Appendix No.4

To the Competition Brief of the Open International Sketch Design Competition "The Sketch Design for construction of the Rail Baltica railway bridge and complex development of the central multi-modal public transport hub in Riga"

DESIGN PROGRAMME
of the Open International Sketch Design Competition

The Sketch Design for construction of the Rail Baltica railway bridge and complex development of the central multi-modal public transport hub in Riga
1. The Aim

To obtain the most appropriate Sketch Design for the central multi-modal public transport hub in Riga and the Rail Baltica railway bridge in the territory encompassing the historic central railway station of Riga and its infrastructure, the embankment from Dzirnavu iela to Krasta iela and the planned Rail Baltica railway bridge over the River Daugava.

Competition site is located in the area of UNESCO World Cultural and Natural Heritage site "Historic Centre of Riga" (Protection No. 852) and its protection zone as well as the national monument of urban area "RHC" (national defense No. 7442). Hereafter - Riga Historic Centre (RHC) or RHC and its protection zone territory.

2. Competition site and competition study area of the International Sketch Design Competition

![Map of competition site and study area](image)

2.1. The subject of the Competition

A Sketch Design for a complex spatial development of the Riga Central multi-modal public transport hub in Riga and construction of the Rail Baltica Railway Bridge over the River Daugava. The Sketch Design should include functional and architectural solutions for rebuilding and expansion of the Riga passanger station, architectural and design solutions of levelling of the existing railway embankment and construction of a new overpass, structural design of the Rail Baltica Bridge over the River Daugava, master plan solutions for the entire development of the Competition area.
2.2. Competition site of the Sketch Design

Territory that includes Rail Baltica railway tracks and directly related infrastructure.

2.3. Competition study site

Territory that includes Rail Baltica railway tracks and directly related infrastructure, and functionally related territory of the city.

3. The Commissioner

Information on the
Commissioner

SIA “Eiropas dzelzceļa līnijas”
Reg. No. 40103836785
Gogoļa iela 3, Riga, LV-1050
4. Historical description

The city of Riga was founded in 1201; it is located on south coast of Riga Gulf, on Ridzenes coastal plain. Riga historical center is located on the right bank of the Daugava River about 15 km from the spot where Daugava flows into the Gulf of Riga.

Since the 12th century Riga has been a historical and administrative center. In 1997 Riga Historical City Centre has been included in UNESCO’s World Heritage List of the world’s most important cultural and natural sites under a specific definition: while retaining its medieval and later age urban fabric relatively intact, it is of outstanding universal value by virtue of the quality and quantity of its unique Art Nouveau architecture, and its 19th century wooden architecture. At the turn of the 19th-20th century, Riga was also one of the most important industrial cities not only in the Russian Empire but also in the Baltic Sea region.

Riga is also an important traffic intersection. The main elements that make Riga as a transit center are the Port of Riga, Riga International Airport, developed railway and road network. In time course created transport infrastructure has contributed development of Riga, making it an important business center in the Baltic region. The city is known for its architectural and cultural values, skilful labour and developed infrastructure. Riga is not only a backbone of Latvian economy, but also the biggest cultural, educational and scientific centre.

The competition site and study area of the Sketch Design is located in a close proximity to the Old Riga and within the protection zone of the Historic Centre of Riga which is inscribed on the UNESCO World Heritage List.
4.1. Development of the city building infrastructure

The most important period of the Riga city center construction began in the middle of the 19th century, when it was permitted to demolish the city ramparts. In 1856, based on the order of Tsar Alexander II, the liquidation of the Riga city fortifications was permitted and the urban planning changes were commenced. In 1857 the City chief Architect J.D. Felsko with the participation of architect O. Dīce, developed the project of rebuilding Riga’s ramparts and esplanade in the territory located between the current 13. janvāra street and Turgeņeva Street.
The plan of Riga, made by F. Totlēbens in 1862, shows Old Riga and newly established railway line Riga-Daugavpils, which was opened in 1861, as well as Kārlis basin. Kārlis basin was already realized in 1792 in the Southern part of the fortress moat. Nowadays one can see it as a widened part of the city canal from the River Daugava until the culvert under the railway embankment. The basin was built as a winter harbour and was used by small ships to spend the winter until safe sailing back to sea. In the South-east part of the Old City, in the direction of Maskava suburbs, a transport and trade zone with railway station, market, warehouse quarters and harbour basin was designed.
Maps from the 1864 show the Kārlis basin and its adjacent territory between the current 13. janvāra street (previously, Carls-Strasse) and Puškina street (previously, Elisabeth-Strasse), which was created instead of former ramparts (outline of demolished fortification system is marked in red). Two railway tracks on both sides of the harbour basin (Hafen Bassin) in the direction of the Station (Bahnhof) and its square (Bahnhof-Platz) are marked in the plan.

4.2. Railway Bridge over the River of Daugava

Due to the modernization of Riga port, the first railway bridge (Zemgale or Steel Bridge) over Daugava was built in 1872 due to construction of Bolderāja railway by the newly created Riga-Bolderāja Railway Society (based on the state granted concession).

[Image]

Steel (Zemgale) bridge over Daugava River with continuous steel framework system, 1872

Zemgale Bridge efficiently resolved the traffic problems of the Riga centre, since the bridge on the side of the Old City was connected with Daugava embankment by an overpass. The bridge was foreseen not only for the railway traffic but also for pedestrians, therefore the railway tracks were located in the middle of the bridge, but wide pedestrian lanes were located on both sides. It was also possible to use the bridge for horse carriage transport for a fee. The bridge was destroyed during the First World War and was later renovated. After the major repair in the 30ies of the 20th century, the bridge was adjusted to horse carriage transport. During the World War II, the bridge was blown up and was not renovated. Only the pillars of the bridge have survived until today.

The clearness of the spatial structure of the city’s central part was slightly deformed by the railway embankment in the South-east part of the Old Riga, which was made in 1873 after the construction of the Steel Bridge. Already since 1872, a railway embankment crossed the territory of the fortress.
In the autumn of 1880 city’s construction board reviewed the Old Riga reconstruction or regulation plan, which was in general accepted. In order to improve the traffic connection to the Old City, the plan provided to prolong the Kungu street, but the railway tracks to elevate on an overpass or viaduct. Thereby by freely directing transport flows in all necessary directions, construction of shops and other institutions (which would provide income for partially covering the costs associated with construction of the overpass) could be located under the overpass. City’s construction board recognized this proposal as unrealistic for that time but noteworthy for the future (J. Krastiņš „Eklektisms Rīgas arhitektūrā, 1988).

Design of the new railway bridge with eight bow-shaped frames was commenced in 1902. Engineers of the bridge were P. Vozņesenskis and A. Žibers. The construction of the bridge over Daugava was connected with reconstruction of the whole railway hub and took place from 1909 until 1914. All railway tracks in central part of the city were elevated using embankments and a number of railway overpasses were built over streets.

