

# PLOKŠTUMA

Vokiečių g., Vilniuje, reconstruction design contest





## **A. Historical development**



# Historical development of Vokiečių street

Vokiečių street is one of the oldest streets in Vilnius. The name of the street rises from the XIV a., when it was inhabited by German merchants and craftsmen. The first time this street was approximately documented was in 1581 atlas of Brown. This street was and to this day still is one of the most significant streets in the city, this was where the crafts, trade and other important everyday activities clustered.

Before the II world war, the street was one of the centre for trading activities. Bigger stores were usually installed on the first floor of the buildings, smaller ones in the courtyards or pathways. During reconstructions the buildings were built up with a 3rd floor, their architectural expression modernised.

In the end of the II world war, during the soviet attacks, the buildings in Vokiečių street were significantly damaged.

After the II world war, when rebuilding the city, the street was widened, a boulevard was installed in the middle. New buildings were built instead of the destroyed ones.



## **B. Current situation**



# Analysis of spatial structure, heritage objects

Vokiečių street is in the historical old town of Vilnius - it's central part, therefore making it one of the most important and significant public spaces in Vilnius. It's historical development is what sets it apart from other spaces in the old town. It's historical plan did not survive, instead it has been replaced by a wide street like space. Even though wide streets are not a traditional space in the historical city centres, this creates an opportunity for an attractive public space, which could also work as a square - in a form of a boulevard.

Vokiečių street is a part of cultural heritage object - Vilnius old town territory (u.k. 16073). Elements of it's valued characteristics can be found within the site territory as well.

The majority of protected heritage objects are found in the southern part of the Vokiečių street. The historical buildings form valuable street layouts in this part of the city.

Currently the street is surrounded by two, three, four storeys public and residential buildings. Ground floors are mostly occupied by commercial activities.

A historically important part of the street is the destroyed northern streetscape. Fragments of the remains of the old cellars can still be found in the current boulevard zone. During archaeological researches, a supposed layout of historical contour has been established. It helps us to evaluate where the historical cellars might be.

## **Current state of vegetation**

Based on the inventurisation carried out in the year 2015, existing trees can be divided into:

- Trees in good condition;
- Trees which are possibly growing on the foundations of the historical buildings;
- Trees in poor condition and should be removed;
- Other plants, mostly in poor condition

## **Mobility in the environs of Vokiečių street**

### *Motorized traffic flows*

The site is limited by Dominikonų and Didžioji streets. Vokiečių street is divided into two parts: the historical one and the new one. In the historical part, traffic is organized one way. Intense traffic flows limit the inner part of the boulevard.

### *Existing bicycle paths*

Existing bicycle paths do not have a clear organisational scheme. Cycling paths cross pedestrian flows on multiple occasions. This puts both the pedestrians, as well as cyclists, in danger.

### *Public transportation routes*

The territory is crossed by a bus 89. There are 3 bus stops within the limits of the area.

### *Parking spaces*

Vehicles are parked in two zones: in the historical part of Vokiečių street and in the new part, overtaking some of the space of the inner boulevard. This parking scheme is chaotic and disorganized.

### Scheme 1. Existing vegetation

Currently, majority of sites vegetation is arranged in the inner part of the boulevard. Trees are forming two lines - fragments of the linden alley in the southern part and various species of trees in the northern part. Grass fields are supplemented by various low growing plants.



- 1 - Paprastasis klevas/*Acer platanoides*
- 2 - Paprastasis uosis/*Fraxinus excelsior*
- 3 - Mandžiūrinis riešutmedis/*Juglans mandshurica*
- 4 - Paprastoji eglė/*Picea abies*
- 5 - Raudonasis ažuolas/*Quercus robur*
- 6 - Paprastasis kaštonas/*Aesculus hippocastanum*

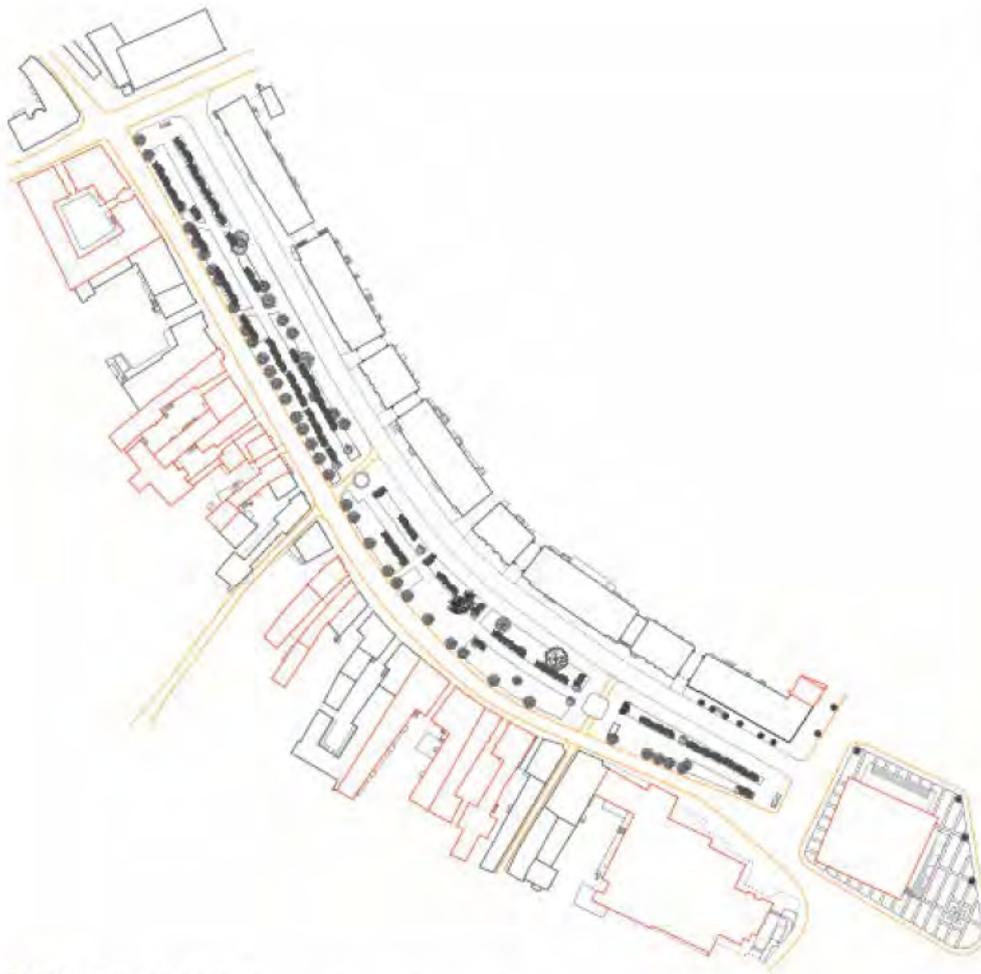
### Scheme 2. Current state of vegetation

Based on the inventurisation carried out in the year 2015, existing trees can be divided into:

- Trees in good condition;
- Trees which are possibly growing on the foundations of the historical buildings;
- Trees in poor condition and should be removed;
- Other plants, mostly in poor condition



