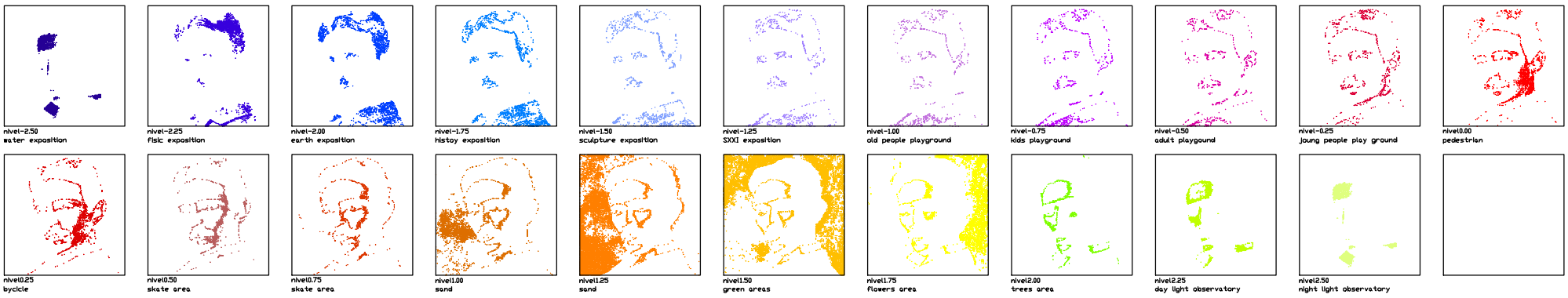
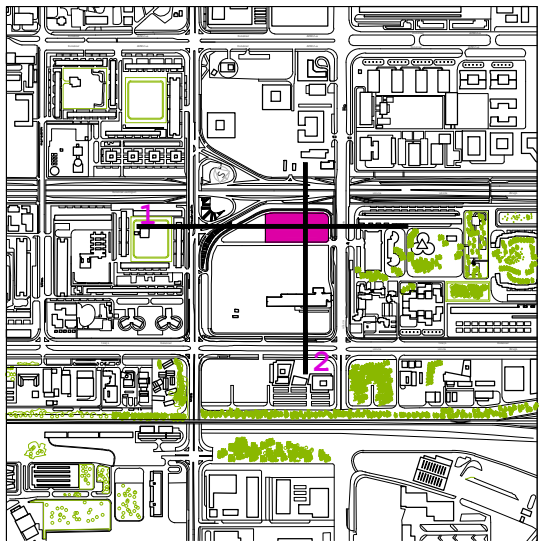
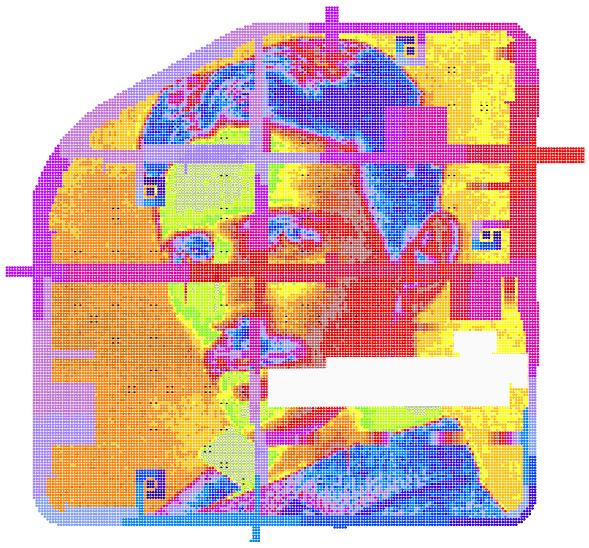




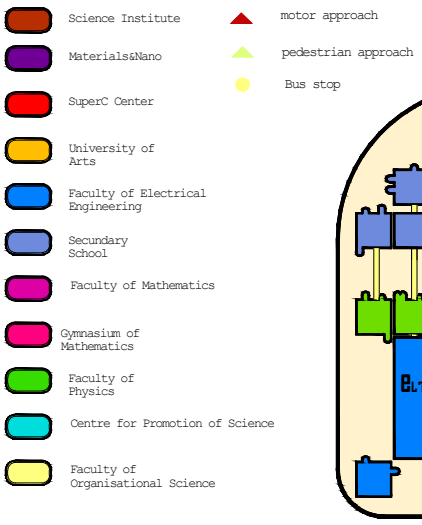
in the city

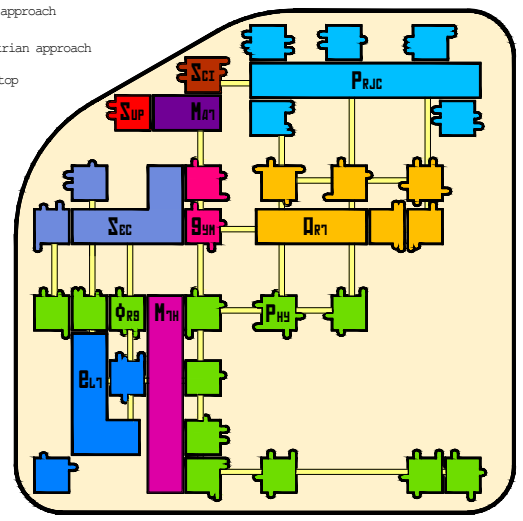
scale: 1/10.000



tesla face

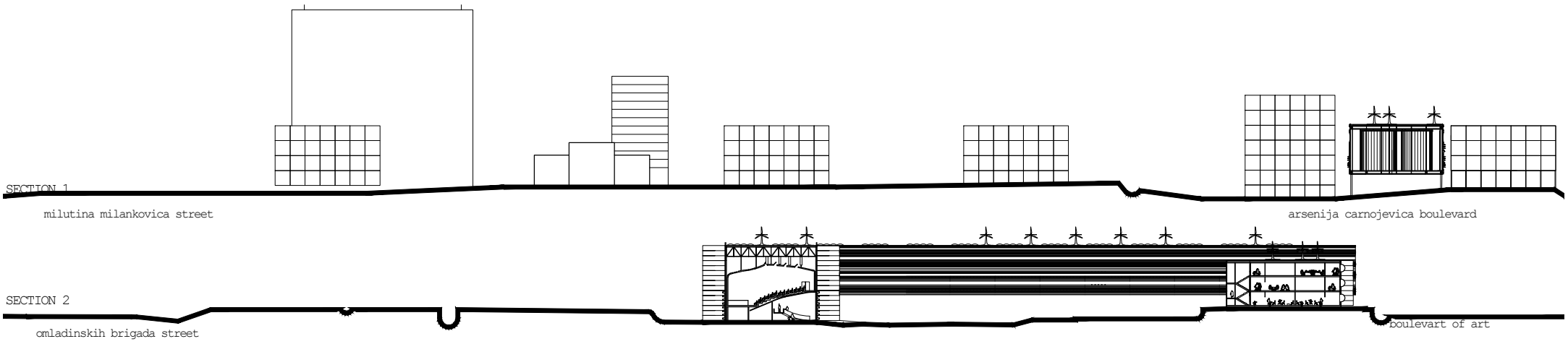
scale: 1/2500

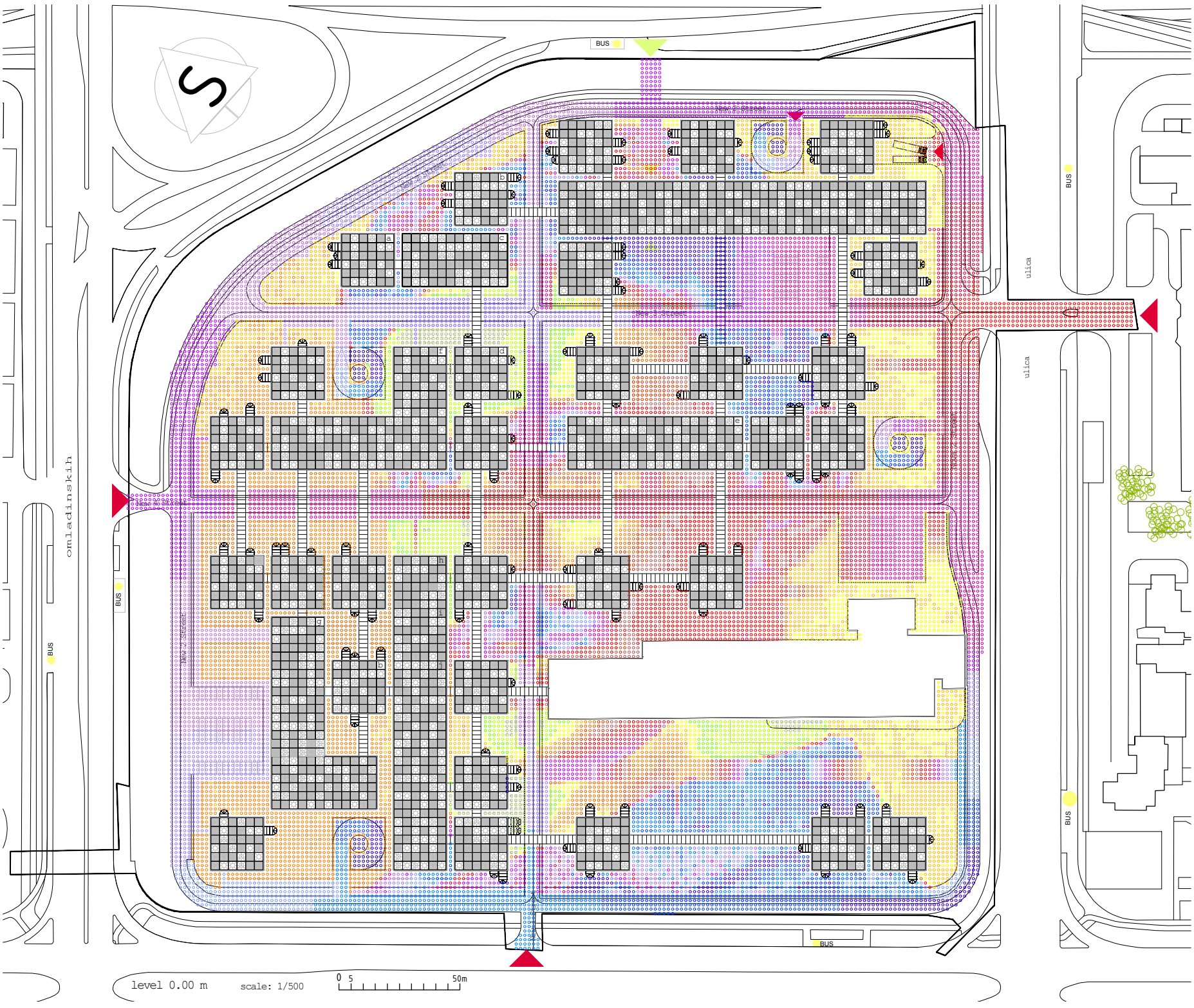




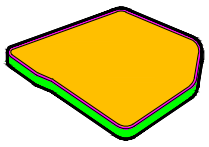
diagram

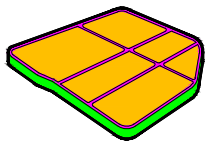
scale: 1/2500

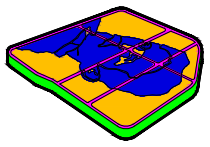


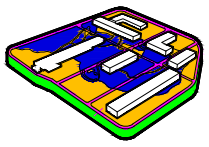


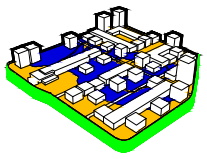
101856.NT: CENTRE FOR PROMOTION OF SCIENCE OF THE REPVBLIC OF SERBIA











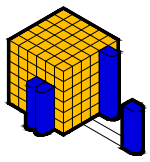
In the first place, we resolve the vehicle traffic connecting the boundary access roads to the parcel by means of an **orthogonal matrix**. We consider that the access roads cannot vary because they depend on the morphology of the streets outside.