Steel bridges in 1917 after pulling back of Russian troops

During the World War II (in 1944), the railway bridge was blown up and afterwards was renovated. The still functioning railway bridge over the river of Daugava was opened in 1950 (it was fully renovated only in 1955). The bridge was built on the pillars of the bridge built in 1914, based on the design of A. Starcevs, engineer of the Leningrad Bridge Construction Institute. During the time from 1945 until 1951 railway traffic over the river of Daugava in Riga was organized using the temporary bridge built by the Soviet Army on wooden piles, erected within one and a half months upstream from the destroyed railway bridge.

4.3. Railway Station

Construction of the first railway station in Riga was commenced already in 1858 and was completed in 1860. The station had only two platforms and four railway tracks between them. There were passenger premises on the ground floor and the Riga – Orla railway office, mobilization department and legal department on the first floor. There was a telegraph station, station director’s office, station commandant’s office in the right wing and a post office and gendarme police station in the left wing. In 1861, the first railway line in Latvia, from Riga to Daugavpils as well as the first passenger railway station building in Riga – a small two – storey building - was opened. In the years 1884-1885 three-storey side appendices were build and waiting rooms were improved based on the design of architect H.Šels.
There were two stations in Riga in the second half of the 19th century – Dinaburg station (in the place of the existing Central Railway Station) and Riga – Bolderaja (later Tukums) railway station. Dinaburg station served for the traffic going into the Eastern and Southern directions, but Tukums station (which existed as a separate station until the realization of the Central Railway Station shortly before the First World War) served the traffic going into the Western direction. Tukums station was created instead of the former Kārlis Gate opposite Kungu street, next to the railway embankment along the current 13. janvāra street.

In 1902, the plan of rebuilding the Riga railway station was developed, resulting in one railway station for all incoming trains. Until the beginning of the First World War, this project was only partially implemented: “Riga I” became the Riga Central Railway Station, but the station building itself was not completed. New design of the station was developed only in 1937, but the World War II interrupted the implementation of this project.
In the 30ies of the last century, when monumental construction was commenced in Latvia, it was planned to rebuild the humble, in classical traditions built Riga Station by granting it a new appearance. However, this idea was not implemented before the war. The initial station building was demolished only at the end of 50ies of the 20th century, when the new station building was built.

The new station radically changed the urban environment of the Riga centre – the former railway tracks on the ground level disappeared, railway workshops and buildings next to Marijas street were demolished by creating the current Station Square and the new section of Satekles street. The new railway station designed by Leningrad architects V. Kuzņecov and V. Cipuļin was visually very similar to the idea of Latvian architects of 1937, which was not implemented due to the World War II and Soviet occupation. The new Riga Railway Station was constructed between 1959 and 1965. The 1st stage of the station - passenger, office and technical premises - was opened on 20 July 1960–, but in 1965 the post building and intercity ticket offices were completed.

In 1965 also the new Station Clock next to the new Central Railway Station was opened, which initially served as a water tower of station’s water supply system. At the end of 70ies of the 20th century its clock face was replaced by an electronic screen.

Significant changes to the Railway station building took place in 2003, when the “Origo” shopping centre was added to the Riga Station building volume. The old Station Clock in metal constructions was demolished and a new clock tower of the same height with a glass appendix and coffee shops was built, which also nowadays remains as an important part of the city environment. Riga Central Railway Station as the most important transport hub and the intersection of daily citizen flows nowadays and in the past plays an important role in lives of inhabitants of Riga. Over the time the Central Station has experienced a number of rebuilding, but the Square of the station has constantly been one of the busiest and most important places in the city.

4.4. **Bus Station**

After the World War II when the transport of Riga was developing, a need for a bus station arose. It was designed by “Pilsētprojekts” and was built in 1964 based on the design of architect G. Mincs. Bus Station is located in the historical center of the city, next to the Central Market and railway embankment.

Design of the Riga International Bus Station intended to transform the canal side in order to enable space for manoeuvres and parking of buses. From urban planning perspective the administrative building of the Bus Station is located perpendicularly to the railway embankment. Architect G. Mincs designed light construction and half-open passenger-waiting sheds along the railway embankment and the canal. An underground tunnel was created from Vaļņu Street for the organization of pedestrian flows, which at that time significantly improved organization of traffic flows on 13. janvāra Street.
4.5. Riga Central Market

In 1922, Riga City Council decided about the installation and construction of the city’s central food market. Design of the market was developed under the leadership of the city’s architect P. Dreimanis. During the time from 1924 until 1930 an ambitious project of the Riga Central Market, which was the biggest and the most modern in Europe, was realized. Steel constructions of the five market pavilions were taken from Vainode zeppelin hangars and adopted to the new building volumes (h=20.5m, width 35m), freezers were built in the basement and modern system of ventilation was installed in the spacious interior areas. Market halls were connected to the city’s canal by underground passage-ways and market pavilions were connected by indoor corridors. Within this project it was intended to create a special railway bypass between the red warehouses and city’s canal for the market needs. Therefore, the fifth pavilion (Meat Pavilion) was located perpendicularly to the other building volumes and as it was planned to build a new station there, railway platforms, warehouses and office premises were built nearby.

Riga Central Market pavilions are national architectural monument "Central Pavilion building group" (national protection No. 6633).
5. Brief description of environment and climate

Sketch Design site and study area is located in the city centre, next to the River Daugava where the relief is flat. Typically to the Northern latitudes, winters are dark and summers are light: there are only 6-8 daylight hours at Christmas time, but in summer sun only goes down for a few hours. Snowfalls start in November or December and snow melts in April.

Comparing to the Southern Europe, the sun is low all through the year and particularly low in late autumn and winter, which impacts the distance between the buildings and their height, which ensures sufficient insolation of premises.

Characteristics of the Sketch Design territory’s weather conditions are based on a long-term average data collected by the weather station “Riga” stated in Regulations of Cabinet of Ministers No. 338 dated 30 June 2015 “Construction Climatology”.

The average annual air temperature: +6.2 °C. The coldest month is January with the average monthly air temperature of -9.7 °C, but the warmest month is July with the average monthly air temperature of +22.4 °C.

Annual average precipitation in Riga is 636 mm, the months having the highest rainfall are July and August (79mm in Riga), and the months having the lowest rainfall are February and March, in the average 25-31 mm in Riga. Annual average relative humidity in Riga is 79%, the lowest humidity is in May (60% in Riga), but the highest humidity is in November and December (86% in Riga).

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*Average rainfall in Riga, mm*

5.1. Prevailing winds

The strongest wind in Riga is in winter and autumn, when winds are more changeable and gusty. The highest observed strength of wind in Riga is 24 m/s, with maximum gusts of wind reaching up to 31 m/s. The average long-term strength of wind in Riga is 4.4 m/s.