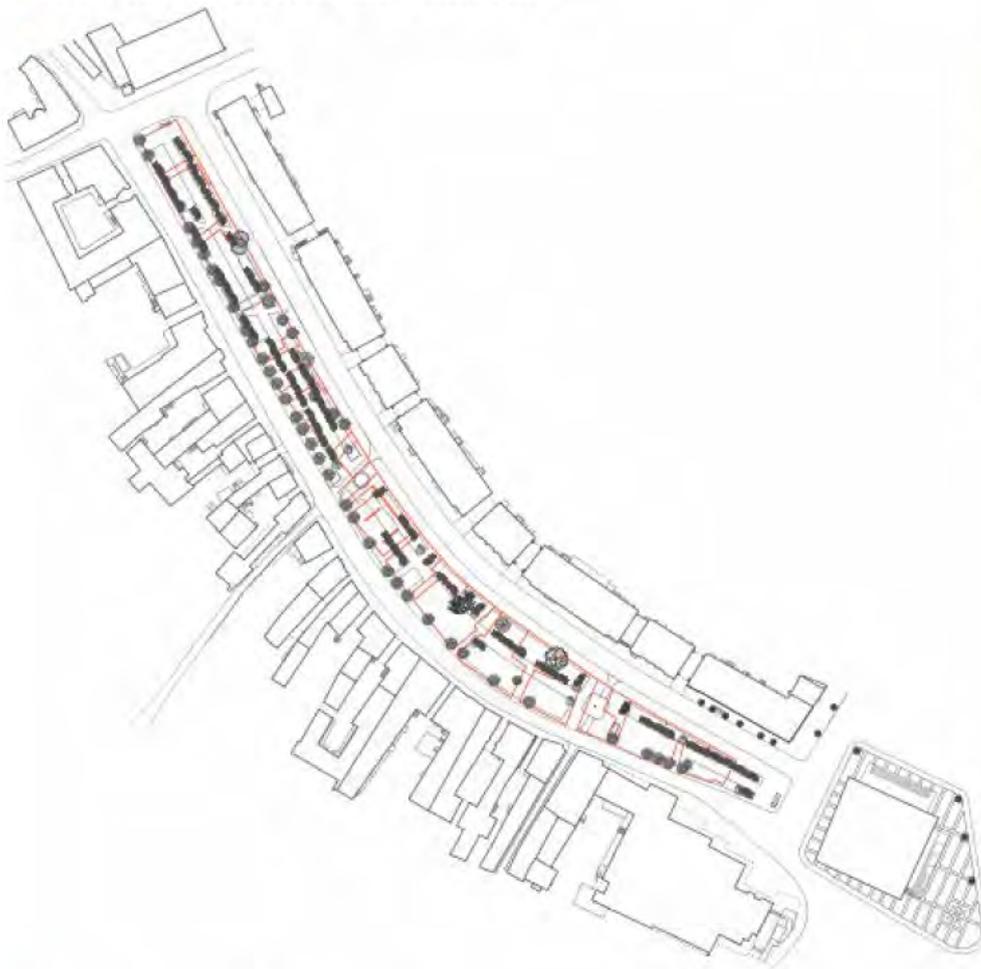
- Trees in good condition
- Trees which are possibly growing on the foundations of the historical buildings
- Trees in poor condition and should be removed
- Other plants, mostly in poor condition



- Cultural heritage objects
- Elements under protection of Vilnius old town historical zone

### Scheme 3. Existing heritage objects

Southern part of the historical Vokiečių street is composed mostly of objects listed in the cultural heritage list. Vokiečių street is within the limits of Vilnius old town, some of its protected elements are seen within the territory.



- Hypothetical contour of the historical buildings

### Scheme 4. Historical cellars

During changes carried out in the XX a., historical morphology of the site was changed with stalinist style buildings. Some fragments of the old cellars remain in the current boulevard zone. During archeological research a hypothetical contour of historical construction was established.

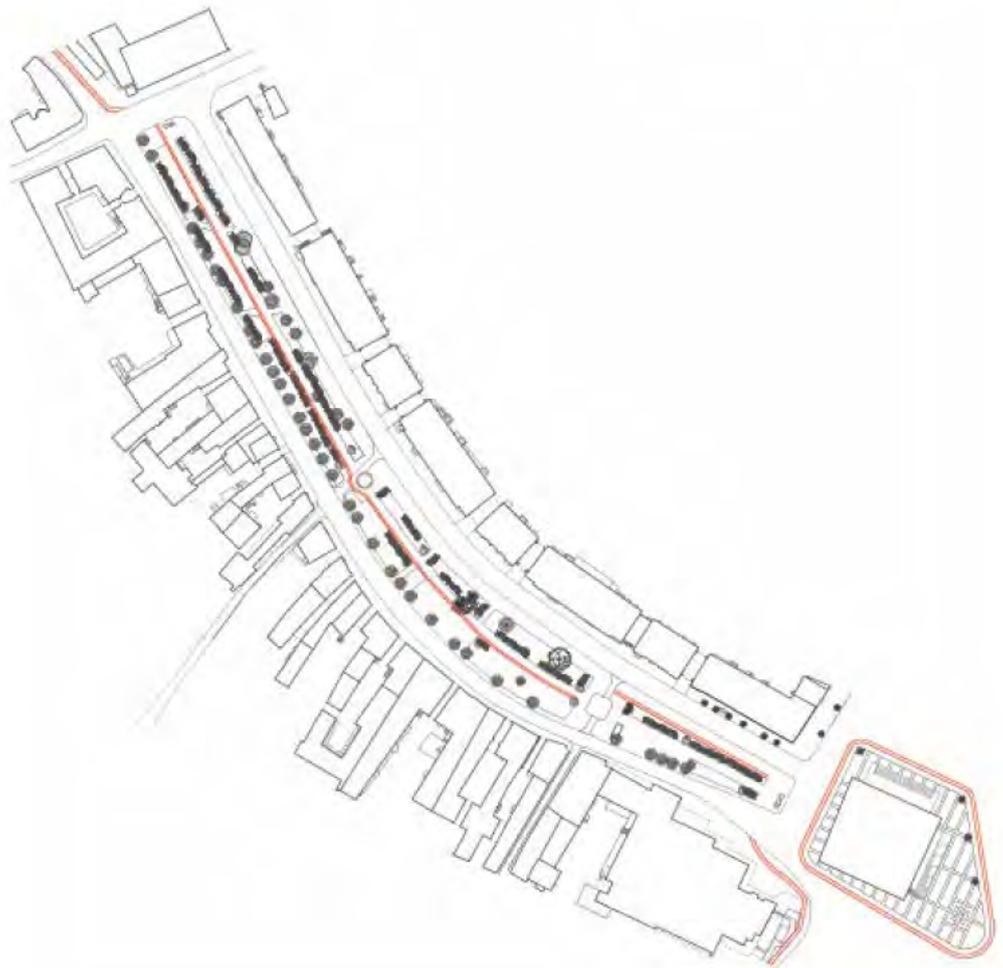
### Scheme 5. Motorized traffic flows

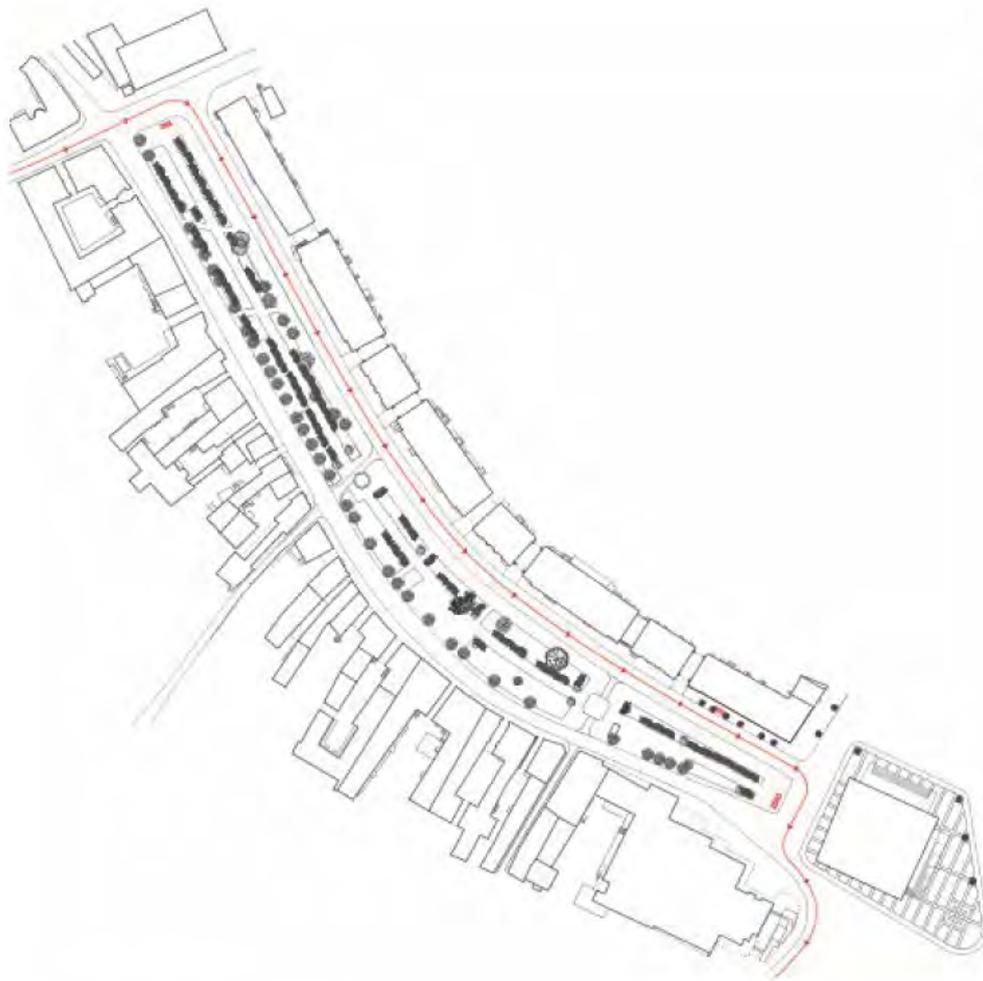
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### Scheme 6. Existing bicycle paths