Once the large block has been subdivided into smaller parcels, we decided to unify these by implanting a **common topography** based on a height map taken from a **photo of Nikola Tesla**.

In the middle of the parcels rise some **Plaza-Buildings** that are gigantic Vierendeel beams. These Plaza-Buildings shape public spaces climatologically adapted in their interiors, besides open-air public spaces with porticoes beneath them. These structures are set on columns on the terrain, and their implantation is independent of the topography.

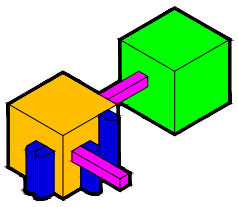
The Plaza-Buildings shape squares as they do in traditional cities. Around these appear other buildings called **Cube Buildings**, which present the **façades** of classic public space.

The cube buildings may be configured and can house spaces of different sizes. Some of these buildings will be auditoriums, other will be offices, others classrooms and still others exhibition rooms.



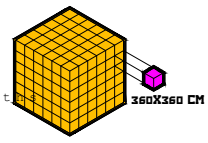
CUBE+CLIPS

Lifts as well as wet areas and machine rooms are separate **Exterior Modules** that may be connected to any point of the building façades.



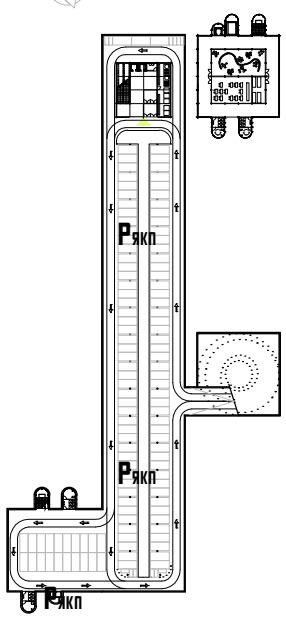
CUBE+CLIPS+FINGERS

All the structures are interconnected by means of a "**network**" o **faised walkways**. These walkways are modular and may be connected to any point of the façade. New patients and connections may appear without the need to undertake major works or destroy existing elements.



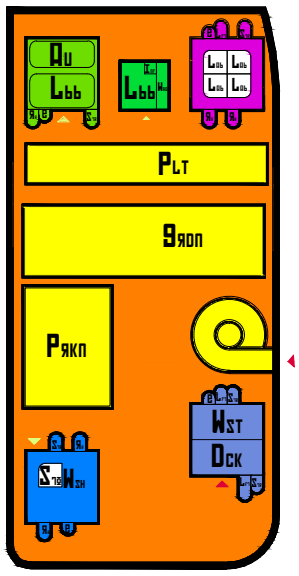
CUBE (360²)

The entire ensemble is **modulated** in its plans and elevations in **units** of **3.6 x 3.6** metres. These measurements are optimal for developing a high-rise floor plan in modules as well as a horizontal surface unit that can house reasonable minimal spaces for human use.



Sec Security Control
Clss Classroom
Plt Plato at the entrance
9ядп Garden of Science
Pякп Parking
Lbb Lobby
Au Auditorium
Lab Laboratory
Dck Charge Deck
Stф Storage
Fb future BUilding

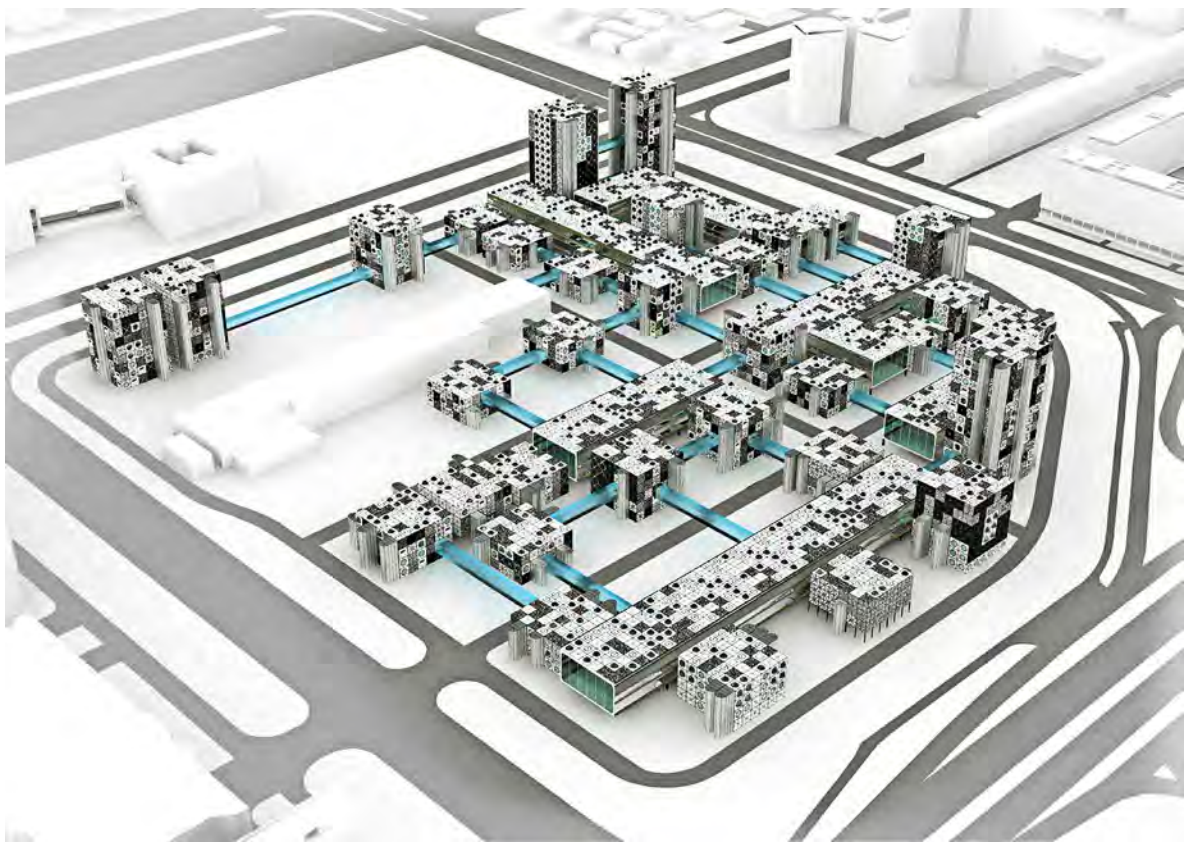
Dck Charge Deck
Stф Storage
Inf Information Desk
Wsh Workshop
Wst Rest Room
Wst Waste Storage
Str Stairs
Elevator
Wrd Wardrobe
Play Science Playground

