

**The Master Plan of the entrance to the Tirana Park
and architectural project ideas for two public buildings:
the Public Service Center and the General Directorate of the State Police**



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1. FOREWORD

The Master plan aims to give an overall unique and enlarged vision to the intervention, not limited to the study of a single lot, but open to the analysis and solution of the implications that the project will have on the whole surrounding area. The design of the urban district is proposed with a highly integrated holistic approach that considers the different elements making up the project: the architectural idea, structures, strategies for the rational use of energy and water resources in order to achieve a sustainable, efficient and cost-effective project.

2. PRINCIPLES

2.1. Easy accessibility and clearness of the routes

The viability of the project is based on a thorough study of the accessibility to the area, the internal circulation and parking strategy.

The project sets out a clear hierarchy of the paths and roads network, from the historical “Martyrs of the Nation” Boulevard to the existing road bordering the Lake Park to the secondary streets perpendicular to the Park on the North-South axis and the parking areas, up to the internal pedestrian and cycle paths.

The project also defines a decisive hierarchy of open spaces, from the large “Mother Teresa Square” and the smaller Frederic Chopin Square, to the new square in front of the Center of Public Services, along the new green and tree lined backbone of the project, to the open and leisure spaces of the Park.

2.2. Balance and continuity between the Park and the City

The project was developed on the principle of balance and continuity between green areas and the mineral spaces, between exterior and interior spaces, between solids and voids.

The research of continuity and balance has been reached through the use axis of penetration going from the urban texture to the Park and trees and vegetation migrating from the Park towards the city.

In this way the physical and psychological barrier constituted by the unshaped edge of the Park is been interrupted and finally broken. The outer skin of buildings and structures along this edge is treated with colours and silk prints taken from photos of natural landscapes elaborated with an artistic operation that wants to colonize and revitalize the whole city.

2.3. Respect of the quantities criteria and functional program

The project redesigns the whole system of public open spaces and buildings placed along the outskirt of the Lake Park. The project is providing a reshape of the “Mother Teresa Square”, as a place for public events and

outdoor performances so as for the day by day use, a masterplan for the University future expansion buildings (11.000 sqm) and a new Public Administration building (5.000 sqm), a new Gate to the Lake Park with small service facilities, a new Public Service Mall (10.000 sqm) and a new General Directorate of Police (15.200 sqm).

2.4. Quality and representativeness of architecture

The quality of the architecture and its recognisability, combined with maximum functionality and right balance costs and benefits is the main issue of the masterplan.

With a photographic artistic process pictures of trees and nature have been post produced and transformed in a common vocabulary for all the architectural elements composing the masterplan. This process unifies the perception of the whole intervention and produces a beacon that occupies a place in the collective imagination.

2.5. Environmental sustainability

The masterplan privileges an eco-friendly approach with choices to reduce energy consumption, to maximize the use of renewable sources and, therefore, to neutralize the emission of pollutants such as CO₂.

The adopted strategies contribute to the determination of high performance buildings in accordance with European energy saving regulations and, in addition, improve the comfort conditions of the occupants in terms of thermal, acoustic and visual standards and For a more complete and flexible use of space.

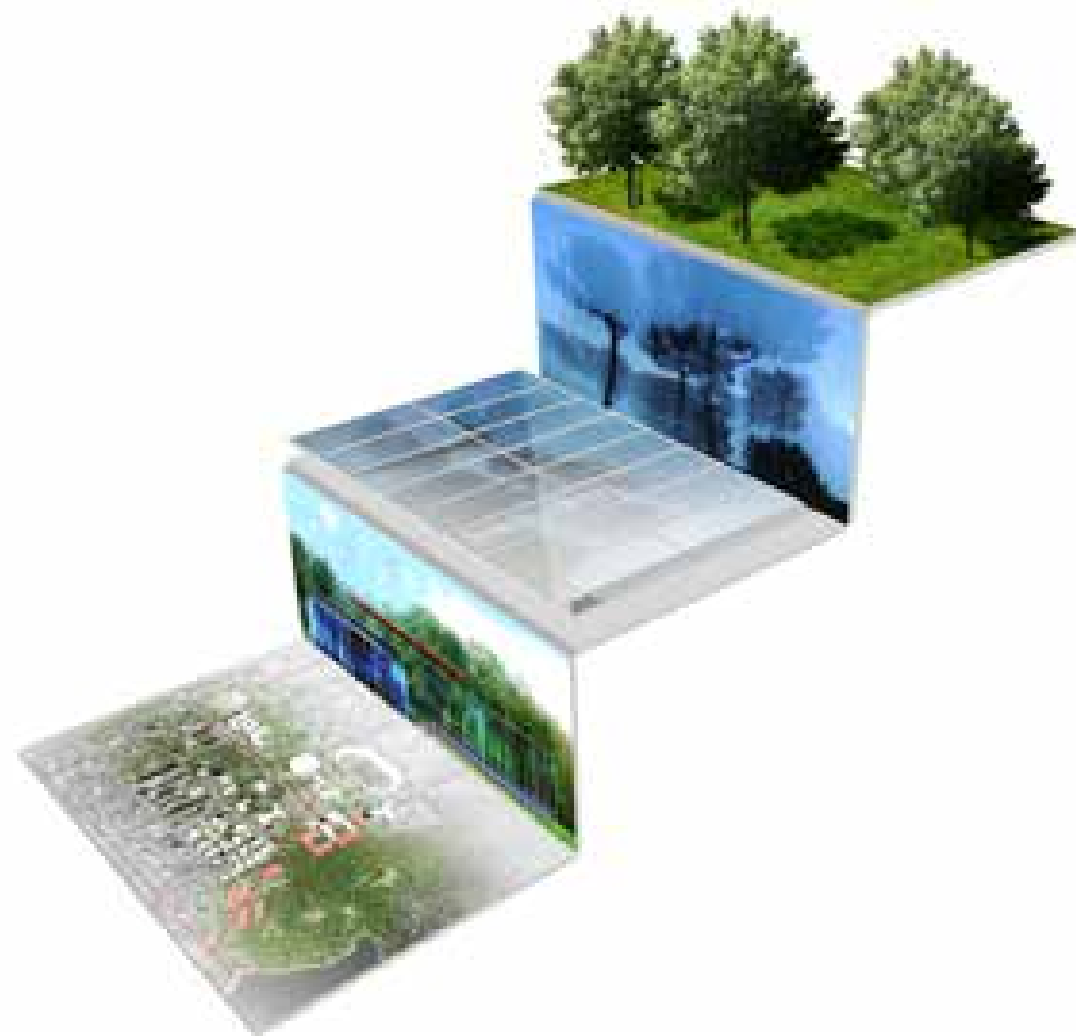
2.6. Health, Safety and Security

The masterplan pays a lot of attention to health, safety and security, complying with all the requirements related to the safety of the spaces, structures, fire, safety, use of space, use of the installations, exceptional events.

In urban spaces, safety and security are influenced by the interaction of a range of factors including the design of streets and spaces, traffic management, city maintenance and effective security systems. A successful safe plan integrates active and passive security features into the built environment to reduce the opportunity for crime, such as street lighting and natural surveillance by fellow citizens, as well as things like CCTV.

2.7. Economic Sustainability

A big attention has been paid to the economical and environmental sustainability of any of them so as to the synergic relationship that makes the whole intervention a unique innovative piece of architectural, urban and artistic vision. The implementation of the masterplan will follow different phases. It is advisable to start with the road network renovation and the new facilities and natural green interventions in the Park. Trees can be bought and planted very small at a low price so that by the time buildings are completed they will be mature and of great effect.



3. THE CONCEPT: PROJECT OF INTERCONNECTIONS

3.1. A System of 3 Interconnected Squares

The project appears to be the project of interrelationships and connections of 3 main squares with the Park. The unifying element is the road that runs along the Northern edge of the park and connects the main “Mother Teresa Square” with “Frederic Chopin Square” along to the new “Public Center Square.

The project stems from an artistic operation.

Thanks to an artistic process of interpretation of the nature it was compiled a vocabulary of elements returning in any new architecture, facade or equipment, arranged along the main unifying axis and inside the Lake Park.

Through the work of the artist trees have been transformed into photographic slides, pixelated and reproduced on a giant scale onto steel and glass by screen printing or laser cuts.

Through the work of the architect the glass and the steel, in turn, are transformed in double skin facades, in perforated screens, in wall coverings and shelters that go and colonize the entire area of intervention and potentially all the brown-fields of Tirana.

3.2. Mother Teresa Square

Questions about treating the Lake Park entrance directly generate from its positioning by one of the edges of the Boulevard “Martyrs of the Nation” and the direct link to the “Mother Teresa” Square. Regardless that Tirana Park is located so close to these two main areas of the capital, the connection between them remains quite weak.

On the other hand, “Mother Teresa” Square has the need for a reorganization, because it is a public space with great potential, but with limited use during time periods of the day, as well as in terms of programmatic variety. Also, in formal terms, “Mother Teresa” Square needs a spatial outline.

The master plan of Tirana Center, has proposed connectivity of “Mother Teresa” Square with Boulevard “Martyrs of the Nation” through a program of university facilities, which outline the area of the square and connect with Tirana Park through university buildings.

The project of the new “Mother Teresa Square” square introduces an element that retains the monumentality and austere view of the prospects of the three historic buildings that look out on it (the Polytechnic University Building, the Academy of Fine Arts and the National Archaeological Museum) and at the same time revitalizes its day by day use.

The project provides to cut-out in the center of the square a lower square of 60x40 m, at - 3.00 m from the street level, where to place a lawn of 30x30 m.

A flight of steps on the Southern side accompanies the descent of the public (mainly students during everyday use) towards the center of the square protected from vehicular traffic.

On the Northern side, however, a fountain with an inclined drop designs the end of the Boulevard, enhances the view from the Polytechnic to the City center and produces a cooler microclimate during the summer months.

As this regards the central lawn, a sowing of macrotherm, differs from the "classic lawn" for the fact that goes in vegetative rest during winter but in summer is able to grow despite the high temperatures and does not turn yellow and dry.

It is a robust vegetative system which is able to withstand the multi-purpose new space for events that will take place throughout the year.

A system of printed colored glasses covers both the Eastern and Western sides of the lower piazza. It is consistent with the rest of the master plan and the complete the redesign of this important urban space.

3.3. Tirana Park Gate Square or “The Entry”

The entry to Lake Park has been the subject for years of several project initiatives. It has constantly been searching for the best way to connect with the city through an intermediate space, but it also requires an image, or emblem as an entry into the Park.