Existing bicycle paths do not have a clear organisational scheme. Cycling paths cross pedestrian flows on multiple occasions. This puts both the pedestrians, as well as cyclists, in danger.





**Scheme 7.** Public transportation routes

The territory is crossed by a bus 89. There are 3 bus stops within the limits of the area.



**Scheme 8.** Parking spaces

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## **C. Proposal**



# The planned-spatial structure of the territory

## Ideas for reorganization of the site

Presented proposal seeks to maintain the current street type. It is intended to maintain a wide street like space, while creating opportunities for expansion of public functions.

The territory of Vokiečių street would be unified by a facade to facade stretching plateau, which is then divided into numerous overlapping inner spaces. The main functional elements would be composed of current street lanes (the northern part dedicated to motorized traffic, the southern for pedestrians). The middle space would host spaces for various uses, formed by new arrangements of vegetation.

When designing the inner part of the street it is proposed to highlight the historical plan of the site - to mark the contours of the demolished buildings with different materials and adjust current leisure spaces to this layout. The inner spaces are for by different kinds of vegetations and separations.

In order to emphasize the historical layout of the street, the driving design solution is to use historical courtyards and pathways as green zones, thus creating the inner spaces which match historical layout and can be used as smaller scale spaces within the boulevard. These spaces are framed with different types of vegetation. In such a way the historical layout becomes a prominent element of design and a structural element for creation of green spaces.

In order to provide flexibility for future uses, large part of the street would be covered in material surface. In any case, the final ratio of vegetation to mineral surfaces should not be less than 1/3 of total site surface area.

In certain cases, several zones are turned green, by installing vegetation within the boundaries of historical building plans. Such larger surfaces of vegetation can be found in the northern and central parts of the street.

Newly formed spaces would be adapted for various uses - silent rest, outdoor terraces for restaurants, temporary summer installations, children playgrounds.

## Surface materials, historical streets

In an attempt to represent the historical structure of the city, historical streets are marked with different surface materials. Existing authentic street surfaces are reconstructed in an attempt to maintain their authenticity.

Vokiečių street borders the square of the Town Hall, therefore it is suggested to use the same, or similar design elements. This would give way to a coherent organisation of the historical town areas.

## Organisation of traffic and pedestrian flows

Motorised traffic remains in the new part of Vokiečių street. Two way traffic is retained. Traffic nodes are designed in regards to the organizational schemes of loop mobility system. Entrances into the area are marked with pedestrian crossings.

Bicycle lanes network is developed by supplementing existing lanes with new connections. Within the limits of the project, a new lane is projected in parallel to the new part of the Vokiečių street. This way intersection points with pedestrians are reduced to a minimum.

The number of parking spaces is reduced. This way a limitation of traffic in historical town

areas is reinforced. New parking spaces are designed in the gaps of the new linden alley. Several spaces for electro mobile recharging stations are previewed.

All public transport stops are retained. The northern stop is moved to the new part of the Vokiečių street. Public transportation routes adapt to the changes imposed by the introduction of loop transport system.

### **Vegetation proposals in the site**

Due to existing heritage and infrastructural requirements, retention of the green spaces becomes a complicated challenge. A large part of existing plants grow above the historical cellars, therefore, putting their survival in danger. Based on archaeological research, there are several zones where plants cannot be introduced. Within the limits of the historical cellars, the only plants available are those, which would not cause harm to the cellars (grass, bushes, seasonal flowers).

The linden alley is an integral compositional part of changes introduced in the XX age. A large portion of trees in this alley are crossing the historical cellars, therefore the trees are only replanted where they wouldn't threaten the survival of heritage objects. All poor quality trees are removed. Trees which are in good shape, but endanger heritage objects are replanted elsewhere, if there is a possibility. It is planned to introduce high plants, which would create an atmosphere of 'shelter'.

The new lane is limited by a newly formed linden trees alley. It's a zone, where tree roots do not cause danger to heritage objects. This way the motorized transport is separated from pedestrianised spaces.

Several areas for vegetation and flower beds are previewed within the territory.

Certain zones might benefit from introduction of temporary vegetation elements, which could be removed or replaced at any time.

### **Organisation of design elements within the area**

Within the framework of the project, it is proposed the rearrange existing and introduce new elements of small architecture. It is planned to move the sculpture from the centre to one of the premises zone next to the Didžioji street. The fountain is moved to the other side of Vokiečių street. In certain zones it is planned to add benches, introduce more lighting equipment. There are several waste collection sites, bicycle stands and other technological elements.



### **Scheme 1. The plateau**

The unifying element of the territory is a plane, stretching from a facade, to a facade. It is introduced as a response to the existing spatial fragmentation. The old and the new traces of Vokiečių street become a part of a common, unified space. Project territory borders the Town Hall, it is proposed to use the same or similar materials, creating a coherent sensibility of old town spaces.