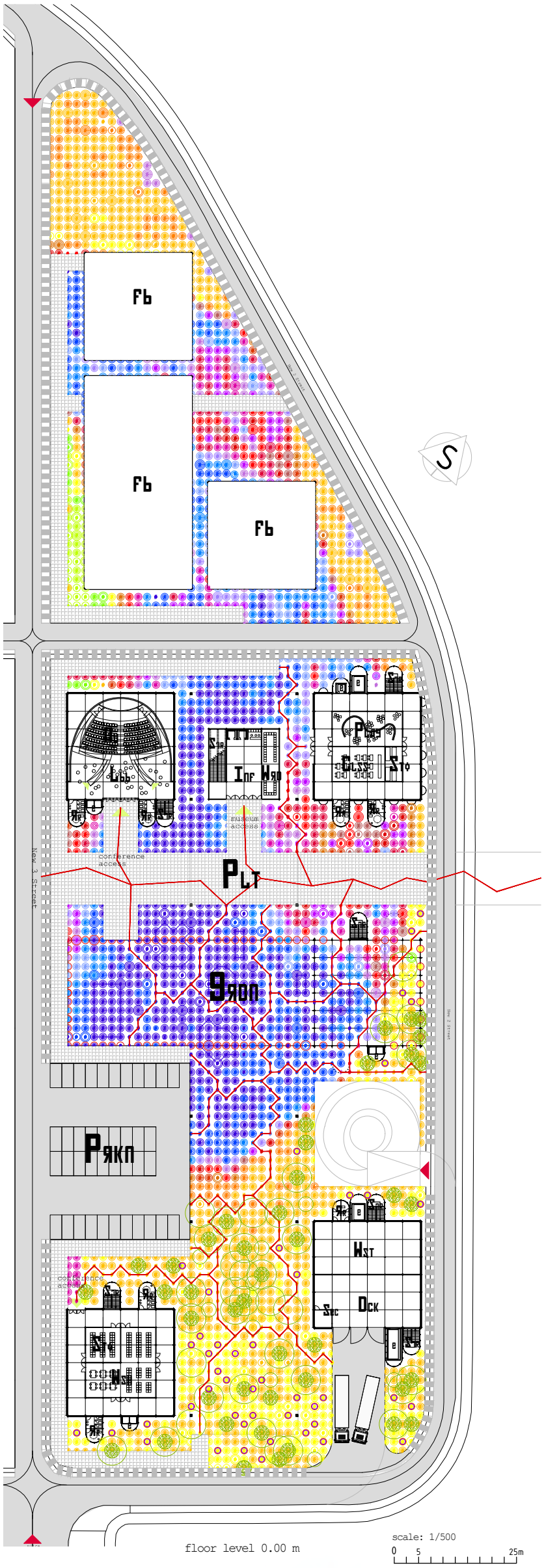


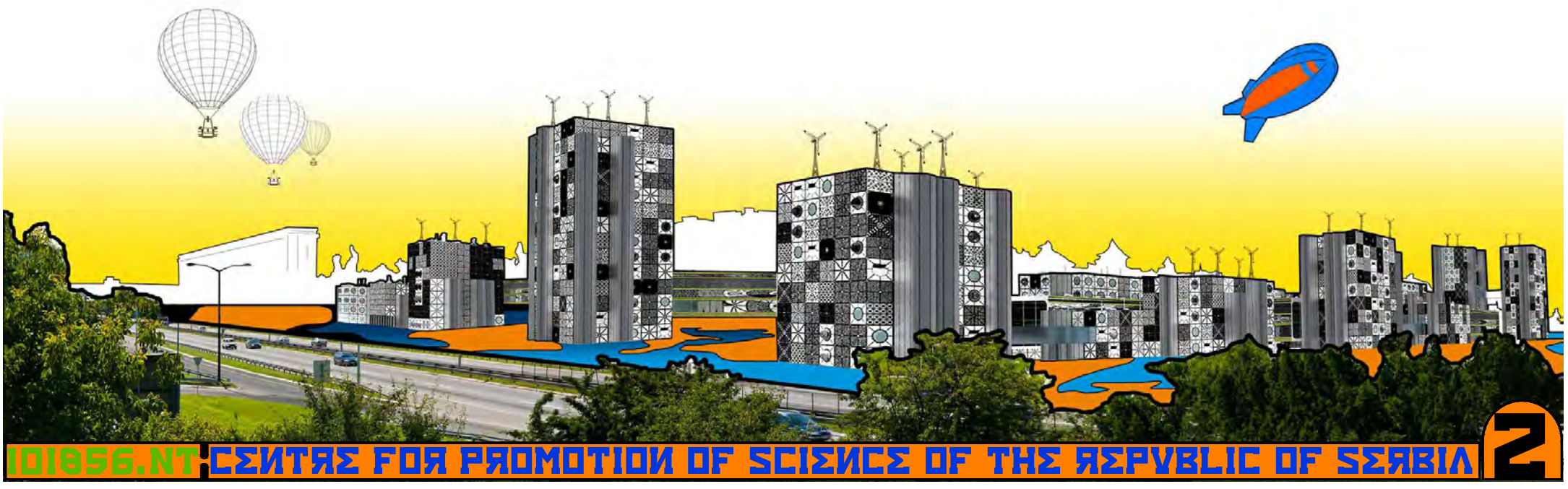
Public Areas
Permanent Exhibition
Temporary Exhibition
Auditorium
Laboratories&Playground
Administration&Offices
Charge Decks&Manteinance

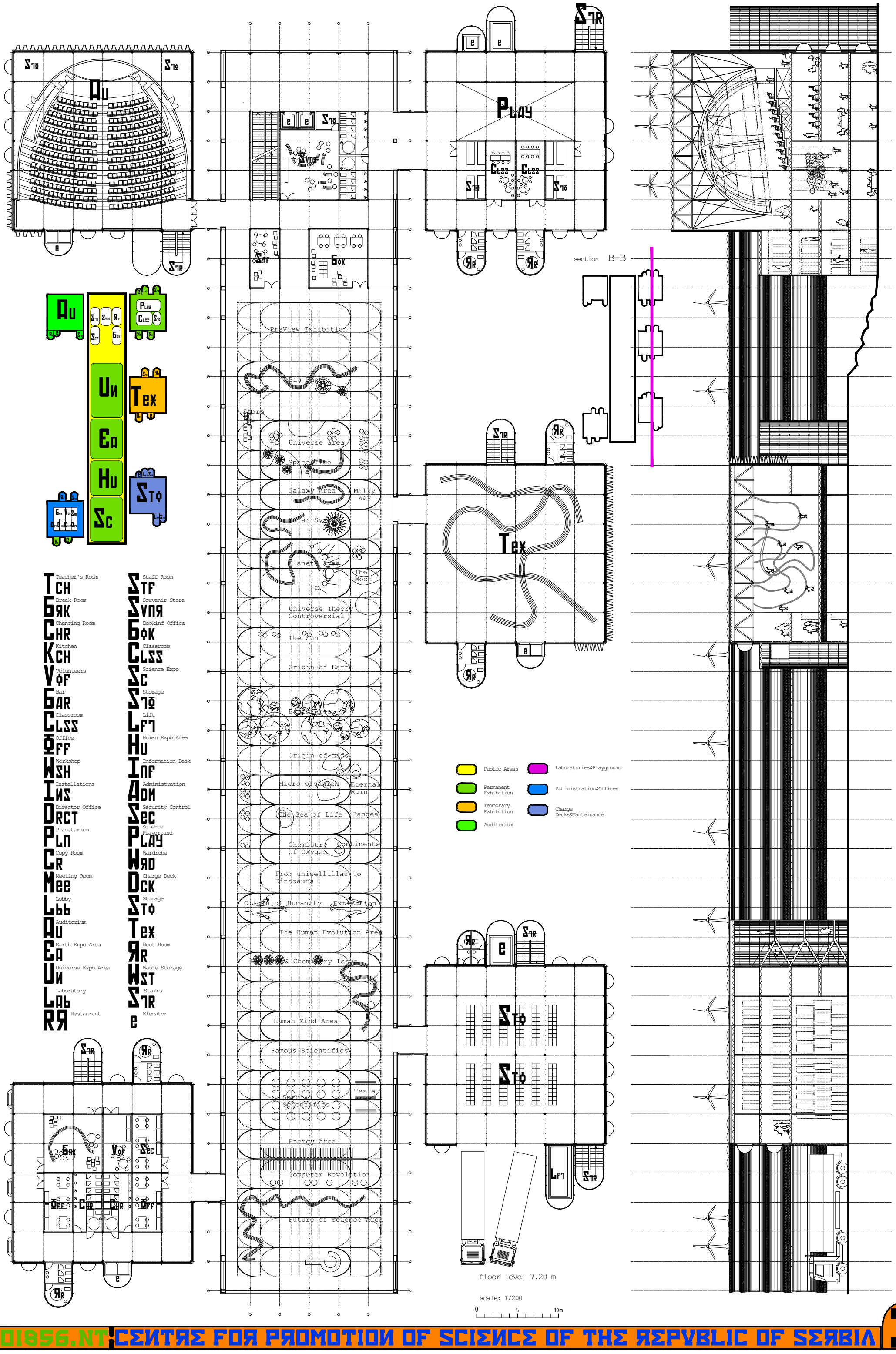
floor level -7.20 m

scale: 1/1000
0 5 50 m



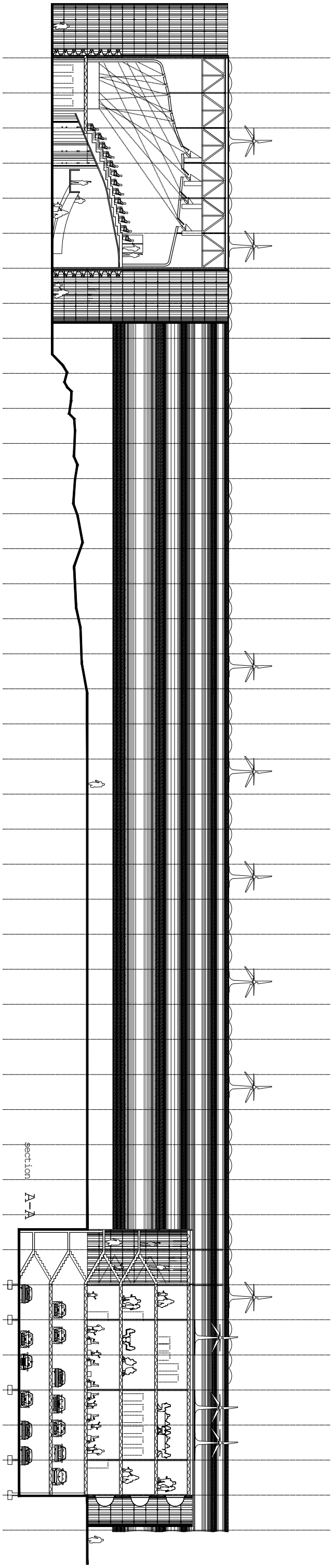




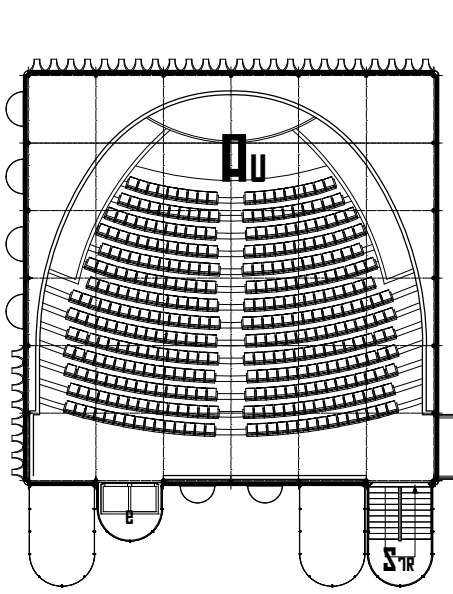


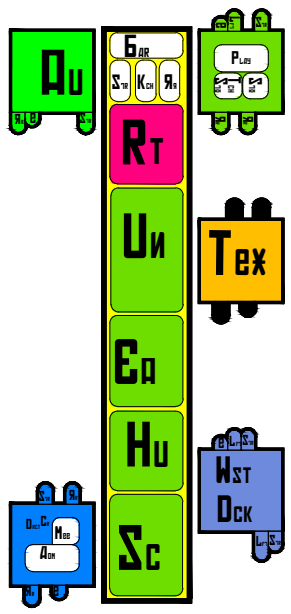
Teacher's Room
Break Room
Changing Room
Kitchen
Volunteers
Bar
Classroom
Office
Workshop
Installations
Director Office
Planetarium
Copy Room
Meeting Room
Lobby
Auditorium
Earth Expo Area
Universe Expo Area
Laboratory
Restaurant