The wind force is as follows – it is higher by day and lower by night (the average data from the Weather Station of the Environment Department of the Riga City Council Meteorology Station). This pattern is the particularly pronounced in spring, summer and autumn, but less pronounced in winter.

The prevailing winds during the year on average are Southern winds, but it is important to separate wind directions during the heating season and in warm months of the year. The statistics of wind directions during the heating season and in the rest of the year are shown in the figures below.
Comparing wind directions in months, it can be seen that southern winds are the prevailing ones in cold months while for the rest of the year from April to October southern winds do not occur so often and there are winds from the south as well as from the north. Wind directions in three summer months are shown in the figure below.
In summer months the prevailing winds blow from S, SW, W, NW and N, thus the southern winds then occur less frequently.
6. Air pollution

Measurements of air pollution in Riga are carried out regularly by the local government and the state agency – the State Limited Liability Company *Latvian Centre for Environment, Geology and Meteorology (LVĢMC)* evaluating air quality pursuant to Regulations of Cabinet of Ministers No. 1290 of 3 November 2009 “Regulations on Air Quality”. Description of the air pollution is made for agglomeration zone “Riga” – LV0001 Riga City Administrative Territory.

Actual information on particle pollution level in territory of Riga city was collected upon development of zonal maps of Riga city particle (PM10) air pollution in 2014. The results of the distribution model were verified using results obtained by monitoring stations located in Riga city and showed high correspondence ratio thus achieving the data quality targets set forth by legal acts.

Three particle PM10 pollution zones are identified in the zonal map of Riga city particle pollution:

- **Zone I** – annual average concentration of PM10 particles exceeds the permitted level and is higher than 40 μg/m³;
- **Zone II** – annual average concentration of PM10 particles is in range from 30 to 40 μg/m³;
- **Zone III** – annual average concentration of PM10 particles is less than 30 μg/m³.

As stated in explanatory note of zonal map of Riga city particle (PM10) air pollution, 50-70 % of PM10 particles are PM2,5 particles. This description of particles is used in order to evaluate the level of pollution with PM2,5 particles in the territory of Riga city.
Current particle PM10 pollution in the city of Riga (in accordance with the map of Riga of solid particle PM10 zones)

The planned Rail Baltica line will not cross the zones where the concentration of PM10 particles exceeds the permitted limits (Zone I). Rail Baltica line will be located in Zone II and Zone III where annual average concentration does not exceed 40 μg/m³.

6.1. Noise evaluation

Information for evaluation of noise level in the territory of Riga city is obtained from Riga Agglomeration Strategic Noise Map, where:

- evaluation of noise pollution caused by road vehicle transport is based on data contained by Riga City Strategic Transport Model EMME/2 (data owner – the City Council and the Riga City Development Department of),
- evaluation of noise pollution caused by trams is based on data of PSIA “Rīgas satiksmes” (municipality limited liability company Riga Traffic),
- evaluation of noise pollution caused by Riga International Airport is based on data of VAS “Starptautiskā lidosta “Rīga”” (state joint stock company Riga International Airport),
- evaluation of noise pollution caused by railway is based on data collected and provided by VAS “Latvijas Dzelzceļš” (state joint stock company Latvian Railways) un AS “Pasažieru vilciens” (joint stock company Passenger Train),
- evaluation of noise pollution caused by industrial objects, including ports, is based on data obtained from the State Environment Bureau.

The following noise rates are used for strategic mapping and evaluation of noise pollution:
- Daytime noise ratio—$L_{\text{day}}$, that describes the discomfort caused by on daytime.
- Evening noise ratio – $L_{\text{evening}}$, that describes the discomfort caused in the evening.
- Night noise ratio – $L_{\text{night}}$ that describes at the disturbance of the night’s sleep caused by the noise.

According to the Article 1.2 of Appendix 1 of Regulations of Cabinet of Ministers No. 16 of 7 January 2014 “Procedure of Evaluation and Management of Noise” for the purposes of evaluation of noise rates, it is considered that daytime is from 7:00 until 19:00, evening – from 19:00 until 23:00 and night – from 23:00 until 07:00.

*Existing daytime noise level ($L_{\text{day}}$) map in surroundings of the Rail Baltica line.*

*Existing evening noise level ($L_{\text{evening}}$) map in surroundings of the Rail Baltica line.*
The most important source of noise upon exploitation of the railway line will be railway traffic. It was assumed for the purposes of the noise evaluation that the railway line will be used by international passenger traffic fast trains, regional passenger trains and freight trains. It was assumed for the purposes of noise evaluation that the trains will correspond to the following train categories stated in the method RMR SRM II91:

- international passenger traffic fast trains – Category 9 – passenger trains with disk brakes and brake pads and with a typical speed of 150 to 250 km/h,
- regional passenger trains – Category 8 – passenger trains with disk brakes and with a typical speed of 160 km/h,
- freight trains – Category 11 – freight trains with all types of carriages having K or LL type breaks,
- airport express – Category 10 – city electrical trains, for instance, Regio Citadis.

Noise emission level is dependent on the planned intensity of train traffic and speed. Planned maximum speed of airport express in sections Station – Torņakalns and Imanta – Airport will be 80 km/h, but in section – Torņakalns – Imanta – up to 100 km/h.
7. Description of geological conditions

Geological cross-sections describe situation not only directly below the railway compartment zone, but also the surrounding zone of 1,0 – 1,5 km width.

Southern and partially also South-eastern coast of Riga Gulf is a part of old Litorina sea lagoon, which is a part of Rigava flats. It includes relic sea-origin lakes - Lilaste, Lielais Baltezers and Mazais Baltezers, Kīšezers, Juglas ezers, as well as the lower Daugava River, Riga city and its surrounding territories. Quarter silt of Riga city and its closest surrounding territories were made during the stages of Baltic Sea development; the 1st stage of Litorina sea has important influence.

![Territory of Riga during the 1st stage of Litorina sea (transgression)](image)

Legend: 1 – coastal line; 2 – flooded beds of small rivers; 3 – formations of sandy straits on lagoon’s boundaries; 4 – existing hydrographical network; 5 – Riga boundaries; 6 – direction of sediment flow; 7 – peat formations.

Ground surface is flat, frequently bogged. Thickness of quarter silt varies from 55-60 m at the coast of Riga Gulf to 15-20 m in Ādaži surroundings, thickness of quarter stilton banks of Daugava River at Katlakalns surroundings is a few meters.

Sandy silt of Baltic Ice Lake are found in the whole Rigava flat, maximum thickness reaches 15-20 m. Litorina sea silt is frequently found within lagoon’s boundaries, silt is made of fine grain or alluvial sand with mud interleafs.

In proximity of Daugava intake and in territories, which are richly strewn using the grounds of different origin, vertical geological cross-sections show organically enriched sand with mud. The upper part of geological cross-section consists of fine
grain sand with silty interleafs. Bogging processes are typical in the major part of Rigava flat; they are promoted by ground water level.