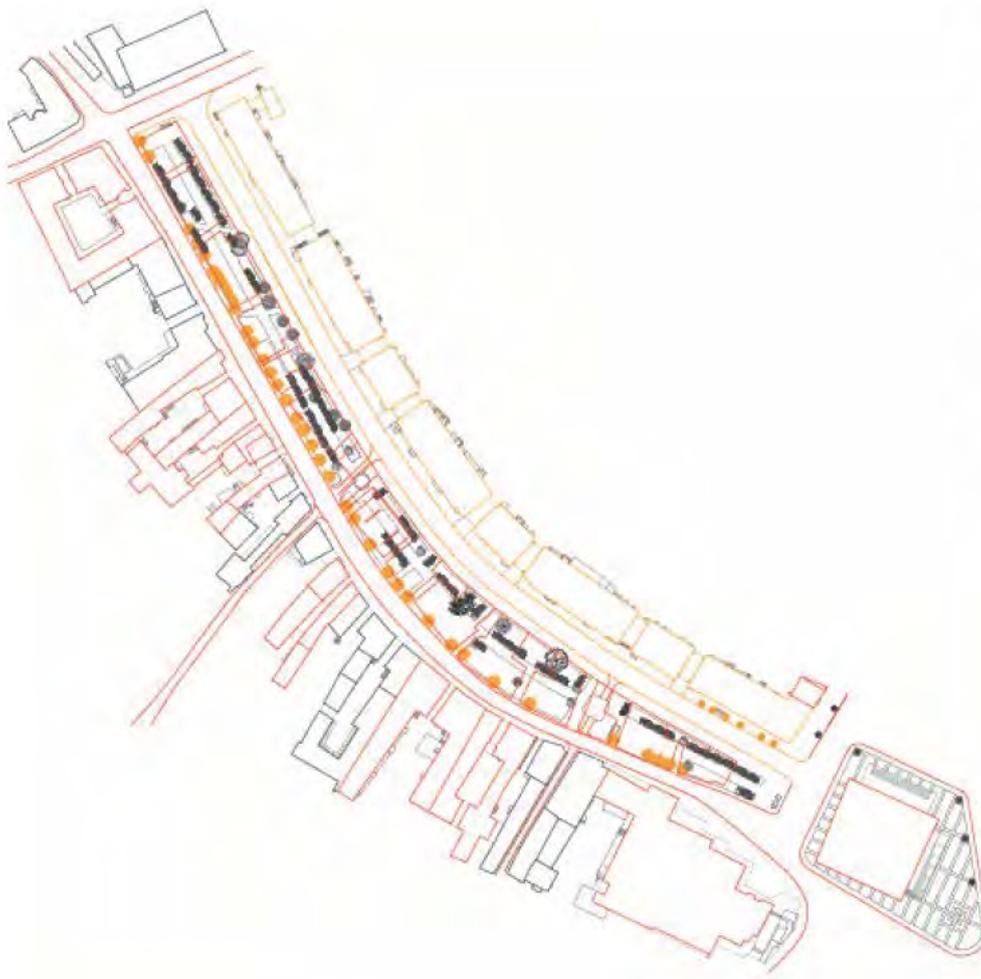
### **Scheme 2. Historical streets**

Surfaces of historical streets are repaired, original materials remain. The goal is to preserve the historical structure of the city.

### Scheme 3. The plateau

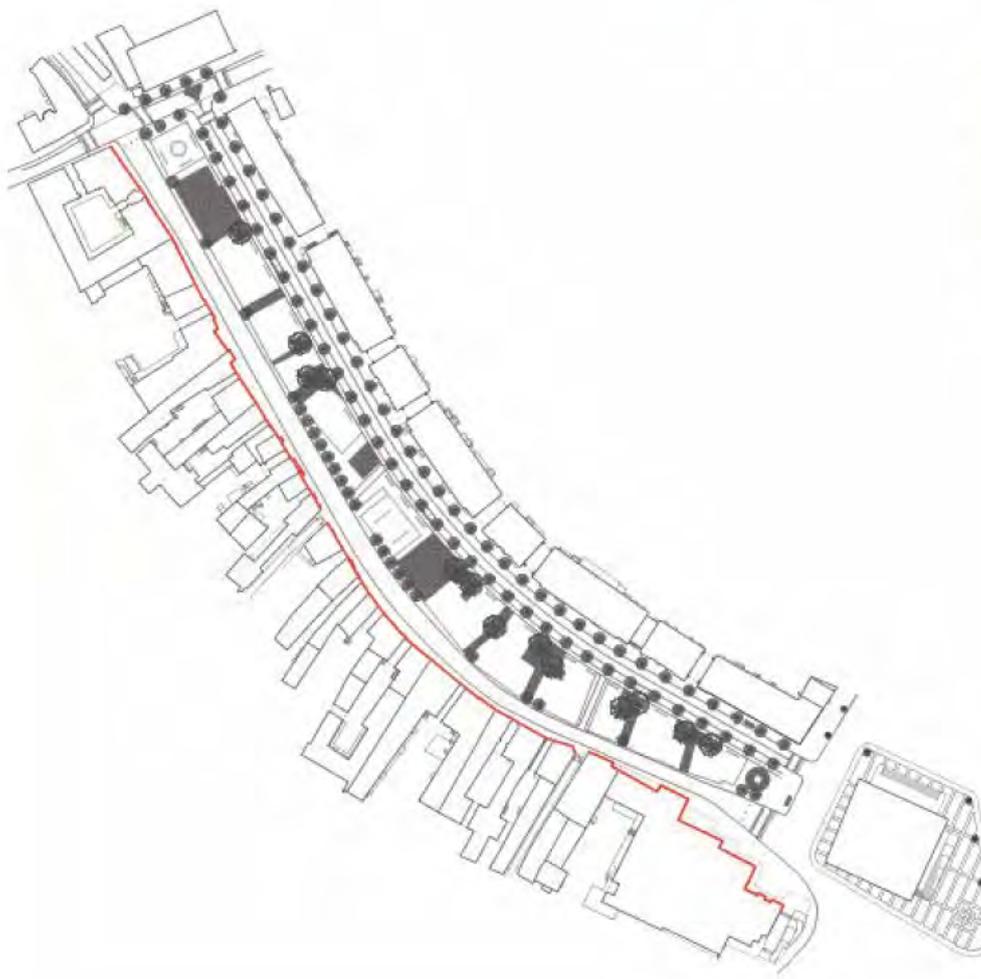
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#### **Scheme 4.** Historical layers

There are two main historical layers that can be read in the area. The historical part of Vokiečių street, the southern buildings and remains of the cellars are listed as protected heritage elements. Changes which were carried out during the soviet period have caused a great deal of damage, however, it is the second historically important stage in the development of the area.

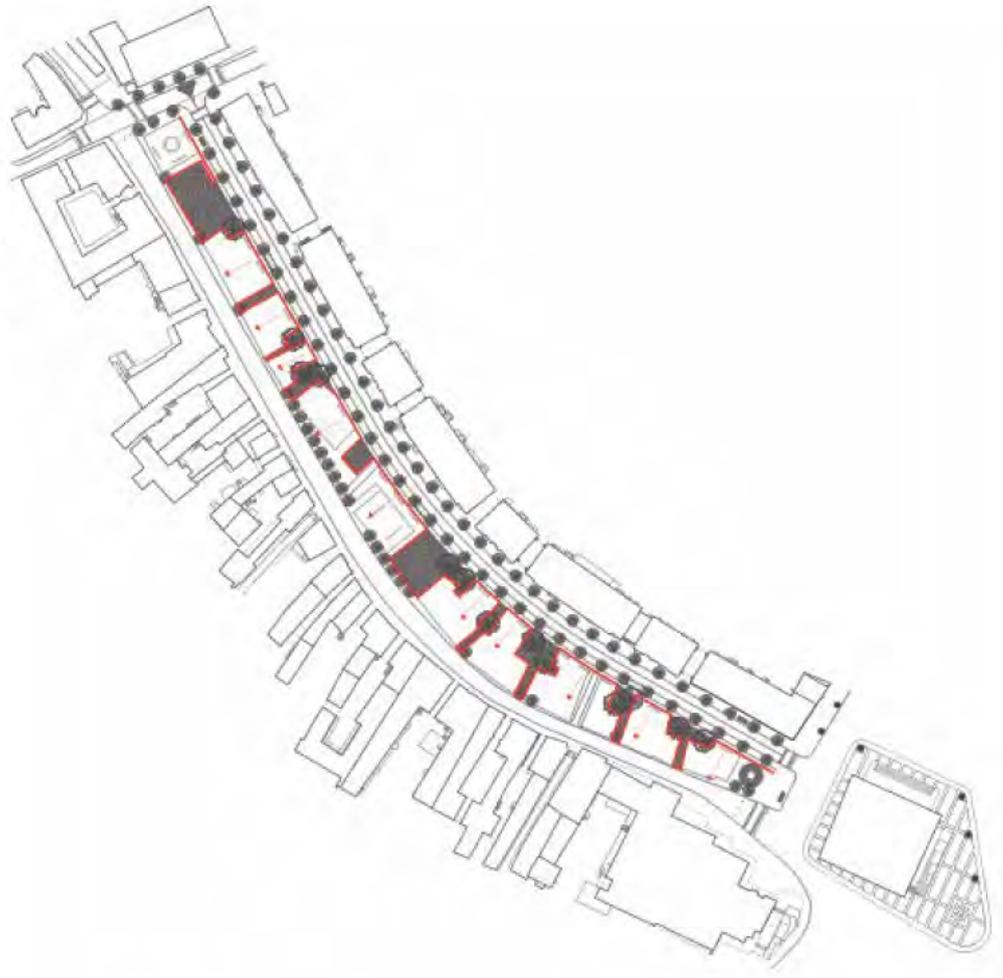


#### **Scheme 5.** The historical facade of Vokiečių street

Majority of the buildings in the southern part of the street are listed as heritage objects. The layouts of this street is one of the main important historical elements in the territory.