Staff Room
Souvenir Store
Bookinf Office
Classroom
Science Expo
Storage
Lift
Human Expo Area
Information Desk
Administration
Security Control
Science Playground
Wardrobe
Charge Deck
Storage
Tex
Rest Room
Waste Storage
Stairs
Elevator



section A-A





Teacher's Room TCH
Break Room БЯК
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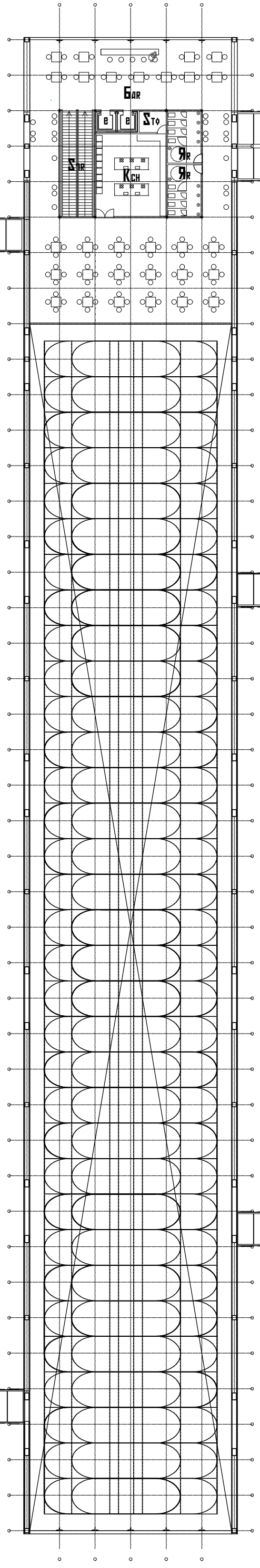
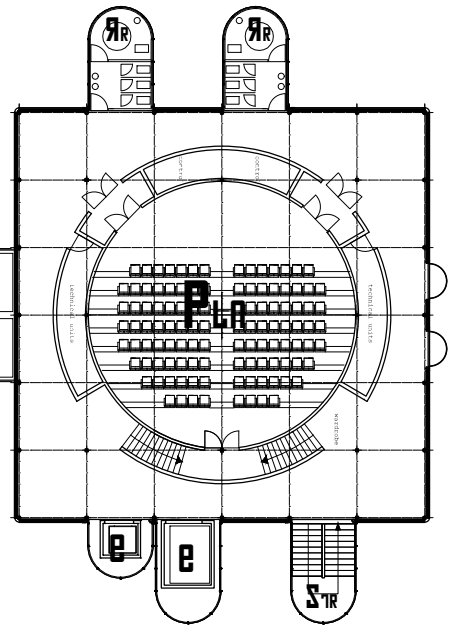
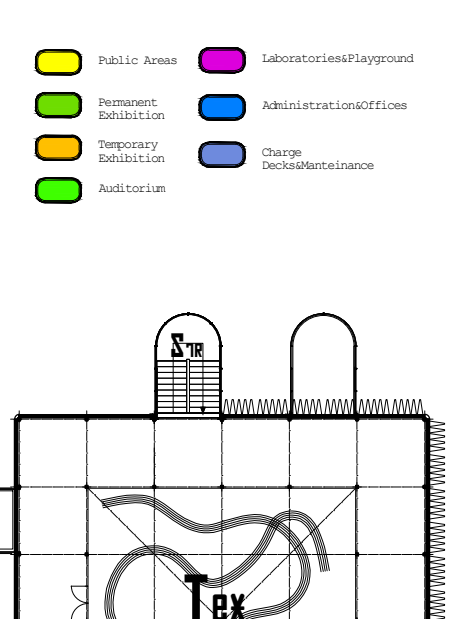
Lobby LBB
Auditorium AU
Earth Expo Area EA
Universe Expo Area UN
Laboratory LAB
Restaurant RR

Staff Room STF
Souvenir Store SVNR
Bookinf Office БФK
Classroom CLSS
Science Expo SC
Storage STФ
Lift LFT
Human Expo Area HU
Information Desk INF
Administration ADM
Security Control SEC
Science Playground PLAY
Wardrobe WRD
Charge Deck DCK
Storage STФ
Rest Room TEX
Waste Storage WST
Stairs STR
Elevator e







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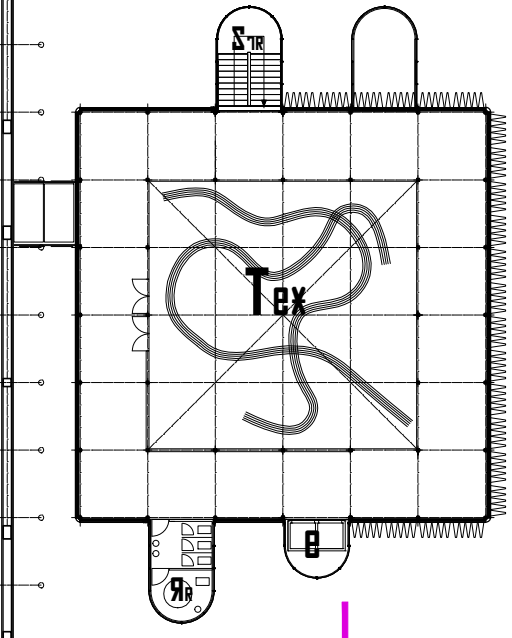

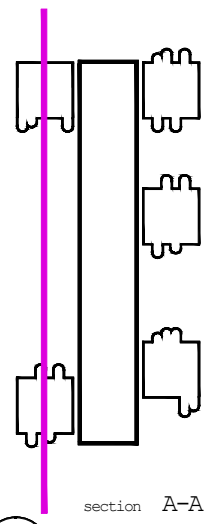

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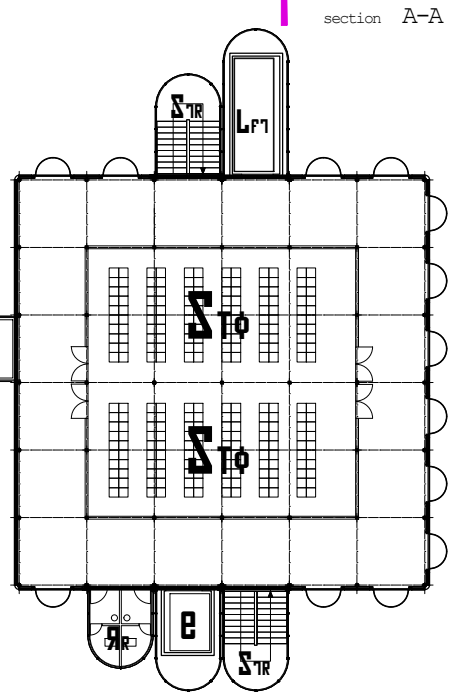
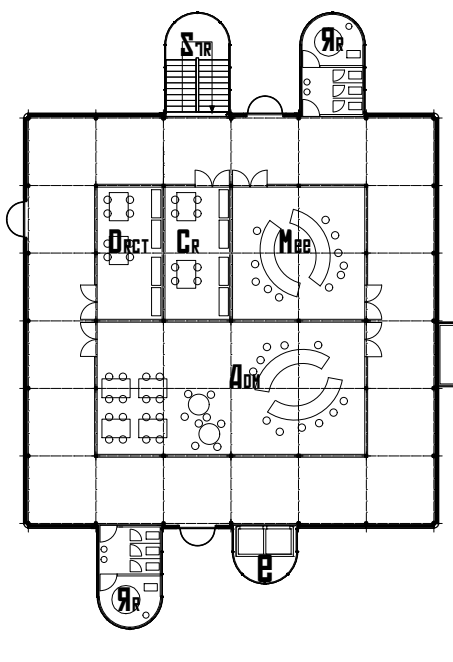




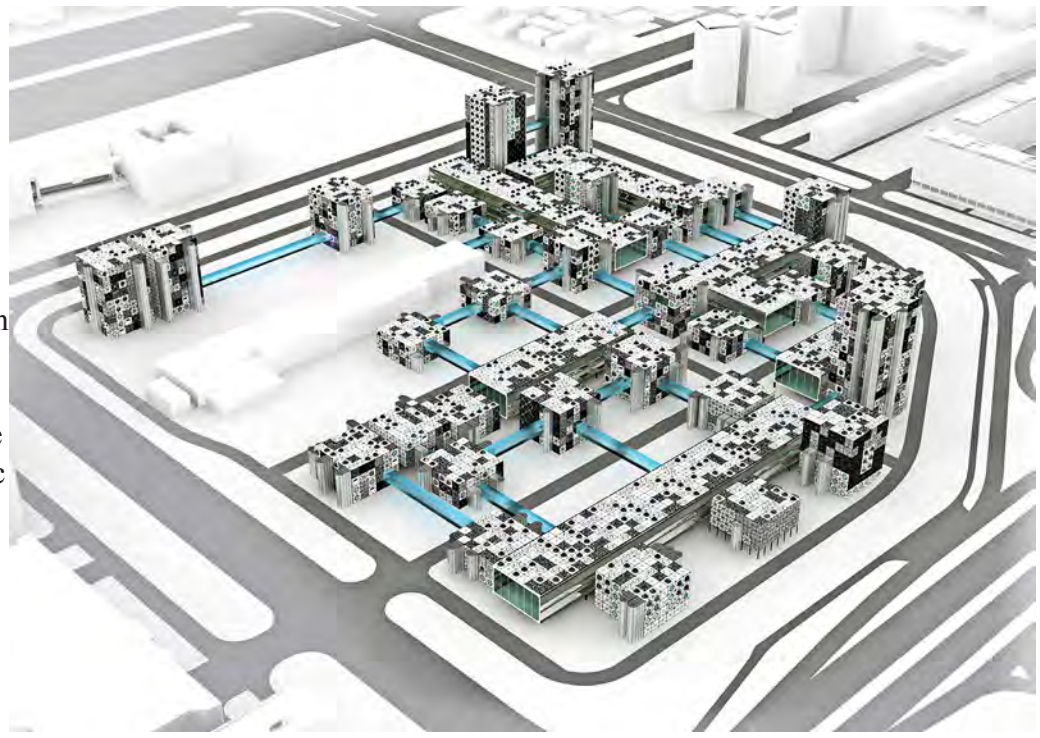
floor level 7.20 m

scale: 1/200
0 5 10m

PROPOSAL DESCRIPTION

The competition on the Centre for the Promotion of Science poses different, very varied challenges and needs of scale and function.

Block 39 will house a series of buildings intended for scientific study. These buildings will be constructed over an undetermined period of time. We should therefore design an “urban growth system” that provides for possible changes in programme and size throughout the years, a flexible system that may be adjusted at any given time, with the capacity to grow along the terrain and in height. So as to obtain the maximum flexibility, in addition to thinking about a possible organisation of thoroughfares on the land, we have designed a Pattern, a genetic code that functions on both the urban and “domestic” scale. Our proposal is a scientific response, coherent and organised, a machine that may be configured an infinite number of times on every scale in order to cover all future changes and possibilities.



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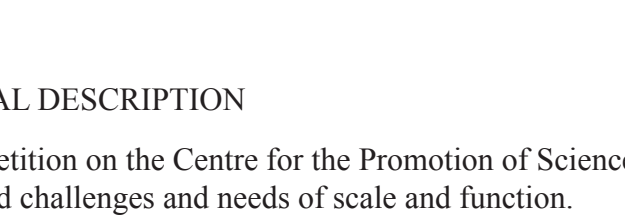

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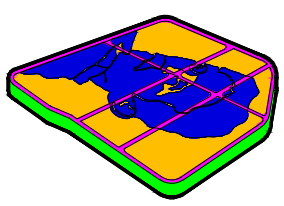

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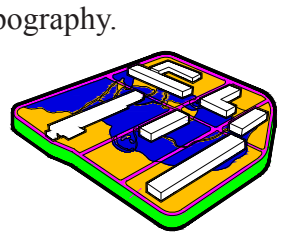

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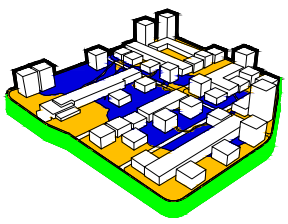

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- The entire ensemble is modulated in its plans and elevations in units of 3.6 x 3.6 metres. These measurements are optimal for developing a high-rise floor plan in modules as well as a horizontal surface unit that can house reasonable minimal spaces for human use.

