

FLOOR LOAD

Permitted values for different categories of use: N.T.C 2018 Table 3.1.II

AREAS SUSCEPTIBLE TO CROWDING	EXHIBITION ROOMS FREE OF OBSTACLES TO THE MOVEMENT OF PEOPLE, EXHIBITION ROOMS
ACCESS AND TRAFFIC AREAS	AREAS WITH BUILDINGS ADJACENT TO THE EMBANKMENT: EMBANKMENT

UNIFORMLY DISTRIBUTED LOAD

Category	qK=kN/m² (lb/ft²)
C1	
C2	
C3	5 kN/m² (10.44 psf)
F/G	
E1	
E1	
E2	

VERTICAL CONCENTRATED LOADS
2 loading footprints 1.80 m apart

square footprint	QK = kN (lb)
0.50 x 0.50 m.	5 kN (10.50 lb)

WARNINGS FOR ACCESS BY FORKLIFTS AND VEHICLES

FORKLIFTS, TELESCOPIC LIFTS AND INTERNAL COMBUSTION ENGINE VEHICLES ARE NOT PERMITTED.



NOTE (*)

WHEN CONNECTING TO SQUARE TRUSSES THE LOAD MUST ALWAYS BE CONSIDERED TO BE UNIFORMLY DISTRIBUTED AT THE EYELETS



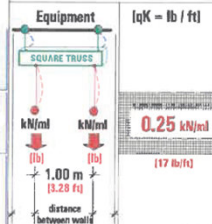
RIGGING STRUCTURES

Construction system to which loads are to be anchored:

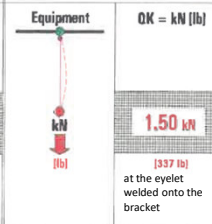
Ties to be used:

-1 LOWER FLOOR		
GROUND FLOOR	LAMINATED WOOD TRUSSES - SQUARE TRUSS ANCHORS	CORRESPONDENCE OF THE JOINT
+1 UPPER FLOOR		

LOAD DISTRIBUTED ON THE LIGHTING TRUSSES



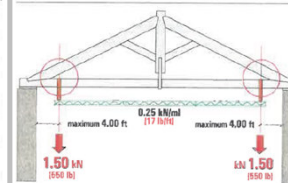
LOAD CONCENTRATED AT THE JOINT



WARNINGS FOR THE CORRECT DISTRIBUTION OF LOADS

- All suspended loads must have a hook or main cable in addition to the safety cable
- The hanging connection must be made in perfect correspondence with the node of the spatial covering structure

SKETCH TIES FOR HANGINGS



PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

SPECIFIC PERMITTED LOADS

FLOOR LOAD:

- 3 kN/m² - 6.27 psf [USA]
- 4 kN/m² - 8.35 psf [USA]
- 4.5 kN/m² - 9.40 psf [USA]
- 5 kN/m² - 10.44 psf [USA]
- 15 kN/m² - 31.33 psf [USA]
- 20 kN/m² - 41.77 psf [USA]

EMBANKMENT

PEDESTRIAN ACCESS ONLY

VEHICLE ACCESS

FLOOR LOAD

Permitted values for different categories of use: N.T.C 2018 Table 3.1.II

AREAS SUSCEPTIBLE TO CROWDING	AREAS WITH TABLES, BANQUET HALLS, READING ROOMS AND RECEPTION AREAS
AREAS SUSCEPTIBLE TO CROWDING	EXHIBITION ROOMS FREE OF OBSTACLES TO THE MOVEMENT OF PEOPLE, EXHIBITION ROOMS
ACCESS AND TRAFFIC AREAS	

UNIFORMLY DISTRIBUTED LOAD

Category	qK = kN/m ² (lb/ft ²)
C 1	3 kN/m ² (6.27 psf)
C 2	4 kN/m ² (8.35 psf)
C 3	5 kN/m ² (10.44 psf)
C	
F	
G	
.	

VERTICAL CONCENTRATED LOADS
2 loading footprints 1.80 m apart

square footprint	QK = kN (tn)
0.50 x 0.50 m.	3 kN (0.30 tn)
	5 kN (0.50 tn)

WARNINGS FOR ACCESS BY FORKLIFTS AND VEHICLES

FORKLIFTS, TELESCOPIC LIFTS AND INTERNAL COMBUSTION ENGINE VEHICLES ARE NOT PERMITTED.



NOTE (*)

THE HANGING MUST BE PLACED PERFECTLY NEAR THE JUNCTION BETWEEN THE STRUT AND CHAIN OF THE STRUCTURAL WOODEN TRUSS.



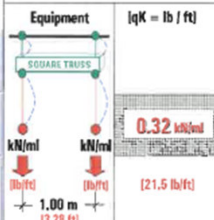
RIGGING STRUCTURES

Construction system to which loads are to be anchored:

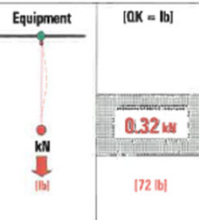
Ties to be used:

-1 LOWER FLOOR		
GROUND FLOOR	LOAD-BEARING MASONRY STRUCTURE WITH VAULTED DEVELOPMENT	PRE-SET FALSE CEILING SUPPORTS
+1 UPPER FLOOR		

LOAD DISTRIBUTED ON THE LIGHTING TRUSSES



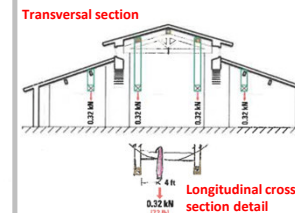
LOAD CONCENTRATED AT THE JOINT



WARNINGS FOR THE CORRECT DISTRIBUTION OF LOADS

- All suspended loads must have a hook or main cable in addition to the safety cable
- The hanging connection must be made in perfect correspondence with the node of the spatial covering structure