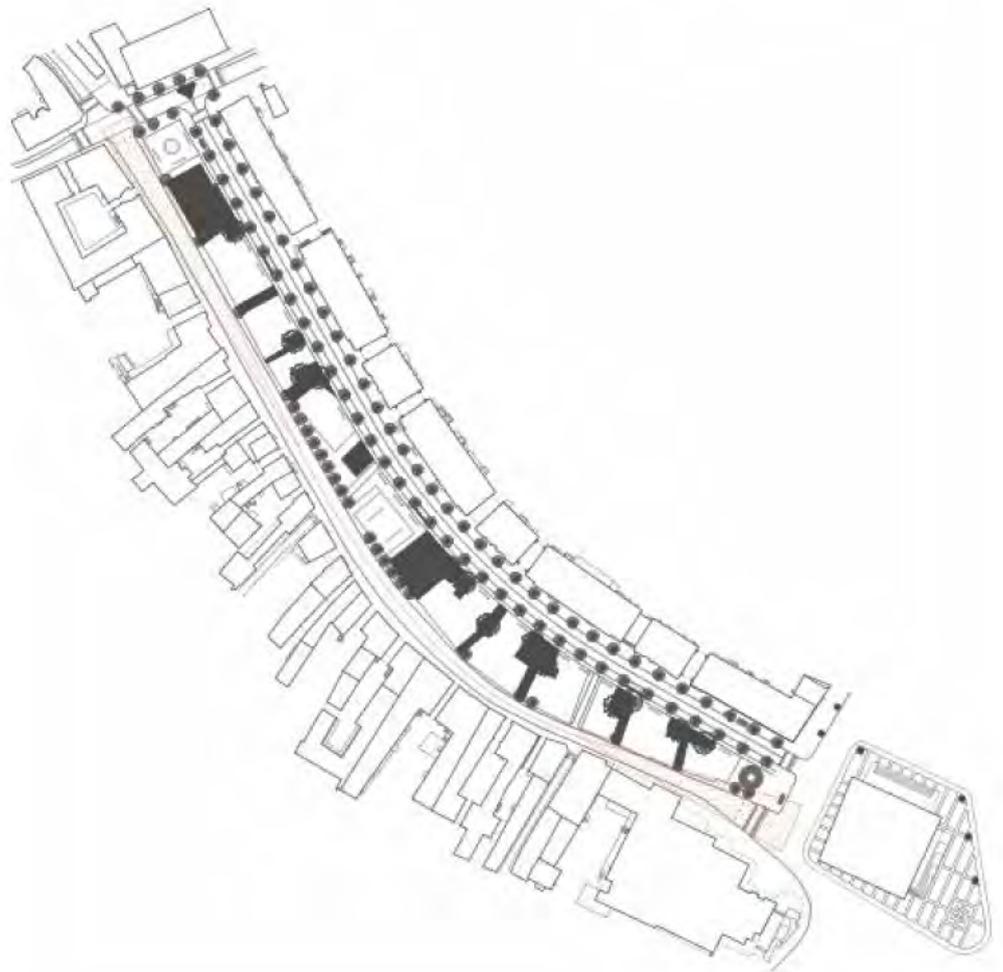
### Scheme 6. Pockets of space

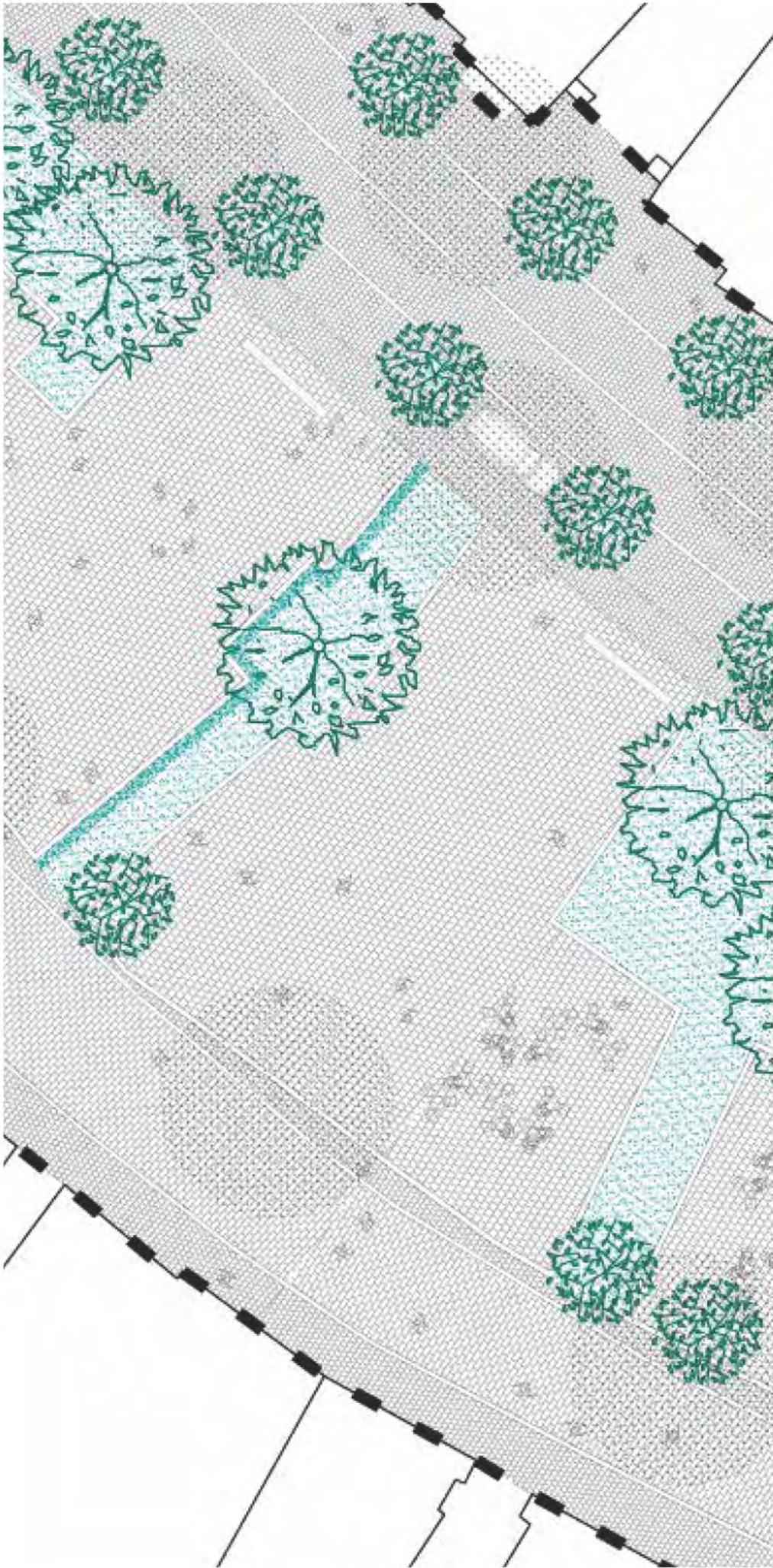
The inner part of Vokiečių street is organized around the traces of historical buildings. Vegetation separates the main spaces from traffic and creates spaces oriented towards the southern facades. A connector is established between both sides of the historical part of Vokiečių street.



### Scheme 7. Historical part of Vokiečių street

Historical part of Vokiečių street is repurposed for pedestrians. This gives way to opening perspectives towards Town Hall and St Kotryna church.