- The façades and roof decks of the cube buildings are composed of panels measuring 3.6 x 3.6 metres. There are 17 different types of panels falling under four principal groups.

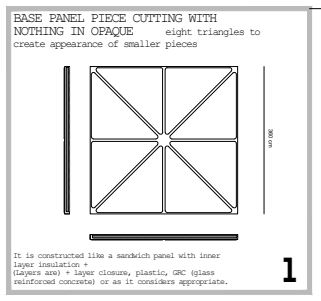
. NEUTRAL: panels that make up principal enclosures. They contain several types of windows to respond to different needs for natural light in the interior of the buildings.

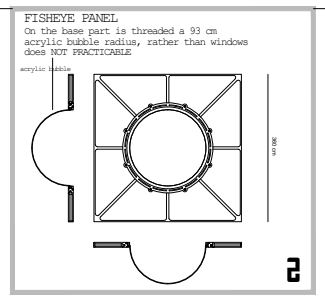
. BIOLOGICAL: panels containing different supports for plants.

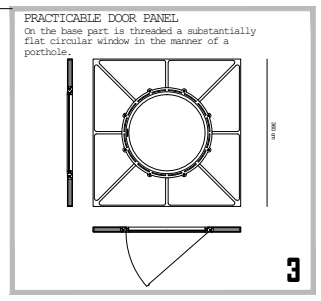
. INTERACTIVE: panels that emit acoustic or visual signals in order to give different types of information. Some of these panels can convey what is happening inside the building, such as for instance, if a conference is taking place. Other panels are “reactive” and respond to outside impulses or to manipulation by people. The façades are dynamic and variable, authentic information tapestries that enable the buildings to communicate with the environment and seem alive.

. ENERGY-GENERATING: panels intended for capturing solar or wind energy.