Old Lower Daugava River valley is a part of Daugava River valley. Daugava River valley within the territory of Latvia is divided into a number of sections in accordance with physically-geographical zoning. Daugava River valley was formed at the final period of Ice Age. Old Daugava valley is the most changed natural district of Latvia. Quarter silt rarely exceeds 5-6 m, alluvial silt – fine grain and variable grain sand dominates. Alluvium mainly covers Devonian rocks, in rare cases – the Moraine.

History, contexture and structure of Vecrīga, Torņakalns and Āgenskalns quarter cover significantly differs from the other parts of Rail Baltica. In these territories alluvial silt of different age and structure dominates in the quarter cover and ground surface, under them an up to 5 m thick moraine loamy soil and sandy loam layer persists in some places, possibly also the Litorine sea silts (sand, aleirite, gravel). Nowadays Lucavala, Zaķusala, nowadays built up territories – old Mūkusala and Klīversala, were formed up until the 19th century by merging a number of smaller islands, clogging and filling up the many distributaries among them. Alluvial silts have accumulated in the delta environment since the time of existence of Joldian Sea. This silt is characterised by changeable and diverse structure. Vertical cross-section shows change of varied grain sand by gravel sand and aleirite interleafs. All these silts are frequently enriched by remains of vegetation and mud additions. It is not rare to find layers of organic mud with fine sand and aleirite interleafs with or without mud additions. Thickness of mud layer at Torņakalna station or Uzvaras park reaches 9,6 – 11,8 m, if the mud sand and aleirite interleafs are added, then the total thickness of mud silt varies from 6,5 m to 16,0 m. Proportion of mud and mud sand in mud silt layers varies from approximately 1:2 to practically clean mud layers. Next to the muddy alluvial silt cross-sections also sandy alluvial silt cross-sections may be found. The latter, possibly, are newer formations than the muddy silts of old rivers and deltas.
8. The task of the Sketch Design and its zones

8.1. Railway Bridge

Description of the existing situation
The existing railway track gauge is 1520 mm, the height mark of the railheads – up to 10.5 m above the sea level. The existing bridge may not be used for placement of 1435 mm gauge railway tracks. The existing railway bridge is a cultural heritage value of the RHC and a part of city skyline, which has to be maintained without changing the spatial and original design solution and functionality of the existing bridge. The existing bridge consists of two parts: from the right bank of the River Daugava until Zaķusala - five spans (span length 87 m) with circular steel frame trusses and steel beam fastenings; from Zaķusala until the left bank of Daugava River – four spans.

Designing requirements
The new railway bridge is to be built upstream from the existing railway bridge on individual pillars located in line with the pillars of the existing bridge. In the design of the new bridge closeness of both bridges should be taken into consideration and solutions that ensure normal ice flow should be offered. The design of the new railway bridge may not suppress or copy the existing spatial and design solution of the railway bridge and may not influence the existing water-carriage conditions (reduce the free height from the water surface to the bridge construction).

Type of construction
New construction
8.2. The part from the bridge until Dzirnavu street cross-over

Objects within this part, which must be considered – Railway embankment from the railway bridge until Prāgas street (1), Riga International Bus Station (2), Prāgas street cross-over (3), railway embankment from Prāgas street until Gogoļa street (4), shopping centre “Titānis” (5), Gogoļa street cross-over and railway embankment from the Gogoļa street cross-over until the Central Railway Station (6), Central Railway Station platforms (7), the Central Railway Station (8), Origo buildings (9), Station Square (10), square between Gogoļa and Turgeņeva streets at the Southern side of the railway embankment (11), railway embankment from the Central Railway Station until Dzirnavu street (12), connection of Elizabetes and Timoteja streets (13), Kļavu street (14), Dzirnavu street overpass (15).
8.2.1. The part from the bridge until Prāgas street cross-over

Objects within this part, which must be considered – railway embankment from the railway bridge until Prāgas street (1), Riga International Bus Station (2); Prāgas street overpass (3).

Description of the existing situation

Railway embankment with height marks of the existing rail heads – up to 11 m above the sea level. Riga International Bus Station is located within the territory along the railway embankment, which stretches until the city canal, between Maskavas street and Prāgas street. Prāgas street overpass: steel-concrete construction (steel beams with reinforced concrete carriageway plate); span length approximately 23 m; massive reinforced-concrete end pillars, laid with granite stone masonry; railways tracks are located on the granite chip ballast.

Designing requirements

The railway embankment must be replaced by an overpass with a two-way railway tracks on 1520 mm gauge and two-way railway tracks on 1435 mm gauge, maintaining the existing height marks or the railway tracks and providing free space under the overpass for functional connection of the city parts. Convenient connections of existing pedestrian ways and bike paths with the existing infrastructure of the city streets must be provided. The design of the new overpass should be developed in an elegant and light manner, in order to provide aesthetical impression. It may be provided for new multi-functional premises for servicing of passenger flows under the overpass; however, a priority must be given to create a high quality open public space by ensuring a visual and functional connection of
Maskavas suburbs with the Old Riga, alias well as ensuring pedestrian mobility.
The existing Prāgas street overpass also must be replaced by a new overpass.

Type of construction  Rebuilding

8.2.2. The part from Prāgas street overpass until Riga Central Railway Station

Objects within this part, which must be considered – railway embankment from Prāgas street cross-over until Gogoļa street (4), shopping centre ”Titānisks” (5), Gogoļa street cross-over and railway embankment from the Gogoļa street cross-over until the Central Railway Station (6).

Description of the existing situation

Railway embankments with height marks of the existing railheads – up to 11 m above the sea level.
Shopping centre “Titānisks” (5) – four storey building with shopping areas and multi-level parking. Bearing structure – framework of reinforced-concrete columns, reinforced-concrete beams and covering panels. It is planned to dismantle fragmentary or fully the building volume of the shopping centre “Titānisks” as far as necessary to increase the number of railway tracks and create the overpass.
Gogoļa street overpass – reinforced-concrete framework construction; side spans freely based on the end pillars. Two central spans cover the opposite direction carriageways; side spans cover pedestrian sidewalks. Railway tracks are placed on granite chip ballast. Gogoļa street overpass is a local significance architectural monument “Railway viaduct” (state protection No. 7806), included in the list of protected architecturally significant buildings.
architectural monuments.

**Designing requirements**

To review the possibility to replace fully or partially the railway embankment with an overpass for two-way train tracks within the part from Prāgas street overpass until Gogoļa street, taking into consideration that the existing height of railway tracks and their connections should be maintained. Convenient connections of pedestrian and bike paths with the neighbouring infrastructure of city streets must be provided.

To ensure the location of the railway tracks over Gogoļa street by maintaining the cultural heritage values of the viaduct.

Within the part from Gogoļa street until the Central Railway Station, a possibility to place railway tracks on the overpass must be considered by evaluating the usefulness of such a solution from the perspective of functional use of the obtained free space.