SKETCH TIES FOR HANGINGS



FLOOR LOAD

Permitted values for different categories of use: N.T.C 2018 Table 3.1.II

AREAS SUSCEPTIBLE TO CROWDING	
EXHIBITION ROOMS FREE OF OBSTACLES TO THE MOVEMENT OF PEOPLE, EXHIBITION ROOMS	<input checked="" type="checkbox"/>
ACCESS AND TRAFFIC AREAS	

UNIFORMLY DISTRIBUTED LOAD

Category	qK = kN/m² (lb/ft²)
C 1	
C 2	
C 3	5 kN/m² (102 psf)
C	
F	
G	

VERTICAL CONCENTRATED LOADS
2 loading footprints 1.80 m apart

square footprint	OK = kN (lb)
0.50 x 0.50 m	5 kN (1122 lb)

WARNINGS FOR ACCESS BY FORKLIFTS AND VEHICLES

FORKLIFTS, TELESCOPIC LIFTS AND INTERNAL COMBUSTION ENGINE VEHICLES ARE NOT PERMITTED.



NOTE (*)
THE HANGING MUST BE PLACED AT THE HORIZONTAL BEAM BETWEEN TWO ADJACENT TRUSSES. IN ANY CASE, THE MAXIMUM DISTANCE BETWEEN THE SUPPORTS MUST NOT EXCEED 1.20 m.



PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

SPECIFIC PERMITTED LOADS

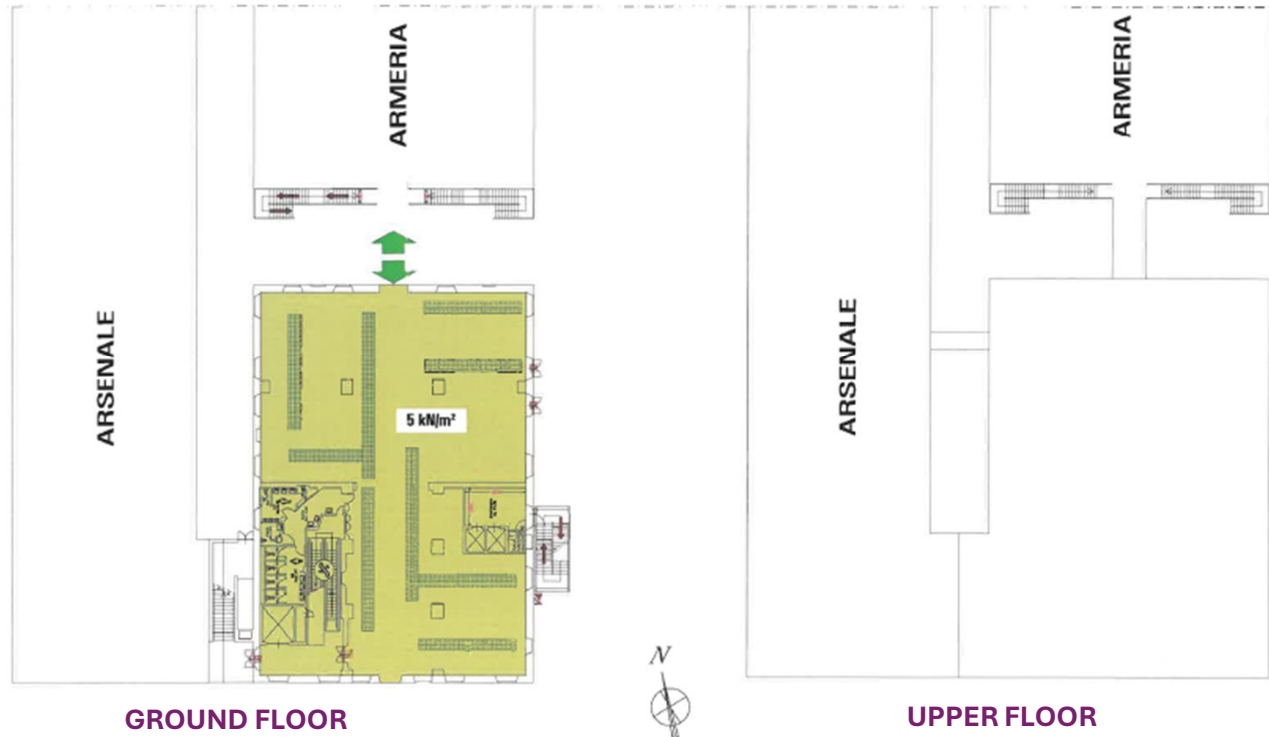
FLOOR LOAD:

- 3 kN/m² - 6.27 psf [USA]
- 4 kN/m² - 8.35 psf [USA]
- 4.5 kN/m² - 9.40 psf [USA]
- 5 kN/m² - 10.44 psf [USA]
- 15 kN/m² - 31.33 psf [USA]
- 20 kN/m² - 41.77 psf [USA]

EMBANKMENT

PEDESTRIAN ACCESS ONLY

VEHICLE ACCESS



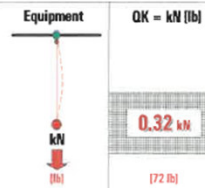
RIGGING STRUCTURES

Construction system to which loads are to be anchored:

Ties to be used:

-1	LOWER FLOOR		
GROUND FLOOR	LOAD-BEARING MASONRY STRUCTURE WITH VAULTED DEVELOPMENT	✓	PRE-SET FALSE CEILING SUPPORTS
+1	UPPER FLOOR		

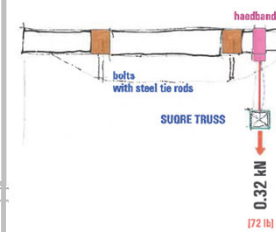
LOAD CONCENTRATED AT A SINGLE POINT - AT THE JOINT



WARNINGS FOR THE CORRECT DISTRIBUTION OF LOADS

1. All suspended loads must have a hook or main cable in addition to the safety cable
2. The hanging connection must be made in perfect correspondence with the node of the spatial covering structure