The gate of the Lake Park is positioned in an another small piazza which is part of the system of the squares of the master plan: the “Frederic Chopin Square”.

In this case the project is structured in a portal consisting of two blocks of 5x20 m base, housing some small facilities to serve the Lake Park: Security, Ticket shop, souvenir shop, Small administration office, Small museum / education plan.

Parking spaces have been placed on the other side of the road

The portal is visible from “Mother Teresa Square” and he forms a backdrop to the new piazza in front of the Cafe of the new university buildings and invites visitors enter the park in a path getting to a new panoramic tower.

In this case the architectural feature consists of colored metal sheet panels and perforated with images consistent with the rest of the artistic intervention.



3.4. The Public Center Square and the new buildings

The third square interconnected with the master plan system of outdoor spaces is the new Public Center Square. Two new buildings overlook this new piazza: the General Directorate of Police building and the Public Service Mall.

The two buildings are interconnected in a corner along their diagonal following a scheme called “bow tie” and, thanks to a set back from the road, form an open square that gather visitors and address them to the main entrance of the Public Service Mall or to the entrance of the General Directorate of the State Police.

The buildings have both 4 floors from street level and 2 floors of underground parking.

The General Directorate of the State Police building is spread over 15,200 sqm above ground and an underground parking with 200 car spaces. For obvious reasons of security and privacy, this building is introverted but offers to the employees a garden in the courtyard.

The building is surrounded on two sides by a perimeter wall of security that is built around the whole area devoted to the Police Headquarters.

Within this area the historic main building has been maintained, moving to the new building all major departments.

A protected open area for parking of service vehicles, heliport and outdoor activities has been created demolishing existing low quality volumes.

At level 0.00 of the new building, on the Northern side, we find the reserved entrance d for the Bureau of Investigation and on the Eastern side the entrance for the staff. The entrance to the few activities open to the public has been located at level +4.00 on the Southern side.

All the Directorates interdicted to the public have been placed at the upper floors.

The Public Service Mall building spreads over 10,000 sqm above ground with an underground parking with 200 car spaces. It is a permeable and welcoming building to the public.

This building consists of two blocks that host six different departments floating above a glass hall completely dedicated to the contact with the public.

An information desk at the entrance lobby directs visitors to the different service desks located in the free plan. Waiting areas are allocated along the sides of the ground floor while a flight of steps connects visually and physically to the Lake Park behind the building.

The terraced steps have the function of the waiting area and gathering place for cultural activities and venues that can take place inside the building.

Both buildings have glass silk printed facades with motifs related to the artistic iconographic program. A canopy supported by slender steel columns, a metaphor of an artificial forest that welcomes visitors and protects the facades from solar radiation on the South and West sides.

The project propose a last element of interconnection, a canopy that shades at a giant scale over the space between the two buildings and signals a new axis of penetration in Lake Park, acting as a new Gate for it.



4. STRUCTURAL DESIGN CONCEPT

The projected structures will consist of two independent buildings:

- Police department
- Public Service Centre

The structural design will follow guidelines inspired by innovative solutions, enhancing communicative space availability for the Public Service Centre, environmental sustainability and safety for the Police department.

The framing system will be developed according to the architectural design providing efficiency in terms of vertical and lateral loads.

4.1. Methodology

The structural design provided will not only offer structurally robust system constructed at reasonable cost but more importantly it will be developed to help the architect achieve his ambition for the building to the full. This is a cooperation between the engineer and the architect where the engineer works closely with the architect in developing a technologically advanced, aesthetically pleasing project which is practical to build. Another important contribution by the engineer is to provide ideas for the overall integration of the various building elements and services in an elegant and intelligent manner.

The proposed approach to the overall building design will be practical as well as creative and it will include assessment of how the structure is constructed particularly in respect of any special sequences of construction, which are assumed in the design.

The designer will use the most sophisticated techniques to design and, if necessary, to test the building and its performance, meticulously analysing every minute detail from materials and building methods to costs, risk and sustainability, to ensure that the Client always has complete confidence in us.

Consultant's structural designer group will be effectively managed, as the rest of the Team, with the group leader overseeing the project and coordinating the communication with the rest of the design team.

4.2. Materials

The Police department structure will consist of two basements below ground and five floors above ground (Height = 20 meters) and the Public Service Centre will consist of two basements below ground and four floors above ground (Height = 24 meters).

Therefore, the intended structures will be provided with reinforced concrete which grants higher performances in terms of durability especially concerning the substructure (retaining walls).

Regarding the superstructure envelope, it will be made of curtain wall, in order to better fit the architectural aesthetic requirements.

4.3. Framing system

The two substructures will be supplied with concrete cores as elevator and stair shafts, thus to grant the required lateral stability and efficiently transfer the lateral load to the foundations.

The framing system will be represented by columns and flat slabs, whilst concrete cores will be strategically located.

The above mentioned solution will provide wide spans in order to grant efficiently available space along with a high design flexibility.

4.4. Seismicity

From the point of view of the dynamic behavior of structures, subjected to seismic activity, Tirana is a high seismicity area, usually is preferred to make mutually independent buildings, which will interface each other via seismic joints, properly calculated. This solution makes it possible to analyze separately each building, without an overall assessment system. Naturally, there are other alternatives, such as seismic isolation at the base, using of damped braces, couplers dynamic "shock transmitter". During the design will be evaluated the technical and economic convenience of the possible solutions, providing essential safety requirements that the project of public buildings with strategic work for the community must guarantee.

4.5. Durability

The choice of cement has an influence on the durability of concrete, mortar and grouts, e.g. frost resistance, chemical resistance and protection of reinforcement.

It is necessary that the choice of cement, especially the type and/or strength class in relation to the requirements for durability depending on exposure class in which it is incorporated, follows the appropriate standards and/or regulations for concrete or mortar valid in the place of use.

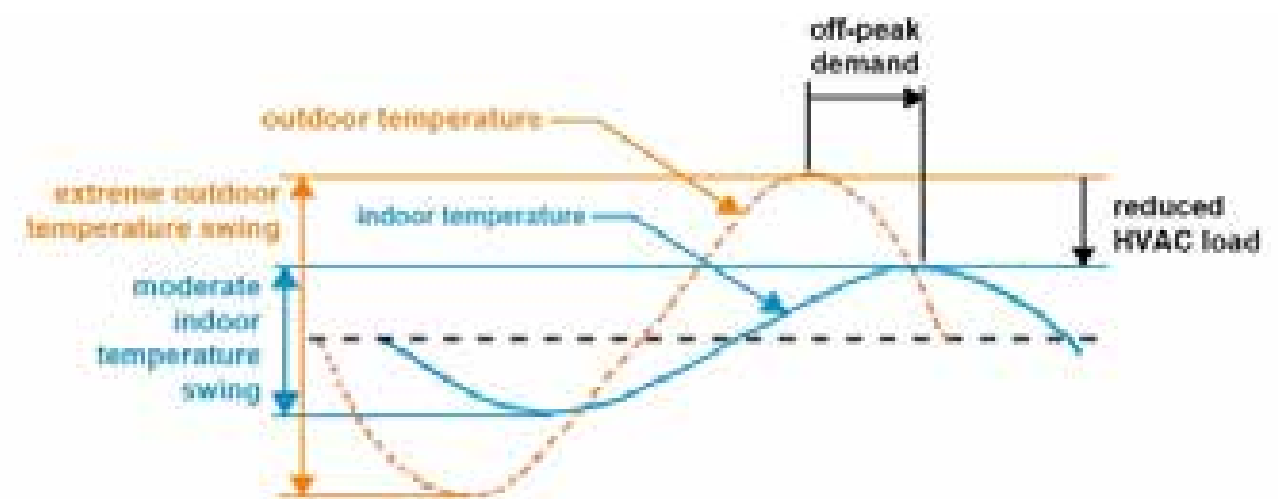
5. ENVIRONMENTAL STRATEGY

5.1. Sustainability

The Tirana Entrance Park will pursue high sustainable standards and energy savings, as described below.

The master plan has been developed taking into account a worth relationship between built-up, waterproof and green surfaces, to reduce heat island phenomenon and therefore the alteration of site and its microclimate. The impacts on key environmental indicators (noise, gas emissions, light pollution, etc.) have been significantly contained, conserving existing natural areas and restoring damaged areas to provide habitat and promote biodiversity, reducing building footprint to minimize site disruption, providing tuck-under parking and sharing facilities with the several buildings of the campus, adopting site lighting criteria to maintain safe light levels while avoiding off-site lighting and night sky pollution;

The envelope of the buildings (opaque and glazed) will be narrowly designed according the so-called mean-lean-green approach to strongly limit the energy consumption. All the components will have fair values of thermal transmittance, capacity and lag in order to reduce winter dispersion rather than off-peak and decrease summer solar over-heating through the opaque elements. All the glazed surfaces will have fair values of thermal transmittance (double of triple pane, low-e coatings) and solar heat gain coefficient SHGC or they will be protected and shaded from the sun in order to prevent the summer over-heating;



The MEP technologies above described can ensure a reduction of primary energy up to 60% compared to a standard building according to ASHRAE/IESNA Standard 90.1-1999. This goal can be achieved thanks to the efficient Heating, Cooling and Ventilation systems, underground water heat pumps plants and Building Management Systems. Furthermore, the centralized plans will ensure up to 50% of self-supply renewable energy and thus reducing environmental impacts associated with fossil fuel energy use (CO₂, NO_x, etc);

The project site maintains the natural storm water flows by promoting infiltration through pervious paving to minimize impervious surfaces. A rainwater harvesting system will be provided to collect, filter, store and pressurize service water. The service water will be used for landscape irrigation and non-potable indoor uses (i.e., toilet and urinal flushing). The aim of the project is to save up to 50% of drinkable water and to use up to 100% of storm water for irrigation;

The Tirana Entrance Park project will promote sustainable mobility. The master plan will provide transportation amenities such as bicycle racks and showering/changing facilities for about 10% of regular campus occupants, alternative-fuel refuelling stations for about 5% of the total vehicle parking capacity of the site. The parking lot/garage capacity will meet, but not exceed, minimum local zoning requirements, while parking facilities of each building will be shared with adjacent buildings;

The materials used for building construction will be chosen to ensure a large use of natural and rapidly renewable, certified wooden or recycled materials which are manufactured regionally within a radius of 500 miles. The use of these kind of materials, the reuse of the existing buildings and a worth construction waste management will ensure a reduction in raw materials use and thus a reduction of construction environmental impacts;

The use of the HVAC and Electric systems above described, in synergy with the correct choice of materials with low-emissions and VOC free, will ensure the best indoor comfort in terms of air quality (i.e., CO₂ concentration), thermal and visual comfort.