The design of the new overpass must be created in the manner of providing elegant, light and aesthetical impression.

**Type of construction**

*Rebuilding*

**8.2.3. The part from the Central Railway Station until the Dzirnavu street overpass**

Objects within this part, which must be considered – building of the Central Railway Station (8), Origo buildings (9), Station Square (10), square between Gogoļa street and Turgeņeva streets at the Southern side of the railway embankment (11), railway embankment from the Central Railway Station until Dzirnavu street (12), connection of Elizabetes and Timoteja streets (13), Kļavu street (14), Dzirnavu street overpass (15).
Description of the existing situation

Riga Central Station buildings at the Sacijas laukumā 2 are cultural and historical buildings with the heritage value of a little significance. Certain individual elements have the cultural heritage value – sign “Rīga” with a neon lighting against railway platforms, original doors, terrazzo floors, ascending stairs of the passenger hall and gallery, see Appendices in section ‘1_1’ (Photo fixation), ‘1_3’ (Photo fixation of the interior of Riga Central Railway Station) and ‘4_3_ZONING_SCHEMES’. Central Railway Station and its extensions is a mixed type building complex, which is connected with the buildings of „Origo“ shopping centre and, in addition to the transport hub functions, performs also shopping centre functions. Buildings of the shopping centre "Origo” are BREEAM "In-Use" certified with "Good" rating. Re-certification process of the shopping centre “Origo” is undertaken in 2016 in with a goal to reach “Very Good” rating. Station square – an open public space and pedestrian zone. Underground parking is located under the Square of the Station; see Appendix ‘5_7_1 Basement_floor_plan_ISOA2_M500’. Building “Fēnikss laimētava” located on the Square of the Railway Station – a temporary building, which might be demolished during the implementation of the project if it will be necessary for ensuring the multimodal hub functions. Square at the Southern part of the railway embankment between Gogoļa and Turgeņeva streets is a zone of pedestrian and transport flow. Driveway is connected with Timoteja and Turgeņeva streets. National architectural monument "Residential building (wood)" (national protection No. 6634) is located on Turgeneva street 16 that falls into competition site. The monument should be respected in the design. Railway embankments with height marks of the existing railheads – up to 11 m above the sea level. Dzirnavu street overpass has an alternating constructive solution in the cross direction. Principally – 4–span (in the Southern part of crossover) and 3-span (in the Northern part of crossover) alternating and constant height reinforced-concrete beams, based on massive and screen type pillars. In the Southern part one of the side spans covers an externally separated waiting room. Railway tracks are on granite chip ballast.

Designing requirements

To propose a solution for multi-functional multi-modal public transport hub and infrastructure, which includes modernization of the Riga Central Railway Station,
development of airport “shuttle service”, organization of the commercial services network, reorganization of pedestrian and transport flows, creation of public transport stops, including a public transport interchange point under the station’s platforms.

Kiss & ride function must be provided for private transport flows.

The reorganization of the railways tracks must include solutions for two-way passenger train tracks with 1520 mm and 1435 mm gauge, including an airport shuttle service, and 1520 mm gauge railway track for cargo train traffic, ensuring the envisaged planning solutions of station’s railway tracks and their connections. To replace the railway embankment with an overpass, ensuring the envisaged height of railway tracks and a free space under the overpass for passenger service functions.

To propose functional and urban planning solution for the new connection of Elizabetes and Timoteja streets.

To adapt the extension of Kļavu street instead of the levelled embankment to the public transport.

Overpass of the Dzirnavu street must be ensured in compliance with the envisaged planning solutions of the station’s railway tracks and their connections.

Type of construction Rebuilding
8.3. Competition study area

Description of the existing situation

The study area of the Sketch Design Competition is partially included into the Boulevard Circle of the Riga Historic Centre (RHC); the territory is spatially fragmented by buildings, streets and railway embankment.

The main objects located around the Central Railway Station include but are not limited to the Ministry of Transportation, VAS ”Latvijas Dzelzceļš” (Latvian Railways), hotel “Mercure”, micro-bus station of Riga Taxi Park, different retail companies along Satekles street, shopping centre Stockmann, Riga City Canal and canal park alleys and Riga Central Market. Next to the study area at Abrenes street is located the terminus of city’s public buses and the territory where the multi-modal public transport hub is foreseen.

The development of the existing bus station location at Pragas street 1 is restricted due to the limited territory; it also has no technical options to provide parking for buses, therefore buses occupy Krasta street parking places at their standby times. More than one third of passengers arriving in Riga from Kurzeme and Zemgale area are on their way to Pārdaugava (left bank of Daugava) neighbourhoods. Due to the low infrastructure accessibility and transport network the passengers are forced to go to the bus station at the city centre and then use the public transport to go back to Pārdaugava (left bank of Daugava) thus losing money and time, as well as uselessly burdening the transport and traffic infrastructure of the Riga city.

Projects under development within the study area

It is planned to rebuild the canal side of the Riga Central Market from Maskavas street until Prāgas street and from Prāgas street into the direction of Gogoļa street. The replacement of the Central Market street and sidewalk pavement from Prāgas street into direction of Maskavas and Gogoļa street (A) is foreseen within the construction project “The 1st stage of development of the Riga Central Market territory”. Information about the competition is available via link http://www.rdpad.lv/departaments/iepirkumi/ rigas-centraltirgus-
The Sketch Design competition area in Zaķusala (B) is located within the area of the existing local plan of Zaķusala Northern part (decision No.1263 of Riga City Council of 17.06.2014 „On initiation of development of Zaķusala Northern part local plan, the boundaries of the local plan territory and confirmation of the task of assignment“). Updated information about the local plan is available in the Territory Planning Information System web page https://geolatvija.lv.

Designing works of a multi-functional business centre at Stacijas laukums 1 (Station plaza 1) (C) are being performed (see Appendix ‘5_7_17_shopping_center_ORIGO_expansion_project_presentation’) under BREEAM certification with an objective of reaching the ”Very Good” rating. The construction project is approved; it is planned to receive construction commencement permission until 27 October 2016. At the same time the corrections and details of the reconstruction project of the junction of Elizabetes and Sateklies streets (D) are performed. It is planned to start the building construction works in the 2nd quarter of 2017 and to put the object into operation between 2019 and 2020.

A number of significant projects had been developed / are under development in Torņakalns area (E):

1) The complex of the University of Latvia (LU) – Campus, combining all functions of the LU. It is planned to perform a full-scope construction during the time from 2017 until 2022. The building of Natural Sciences Academic Centre (LU DAC) was commissioned in August 2015). It is planned to build 3 academic buildings in the territory with a total number of students and employees of approximately 15 000 persons and 6 student apartment buildings with 2500 places. Development of technical designs of these buildings will be commenced in 2016 and it is planned to commence the construction in 2017 or 2018 at the latest. Generally, it is planned that a number of visitors until 2022 will increase from the existing 2.5 thousand persons per working day until approximately 17’000 – 18’000 persons, including students, faculty and service personnel, and guests of LU Campus as well as small entrepreneurs operating within the territory (catering and retail). It is roughly estimated that 84% to 89% of the persons arrive at LU DAC using the public transport.