**Scheme 8. Boulevard space**

Zones with different functions are surrounded by vegetation. This way attractive spaces are created for outdoor terraces and recreational activities.

### Scheme 9. Motorised traffic

Motorised traffic remains in the new part of Vokiečių street. Two way traffic is retained. Traffic nodes are designed in regards to the organizational schemes of loop mobility system. Entrances into the area are marked with pedestrian crossings.



### Scheme 10. Bicycle traffic

Bicycle lanes network is developed by supplementing existing lanes with new connections. Within the limits of the project, a new lane is projected in parallel to the new part of the Vokiečių street. This way intersection points with pedestrians are reduced to a minimum.



**Scheme 11. Projected parking spaces**

The number of parking spaces is reduced. This way a limitation of traffic in historical town areas is reinforced. New parking spaces are designed in the gaps of the new linden alley. Several spaces for electro mobile recharging stations are previewed.



**Scheme 12. Public transport**

All public transport stops are retained. The northern stop is moved to the new part of the Vokiečių street. Public transportation routes adapt to the changes imposed by the introduction of loop transport system.



**Scheme 13.** Limitations on the green space

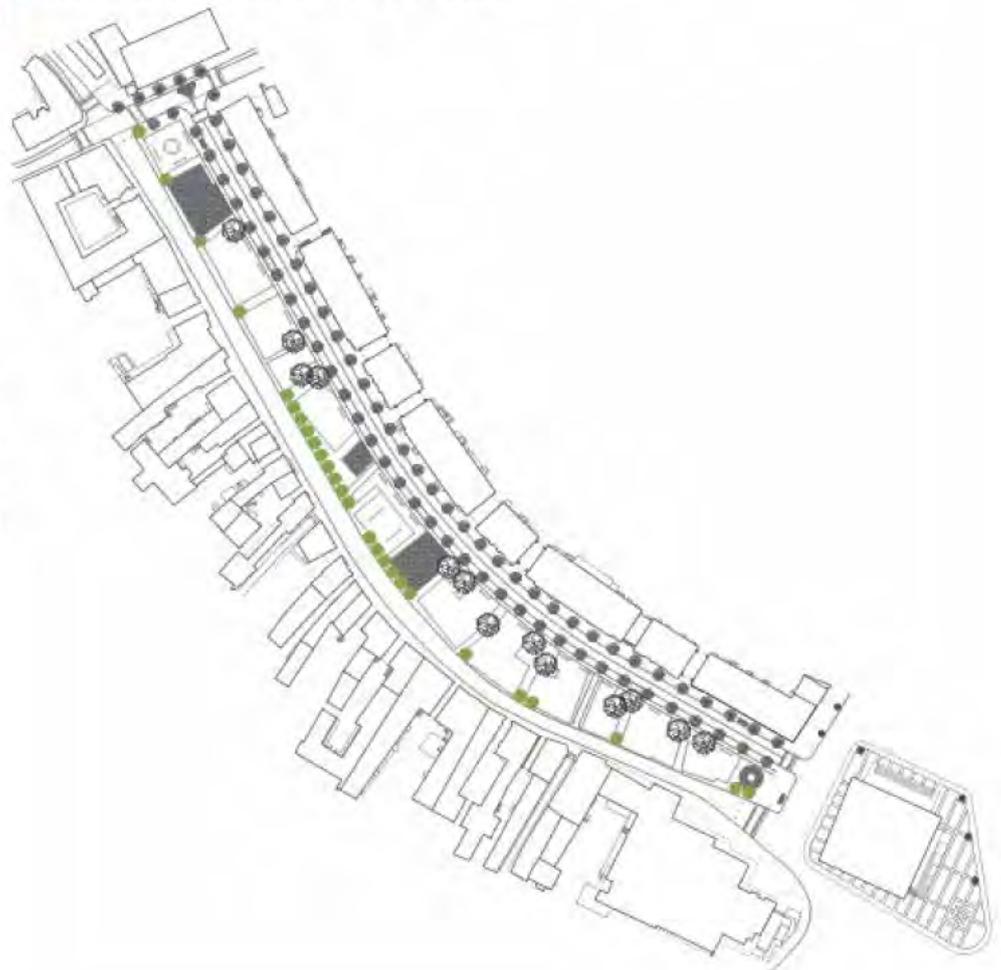
Due to existing heritage and infrastructural requirements, retention of the green spaces becomes a complicated challenge. A large part of existing plants grow above the historical cellars, therefore, putting their survival in danger. There are several principal zones that are named - street surfaces, where plants cannot be introduced. Within the limits of the historical cellars, the only plants available are those, which would not cause harm to the cellars. Pavement next to the southern facade could be used for temporary plantations, which could be removed with ease.



- Zones, where plants can be planted
- Zones where only specific species can grow
- Historical streets, vegetation is not possible
- Zones, where temporary landscape solutions are possible

**Scheme 14.** Partially reconstructed linden alley

The linden alley is an integral compositional part of changes introduced in the XX age. A large portion of trees in this alley are crossing the historical cellars, therefore the trees are only replanted where they wouldn't threaten the survival of heritage objects. All poor quality trees are removed. Trees which are in good shape, but endanger heritage objects are replanted elsewhere, if there is a possibility.





**Scheme 15.** The new Vokiečių street lane

The new lane is limited by a newly formed linden trees alley. It's a zone, where tree roots do not cause danger to heritage objects. This way the motorized transport is separated from pedestrianised spaces.



**Scheme 16.** Courtyards

Historical courtyards are covered with grass. This helps to highlight historical morphology of the area, as well as to create green recreational spaces.

### Scheme 17. New trees

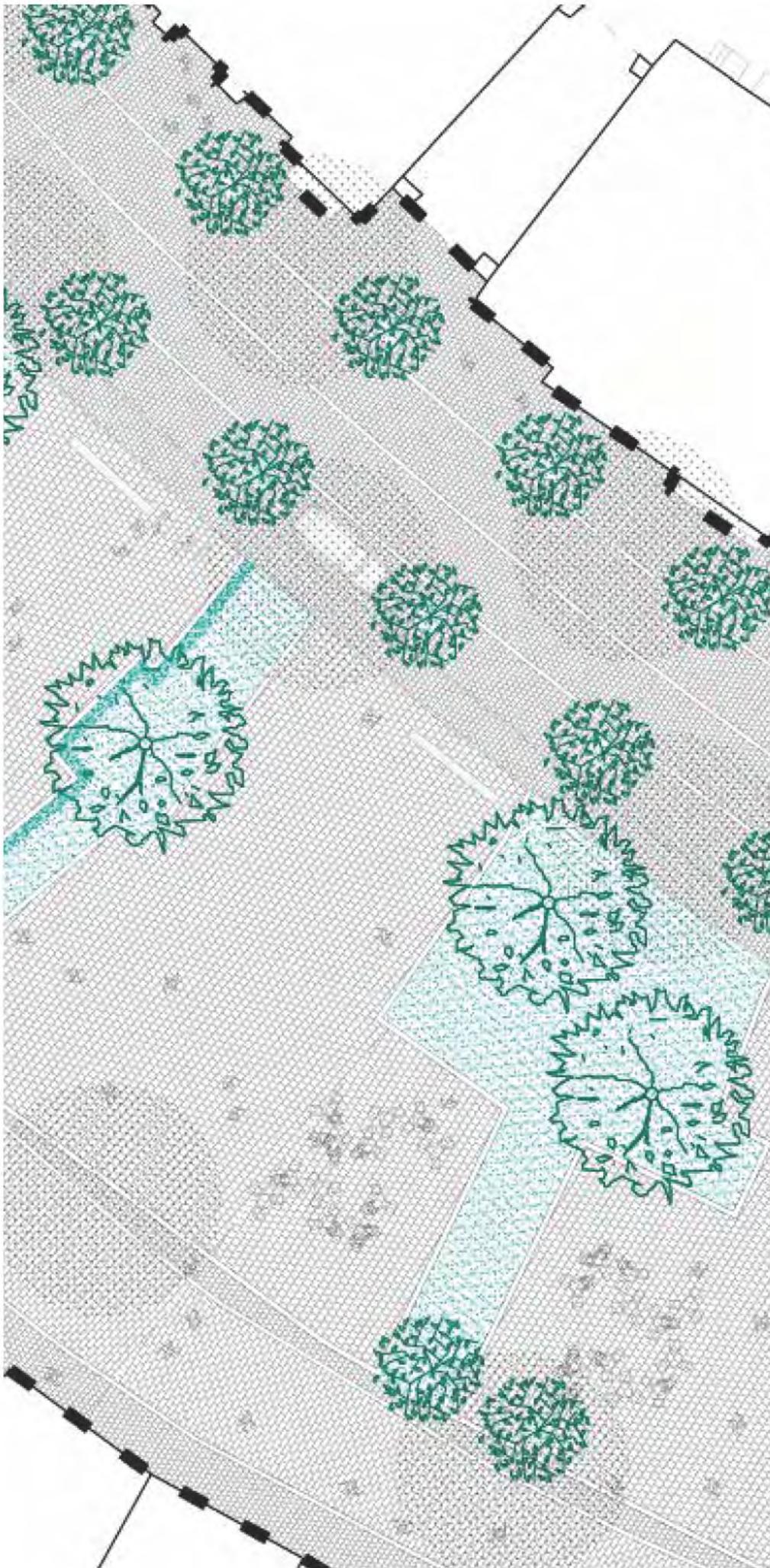
Trees which are growing in zones of inner courtyards would not damage the historical cellars. A selection of tall trees is made, this way the canopies will create a feeling of a shelter.