Thanks to the design strategies above described, the Tirana Entrance Park can achieve the best environmental and energy ratings according the most used tools for Green Building Assessment, such as LEED Gold.

5.2. Heating, cooling, domestic hot water, electricity production

The general approach of the mechanical end electrical plants aims to achieve a technological system characterized by an high reliability and functionality, huge reduction of the environmental pollution impact and qualifying cost benefit relationship, according to the main International Design and Assessments Methods for Sustainable Buildings such as LEED (Leadership in Environmental and Energy Design) or BREEAM (Building Research Establishment Environmental Assessment Method). In particular, the adopted design strategies aim to achieve a “Green Building” Area that is interconnected to the surrounding environmental conditions in order to meet the objectives of energy saving and reducing CO₂ emissions in atmosphere.

The technological MEP main production and distribution, serving the whole area of Tirana Entrance Park, consists in a district technical area within which all the main facilities are installed, such as:

- Heating and Cooling Production System (Main Power Center)
- Electrical Power Plant (Main Power Center)
- Sanitary water treatments (Water Supply System, Main Power Center)
- Fire protection System (Main Power Center)
- Garbage Storage (Main Pneumatic District Storage)

The main power plant will be associated to:

- N°3 electricity power units, Power Capacity 1000 kW (each);
- Photovoltaic power plant (Electrical Peak Capacity of 1 MWp), installed on the roof of the buildings with the same slope of the roof itself.

In the district technical area (Main Power Center), will be installed the main thermal plant. It allows a large use of renewable energy sources, supplying all the buildings of the area. The technology used will ensure simultaneous generation of cold water for cooling and hot water for both heating and sanitary water. In this preliminary stage, Cooling Capacity of 4MW and Heating Capacity of 2.5MW can be estimated, considering high insulation level for building envelope components (U Factor) and high efficiency main power plants. According to the heating and cooling estimation, above mentioned, District Heating and Cooling Plant solution will consist of:

- n° 3 ground water heat pumps (GWHP), Cooling Capacity 1200 kW (each), Heating Capacity 1000 kW (each);

- n° 2 air-condensing centrifugal heat pump (magnetic levitation technology – high efficiency), Cooling Capacity 1400 kW (each), Heating Capacity 1200 kW (each). These heat pumps will be installed as back-up and up-peak system.

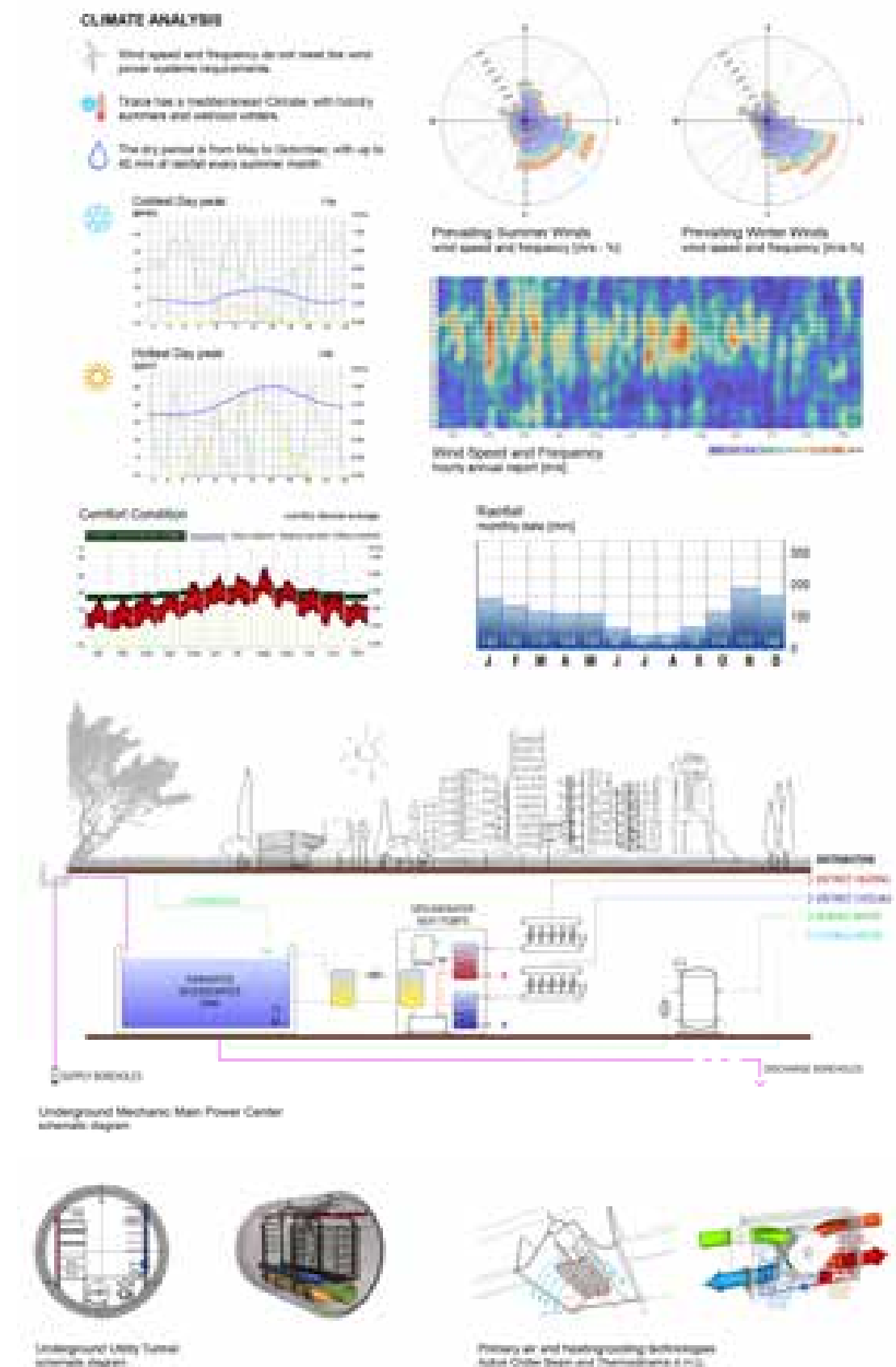
This “concept” plant solution presents the following benefits:

- High energy savings
- Low cost of installation
- Ease of implementation
- Ease of CO2 emissions control because of a single point of production (Main Power Center)
- Ease of acoustic emissions control because of a single point of production (Main Power Center)

The high energy efficiency of this plant solution is increased through the adoption of ground-water heat pumps; ground water is an inexhaustible source of energy, constantly available and renewable. Just a few meters below the ground level, the soil substrate maintains nearly constant temperature throughout the year and this allows to extract heat in winter and to transfer heat during the summer. This plant solution maximized the ratio energy used/resource used, as the latter comes from renewable source of energy and therefore completely free. The efficiency of water-ground heat pump achieves the best rating between the various solutions today available on the market.

In this preliminary stage, the total ground-water amount extracted for heat pumps is about 75 lit/s. Main power plant will be equipped with Variable Flow Rate Circulating Pumps. Main piping distribution will be realized with grooved pipe joining system. All component also, such as butterfly valves, ball vales, balancing valves, check valves and filters, expansion joints, will be joined by couplings, rigid-flexible, through a cast iron housing in contact with the bottom of the groove arranged in the elements. This technology guarantees, therefore, a perfect union between the parts. This piping connection system will be the most versatile, convenient and reliable solution available today because it ensures stiffness, reduction of vibration and noise, flexibility, maintenance, absorption of seismic stress, ease of alignment. The main cooling and heating piping distribution, thought the whole area of intervention, will be realized through pre-insulated pipes starting from the main power center and supplying each single building block.

Each building will be equipped with a sub-metering system in order to divide the real energy consumption.



5.3. Heating and cooling distribution

Different solution for heating and cooling distribution have been taken into account in offer to achieve optimum indoor comfort conditions for the occupants and contribute to energy saving achievement, according to the different destination of use of the buildings inside the Tirana Entrance Park.

a) General Directorate of the State of Police

The building is primarily intended for offices. Cooling and heating will be provided with hydronic brush-less fan-coils units (false ceilings and round-flow cassette) of active chilled beams. These systems are characterized by rapid achievement of the indoor comfort conditions, quick plant respond in lieu of environmental changing condition, ease of installation, low electrical consumption and, therefore, they leave to the users the possibility of change temperature and air velocity "room by room", meeting the required comfort of every user. Temperature control will be provided for each room by temperature sensors and fan speed controllers connected to the BMS (Building Management System). Mechanical ventilation will be also provided, ensuring an excellent air indoor quality for occupants and keeping room under slight pressure, comparing to corridors, in order to prevent undesired external air infiltration or pollutions. The primary air will be diffused through the hydronic terminals rather than slot air diffuser. The air system will be managed by a thermodynamic compact air handling units, serving each one a building floor. This technology will reduce ventilation operating costs due to the high efficiency of the equipment recovery, both in summer and winter.

b) Public Service Center

Mechanical ventilation of heating and cooling distribution will occur; high induction diffusers, such as jet nozzle, slot diffuser and micro-holed steel ducts will be installed in order to achieve optimal comfort conditions for occupants. Mechanical ventilation system will be supplied by Air Handling Units, equipped with programmable ozone healthy treatment, plug fan and high-efficiency heat recovery system. The design solution, perfectly integrated with the architectural concept of the spaces, will allow high flexibility of the system as well as ensuring optimal comfort condition of the occupants.

5.4. Lighting system

The variable intensity of light is a decisive factor in the conformation of the living and work place and affects the well-being, concentration and efficiency for the occupants. Moreover, the natural light, coming through the windows, can provide all or part of the necessary illumination to the

various visual tasks. According to these principles, the electrical system design will favor natural light, using artificial light such as integration. Each building will be equipped with LED Technology indoor lighting devices lamps and electronic ballast with "intelligent" system (DALI) that can be programmed in order to provide the really needed lighting flow, saving energy and ensuring always the best visual comfort. The lighting system inside the buildings will be automated as a function of outdoor lighting level.

5.5. Electrical distribution

Medium voltage electric energy will be distributed from the main power plant and reaches transformation cabins, located in the intervention area, serving each buildings or group of buildings. Cabins distribution will depend on the total electricity needed amount. The electrical distribution serving each building will be structured by single area electrical panels, cable trunking and cable pulling, secondary energy distribution and installation of the lighting systems and electromotive force, electrical protection plant against lightning, exterior lighting installation (green areas and pavement areas), electrical service to mechanical equipment, lifts power plant.