SKETCH TIES FOR HANGINGS



FLOOR LOAD

Permitted values for different categories of use: N.T.C 2018 Table 3.1.II

AREAS SUSCEPTIBLE TO CROWDING	✓	EXHIBITION ROOMS FREE OF OBSTACLES TO THE MOVEMENT OF PEOPLE, EXHIBITION ROOMS
ACCESS AND TRAFFIC AREAS		

UNIFORMLY DISTRIBUTED LOAD		VERTICAL CONCENTRATED LOADS 2 loading footprints 1.80 m apart	
Category	qK = kN/m ² (lb/ft ²)	square footprint	QK = kN (lb)
C 1			
C 2			
C 3	5 kN/m ² (112.44 psf)	0.50 x 0.50 m.	5 kN (1124.44 lb)
C			
F			
G			

WARNINGS FOR ACCESS BY FORKLIFTS AND VEHICLES

FORKLIFTS, TELESCOPIC LIFTS AND INTERNAL COMBUSTION ENGINE VEHICLES ARE NOT PERMITTED.



□ PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

■ SPECIFIC PERMITTED LOADS

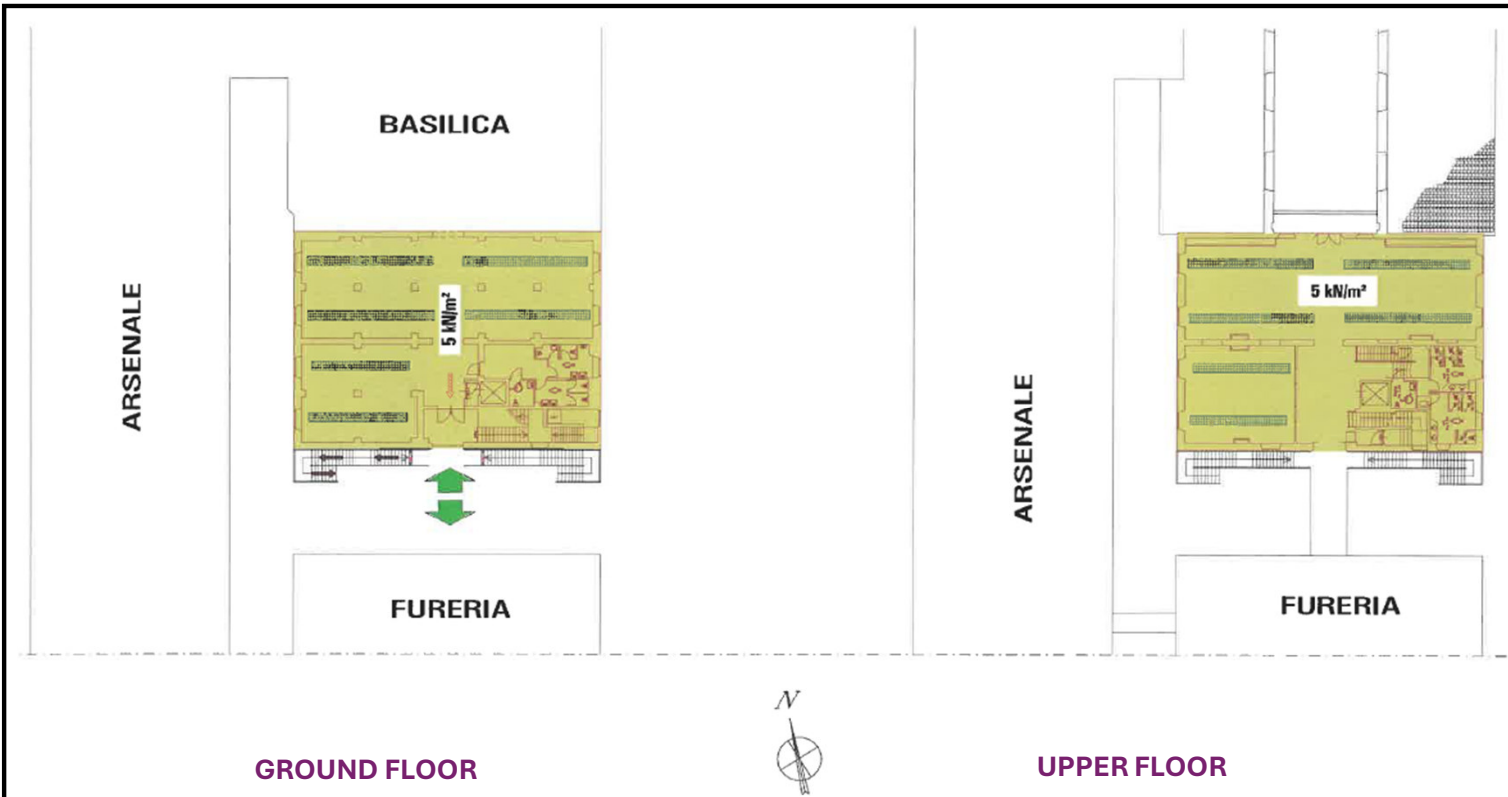
FLOOR LOAD:

- 3 kN/m² – 6.27 psf [USA]
- 4 kN/m² – 8.35 psf [USA]
- 4.5 kN/m² – 9.40 psf [USA]
- 5 kN/m² – 10.44 psf [USA]
- 15 kN/m² – 31.33 psf [USA]
- 20 kN/m² – 41.77 psf [USA]

■ EMBANKMENT

➡ PEDESTRIAN ACCESS ONLY

➡ VEHICLE ACCESS



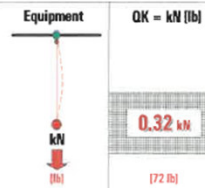
RIGGING STRUCTURES

Construction system to which loads are to be anchored:

Ties to be used:

-1 LOWER FLOOR		
GROUND FLOOR	LOAD-BEARING MASONRY STRUCTURE WITH VAULTED DEVELOPMENT	PRE-SET FALSE CEILING SUPPORTS
+1 UPPER FLOOR		