2) Pursuant to a detail plan of Torņakalns administrative centre the Central multi-modal public transport hub will be supported by a regional public transport interchange point in Torņakalns – it is planned to build a unified complex passenger service building of regional bus station and railway station with area of 700 m² and a bus station square (including platforms etc.) with area of 12’000 m². The possible location of the station is not yet precisely defined, but it is the most probable scenario that it will be located on the ground level in the proximity of the LU DAC. It is planned that one of the airport shuttle service stops also will be situated there. A centre of
the public transport transfer on the left bank of the River Daugava will allow residents to reach different neighbourhoods, without using the city centre as a transit area and improving the national and local accessibility of Riga. The existing Torņakalns railway station serves approximately 48’000 passengers per month. It is planned that the regional bus station at Torņakalns will serve at least 185 buses a day thus creating a passenger flow of approximately 10’000 persons.

3) pursuant to the park&ride conception of the Riga City Council it is planned to create a park&ride next to the Torņakalns intersection point with a capacity of 250 to 500 transport units and with the area of 13’700 m² (including the building for bike parking). Requirements for the park&ride services in Torņakalns territory mainly arise due to the change of the number of work places and due to the development of new infrastructure in the planned territory.

Information on the previous competitions related to the study area

A summary of results of a number of previous competitions related to the study area is available in Appendix 1 of Section 8 of this Design Programme (Previous Research). Additionally, the information on the "Development of an inter-modal transport hub at Turgeņeva iela 4, Turgeņeva street 6, Gaiziņa street 5k-1, Riga” (the territory of industrial goods market) is available. Results of the competition are available on Latvian Association of Architects website http://www.latarih.lv/konkursi/latvijas/

The results of these and other competitions may be used for creation of the Sketch Design but are not binding. It is permissible that the solutions offered within the Sketch Design, might be used for the future development of these territories by fully or partially replacing the previous solutions or by envisaging a re-division of existing functions pursuant to the complex development vision of the territory.

Description of existing pedestrian, cycling and transport flows and their perspective development

Description of pedestrian and traffic flows pursuant to appendix ‘5_1_1_existing_and_expected_pedestrian_flows’

The cycling infrastructure in the city centre (except for the right bank of Daugava) is fragmented; see Appendix ‘5_4_4_cycling_infrastructure_plan’. Pedestrian flows are organized at the level or using underground pedestrian tunnels. There are retail places in the existing tunnels under 13. janvāra street (at Prāgas street and Raiņa bulvāris) and under Gogoļa street (at Riepnieku street and 13. janvāra street), however the tunnel under Krasta street does not have retail function.

There is a sufficient number of paid parking places within the research territory of the Skecth Design, which currently may not be used as long term parking places due to the high costs.

Significant shortages preventing an efficient passenger flow at Riga Central Railway Station is a lack of short-term parking and kiss&ride area.
Designing requirements

To provide a conceptual organization of city traffic flows ensuring an optimum connection with the Old Riga, city centre, Pārdaugava (Daugava left bank), area of the Central market, Spikeri quarter and Daugava right bank, including the new connection of Elizabetes street and Ūmoteja street, as well as extension of Kļavu street adopting it for the public transport flows.

A complex solution of short-term parking for the whole territory must be provided.

A functional connection of Old Riga and Maskavas suburbs, as well as the Central Market territory with city centre, must be improved by creating new pedestrian links and rearranging the public transport network into a functioning public transport hub and linking the spatially and functionally terminated territory of Boulevard Circle along the City Canal from “Canal Side Greenery” until Daugava embankment, increasing the quality of open public space and further development of urban environment (pedestrian roads, greenery and landscape infrastructure improvements, small architectural forms, road directions etc.).
9. Requirements for the project development proposal (Sketch Design)

9.1. General requirements applicable to the whole Sketch Design site and study area

Requirements for inclusion of solutions identified at the previous preliminary studies

- Design solution of the station railway tracks and their connections is set and unchangeable; it must be designed in compliance with Appendices ‘5_3_1’ to ‘5_3_3’.
- Organization of the railway track construction is set in the Appendix ‘5_1_16_organization_of_railway_track_construction’.

Requirements for preservation of the Riga Historic Centre and its cultural heritage

- Give respect and ensure preservation of cultural monuments in the competition site and study area.
- To propose complex solutions for the Sketch Design site and surrounding areas considering the cultural heritage preservation interests. Proposed solutions must provide benefit to the development of the state importance urban planning monument „Riga Historic Centre” by developing, creating or improving this important urban planning landmark.
- If in the solutions of rebuilding the station appear significant increase of building construction volumes, attention must be paid how to incorporate proposals into the urban environment, giving priority to the preservation of Riga Historic Centre as the UNESCO World Heritage site, paying particular attention to the urban landscape and overall perception of the city environment.
- New architectural and design solutions must be proposed at such quality, which give additional value to the urban environment of the Riga Historic Centre.
- Visual image of the Railway Bridge and perception of the vertical dominants as a unique cultural and historical heritage of the Riga Historic Centre must be maintained.
from more distant viewpoints.
- Open public space shall not be overloaded with functions, which have no significance for the station.
- In order to preserve the urban values of the urban planning monument of national importance „Riga Historic Centre” unjustified increase of construction density and building height is not allowed in the territory of the „Riga Historic Centre”.

Requirements of Riga planning documents and legal acts
- According to the Riga Sustainable Development Strategy for the period until 2030, multimodal functions will be performed by the most important element of the city’s transport infrastructure – Central Railway Station, which will be functionally connected with Riga International Bus Station and regional public transportation interchange points in Torņakalns and Pētersala, as well as with other objects ensuring unified development of transport hub, must be considered.
- It must be considered that one of conceptual solutions of improvement of public transport system in the territory plan is the development of unified transport hub with an aim to provide a possibility for passengers to change conveniently from suburb transport to the city transport in the Riga Historic Centre with minimum time consumption.
- If a solution proposes deviations\(^1\) from the Binding Regulations, it may not contradict with requirements of construction regulation and negatively affect the quality of cultural heritage values and open public space of the Riga Historic Centre and its protection zone.
- Particular attention must be paid to security issues, considering all types of risks. Evacuation solutions for the whole territory must be provided.
- Solution must be developed considering provisions of Appendices ‘2_2_1’ to ‘2_2_10’.

Functional requirements
- Technical and urban planning solution of Riga central multi-modal hub must be created in a manner ensuring integration of two railway systems, public transport and individual mobility solutions into a unified transport hub.
- Solutions promoting transition from use of personal cars to public transport must be proposed.