5.6. Electrical safety plants (Emergency Lighting, CCTV)

Emergency lighting will be installed in order to ensure a minimum level of illumination in the absence of line voltage and a system for safety reporting (escape routes) that supports the work of evacuation. All the indicator lamps of the escape routes will be equipped with LED technologies that compared to conventional compact fluorescent lamps offer the following advantages: power consumption (less than 4W per device), increased efficiency of the lamp and of the system as a whole, lifetime of the lamps significantly greater (50,000 hours), absence of stroboscopic effect and hum, reduced size and weight. Closed-circuit Television Cameras (CCTV), monitoring the common area will be installed; each plant will consist of fixed and dome cameras, DVR recording systems and monitors for viewing images.

5.7. Water supply system and storm water collection and reuse

Rational use of potable water resources implies two fundamental issues:

- Minimize the production of discharges by installing components at minimal water consumption;
- Maximize reuse by collecting and reusing grey water
- flow reducers;

- taps with lever to allow two distinct flush areas, an economy where a slight braking action report wanting to spend about 5 l/min and one for the usual supply of water of about 10 l/min;
- toilet flushing tanks with stop button or double button (3/6 liters, or 4/9 liters).

Moreover, collection and the recycling of storm water can offer immediate results to solve the problems of waste, scarcity and rising cost of water supply. Although rainwater cannot be considered "drinking water", non-potable water can be used for different utilities, both inside and outside buildings, such as WC flushing, cleaning of common building areas, garden irrigation, road flushing, etc. Rainwater will be collected and stored in suitable underground reservoir and used for the utilities above described. The main feature of the system is the availability of free water resources, otherwise "wasted" in the drain, in order to reduce the impact of unexpected storm events on municipal sewage systems. The great benefits of collecting and reusing rainwater, therefore, can be summarized as follows:

- Water cost saving;
- Control and management of the site hydraulic capacity;
- Available of non-potable water for irrigation of green areas during periods of drought and wc flush;
- No impact from the aesthetic point of view: the plant is completely buried.

5.8. Pneumatic Garbage Storage

Pneumatic garbage storage (collection of waste and storage) has been considered as a plus of whole project in order to create an eco-friendly and sustainable area, providing a system serving the whole area and not only the single building.

The pneumatic waste collection system is essentially consisting of:

- Transport network
- Piping
- Storage station
- Fans
- Waste decanting
- Compact and transport

This technology, largely diffused in Europe, presents several benefits such as:

- Availability 24 h/24, 365 days a year;
- Ease of use, security, accessibility;

- Separate collection;
- Fast waste removal;
- Eliminate smell;
- Public health improving;
- Substantial reduction of operating costs;
- Space recover occupied by bins on public and private land

The operating system is quite similar to that of the old pneumatic tube used in offices to send documents from one floor to another before the advent of email. Users simply place their waste, arranged in several columns along the roads and-or buildings: depending on the maximum load allowed or time schedules, the suction system is activated, putting pressure on the entire pipes network and sucking the waste into the storage centre (variable speed about 70-90 km per hour). The waste is stored into containers that will be collected by trucks before being transported to the disposal facilities. Special carbon filters are used to remove dust and odours from the air before returning to the environment.

6. THE LANDSCAPE PROJECT

The landscape project aims to meet social needs through elegant and efficient economic processes whilst improving the physical environment and adapting to environmental change.

The design concept for the Lake Park is informed by the local climate, the site, and the desire to create unique outdoor environment with optimum use and exploitation, with the least possible environmental impact.

The landscape design approach sets out to manage the community needs, according to the planning and legislation both at the urban and building scale. Green and natural spaces are essential in urban planning, both to protect and enhance natural habitats, and for the health and wellbeing of the citizens.

Local vegetation will contribute to increase shadows and reduce humidity and as an urban environment, the project wants to avoid air and noise pollution.

Vehicular traffic is a major source of these; hence the project aims to reduce car circulation within the site area and to use passive strategies to mitigate the effect of pollution such as green barriers and natural dykes.

In general the park development starts from a cost-effective use of existing topography and resources.

The existing topography of the land has not been changed or only minimally to accommodate the new soil movements for the new buildings or pavilions.

Trees and plants have been selected among autochthons or naturalized species that are recommended for growing in Tirana and its climate.

The Lake Park has been thought to be used all year round upon the climate conditions as a culture and leisure space. The principle is that the use of the landscape follows the same functions of the nearby building accommodation and extends their use especially in the summer season.

Recreation areas for adults and children, elements of accomplishment, sports grounds, small architectural forms will be designed for an all year-round use of the park.

The landscape will be provided with decorative illumination of the territory, including usage of modern lighting equipment and LED color lighting layout of the complex facades and art projections on facades.

The park will be provided with its own parking but, in case of special venues gathering lots of visitors in national holidays, will share other's public buildings car parking.

The project's aim is to improve the existing footpath network with the creation of small areas along the way. These zones can be used in different ways, for example to relax, rest or learn about the natural environment, and without reducing the greenery they will improve the enjoyment of the park.

4 Community open spaces typologies of intervention are treated with different planting and landscaping:

- Landscapes for recreation and social life, called Rest and Relax areas.
- Landscapes for education are natural areas where to learn the different species of Tirana plants and flowers living in the surrounding landscape.
- Water recreation areas with jetty with canoes to discover the natural ecosystem of the lake
- Playground areas are facilities for children recreation, containing play equipment such as slides and swings.

6.1. Specimens used in the Park:

- Plane tree (*Platanus orientalis*). A large, stately, long-lived tree, developing a wide-spreading head of branches. Bark attractively dappled and flaking; leaves deeply five-lobed, the lobes reaching half-way or more to the base.
- Black pine (*Pinus nigra*). *Pinus nigra* is a large coniferous evergreen tree, growing to 20–55 metres tall at maturity. The bark is grey to yellow-brown. The leaves are thinner and flexible.
- Lime (*Tilia spp.*). A medium sized to large. Leaves heart-shaped, rather leathery, glossy dark green above, pale green, with reddish-brown axillaries tufts beneath. Flower are ivory coloured and sweetly scented.
- Ash (*Fraxinus excelsior*). A large, magnificent tree and one valuable for timber. Winter buds black. The bark is smooth and pale grey on young trees, becoming thick and vertically fissured on old trees. The leaves are 2long, pinnate compound, with 7-13 leaflets.
- Cypress (*Cupressus sempervirens*). A medium-sized coniferous evergreen tree to 35 m tall, with a conic crown with level branches and variably loosely hanging branch lets. The foliage grows in dense sprays, dark green in colour.

6.2. Specimens used in the Squares:

- Plane tree (*Platanus orientalis*).
- Black pine (*Pinus nigra*).
- Green ebony tree (*Jacaranda mimosifolia*). The tree grows to a height of 5 to 15 m. Its bark is thin and grey-brown in colour. The flowers are up to 5 cm long, and are grouped in panicles. They appear in spring and early summer, and last for up to two months. They are followed by woody seed pods.
- Chinaberry tree (*Melia azedarach*). A small tree or large shrub. Large, elegant, doubly pinnate leaves and small fragrant lilac flower in loose panicles during summer.

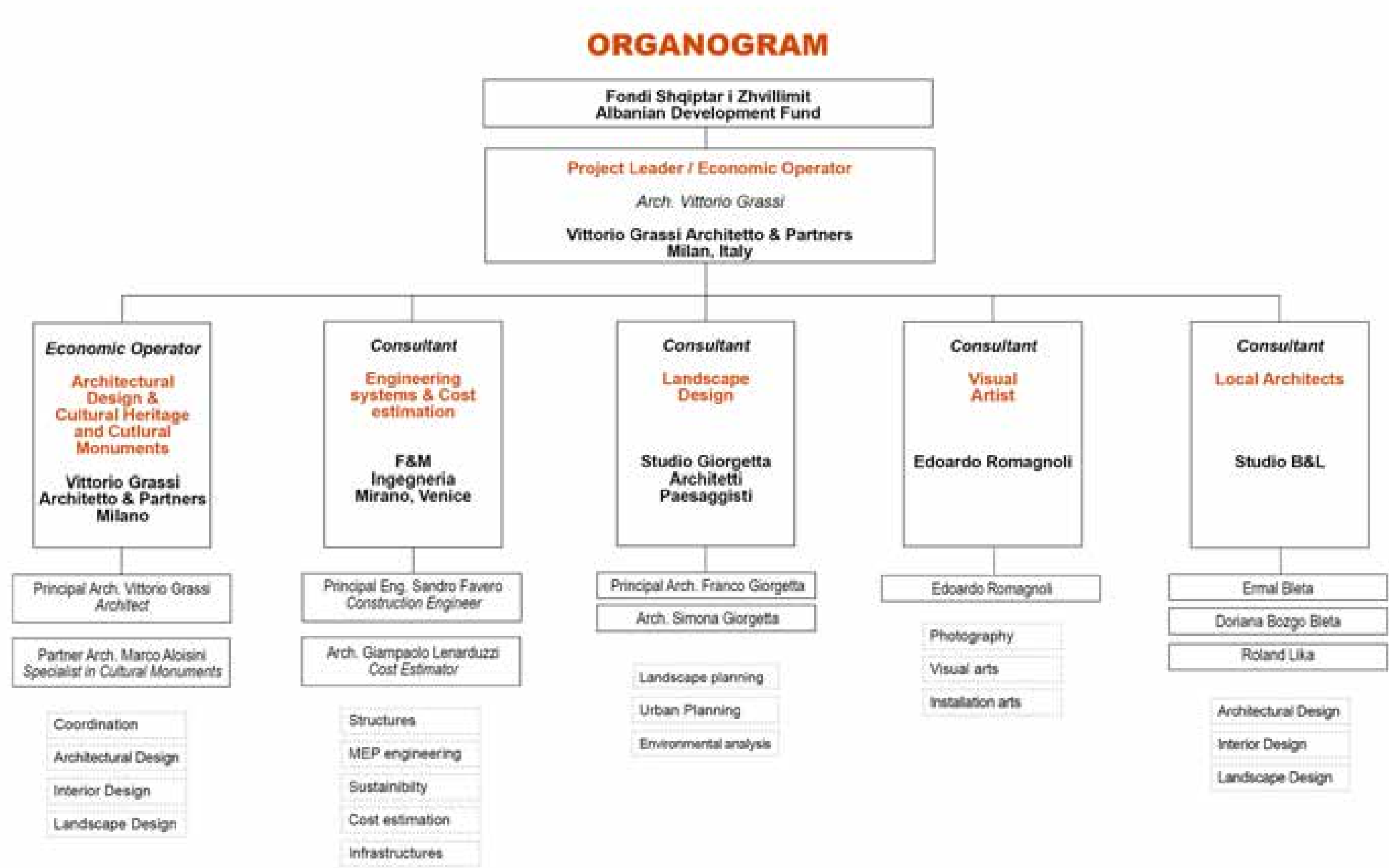
6.3. Specimens used in the Streets:

- Plane tree (*Platanus orientalis*).
- Black pine (*Pinus nigra*).
- Chinaberry tree (*Melia azedarach*).