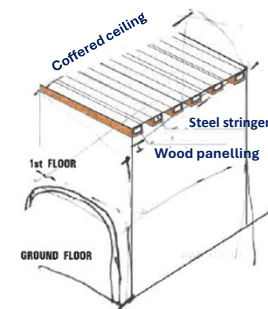
LOAD CONCENTRATED AT A SINGLE POINT - AT THE JOINT



WARNINGS FOR THE CORRECT DISTRIBUTION OF LOADS

1. All suspended loads must have a hook or main cable in addition to the safety cable
2. The hanging connection must be made in perfect correspondence with the node of the spatial covering structure

SKETCH TIES FOR HANGINGS



□ PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

■ SPECIFIC PERMITTED LOADS

FLOOR LOAD:

- 3 kN/m² – 6.27 psf [USA]
- 4 kN/m² – 8.35 psf [USA]
- 4.5 kN/m² – 9.40 psf [USA]
- 5 kN/m² – 10.44 psf [USA]
- 15 kN/m² – 31.33 psf [USA]
- 20 kN/m² – 41.77 psf [USA]

■ EMBANKMENT

➡ PEDESTRIAN ACCESS ONLY

➡ VEHICLE ACCESS

FLOOR LOAD

Permitted values for different categories of use: N.T.C 2018 Table 3.1.II

AREAS SUSCEPTIBLE TO CROWDING	EXHIBITION ROOMS FREE OF OBSTACLES TO THE MOVEMENT OF PEOPLE, EXHIBITION ROOMS
ACCESS AND TRAFFIC AREAS	

Category	UNIFORMLY DISTRIBUTED LOAD	square footprint	VERTICAL CONCENTRATED LOADS
	qK = kN/m ² (lb/ft ²)		2 loading footprints 1.80 m apart
C 1		0.50 x 0.50 m.	
C 2			
C 3	5 kN/m ² (112.04 psf)		5 kN (1120 lb)
C			
F			
G			

WARNINGS FOR ACCESS BY FORKLIFTS AND VEHICLES

FORKLIFTS, TELESCOPIC LIFTS AND INTERNAL COMBUSTION ENGINE VEHICLES ARE NOT PERMITTED.



GROUND FLOOR



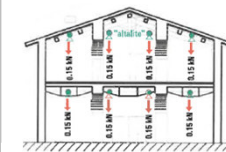
UPPER FLOOR

RIGGING STRUCTURES

	Construction system to which loads are to be anchored:	Ties to be used:
-1 LOWER FLOOR		
GROUND FLOOR	<input checked="" type="checkbox"/> TRIANGULAR PRESSED STEEL PROFILES SECTION 4 mm x 4 mm	<input checked="" type="checkbox"/> TO THE "ALTALITE" BEAMS
+1 UPPER FLOOR	<input checked="" type="checkbox"/> TRIANGULAR PRESSED STEEL PROFILES SECTION 4 mm x 4 mm	<input checked="" type="checkbox"/> TO THE "ALTALITE" BEAMS

LOAD DISTRIBUTED LOAD		LOAD CONCENTRATED AT THE JOINT		WARNINGS FOR THE CORRECT DISTRIBUTION OF LOADS
Equipment	[qK = lb / ft]	Equipment	QK = kN [lb]	
	0.15 kN/ml [10.4 lb/ft]		0.15 kN [33 lb]	<p>1. All suspended loads must have a hook or main cable in addition to the safety cable</p> <p>2. The hanging connection must be made in perfect correspondence with the node of the spatial covering structure</p>
	1.00 m [3.28 ft]		0.15 kN	

SKETCH TIES FOR HANGINGS

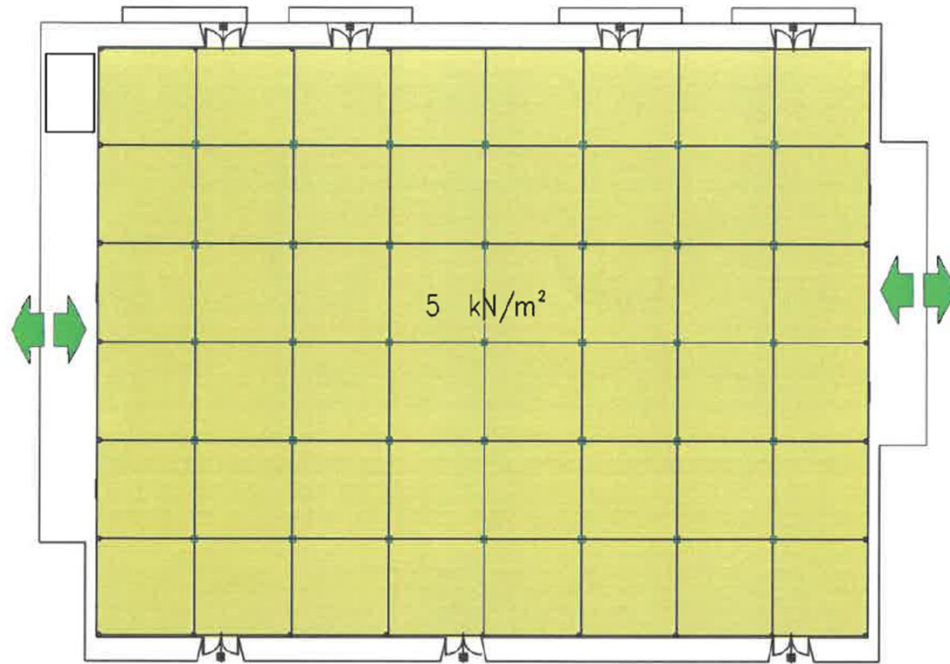


FLOOR LOAD

Permitted values for different categories of use: N.T.C 2018 Table 3.1.II

AREAS SUSCEPTIBLE TO CROWDING	
<input type="checkbox"/>	
<input checked="" type="checkbox"/>	EXHIBITION ROOMS FREE OF OBSTACLES TO THE MOVEMENT OF PEOPLE, EXHIBITION ROOMS
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	