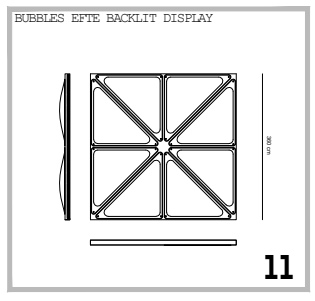
NEUTRAL PANEL=matt+windows+connection

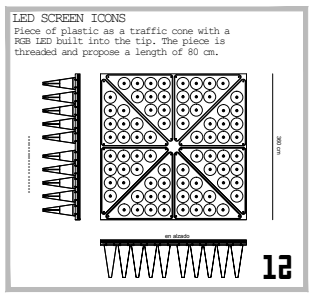


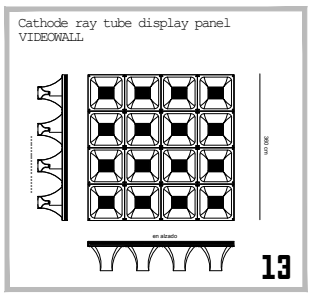


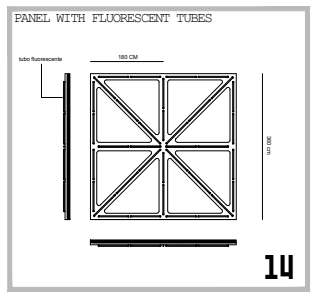


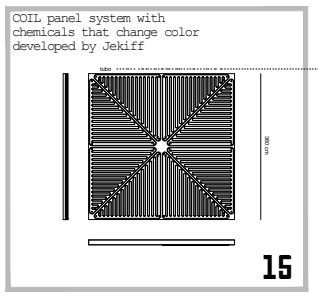
interactive panels

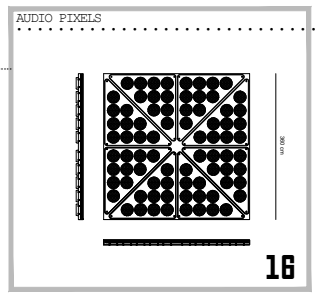




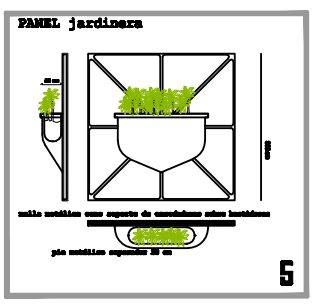


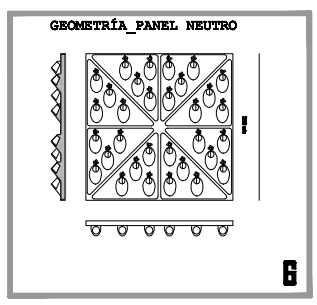


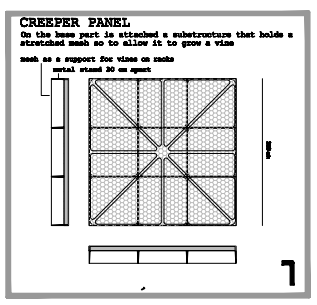


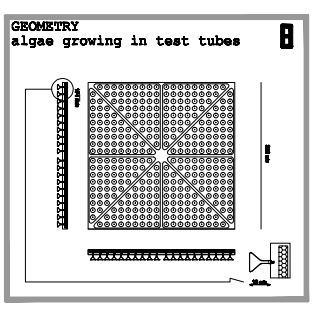


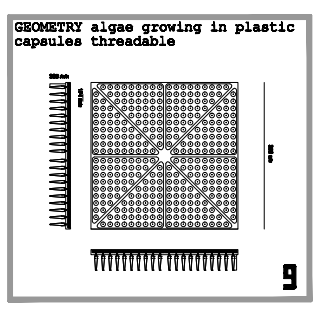
biological panels

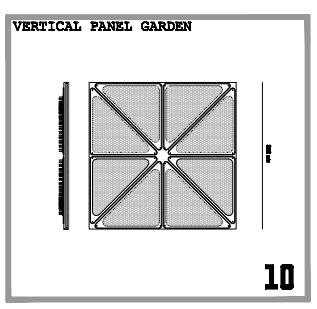




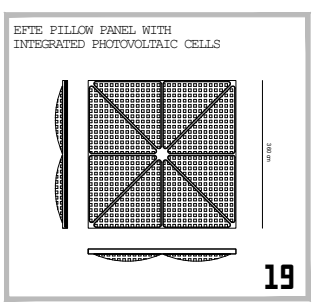


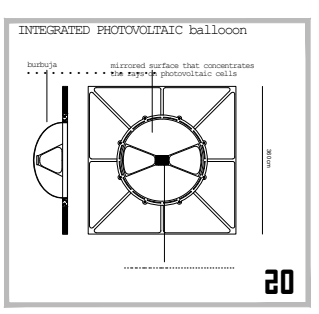


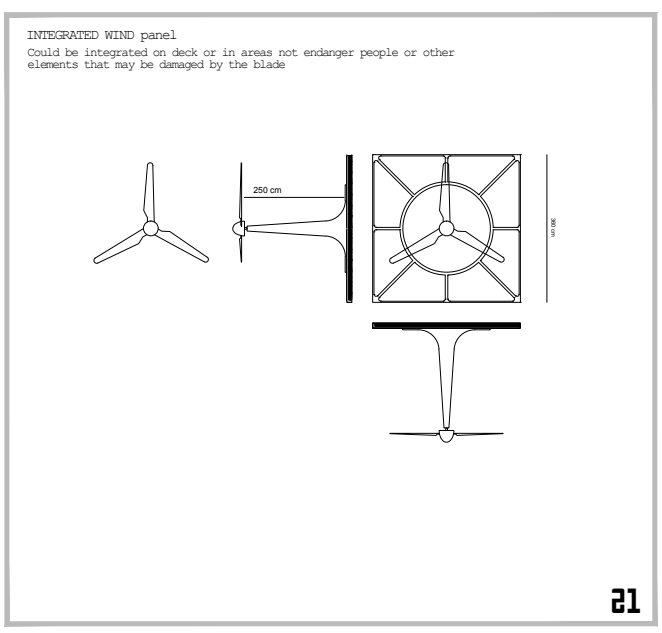




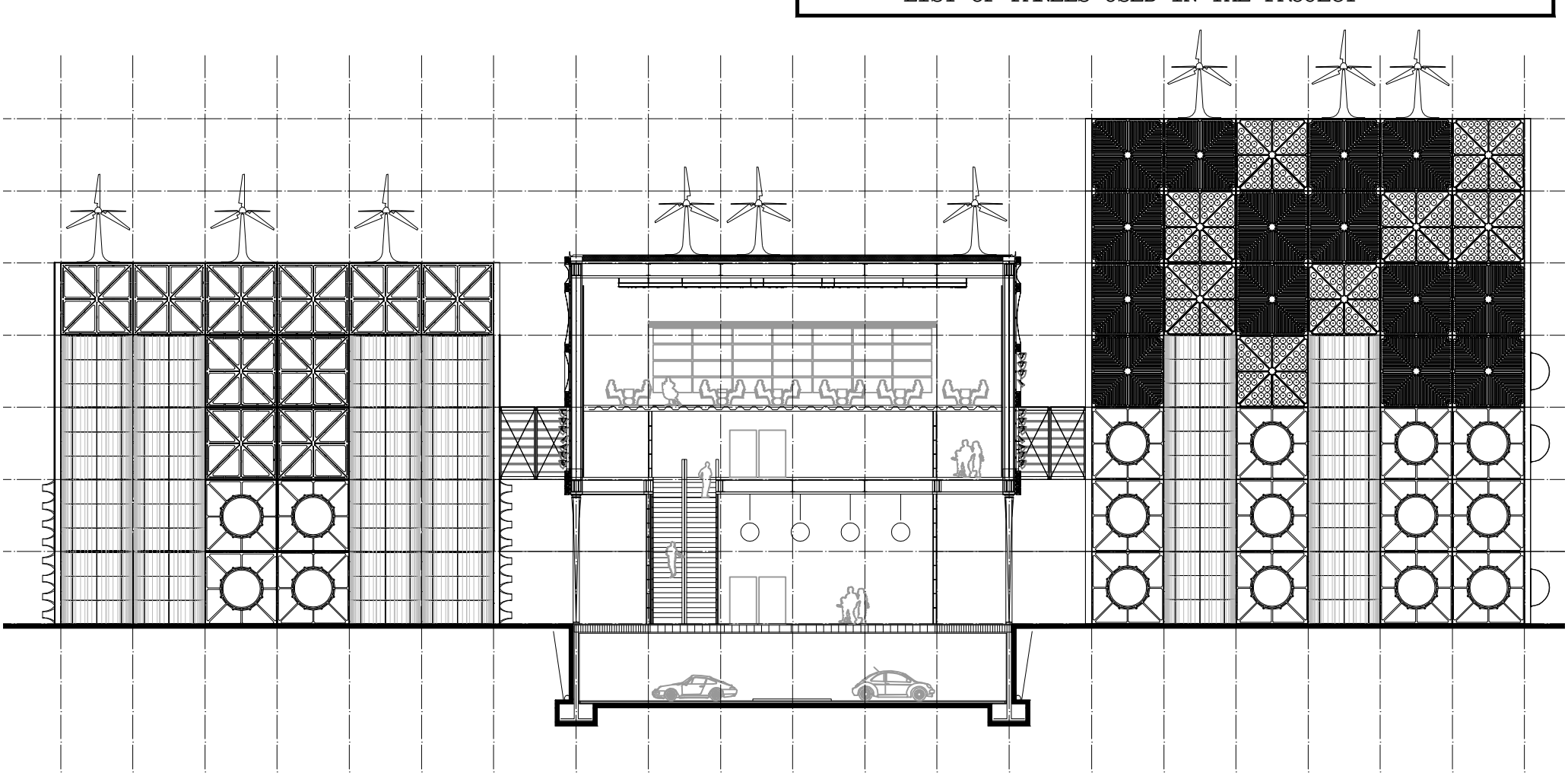
energy panel





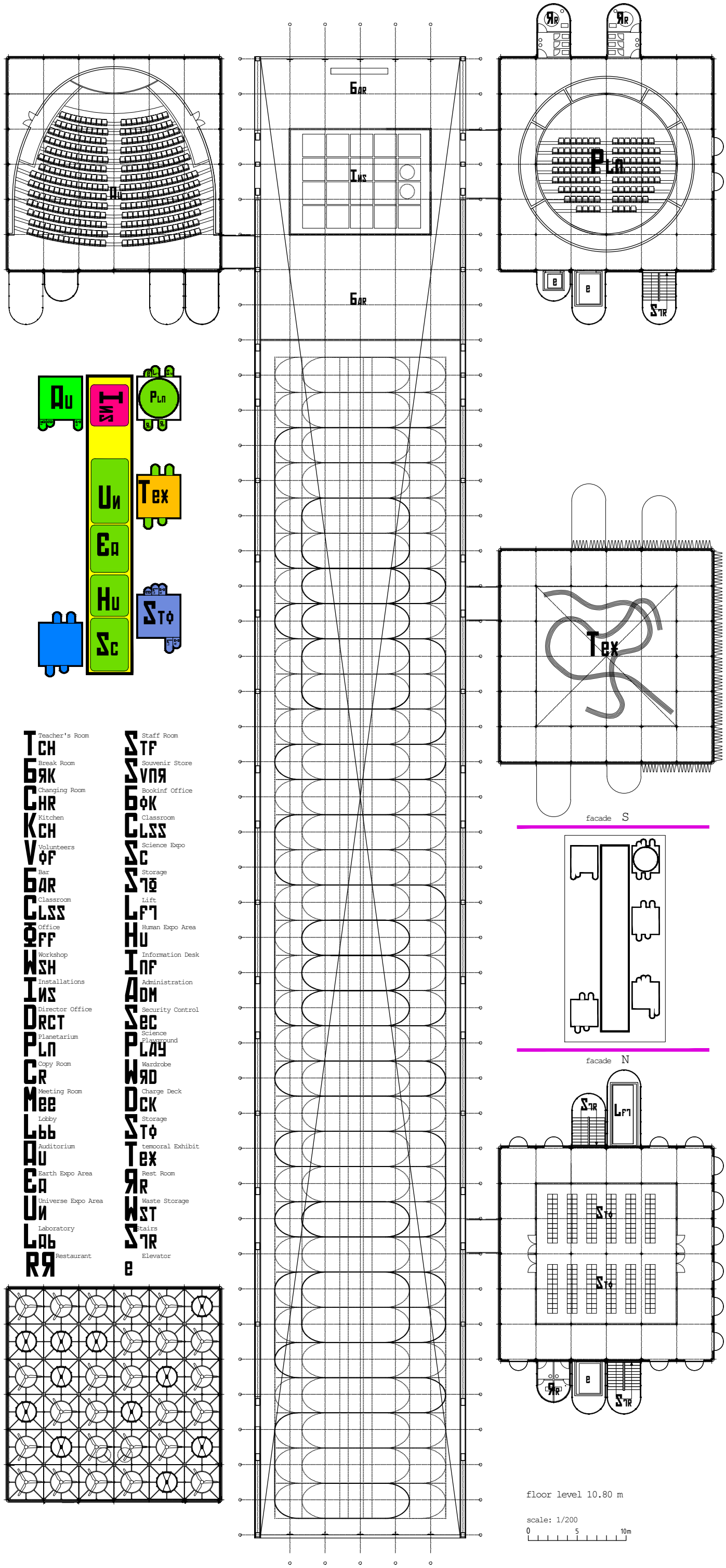


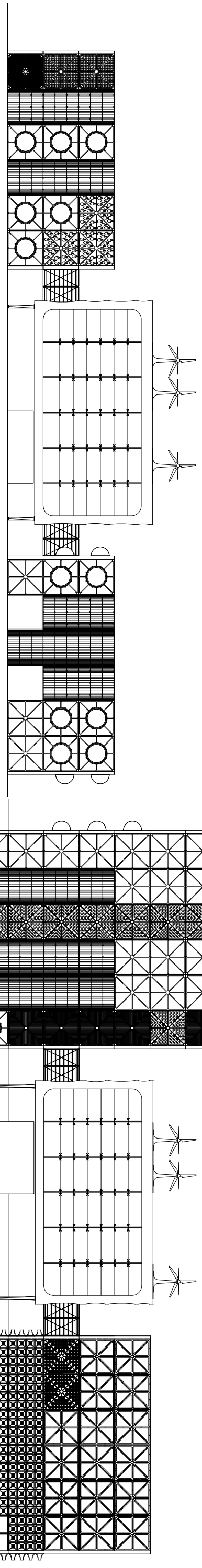
LIST OF PANELS USED IN THE PROJECT



No.	Room category	Total net floor area (m^2)	daylight	Additional information/description
1.0	**LOBBY**			
1.1	Entrance hall and main entrance	155	yes	(+0,00)
1.2	Info desk	25	yes/no	(+0,00)
1.3	Wardrobes and lockers	50	yes/no	(+0,00)
1.4	Staff office with first aid	25	yes	(+3,60)
1.5	Restrooms	60	no	(+7,20)
1.6	Shopping: souvenir and book store with office and storage space	100	no	(+3,60)
1.7	Café and staff restroom	150	yes	(+3,60) y (+7,20)
1.8	Booking office	50	no	(+3,60)
2.0	**EXHIBITION AREAS**			
2.1	Permanent exhibition area	2500	no	(+3,60)
2.2	Temporary exhibition area	500	no	(+3,60)
3.0	**SCIENCE CLUB**			
3.1	Four laboratories (20 students per laboratory)	200	yes	(+0,00) 50x4
3.2	Flexible classroom space	75	yes	(+3,60)
3.3	2 preparation rooms for teachers	50	yes	(+7,20) 2x25
3.4	Storage of equipment	50	no	(+3,60)(+7,20) 2x25
3.5	Science playground area	100	yes	(+3,60)
4.0	**SEMINARS/CONFERENCES**			
4.1	Conference hall (250 seats)	500	no	(+3,60)
4.2	Conference hall lobby	100	no	(+0,00)
4.3	Room for speakers and storage, restroom	50	no	(+3,60)
5.0	**PLANETARIUM**			
	Dome theatre , with 100 seats	250	no	(+10,8)
6.0	**RESTAURANT/CANTEEN**			
6.1	Sitting area (80 seats)	200	yes	7,2
6.2	Delivery kitchen with counters and register	120	no	(+7,20)
6.3	Storage for chairs/supplies	20	no	(+7,20)
7.0	**EMPLOYEES/STAFF**			
7.1	**MANAGEMENT AND ADMINISTRATION**			
7.1.1	Director 's office and secretary	25	yes	(+7,20)
7.1.2	Manager, event project manager, business administration	90	yes	(+7,20)
7.1.3	Office space for volunteers	25	yes	(+3,60)
7.1.4	Copy room with storage	25	no	(+7,20)
7.1.5	Meeting room (10 - 20 people)	50	optional	(+7,20)
7.1.6	reception area	25	no	(+7,20)
7.2	**MAINTENANCE**			
7.2.1	Office space	50	yes	(+3,60) 25x2
7.2.2	Storage space	50	no	(+0,00)
7.2.3	Repair and maintenance workshops	160	optional	(+0,00)
7.3	**SECURITY**			
7.3.1	Security control room	50	no	(+3,60)
7.4	**SHARED STAFF AREAS**			
7.4.1	Changing room, restrooms with showers	50	optional	(+3,60)
7.4.2	Break room	50	yes	(+3,60)
8.0	**GARAGE + PARKING**			
8.1	Cars (120 spaces)	2400		
8.2	Buses (10 spaces)	500		
9.0	**LOADING/UNLOADING AREA**			
9.1	Technical entrance with loading deck and service area	200	**no**	(+0,00)
9.2	Waste containers	200	**no**	(+0,00)
9.3	Security room/entrance control	12	yes	(+0,00)
9.4	Storage space for exhibitions equipment	400	no	(+3,60)
10.0	**OUTDOOR AREA**			
10.1	Roads	350		150 m² por pavement road , 200 m² for pedestrian sidewalk.
10.2	Parking	1000		
10.3	Bicycle	150		
10.4	Plato at the entrance	600		
10.5	Science garden	1.000		

TOTAL SITE AREA	**20.914**		
TOTAL NETO BUILDING AREA	**9.692**		1.1 to 9.4 excluding toilets ,stairs and corridors
TOTAL GROSS BUILDING AREA	**12.542**		(+0,00 2385m²) (+3,60 6102m²) (+7,20 2445) (+10,80 1610m²) including toilets, stairs and corridors.
BUILDING FOOTPRINT AREA	**2.885**		(+0,00 2385m²) +500 (garage access)
TOTAL GROSS OUTDOOR AREA	**3.600**		10.1 +10.2+10.3+10.4+10.5 + garage access
TOTAL GREEN OPEN SPACE	**15.429**		(TOTAL SITE AREA - BUILDING FOOTPRINT AREA) -(TOTAL GROSS OUTDOOR AREA) + science garden
BUDGET			
TOTAL SITE AREA	15429	50€/m2	771.450 €
SCIENCE GARDEN	3600	400€/M2	1.440.000 €
CROSS BUILDING AREA	12542	1000€/M2	12.542.000 €
			14.753.450 €