7. PRELIMINARY COST ESTIMATION

COD.	DESCRIPTION	U.M.	QUANTITY	UNIT PRICE	AMOUNT
1	MOTHER TERESA SQUARE				
1.01	Excavation	m3	44 000	€ 3,00	€ 132 000,00
1.02	External works (pavements, lighting...)	sqm	11 000	€ 75,00	€ 825 000,00
1.03	External Service and network	lthem	1	€ 100 000,00	€ 100 000,00
1	TOTAL MOTHER TERESA SQUARE			€	€ 1 057 000,00
2	UNIVERSITY FACILITIES/ FACULTY SPACES				
2.01	Architecture works	sqm	19 500	€ 300,00	€ 5 850 000,00
2.02	Structure works	sqm	19 500	€ 200,00	€ 3 900 000,00
2.03	MEP works	sqm	19 500	€ 250,00	€ 4 875 000,00
2.04	External works (pavements, lighting...)	sqm	10 950	€ 80,00	€ 876 000,00
2.05	External Service and network	lthem	1	€ 150 000,00	€ 150 000,00
2	TOTAL UNIVERSITY FACILITIES/ FACULTY SPACES			€	€ 15 651 000,00
3	ADMINISTRATIVE SPACES				
3.01	Architecture works	sqm	6 000	€ 300,00	€ 1 800 000,00
3.02	Structure works	sqm	6 000	€ 200,00	€ 1 200 000,00
3.03	MEP works	sqm	6 000	€ 250,00	€ 1 500 000,00
3.04	External works (pavements, lighting...)	sqm	4 750	€ 80,00	€ 380 000,00
3.05	External Service and network	lthem	1	€ 50 000,00	€ 50 000,00
3	TOTAL ADMINISTRATIVE SPACES			€	€ 4 930 000,00
4	LAKE PARK ENTRANCE				
4.01	Demolition of existing buildings	m3	900	€ 9,00	€ 8 100,00
4.02	Entrance Gate	sqm	480	€ 450,00	€ 216 000,00
4.03	External works (pavements, lighting...)	sqm	4 000	€ 80,00	€ 320 000,00
4.04	External Service and network	lthem	1	€ 40 000,00	€ 40 000,00
4	TOTAL LAKE PARK ENTRANCE			€	€ 584 100,00
5	GENERAL DIRECTORATE OF THE STATE				
5.01	Demolition of existing buildings	m3	21 600	€ 9,00	€ 194 400,00
5.02	Underground parking	sqm	8 060	€ 500,00	€ 4 030 000,00
5.03	Architecture works	sqm	18 500	€ 340,00	€ 6 290 000,00
5.04	Structure works	sqm	18 500	€ 250,00	€ 4 625 000,00
5.05	MEP works	sqm	18 500	€ 270,00	€ 4 995 000,00
5.06	External works (pavements, lighting...)	sqm	7 220	€ 80,00	€ 577 600,00
5.07	External Parking	sqm	1 650	€ 50,00	€ 82 500,00
5.08	External Service and network	lthem	1	€ 100 000,00	€ 100 000,00
5	TOTAL GENERAL DIRECTORATE OF THE STATE			€	€ 20 894 500,00
6	PUBLIC SERVICE CENTER				
6.01	Underground parking	sqm	7 700	€ 500,00	€ 3 850 000,00
6.02	Architecture works	sqm	12 000	€ 340,00	€ 4 080 000,00
6.03	Structure works	sqm	12 000	€ 250,00	€ 3 000 000,00
6.04	MEP works	sqm	12 000	€ 270,00	€ 3 240 000,00
6.05	External works (pavements, lighting...)	sqm	3 270	€ 80,00	€ 261 600,00
6.06	External Parking	sqm	1 600	€ 50,00	€ 80 000,00
6.07	External Service and network	lthem	1	€ 50 000,00	€ 50 000,00
6	TOTAL PUBLIC SERVICE CENTER			€	€ 14 561 600,00
7	ROADS				
7.01	Roads	sqm	3 950	€ 60,00	€ 237 000,00
7.02	External Service and network	lthem	1	€ 50 000,00	€ 50 000,00
7	TOTAL PUBLIC SERVICE CENTER			€	€ 287 000,00
	GRAND TOTAL			€	€ 57 965 200,00

8. THE DESIGN TEAM



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Edoardo Romagnoli
Visual Artist

STUDIO B&L
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1031 Tirana
Albania



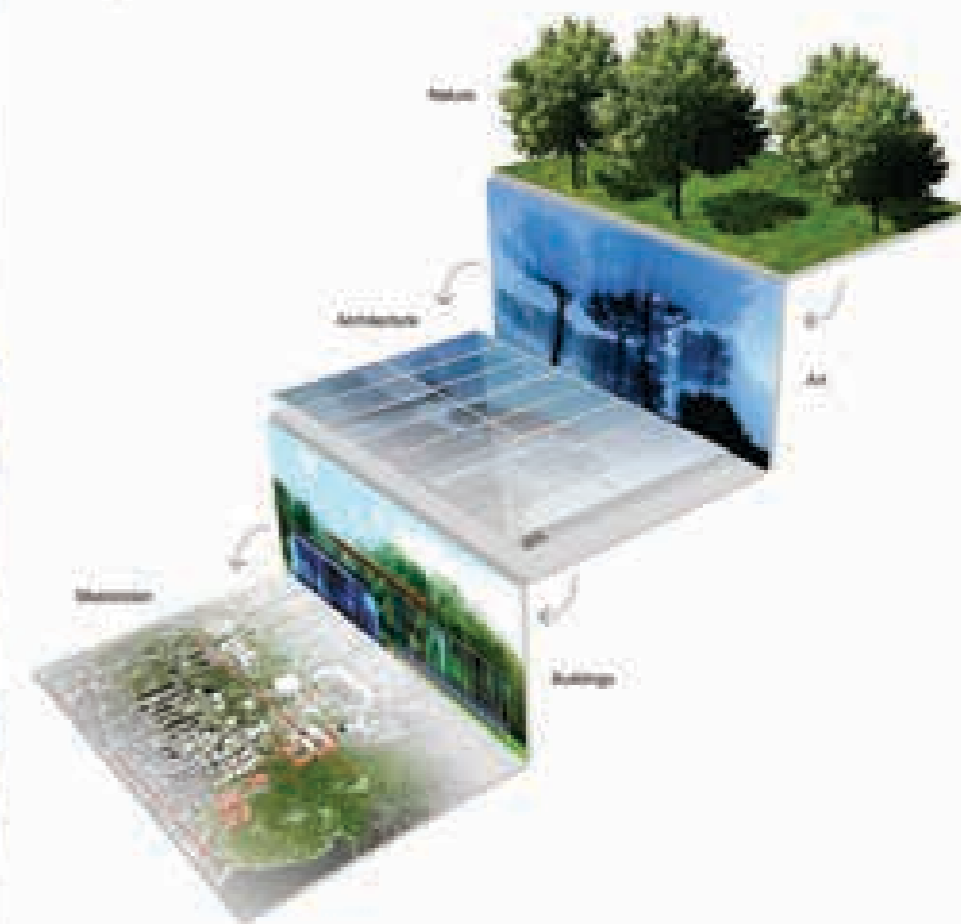
Ernal Bieta
Partner Architect







The General



Abstract

The findings also indicate that, on average, judges are stronger critics of the government – especially in the study of a longer term – than in the studies on the studies of the government's growth policies on the overall working class. This group of the labor market is composed of a relatively long-term employed workers, and the findings also indicate the different results regarding the growth policies and the labor market. Although the findings are interesting and useful, however, more research is needed to investigate different and more effective results.

Do you want to know more about the new features of the new version of the software?
Do you want to know more about the new features of the new version of the software?

100

These steps are critical to the success of the project. The first step is to identify the problem or opportunity. The second step is to define the project goals and objectives. The third step is to develop a project plan. The fourth step is to implement the plan. The fifth step is to monitor and control the project. The sixth step is to close the project.

Through the work of the other three best short filmmakers in the photography sphere, attention was focused on a particular style that had not given its whole-hearted support to best style.





View of the Mother Teresa Square



View of the Park Entrance Gate Square



View of the Public Center Square

MOTHER TERESA SQUARE

The square in the city "Mother Teresa Square" is a central square that serves as a landmark and a focal point in the city. The square is a large open space that is surrounded by buildings and greenery. The square is a central square that serves as a landmark and a focal point in the city. The square is a large open space that is surrounded by buildings and greenery. The square is a central square that serves as a landmark and a focal point in the city. The square is a large open space that is surrounded by buildings and greenery.

THE NEW PUBLIC CENTER SQUARE

The new square is a central square that serves as a landmark and a focal point in the city. The square is a large open space that is surrounded by buildings and greenery. The square is a central square that serves as a landmark and a focal point in the city. The square is a large open space that is surrounded by buildings and greenery. The square is a central square that serves as a landmark and a focal point in the city. The square is a large open space that is surrounded by buildings and greenery.

THE NEW PUBLIC CENTER SQUARE

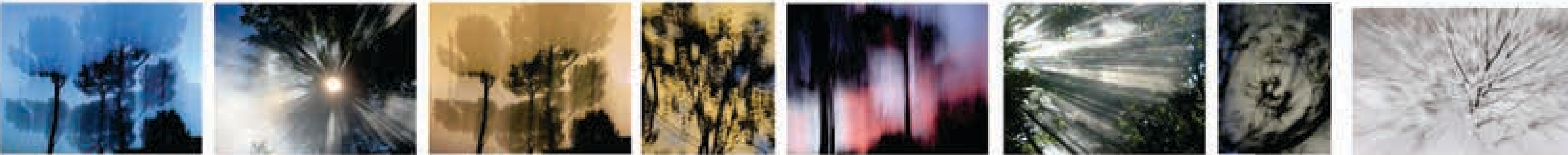
The new square is a central square that serves as a landmark and a focal point in the city. The square is a large open space that is surrounded by buildings and greenery. The square is a central square that serves as a landmark and a focal point in the city. The square is a large open space that is surrounded by buildings and greenery. The square is a central square that serves as a landmark and a focal point in the city. The square is a large open space that is surrounded by buildings and greenery.