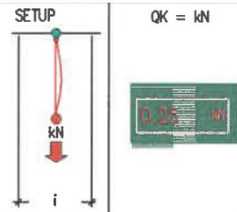
Category	UNIFORMLY DISTRIBUTED LOAD	VERTICAL CONCENTRATED LOADS 2 loading footprints 1.80 m apart		WARNINGS FOR ACCESS BY FORKLIFTS AND VEHICLES
	qK = kN/m² [lb/ft²]	square footprint	QK = kN [lb]	
C 1				<p>FORKLIFTS, TELESCOPIC LIFTS AND INTERNAL COMBUSTION ENGINE VEHICLES ARE NOT PERMITTED.</p>
C 2				
C 3	5 kN/m² [110 psf]	0.50 x 0.50 m.	5 kN [1,100 lb]	
C				
F				
G				



RIGGING STRUCTURES

Construction system to which loads are to be anchored:		Ties to be used:	
-1 LOWER FLOOR			
GROUND FLOOR	<input checked="" type="checkbox"/> TUBULAR STEEL OF THE SELFASSEMBLING MOBILE STRUCTURE	<input checked="" type="checkbox"/> ANCHORING OPTIONS	
+1 UPPER FLOOR			

LOAD CONCENTRATED ONLY AT EACH STRINGER (TUBULAR)



WARNINGS FOR THE CORRECT DISTRIBUTION OF LOADS

1. All suspended loads must have a hook or main cable in addition to the safety cable
2. The hanging connection must be made in perfect correspondence with the node of the spatial covering structure

SKETCH TIES FOR HANGINGS



SECTION OF THE GHIAIE PAVILION

FLOOR LOAD

Permitted values for different categories of use: N.T.C 2018 Table 3.1.II

AREAS SUSCEPTIBLE TO CROWDING	<input checked="" type="checkbox"/> EXHIBITION ROOMS FREE OF OBSTACLES TO THE MOVEMENT OF PEOPLE, EXHIBITION ROOMS
ACCESS AND TRAFFIC AREAS	

UNIFORMLY DISTRIBUTED LOAD

Category	qK = kN/m² (lbf/ft²)	square footprint	QK = kN (lbf)
C 1			
C 2			
C 3	5 kN/m² (110.44 psf)		
C		0.50 x 0.50 m	5.00 kN
F			
G			
.			

VERTICAL CONCENTRATED LOADS 2 loading footprints 1.80 m apart

WARNINGS FOR ACCESS BY FORKLIFTS AND VEHICLES

FORKLIFTS, TELESCOPIC LIFTS AND INTERNAL COMBUSTION ENGINE VEHICLES ARE NOT PERMITTED.

□ PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

■ SPECIFIC PERMITTED LOADS

FLOOR LOAD:

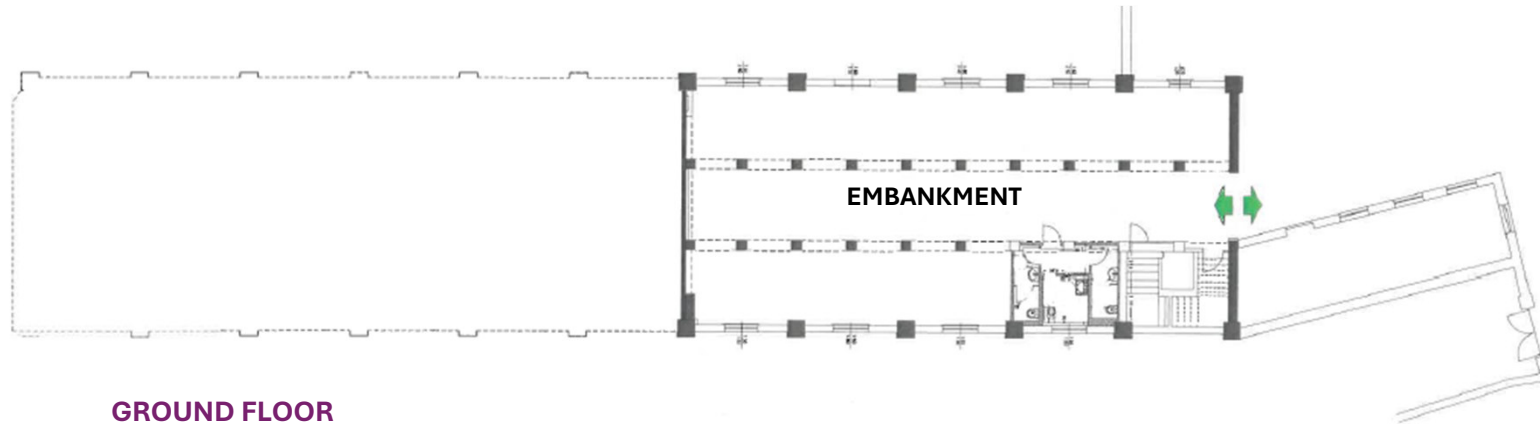
- 3 kN/m² – 6.27 psf [USA]
- 4 kN/m² – 8.35 psf [USA]
- 4.5 kN/m² – 9.40 psf [USA]
- 5 kN/m² – 10.44 psf [USA]
- 15 kN/m² – 31.33 psf [USA]
- 20 kN/m² – 41,77 psf [USA]

■ EMBANKMENT

➡ PEDESTRIAN ACCESS ONLY

➡ VEHICLE ACCESS

**EX MAGAZZINO
COMUNALE**



GROUND FLOOR



RIGGING STRUCTURES

IT MUST BE CHECKED EVERY TIME

FLOOR LOAD

Permitted values for different categories of use: N.T.C 2018 Table 3.1.II

AREAS SUSCEPTIBLE TO CROWDING	<input checked="" type="checkbox"/>	AREAS USED AS OFFICES (OPEN TO THE PUBLIC AND NOT)
ACCESS AND TRAFFIC AREAS	<input checked="" type="checkbox"/>	AREAS WITH BUILDINGS ADJACENT TO THE EMBANKMENT: EMBANKMENT

Category	UNIFORMLY DISTRIBUTED LOAD	VERTICAL CONCENTRATED LOADS 2 loading footprints 1.80 m apart	
	qK = kN/m ² (lb/ft ²)	square footprint	OK = kN (lb)
B			
C 2			
C 3			
C			
F			
G			
.			