### Scheme 18. Historical streets

Organizational scheme of the green elements helps to separate traffic flows and highlight different functional zones. With it's help, the cultural heritage embedded in the side is brought up to the front row.





**Scheme 19.** Vegetations role in the area

Organizational scheme of the green elements helps to separate traffic flows and highlight different functional zones. With it's help, the cultural heritage embedded in the side is brought up to the front row.



*Acer platanoides / Paprastasis klevas*



*Paprastasis uosis / Fraxinus excelsior*

**Fig 1, fig 2.**

Tall silhouettes of the trees change the scale of space. Shadows they cast create zones of shadow during hot summer days.



*Spiraea vanhouteii / Vanhuto lanksva*



*Ribes alpinum / Kalninis serbentas*

**Fig 3, fig 4.**

Various bushes are planned to be used in the project, to separate or highlight different zones.



*Vinca minor / Mažoji žiemė*



*Narcissus poeticus / Poetinis narcizas*

**Fig 5, fig 6.**

Various flowers reinforce the sense of seasons. Different colours create different characters within the territory.



**Fig 7.** A view towards one of the terraces



**Fig 8.** View in the new alley



# Organisation of design elements within the the area (small architecture, others)

## Organisation of design elements within the the area

Within the framework of the project, it is proposed the rearrange existing and introduce new elements of small architecture. It is planned to move the sculpture from the centre to one of the premises zone next to the Didžioji street. The fountain is moved to the other side of Vokiečių street. In certain zones it is planned to add benches, introduce more lighting equipment. There are several waste collection sites, bicycle stands and other technological elements.

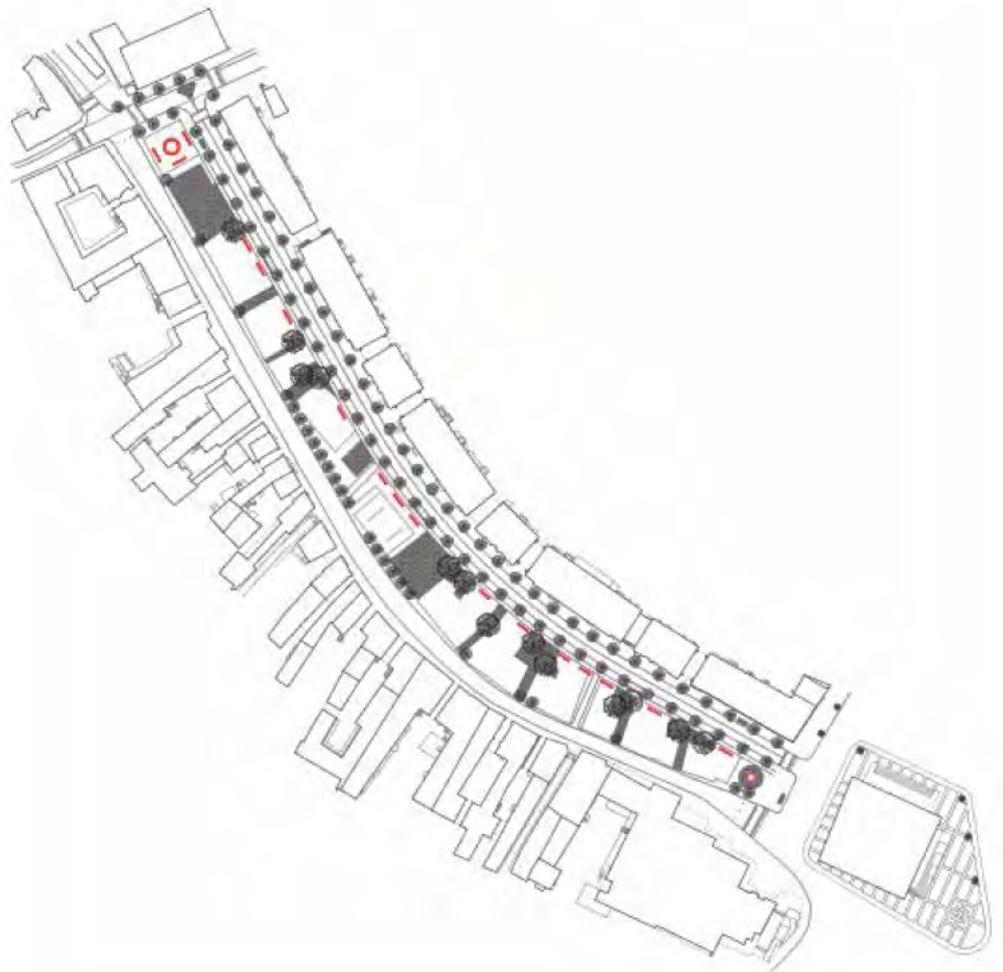
### Scheme 1. Lighting scheme

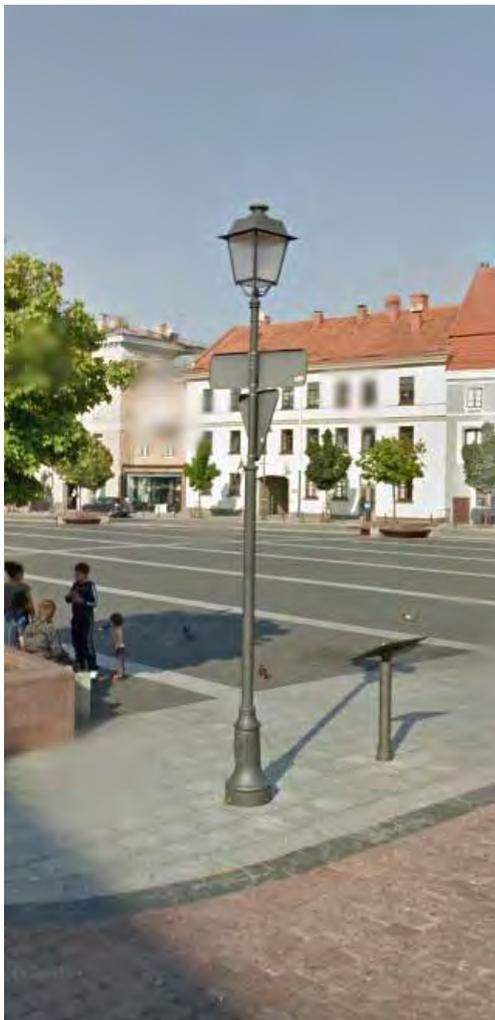
Authentic lamp posts in the boulevard are retained but replaced. Southern façades are lit up, with intentions of highlighting the valuable historical elements. The northern pedestrian sidewalk is lit up using smaller lamp posts, the same type which is found next to the town hall. Additional lighting is previewed for the fountain and the statue.