Entrance Gate to Tirana Lake Park
Plan Level + 0.00 Scale 1:200

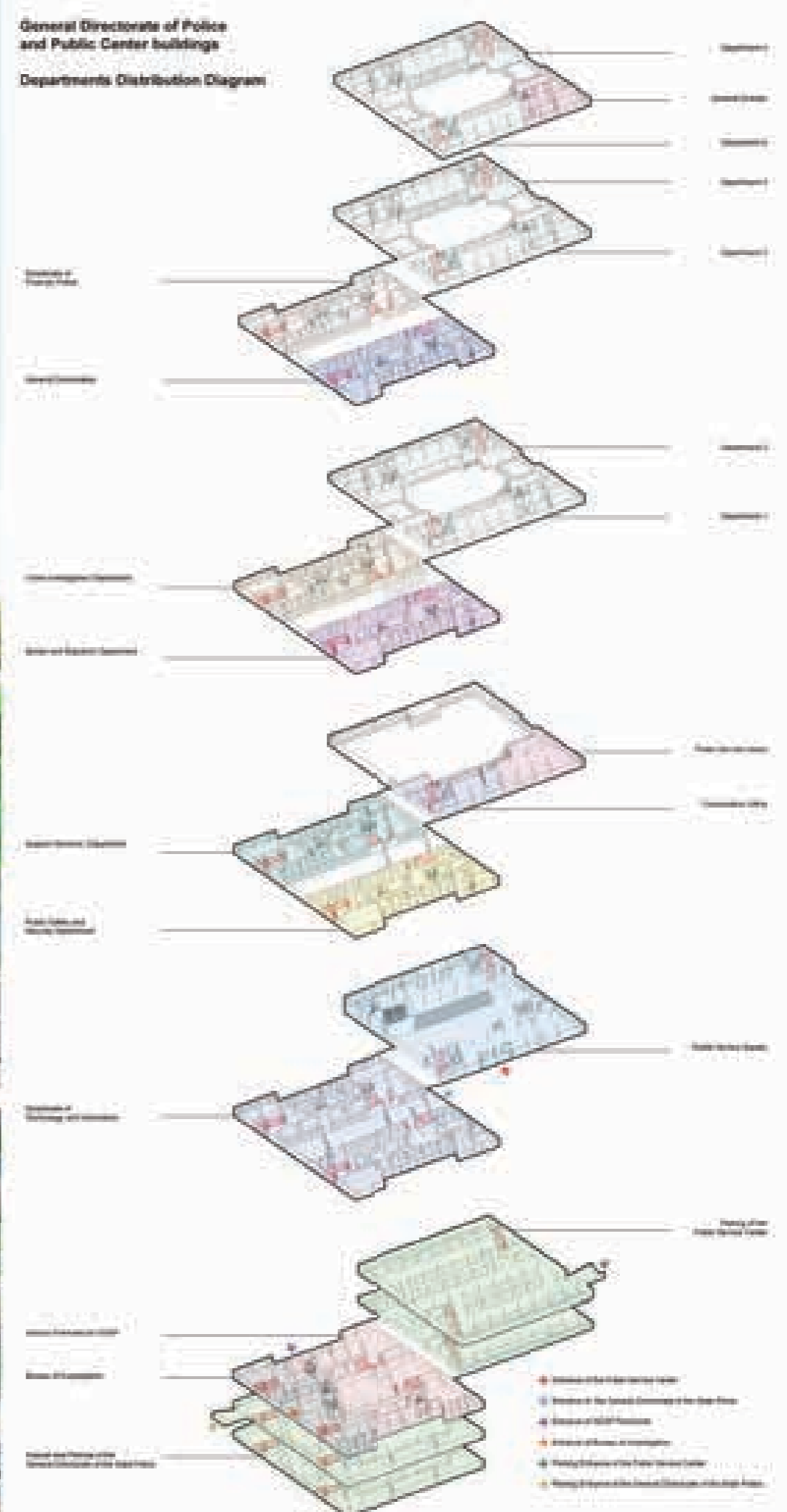


The artistic and architectural approach



TIRANA PARK ENTRANCE COMPETITION

The Master Plan of the entrance to the Tirana Park and architectural project ideas for two public buildings: the Public Service Center and the General Directorate of the State Police.



Keywords: child sexual abuse; disclosure; social support

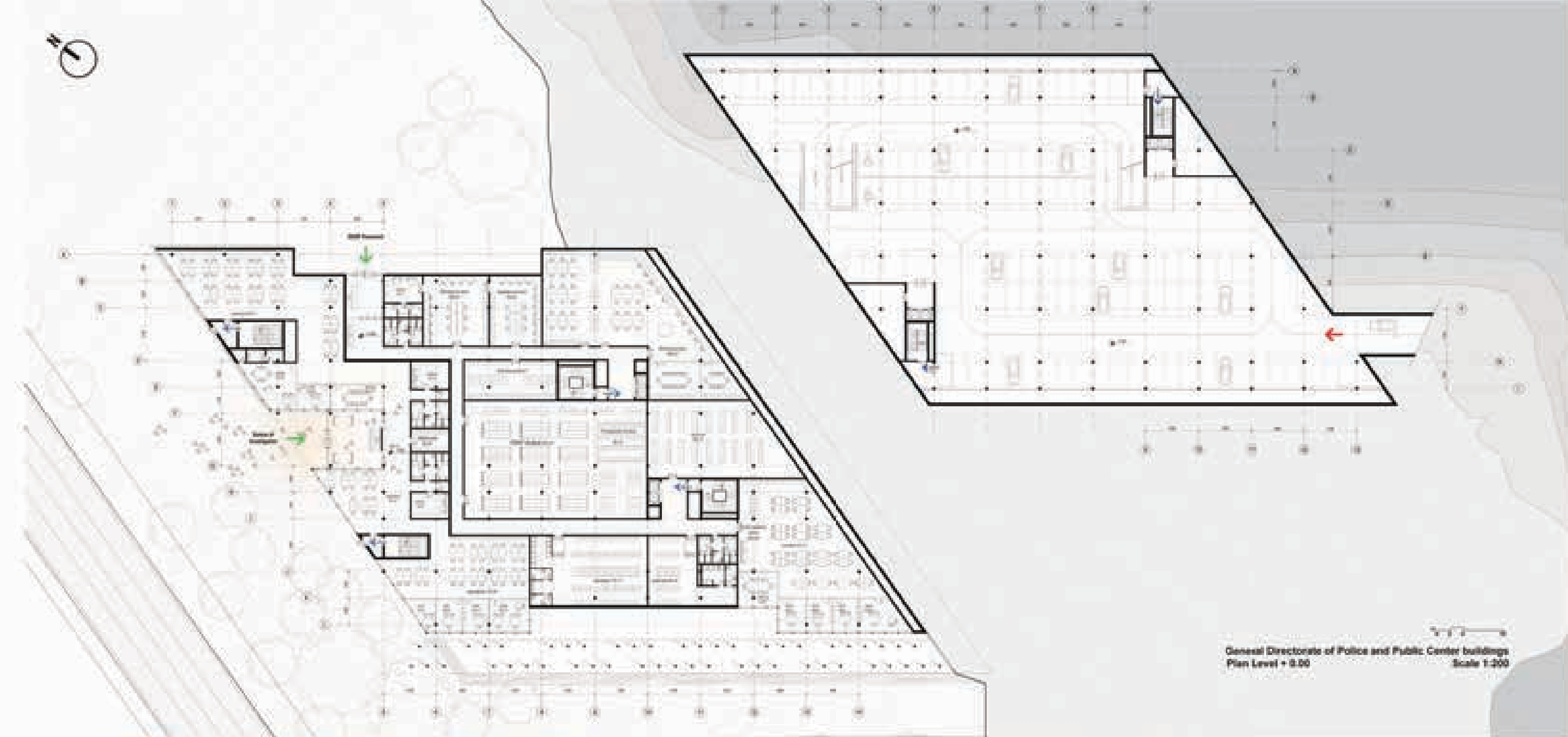
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Both findings have been widely cited, but neither related to the primary components (pragmatics) of conversational implicature. In contrast, a number of us authors have had numerous studies and lectures on the relation between pragmatics and the logic of conversational implicature.



TIRANA PARK ENTRANCE COMPETITION

The United States of the entrance to the Trade Park was a historic monument that he had in the building. The Public Service Center and the General Directorate of the State Police



Internal view of the Public Center Hall

THE GENERAL DIRECTORATE OF THE STATE POLICE

The General Directorate of the State Police building is located on a 10,000 square meter plot in the center of the city. The building is a modern structure with a large glass facade and a central courtyard. The building is designed to be a landmark building in the city.