WARNINGS FOR ACCESS BY FORKLIFTS AND VEHICLES

FORKLIFTS, TELESCOPIC LIFTS AND INTERNAL COMBUSTION ENGINE VEHICLES ARE NOT PERMITTED.



□ PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

■ SPECIFIC PERMITTED LOADS

FLOOR LOAD:

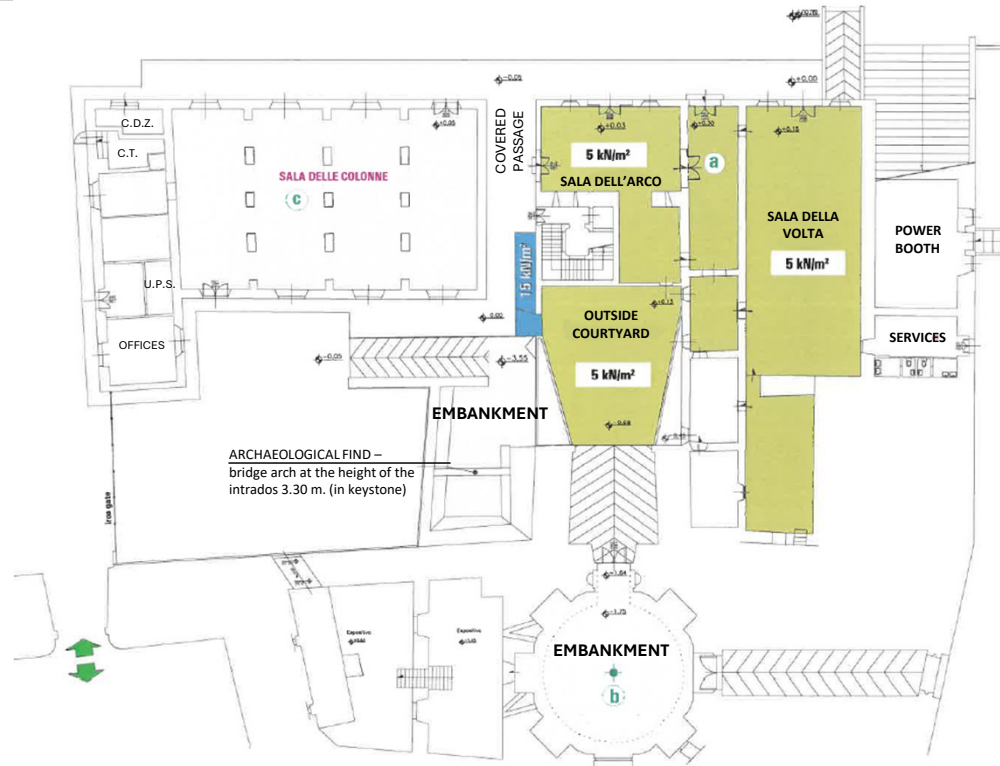
- 3 kN/m² – 6.27 psf [USA]
- 4 kN/m² – 8.35 psf [USA]
- 4.5 kN/m² – 9.40 psf [USA]
- 5 kN/m² – 10.44 psf [USA]
- 15 kN/m² – 31.33 psf [USA]
- 20 kN/m² – 41.77 psf [USA]

■ EMBANKMENT

➡ PEDESTRIAN ACCESS ONLY

➡ VEHICLE ACCESS

GROUND FLOOR

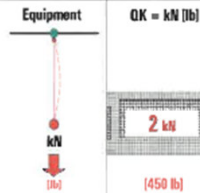


VOLTA-ARCO OTTAGONALE SALA DELLE COLONNE MONUMENTALE

RIGGING STRUCTURES

	Construction system to which loads are to be anchored:	Ties to be used:
-1 LOWER FLOOR	LOAD-BEARING MASONRY STRUCTURE WITH VAULTED DEVELOPMENT	TO THE EXISTING HOOK
GROUND FLOOR		
+1 UPPER FLOOR		

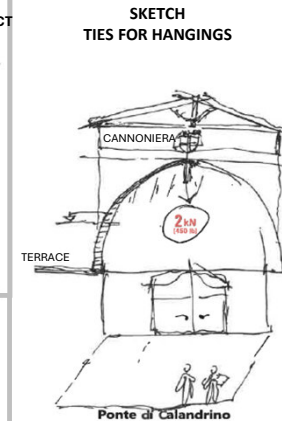
LOAD CONCENTRATED ONLY IN THE AREA OF THE PRE-INSTALLED HOOK



WARNINGS FOR THE CORRECT DISTRIBUTION OF LOADS

- All suspended loads must have a hook or main cable in addition to the safety cable
- The hanging connection must be made in perfect correspondence with the node of the spatial covering structure

SKETCH TIES FOR HANGINGS



PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

SPECIFIC PERMITTED LOADS

FLOOR LOAD:

- 3 kN/m² - 6.27 psf [USA]
- 4 kN/m² - 8.35 psf [USA]
- 4.5 kN/m² - 9.40 psf [USA]
- 5 kN/m² - 10.44 psf [USA]
- 15 kN/m² - 31.33 psf [USA]
- 20 kN/m² - 41.77 psf [USA]