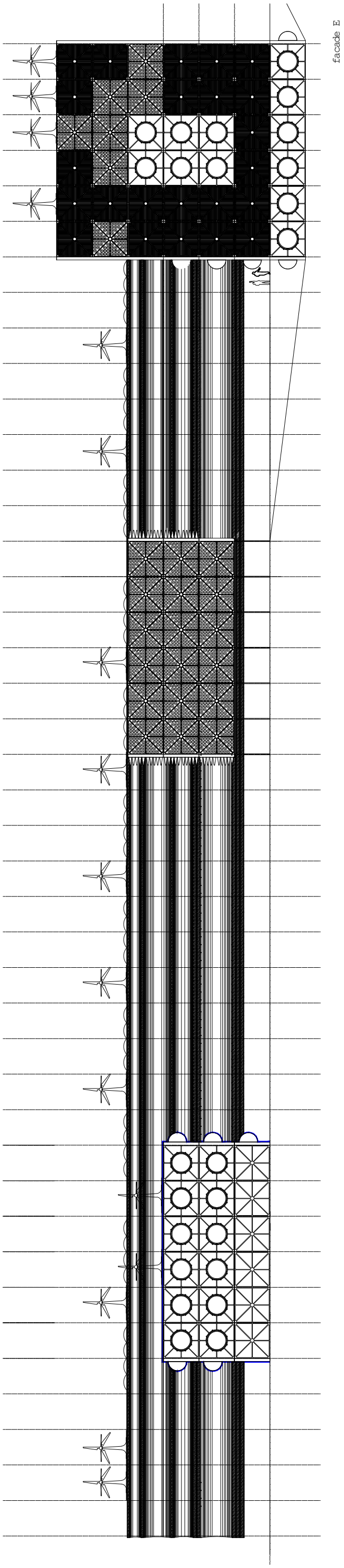
Teacher's Room TCH
Break Room BRK
Changing Room CHR
Kitchen KCH
Volunteers VOL
Bar BAR
Classroom CLSS
Office OFF
Workshop WSH
Installations INS
Director Office DRCT
Planetarium PLN
Copy Room CR
Meeting Room MEE
Lobby LBB
Auditorium AU
Earth Expo Area EA
Universe Expo Area UN
Laboratory LAB
Restaurant RR

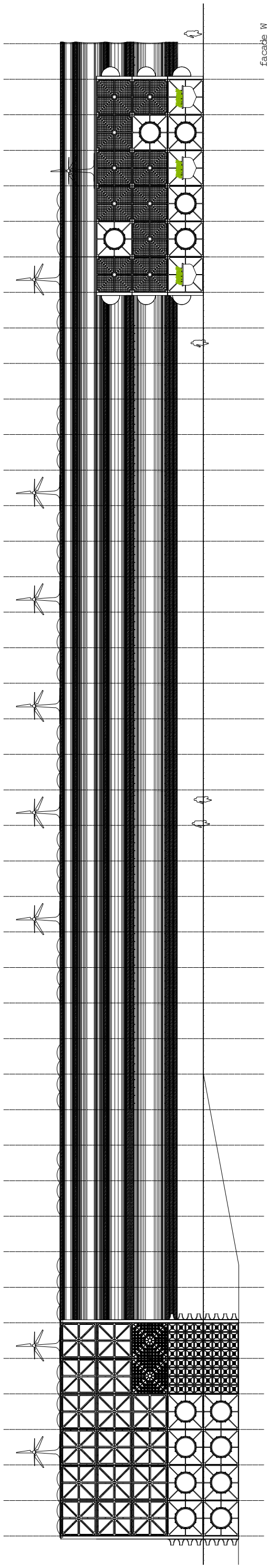
Staff Room STF
Souvenir Store SVNR
Bookinf Office BOK
Classroom CLSS
Science Expo SC
Storage STOR
Lift LFT
Human Expo Area HU
Information Desk INF
Administration ADM
Security Control SEC
Science Playground PLAY
Wardrobe WRD
Charge Deck DCK
Storage STO
temooral Exhibit TEX
Rest Room R
Waste Storage WST
Stairs STR
Elevator e

floor level 10.80 m

scale: 1/200

0 5 10m





NEUTRAL PANEL=matt+windows+connection

BASE PANEL PIECE CUTTING WITH NOTHING IN OPAQUE eight triangles to create appearance of smaller pieces

It is constructed like a sandwich panel with inner layer insulation + layers are) + layer closure, plastic, GRC (glass reinforced concrete) or as it considers appropriate.

1

FISHEYE PANEL
On the base part is threaded a 93 cm acrylic bubble radius, rather than windows does NOT PRACTICABLE

2

PRACTICABLE DOOR PANEL
On the base part is threaded a substantially flat circular window in the manner of a porthole.

3

PANEL CONECTOR CON EL PASILLO
On the base part is threaded a substantially flat circular window in the manner of a porthole.

4

biological panels

PANEL jardinera

malla metálica como soporte de enredaderas sobre bastidores

pie metálico separador 30 cm

5

GEOMETRÍA_PANEL NE TR

6

CREEPER PANEL
On the base part is attached a substructure that holds a stretched mesh on to allow it to grow a vine

mesh as a support for vines or cache

metal stand 30 cm apart

7

GEOMETRY
algae growing in test tubes

8

GEOMETRY algae growing in plastic capsules threadable

9

VERTICAL PANEL GARDEN

10

interactive panels

BUBBLES EFTE BACKLIT DISPLAY

11

LED SCREEN ICONS
Piece of plastic as a traffic cone with a RGB LED built into the tip. The piece is threaded and propose a length of 80 cm.

12

Cathode ray tube display panel
VIDEOWALL

13

PANEL WITH FLUORESCENT TUBES

tubo fluorescente

160 CM

14

COIL panel system with chemicals that change color developed by Jekiff

tubo que cambia de color por reacciones químicas

15

AUDIO PIXELS
Technology SOXELS half façade audi

16

energy panel

EFTE PILLOW PANEL WITH INTEGRATED PHOTOVOLTAIC CELLS

19

INTEGRATED WIND panel
Could be integrated on deck or in areas not endanger people or other elements that may be damaged by the blade