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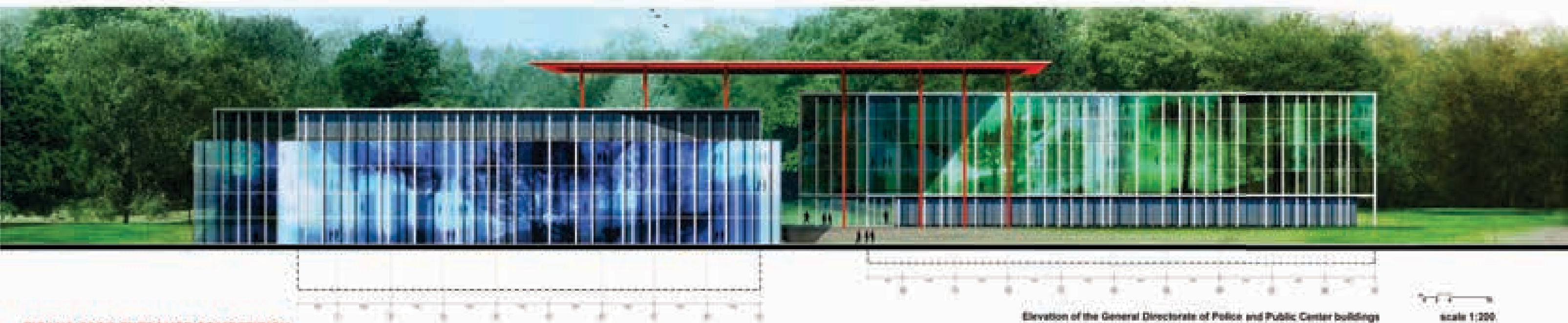
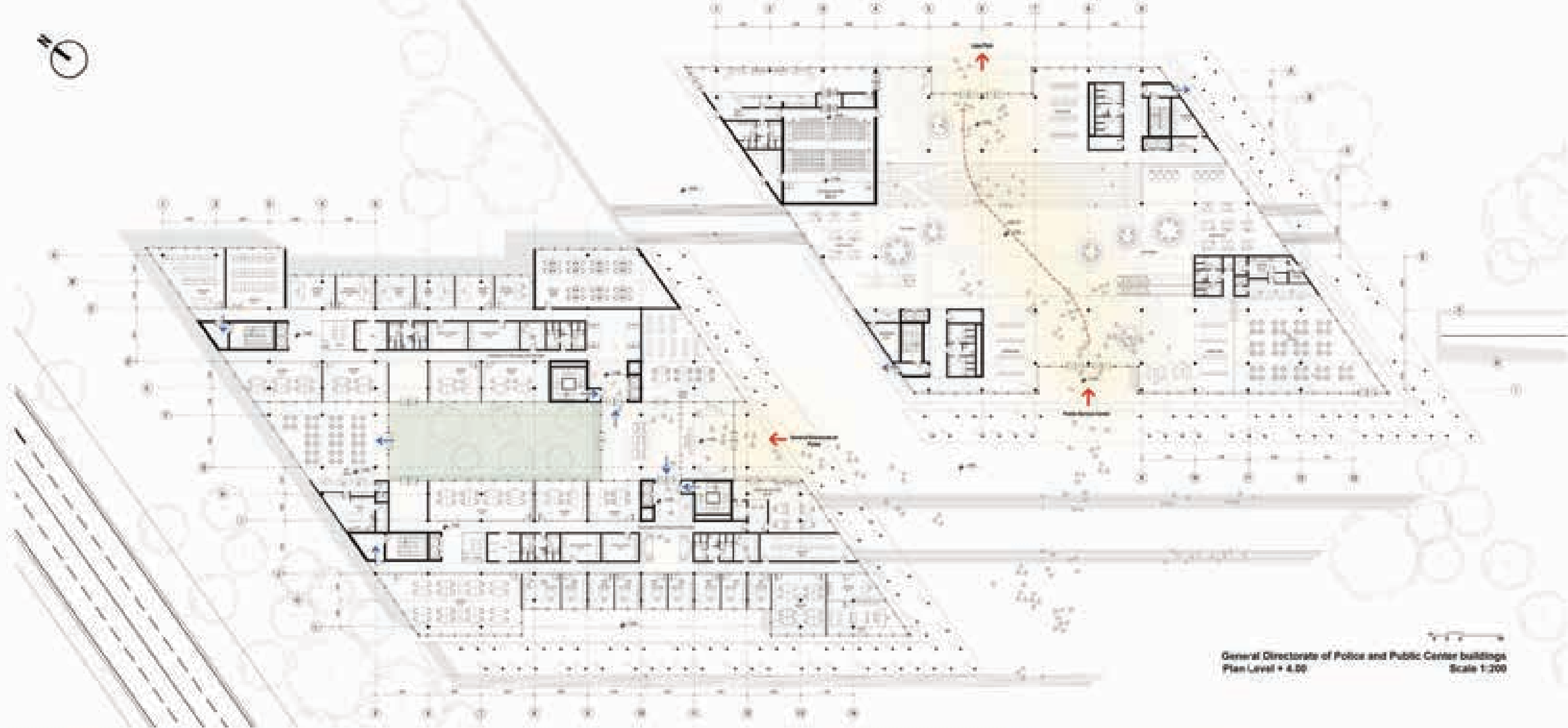
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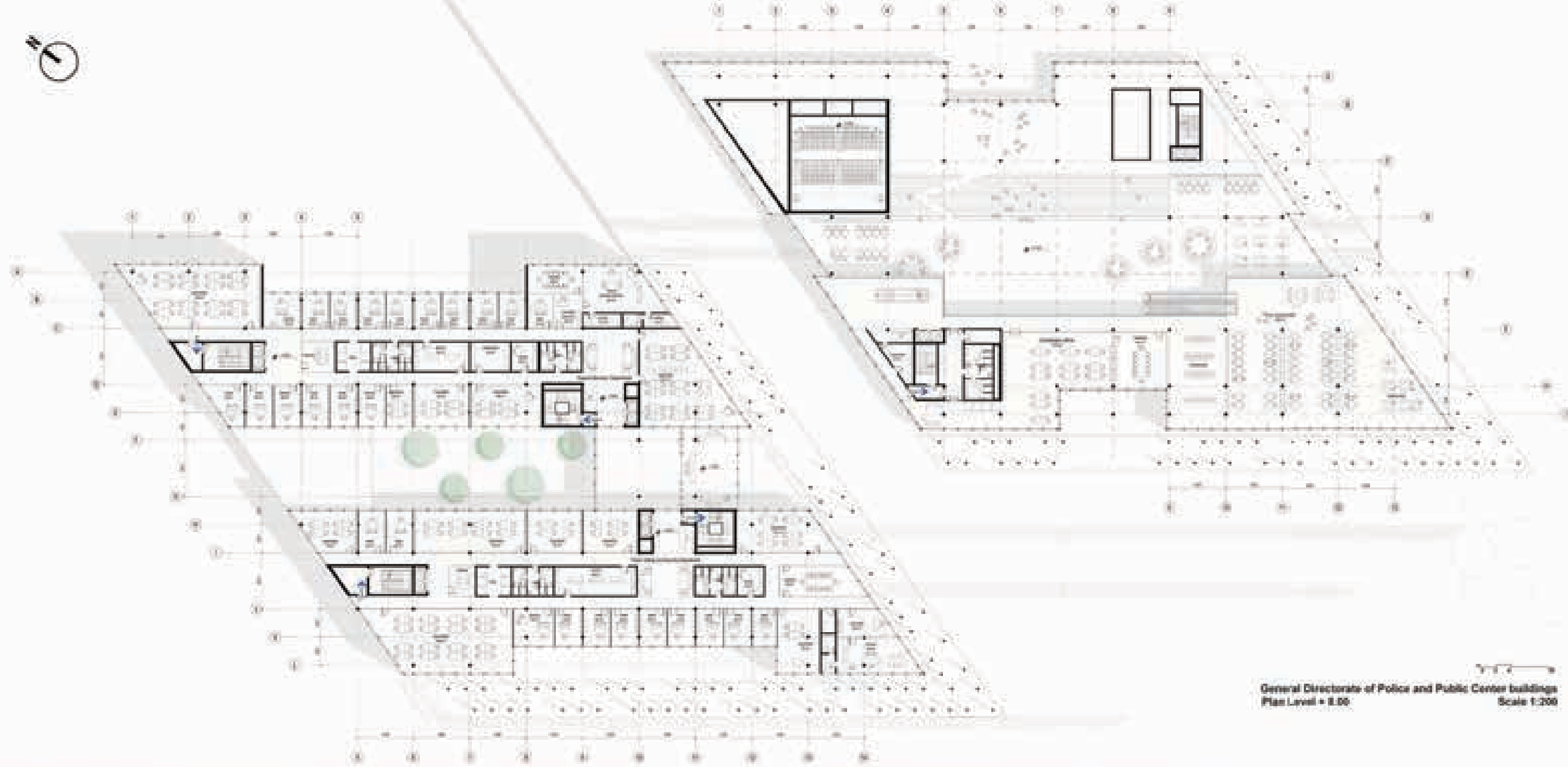


TIRANA PARK ENTRANCE COMPETITION

The Master Plan of the entrance to the Tirana Park and architectural project ideas for two public buildings: the Public Service Center and the General Directorate of the State Police

Witold Gombrowicz Architects - Studio B&L, Tirana - FAM Integrative Studio - Studio Derguda Architects - Perseus Architects - Libani Architects - Perseus Architects