EMBANKMENT

PEDESTRIAN ACCESS ONLY

VEHICLE ACCESS

FLOOR LOAD

Permitted values for different categories of use: N.T.C 2018 Table 3.1.II

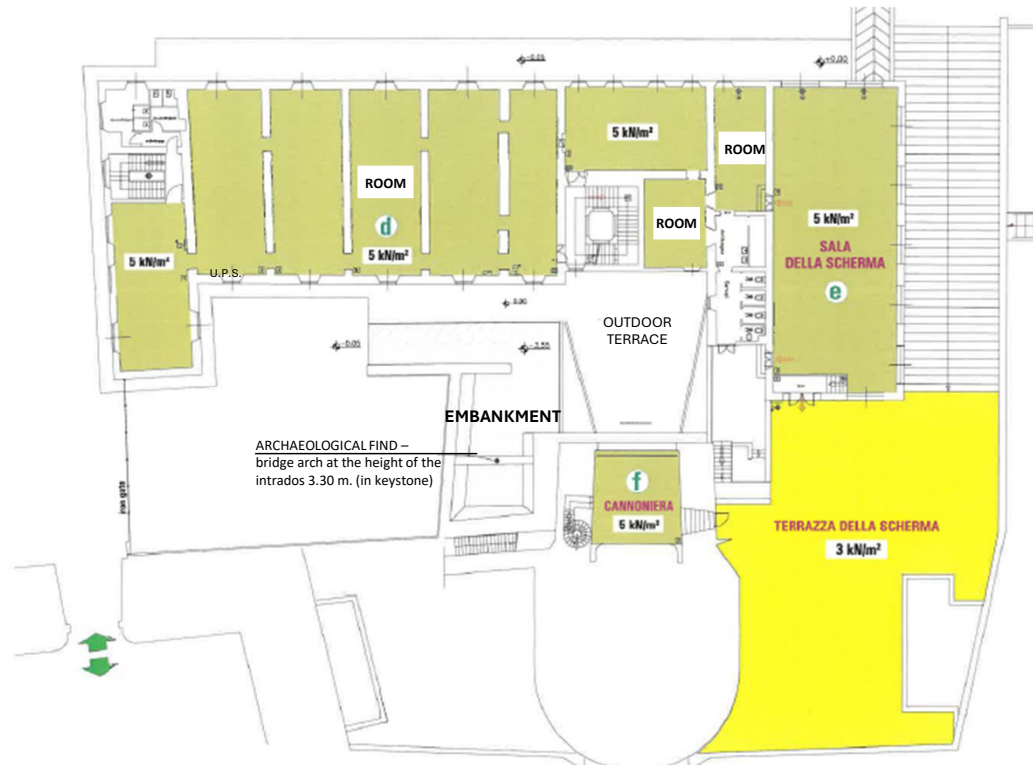
AREAS SUSCEPTIBLE TO CROWDING	AREAS WITH BUILDINGS ADJACENT TO THE EMBANKMENT - EMBANKMENT
EXHIBITION ROOMS FREE OF OBSTACLES TO THE MOVEMENT OF PEOPLE, EXHIBITION ROOMS	
METAL BRIDGE - ACCESS FOR TRANSIT - LOADING AND UNLOADING AREA	

UNIFORMLY DISTRIBUTED LOAD

Category	qK = kN/m ² (lb/ft ²)	square footprint	OK = kN (lb)
C 1			
C 2			
C 3	5 kN/m ² (107 psf)	0.50 x 0.50 m.	5 kN (1124 lb)
C			
F	15 kN/m ² (317 psf)	1.00 x 1.00 m.	20 kN (4500 lb)
G			

VERTICAL CONCENTRATED LOADS

Category	square footprint	OK = kN (lb)
2 loading footprints 1.80 m apart		



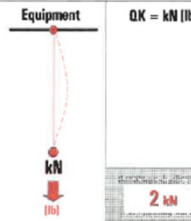
UPPER FLOOR



**EX-UFFICI
SALA DELLA SCHERMA
CANNONIERA
MONUMENTALE**

RIGGING STRUCTURES

Construction system to which loads are to be anchored:		Ties to be used :	
-1 LOWER FLOOR			
GROUND FLOOR			
+1 UPPER FLOOR	✓ SOLID COMPOSITE WOOD TRUSSES AND BRACKETS	✓	AT THE JOINTS



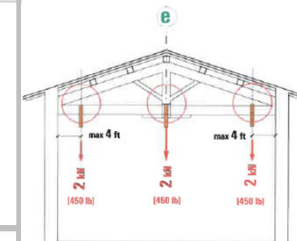
WARNINGS FOR THE CORRECT DISTRIBUTION OF LOADS

1. All suspended loads must have a hook or main cable in addition to the safety cable



2. The hanging connection must be made in perfect correspondence with the node of the spatial covering structure

SKETCH TIES FOR HANGINGS



NOTE (*)
POINT HANGINGS MAY ONLY BE USED IF CONCENTRATED AT THE JOINTS, RESPECTING THE MAXIMUM DISTANCE FROM THE WALLS OF NO MORE THAN 1.20 m.

FLOOR LOAD

Permitted values for different categories of use: N.T.C 2018 Table 3.1.II

AREAS SUSCEPTIBLE TO CROWDING	✓	EXHIBITION ROOMS FREE OF OBSTACLES TO THE MOVEMENT OF PEOPLE, EXHIBITION ROOMS
	✓	REAS WITH BUILDINGS ADJACENT TO THE EMBANKMENT: EMBANKMENT
ACCESS AND TRAFFIC AREAS	✓	
	✓	

Category	UNIFORMLY DISTRIBUTED LOAD	square footprint	VERTICAL CONCENTRATED LOADS
	qK = kN/m ² (lb/ft ²)		2 loading footprints 1.80 m apart
C 1	3 kN/m ² (61.9 psf)	0.50 x 0.50 m.	3 kN (68.30 lb)
C 2			
C 3	5 kN/m ² (102.4 psf)		5 kN (112.50 lb)
C			
F			
G			

□ PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

■ SPECIFIC PERMITTED LOADS

FLOOR LOAD:

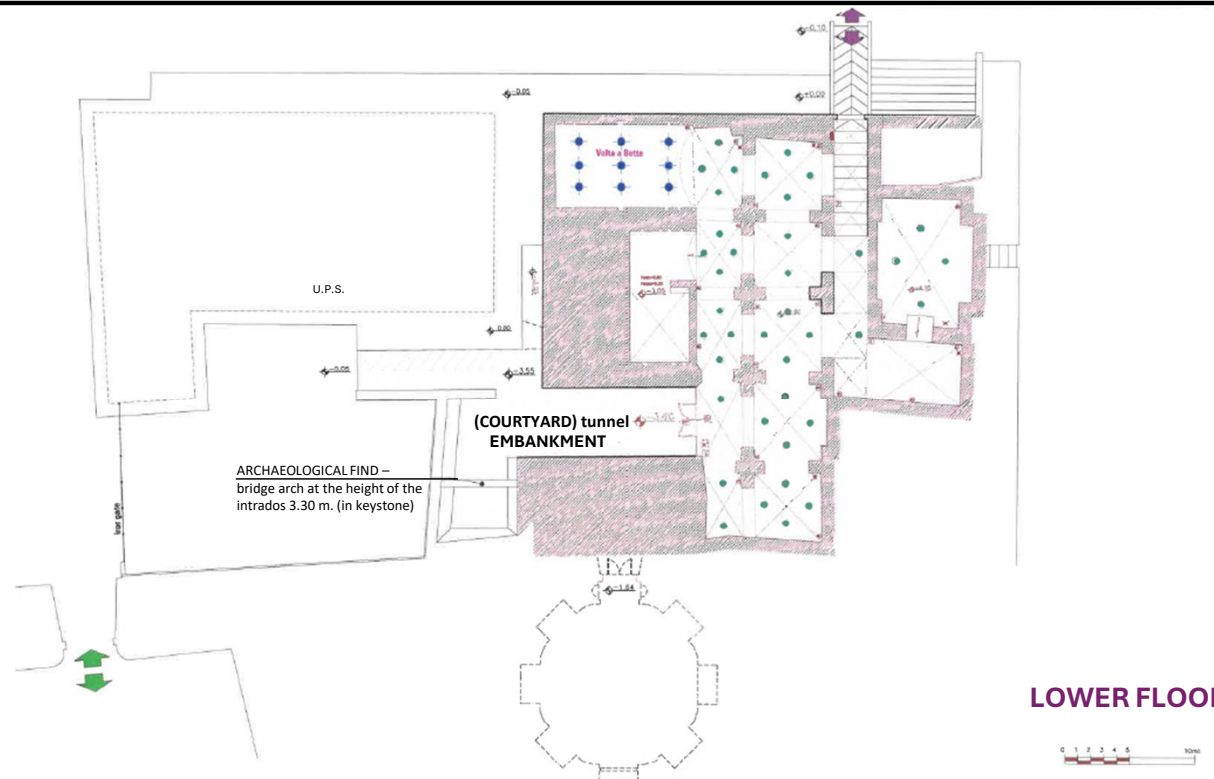
- 3 kN/m² - 6.27 psf [USA]
- 4 kN/m² - 8.35 psf [USA]
- 4.5 kN/m² - 9.40 psf [USA]
- 5 kN/m² - 10.44 psf [USA]
- 15 kN/m² - 31.33 psf [USA]
- 20 kN/m² - 41.77 psf [USA]

■ EMBANKMENT

➡ PEDESTRIAN ACCESS ONLY

➡ VEHICLE ACCESS

SALA DELLE GROTTE MONUMENTALE



RIGGING STRUCTURES

	Construction system to which loads are to be anchored:	Ties to be used:
-1 LOWER FLOOR	<input checked="" type="checkbox"/> PLASTERED CROSS VAULT-MECHANICAL EXPANSION ANCHORS FIXED INTO THE MASONRY	<input checked="" type="checkbox"/> NOOSE, 'S' HOOK
GROUND FLOOR	<input checked="" type="checkbox"/> BARREL VAULT (EXPOSED)/ROUTED PLATE EYELET ON THREADED BAR (RESIN)	<input checked="" type="checkbox"/> NOOSE, 'S' HOOK
+1 UPPER FLOOR	<input type="checkbox"/>	<input type="checkbox"/>

LOAD CONCENTRATED ONLY IN THE AREA OF THE ANCHOR		WARNINGS FOR THE CORRECT DISTRIBUTION OF LOADS
Type A (mechanical)	Equipment kN (lb)	1. All suspended loads must have a hook or main cable in addition to the safety cable 2. The graphic representation of the anchors is purely indicative (check the correct arrangement)
Type B (grouted)	OK = kN (lb) 0.25 kN 1 kN	

FLOOR LOAD

Permitted values for different categories of use: N.T.C 2018 Table 3.1.II

AREAS SUSCEPTIBLE TO CROWDING	UNIFORMLY DISTRIBUTED LOAD		VERTICAL CONCENTRATED LOADS 2 loading footprints 1.80 m apart	
	Category	qK = kN/m ² (lb/ft ²)	square footprint	OK = kN (lb)
<input type="checkbox"/>	C 1			
<input type="checkbox"/>	C 2			
<input type="checkbox"/>	C 3			
<input type="checkbox"/>	C			
<input type="checkbox"/>	F			
<input type="checkbox"/>	G			

AREAS WITH BUILDINGS ADJACENT TO THE EMBANKMENT: EMBANKMENT

PERIMETER OF THE BUILDING AREAS

RIGGING STRUCTURES:

SPECIFIC PERMITTED LOADS

FLOOR LOAD:

- 3 kN/m² - 6.27 psf [USA]
- 4 kN/m² - 8.35 psf [USA]
- 4.5 kN/m² - 9.40 psf [USA]
- 5 kN/m² - 10.44 psf [USA]
- 15 kN/m² - 31.33 psf [USA]
- 20 kN/m² - 41.77 psf [USA]

EMBANKMENT

PEDESTRIAN ACCESS ONLY

VEHICLE ACCESS