### Scheme 2. Elements placement scheme

Infrastructural elements are organized parallel to the bicycle path. The fountain and the sculpture are replaced into the premise zones of the street.





**Fig 1, 2.**

Proposed types of street lights. The tall models, already existing in the area and the smaller ones, which are used near the Town Hall.



**Pav 3. Illumination of facades**

A well designed lightning plan can highlight heritage object and lighten up the old part of Vokiečių street. This creates a safe and attractive space.

Picture shows an example from Bucharest



## **D. Technical indicators, cost**



# Technical indicators of the site

## Technical indicators of the site

The main technical-economical indicators are represented in the tables 1 and 2.

**1 table.** Technical indicators of the site (surface areas of the site)

Name	Area, m2	Area, %
Granite tiles, trinkets for the pedestrian zones (new construction)	8740	52%
Granite trinkets for motorized vehicles (new construction)	2760	16%
Stone surface (reconstructed)	3020	18%
Grass	2150	13%
Flowers	200	1%
<b>Total:</b>	<b>16870</b>	<b>100%</b>

**2 table.** Estimates of vegetations

Type of vegetation	Quantity
Trees, unit	115
Vegetation, unit	650
Flowers, m2	200

## Budget of the project

The total sum of the project is estimated at 2 963 290,00 Eur with PVM included. Preliminary estimates are represented in table 3.

**3 table.** Vokiečių st., Vilnius, reconstruction design cost estimate

Type of works previewed	Cost, EUR
Installation of granite tiles and trinkets(11500 m2)	1145000,00
Reconstruction of stone surfaces (3020 m2)	215000,00
Installation of small architectural elements	320000,00
Vegetation (trees, bushes, flowers) installation	150000,00
Installation of lighting	100000,00
Reparations of various systems	280000,00
Archeological and other exploratory works	64000,00
Project development	175000,00
<b>Cost without PVM</b>	<b>2449000,00</b>
<b>Cost with PVM</b>	<b>2963290,00</b>



## **X. Annex**



A plateau stretching from a facade to a facade creates a feeling of a unified space. Motorised traffic is reduced and priority is given to pedestrians. One of the most popular public spaces in Brussels, which hosts numerous markets and outdoor terraces,

*Saint-Gilles Parvis | Bureau Bas Smets*



Skanderbeg square - one of the 2019 Mies van der Rohe prize finalists. Created as an oasis in a chaotic city, it offers generous spaces to the citizens.

*Skanderbeg Square | 51N4E*



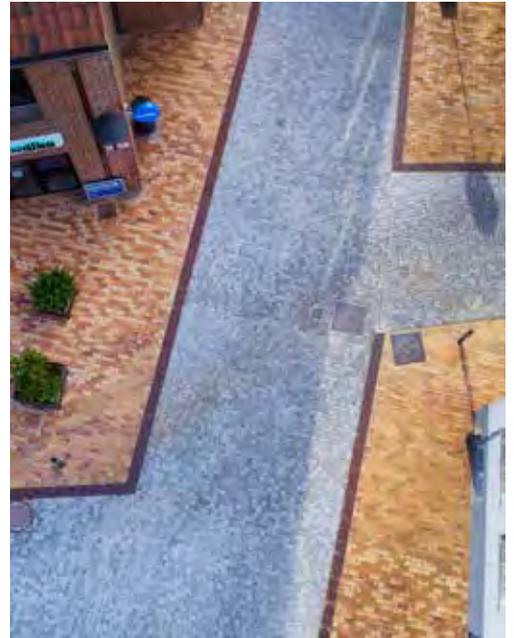
A thorough research and attentiveness to details allowed ADEPT architects to create a space with serves the citizens, as well as highlights its historical values.

*Aabenraa Historic City | ADEPT*

Different functional zones are subdivided by using different pattern, this way maintaining spatial unity.

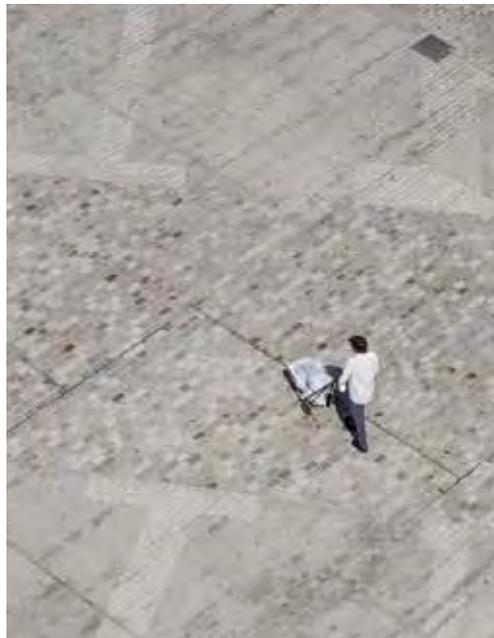


*Assenede / BUUR*



*Aabenraa Historic City / ADEPT*

Important design elements are highlighted by contrasting surface materials



*Mercado del Born Square / Vora*

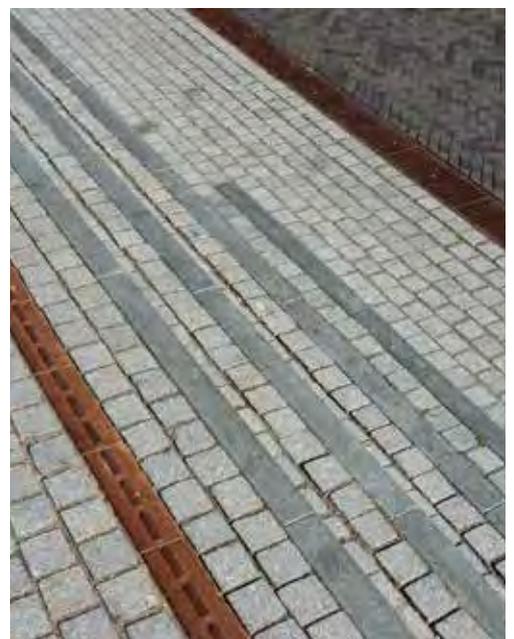


*Stortorget / Caruso St John Architects*

Infrastructural elements are integrated into the overall design



*Urban Lounge / AWP*



*Aabenraa Historic City / ADEPT*

The street layout forms a background image. Leisure areas have a strong connection with the historical part of the city.



*Rambla Vilafranca / Vora Arquitectura*

Historical fragments are incorporated into the new design. Heritage objects shape modern spaces and become its inseparable part.



*Aabenraa Historic City / ADEPT*

New spaces help to unveil the valuable qualities of existing context. Instead of a parallel view one gets while walking down the street, a space for retreat and observation is created.



*Skanderbeg Square / 51N4E*

Tall, separate trees create a feeling of coverage with their canopy. The shading they create is important during summer time. Because of their height, they do not limit the views at the eye sight and do not obstruct the views.



Fonte Nova Square | José Adrião Arquitetos

By using the green infrastructure, traffic can be regulated without having a need to sacrifice qualities of public spaces. A well thought out design can significantly reduce the impact cars have on their immediate surroundings.



Miller Park In Downtown Chattanooga | Spackman Mossop Michaels + Eskew Dumez Ripple

Old city planning methods designed for vehicle users, at the expense of other users. Streets and parking lots take up vast areas, however, they are only used by one segment of the population. Cars are still an important part of people's lives, but the required infrastructure cannot become a priority when designing public spaces.



Aabenraa Historic City | ADEPT