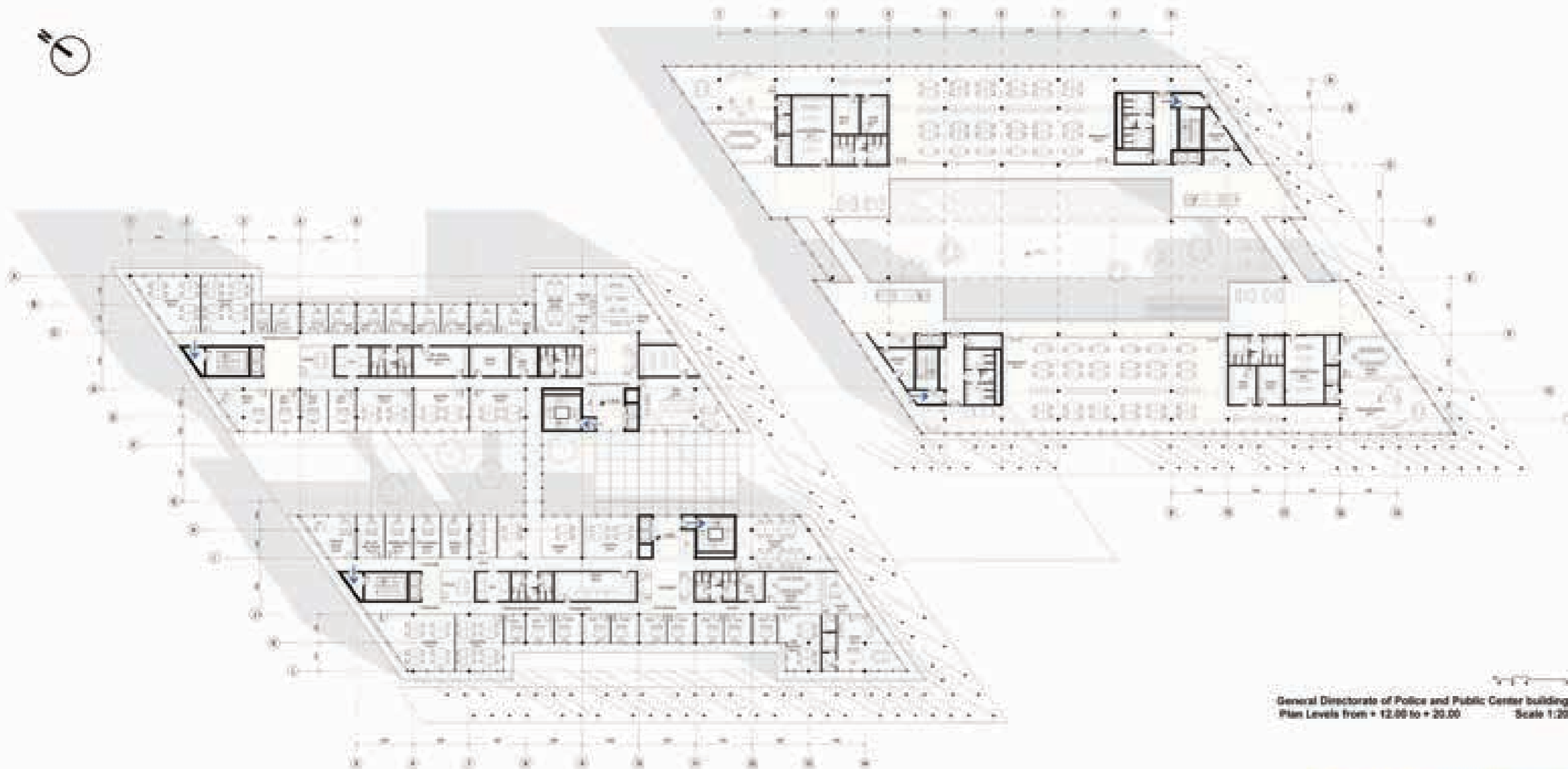




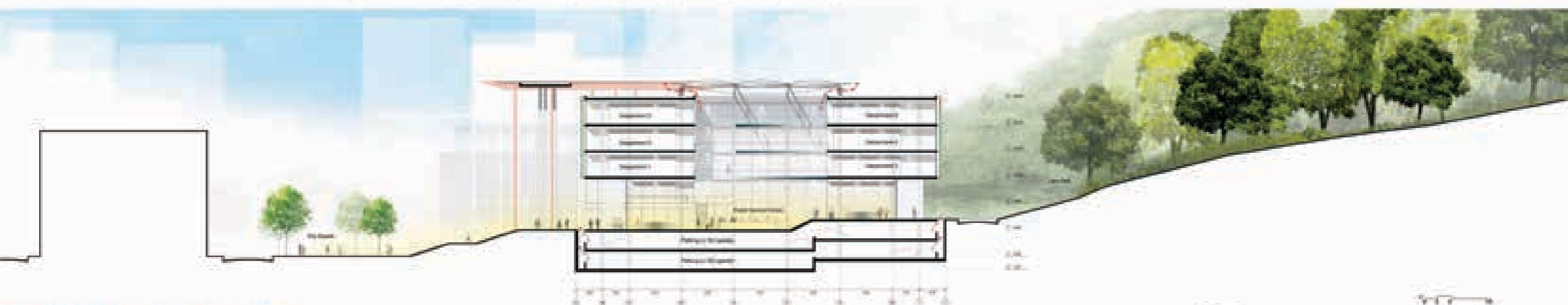
General Directorate of Police and Public Center buildings
Plan Level = 0.00
Scale 1:200



Long Section of the General Directorate of Police and Public Center buildings
scale 1:200



General Directorate of Police and Public Center buildings
Plan Levels from + 12.00 to + 20.00
Scale 1:200



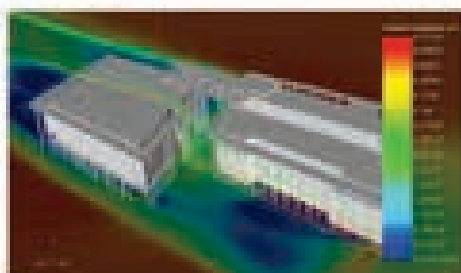
Cross Section of the Public Center building
scale 1:200

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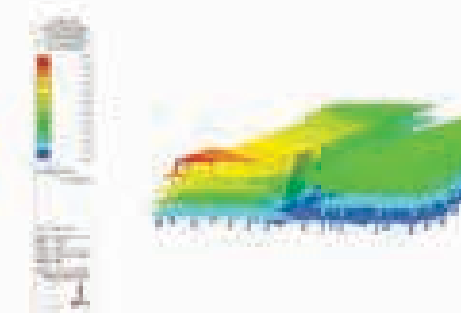
Abstract:



CFD Analysis



Principal Deformation



Principal Vibration Modes



Abstract

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The system's modular design allows users to connect additional sensors and actuators, such as cameras, to the system, and to integrate the system with existing building automation systems. The system is designed to be scalable and to be able to be used in a variety of applications, such as in a laboratory or in a commercial building.

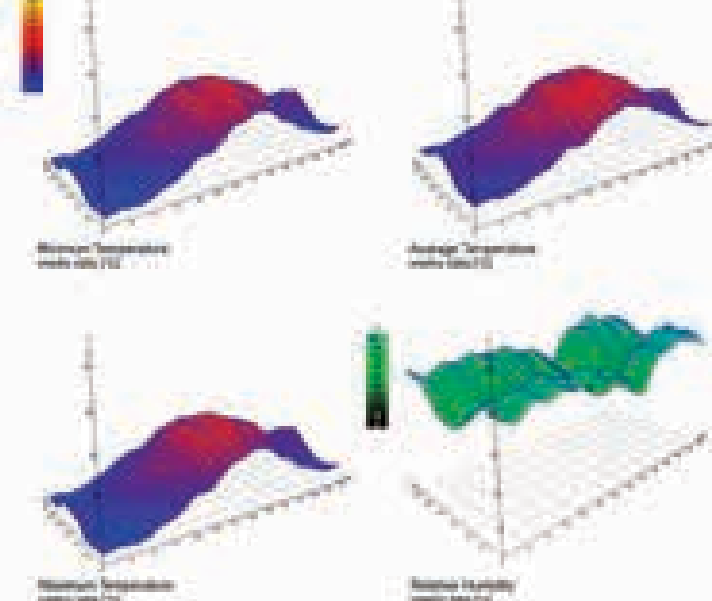
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High processing time, usually 10 minutes to 1 hour, depending on the complexity of the problem, is required to solve the problem. The time required to solve the problem is a function of the complexity of the problem. The time required to solve the problem is a function of the complexity of the problem. The time required to solve the problem is a function of the complexity of the problem.

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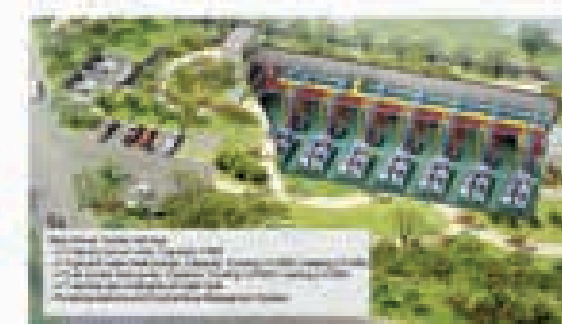
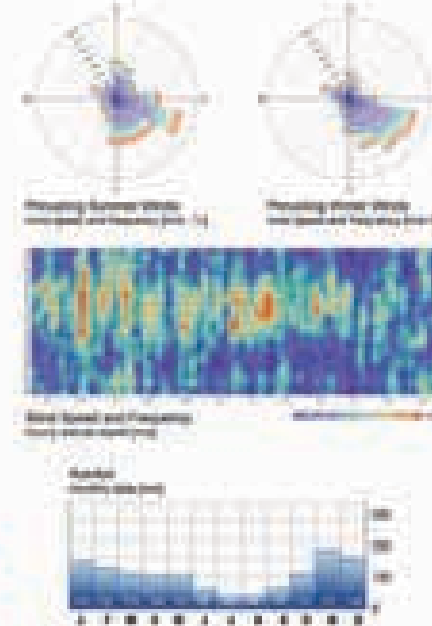
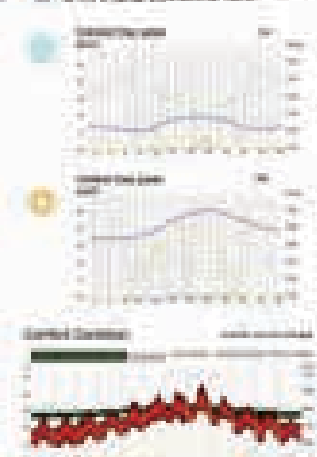
But critics of nursing care are referring to the feasibility of providing better care given, e.g. their arguments, increased nursing administration of analgesics.

CLIMATE ANALYSIS



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- **Small group work:** Students are divided into small groups to discuss the case study.
- **Group work:** Students are divided into groups to discuss the case study.
- **Group work:** Students are divided into groups to discuss the case study.

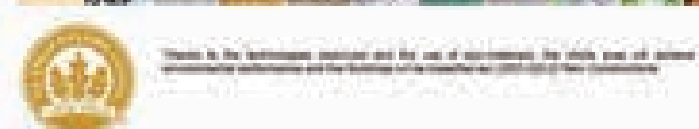


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Fig. 1 Differential rates of use measured by adolescent systems according to source of the lesson for sexual health and reproductive care. The system was defined as a measure of (a) type of intervention and (b) use in the past, categorized as: (1) no use, (2) use in the past 12 months, and (3) use in the past 24 months. The system was defined as a measure of (a) type of intervention and (b) use in the past, categorized as: (1) no use, (2) use in the past 12 months, and (3) use in the past 24 months. The system was defined as a measure of (a) type of intervention and (b) use in the past, categorized as: (1) no use, (2) use in the past 12 months, and (3) use in the past 24 months.

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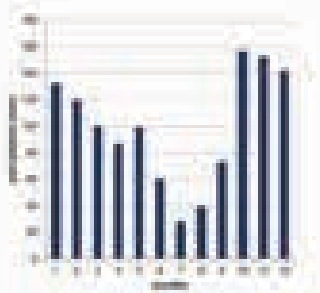


Abstract

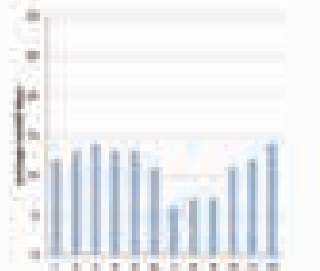


Keywords: child sexual abuse; disclosure; social support

Developmental Strategy



AVERAGE RAINFALL - JAN
Source: The National Institute of Statistics of Albania
Note: The data is based on the average of the last 30 years.



AVERAGE RAINFALL - JAN
Source: The National Institute of Statistics of Albania
Note: The data is based on the average of the last 30 years.