250 cm

21

INTEGRATED PHOTOVOLTAIC ballooon

burbuja acrílica

mirrored surface that concentrates the rays on photovoltaic cells

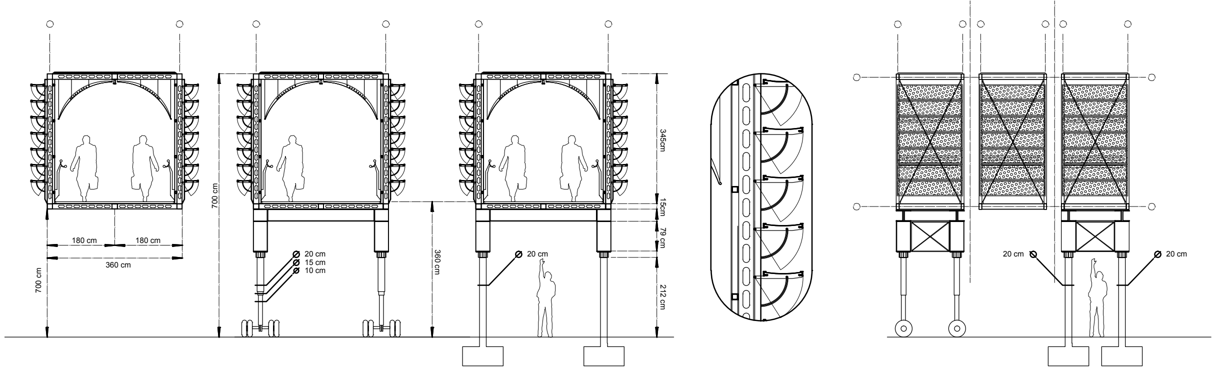
células fotovoltaicas

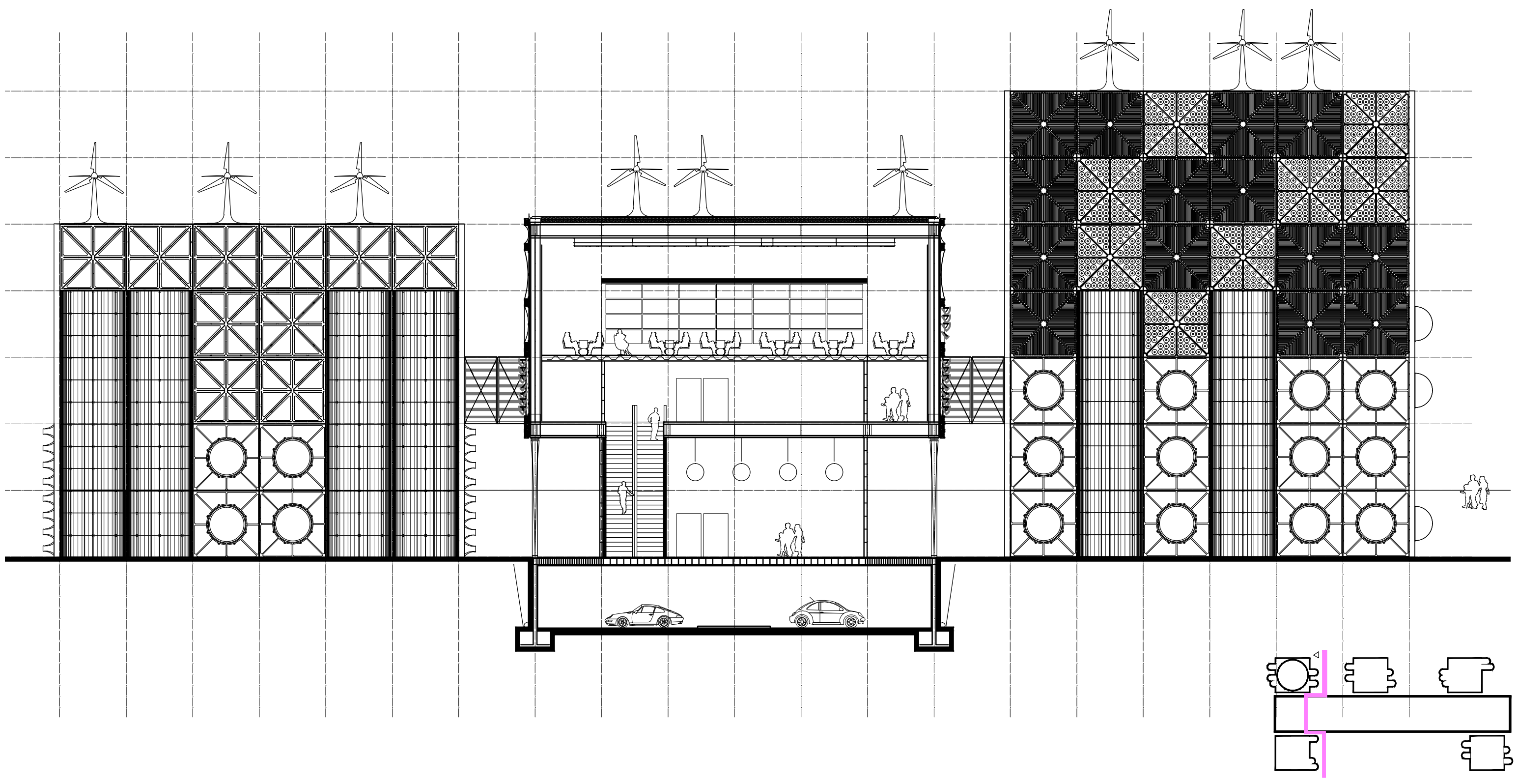
20

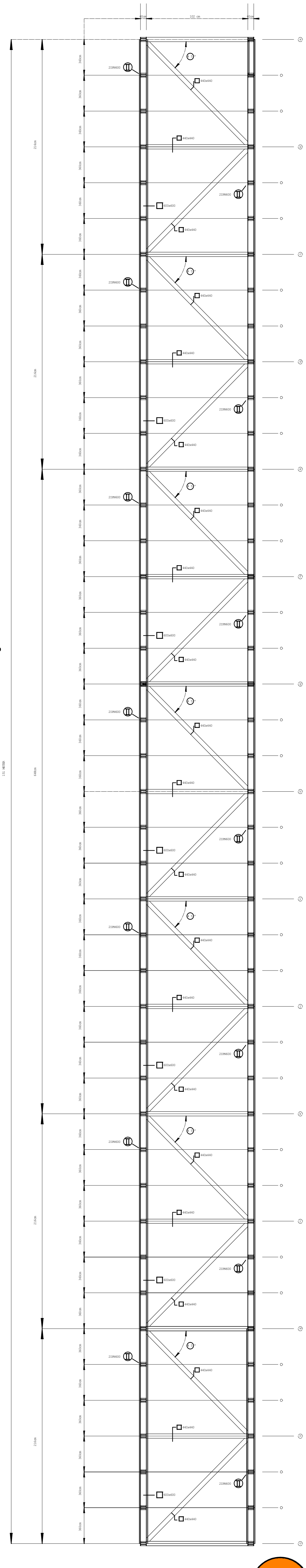
LIST OF PANELS USED IN THE PROJECT

scale: 1/200

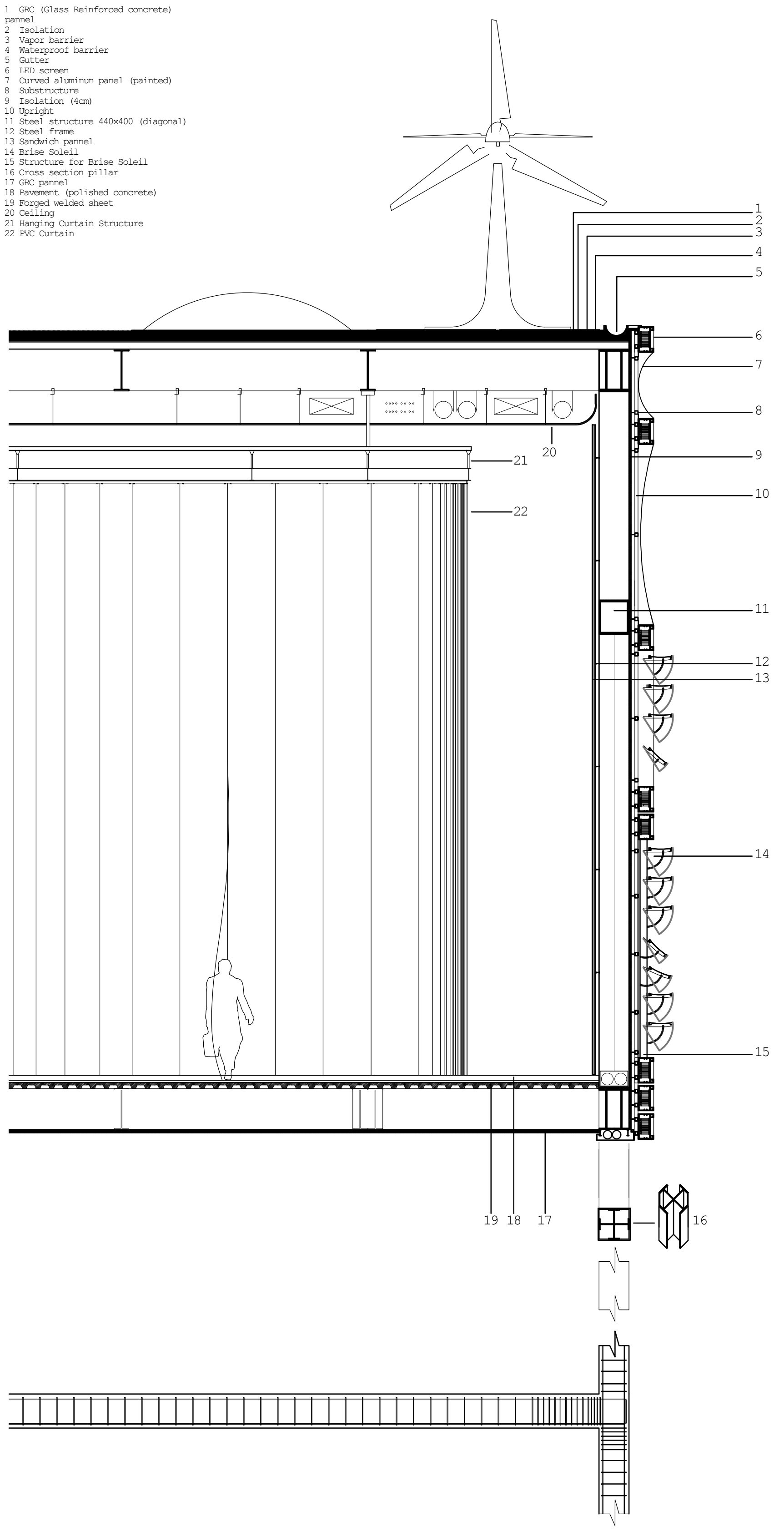
0 5 10m

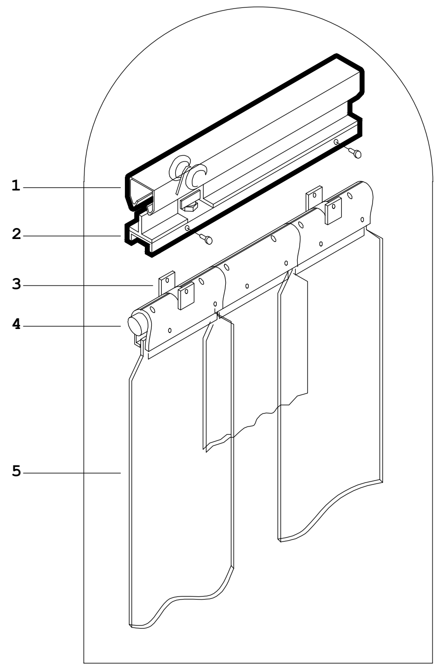






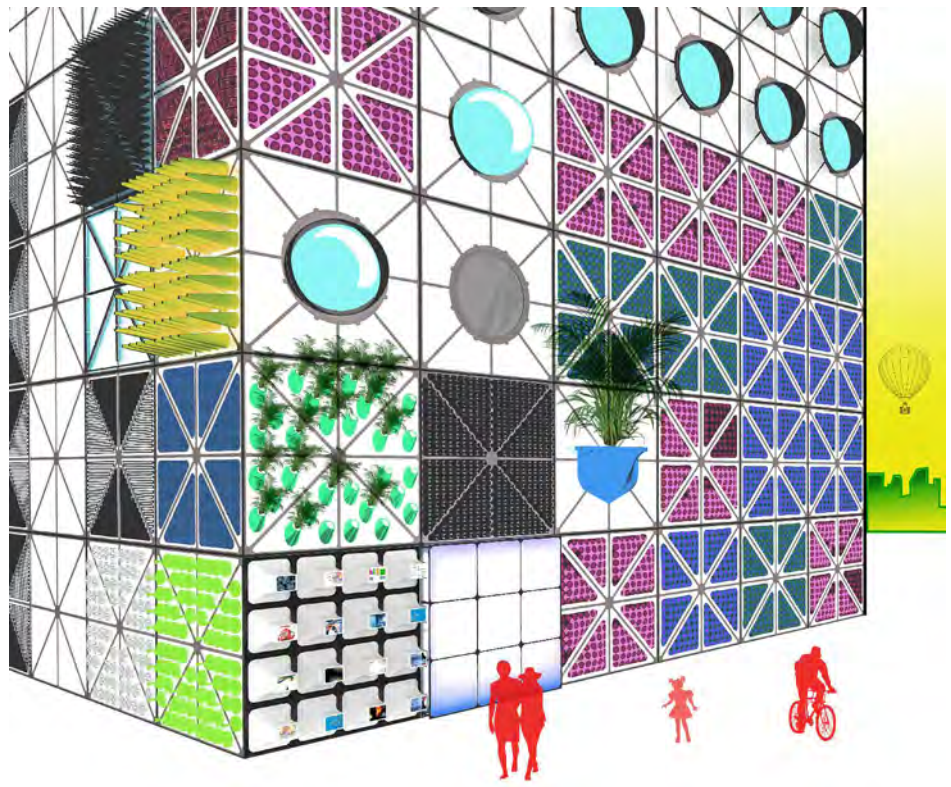
1 GRC (Glass Reinforced concrete) pannel
2 Isolation
3 Vapor barrier
4 Waterproof barrier
5 Gutter
6 LED screen
7 Curved aluminun panel (painted)
8 Substructure
9 Isolation (4cm)
10 Upright
11 Steel structure 440x400 (diagonal)
12 Steel frame
13 Sandwich pannel
14 Brise Soleil
15 Structure for Brise Soleil
16 Cross section pillar
17 GRC pannel
18 Pavement (polished concrete)
19 Forged welded sheet
20 Ceiling
21 Hanging Curtain Structure
22 PVC Curtain





HANGING PLASTIC WALLS for Exhibition Area Distribuition

1-aluminum rail
2-slider
3-retainer clamp
4-hanging bar
5-PVC curtain (coloured)



uhm! maybe you could tell me more about that fascinating Tesla....science is definitely an exciting adventure