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\(^1\) Decision of Riga City Council No. 3782 of 17.05.2016 “On Commencement of Development of the Local Plan of the Public Railway Line Rail Baltica Amending Territory Plan of Riga for the years 2016-2018 and Territory Plan of Riga Historic Centre and its Buffer Zone” (hereinafter – the Local Plan) and Subarticle 318.3 of the Binding Regulations of Riga City Council No.38 of 07.02.2006 permit deviations from the Binding Regulations, if a public architectural design competition results in an urban planning proposal or an idea of an architectural object which is justified by securing the basic functions of transport flows and passenger service and a wider scope visual impact analysis, and by view perspectives from public view points towards the Riga Historic Centre and the Central Market, and it will be approved at the next stages of planning – during drafting of the Local Plan.
Transport organization requirements

- Transport organization plan must be developed considering the principles of multi-modal hub – ensuring reorganization of traffic and access of private transport to the station, kiss&ride solution and appropriate locations of parking lots, servicing and stops of public transport, servicing of Riga International Bus Station transport flows, charging points of electric transport vehicles.

- Transport organization solutions, which may be integrated into the existing situation, must be planned by allowing future development possibilities pursuant to Appendix ‘2_2_9_development_plan_of_traffic_infrastructure_of_RHC_and_its_protection_zone’.

- Placement of all public transport, including trams, trolleybuses, international, regional, city and suburb buses, minibuses/set-route buses, taxis and tourist buses, service and stop points must be evaluated and proposed in the multi-modal transport hub in direct connection with its linear structure (including the part of embankment under the Central Railway Station and railway tracks. For example, the territory between the Timoteja-Elizabetes street connection and Dzirnavu street) or other clearly justified alternatives, for instance, locating the intermodal transport hub in the territory of existing Industrial Goods Market by providing solutions of integration for connecting this object with the central multi-modal transport hub may be considered.

- Solutions in the Sketch Design territory should be developed according to the surrounding urban environment and planned street infrastructure.

- The multi-modal transport hub in the territory of the Riga Historic Centre should be developed as a unified transport hub, where passengers can conveniently change from the suburb transport to the city transport with a minimum time and energy consumption ensuring the accessibility of stops.

- Solutions must follow the mobility principle, which provide that within the limits of the city core, movement on foot, by public transport or by bike is significantly faster and more convenient than movement by private car.

- Street reconstruction solutions should foresee that Dzirnavu and Elizabetes – Timoteja – Turgeneva streets are one-way streets, which allow to create two-way movement pairs with a spatial reserve, allowing to expand them in the future for the tram network according to the Territory development plan, minimally rebuilding them, namely construction of tram infrastructure on 13. janvāra, Elizabetes and Dzirnavu streets providing the connection with Maskavas street (see Appendix ‘5_1_19_traffic_study’).

- Developing city traffic the new Elizabetes-Timoteja street
connection, construction of Prāgas, Gogoļa street and Dzirnavu street overpasses as well as extension of Kļavu street in the place of levelled embankment and its adaptation to the public transport must be considered. See the existing situation in Appendices ‘5_1_5_schemes_of_existing_road_network’ and ‘5_1_7_schemes_of_existing_public_transport_stops’

- Number of car parking lots within the limits of street red lines must be decreased, as well as smaller number of car parking at public buildings or other measures for decreasing air and noise pollution must be planned, simultaneously promoting the accessibility of these territories by public transport, on foot or by bike.

- Review the option to create a covered pedestrian flow corridor providing connection from Abrenes street transport hub to the pedestrian and cyclist corridor of 1435 mm Railway Bridge in order to ensure an easier and more convenient connection between the objects included into the transport hub.

- Secure and convenient short term and long-term bicycle parking must be ensured, considering the new bike pathes and their connections as well final destinations of cyclists.

- Development of pedestrian roads should be performed in a broader context, considering the pedestrian roads within the surrounding areas and their perspective development pursuant to the Territory Plan of the Riga Historic Centre and its protection zone. Pedestrian priority must be ensured and walking distances must be decreased as far as possible by designing new crosswalks and pedestrian crossings.

- In order to ensure a secure and convenient pedestrian and cyclist traffic (bridge over the River Daugava and its connections with the Central Railway Station, including the connection between Riga International Bus Station, Central Railway Station and public transport terminus at Abrenes street), the solutions must consider that spatial parameters must be in line with the planned pedestrian and cyclist flows. Two-way bike pathes separated from pedestrian flows must be designed.

- Separate pedestrian roads and bike pathes for city connections should be designed apart from the passenger flows of multi-modal public transport hub.

- Complex solution of the existing and planned pedestrian and cycling infrastructure must be provided, including pedestrian and cyclist exit points at both ends of the bridge, connections to Mūkusalas street (see Appendices ‘5_9_1’ to ‘5_9_3’), Jelgavas street and Torņakalns multimodal transport hub, connection with Zaķusala (future Zaķusala park), Riga International Bus Station and public transport
terminus at Abrenes street and connection with Old Riga, Central Market and Krasta street promenade.

- Convenient traffic in urban environment must be provided both, in terms of interchanging different types of transportation and different levels as well as considering the functions of buildings and infrastructure, for instance, moving of luggage.
- Planning of bike pathes must be developed according to the Development concept of Cycling in the city of Riga 2015-2030. In accordance with Appendices ‘5_4_1’ to ‘5_4_5’ and ‘5_9_1’ to ‘5_9_3’

<table>
<thead>
<tr>
<th>Requirements for organization of construction works</th>
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<tbody>
<tr>
<td>Building construction process must be performed so that it has the least possible impact on the current movement of trains, including pass-through extent of freight and passenger trains, taking into consideration a possible increase of train movement flow as detailed in Appendix ‘5_3_4_planned_amount_of_passenger_and_freight_train_movement’, and the least possible impact on the surrounding areas, including street operation during construction works.</td>
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<tr>
<td>Uninterrupted continuity of communications required for the station operations must be ensured.</td>
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<tr>
<td>An individual construction order and sequence must be provided for works related to buildings, which are not directly included into the Rail Baltica Sketch Design territory and which will be rebuilt or demolished in order to free up space for Rail Baltica buildings and constructions so that they have the least possible impact traffic on 1520 mm gauge tracks.</td>
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<td>The building construction works are set to be completed no later than 2022.</td>
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<tr>
<th>Requirements for respecting property rights</th>
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<tr>
<td>Considering that alienation of lands and properties (and setting agreements on that) in the Sketch Design territory is not yet fully resolved, solutions affecting the respective properties must provide an optimum way of their demolition or partial demolition. The alienation/agreement process within the Sketch Design territory will be performed in parallel to design process of the transport hub following the Sketch Design competition. Property rights are detailed in Appendices ‘4_2_1_property_scheme’ and ‘4_2_2_list_or_ownership’.</td>
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<tr>
<th>Requirements for development of architectural and urban planning solutions</th>
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<tbody>
<tr>
<td>The Sketch Design territory must be planned emphasizing traffic hub and the quality of open public space functions. Solutions must be directed towards increase of passenger comfort. Commercialization of public objects is only permitted as far as it is needed for supporting the realization of main functions.</td>
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</table>
Functionality of different surrounding buildings and infrastructure must be considered by proposing sustainable solutions within the study area and vision of development of surrounding territories.

Attention must be given to well-being, comfort and convenience of the users of buildings and infrastructure – high quality indoor and outdoor air, availability of drinking water, acoustic standards, and availability of day light. Efficient water consumption solutions must be proposed which decrease water consumption in buildings and infrastructure. Solutions involving use of rainwater must be considered. Materials dismantled during reconstruction process must be reused. Waste sorting infrastructure must be provided in buildings and territory. Efficient lighting solutions must be ensured and night light pollution must be avoided. Possibilities to use renewable energy resources must be considered. Energy efficient solutions must be proposed for all technologies, as far as possible.

Within the railway zone along buildings and 13. janvāra street a green belt should be developed, which is connected with the park system of the Boulevard. In the square of the Central Railway Station between Gogoļa and Turgeņeva streets at the Southern side of the embankment landscape solutions should be functional and plants should serve as protective or ecological “barriers”.

Structure of existing greener shall be taken into account and integrated into the design. Valuable growing trees shall be respected.

Networks for maintaining and supplying engineering systems must be developed considering the attached schemes of these systems and during the construction process a possibility to modernize and reconstruct the existing networks in line with requirements of administrators of the respective engineering systems and technical rules must be considered pursuant to Appendices ‘5.1.10_schemes_of_existing_engineering_networks’ and ‘2.2.8_RVC_main_engineering_networks_and_objects_of_RHC_and_its_protection_zone’.

Architectural solution of contact line pillars or suspensions must be created jointly for both railway tracks of different gauges and in line with the joint architectural solution of the territory.

Development of solutions must be performed in compliance with legal acts of the Republic of Latvia and international legal acts, which include but are not limited to:

- Provisions of Article 9 of Construction Law related to requirements applicable to major buildings and requirements of legally valid regulations
of the Republic of Latvia on construction

- Railway Law, particularly Article 43
- Regulations of Cabinet of Ministers No.16 of 7 January 2014 “Order of evaluation and management of noise”
- Regulations of Cabinet of Ministers No. 724 of 3 August 2010 “Railway technical exploitation regulations” (with respect to 1520 mm gauge railway)
- Commission Regulation (EC) No. 1299/2014 (18 November 2014) on the technical specifications for interoperability relating to the ‘infrastructure’ subsystem of the rail system in the European Union (with respect to 1435 mm gauge railway)
- Commission Regulation (EU) No 1300/2014 of 18 November 2014 on the technical specifications for interoperability relating to accessibility of the Union's rail system for persons with disabilities and persons with reduced mobility (with respect to 1520 mm gauge railway)
- Commission Regulation (EC) No. 1301/2014 (18 November 2014) on the technical specifications for interoperability relating to the ‘energy’ subsystem of the rail system in the Union (with respect to 1435 mm gauge railway)
- Regulations of Cabinet of Ministers No. 496 of 1 June 2010 „Procedures for the Identification of Critical Infrastructures, Including European Critical Infrastructures and Planning and Implementation of Security Measures”
- UNESCO 1972 Convention Concerning the Protection of the World Cultural and Natural Heritage
- Convention for the Protection of the Architectural Heritage of Europe of 3 October 1985
- Convention for the Protection of the Archaeological Heritage of Europe of 16 January 1992
- European Landscape Convention of 20 October 2000
- Council of Europe Convention on the Value of Cultural Heritage for Society of 27 October 2005
- Law on the Historic Centre of Riga
- Law on Protection of Cultural Monuments
- Regulations of the Cabinet of Ministers No. 127 of 8 March 2004 “Regulations regarding the Preservation and Protection of the Historic Centre of Riga”
- Regulations of the Cabinet of Ministers No.474 of 26 August 2003 “Regulations regarding the Registration, Protection, Utilisation and Restoration of Cultural Monuments and the Granting of the Status of an Environment-Degrading Object”
- Binding Regulations of Riga City Council No. 38 of 7 February 2006 “Regulations on the Use and Construction of Riga Historic Centre and its Buffer Zone”
- Decision of Riga City Council No. 3782 of 17 May 2016 „On commencement of drafting of local plan of territory of public use railway line Rail Baltica amending Riga City Territorial plan for 2006-2018 and Territory Plan of Riga Historic Centre and Its Buffer Zone”
9.2. Requirements for the bridge

Requirements for the structural solution

- Solution of the bridge must provide two 1435 mm gauge railway tracks for train traffic, pedestrian road and two-way bike paths separated from the pedestrian flow.
- The new 1435 mm railway tracks must be designed at the same height as the existing 1520 mm railway tracks.
- The new railway bridge has to be built upstream from the existing railway bridge on individual pillars located in line with the pillars of the existing bridge. In the design of the new bridge closeness of both bridges should be taken into consideration and solutions that ensure normal ice flow should be offered. Informative attachments - ‘5_2_1_cross_section_scheme_of_new_railway_bridge_over_Daugava’ and ‘5_2_2_side_view_scheme_of_new_railway_bridge_over_Daugava’.
- After construction of new 1435 mm gauge railway tracks the functionality, number, location, width, spatial pattern and constructive solution of the existing 1520 mm gauge railway tracks may not be changed.
- Water traffic free height under the new bridge shall not be less than the current free height under the existing 1520 mm bridge.
- Motor transport free height under the new bridge must be at least the same as under the existing street overpasses (Jelgavas street, Mūkusalas street, Krasta street, and Maskavas street).

Requirements for the design of pedestrian roads and bike paths

- Pedestrian roads and bike path exits to Mūkusalas street (see Appendix ‘5_9_1’ to ‘5_9_3’); Jelgavas street and Tornkalns multimodal transport hub must be provided. They must be connected to the other pedestrian roads and bike paths infrastructure of the city and Riga central multi-modal public
Connections of pedestrian roads and bike paths of the new bridge with the perspective Zaķusala part territory must be provided.

The new pedestrian road and bike path must be integrated into the construction of the new bridge in parallel with the existing bridge and must be separated from railway with at least double security system complex.

The new bridge must be built at the upstream side of the existing bridge; it may not visually suppress the existing railway bridge and may not fully copy the constructive and spatial solution of the existing railway bridge.
9.3. Requirements for the part from the bridge until Dzirnavu Street overpass

Objects within this part, which must be considered – railway embankment from the railway bridge until Prāgas street (1), Riga International Bus Station (2), Prāgas street overpass (3), railway embankment from Prāgas street until Gogoļa street (4), shopping center”Titāniks”(5), Gogoļa street cross-over and railway embankment from the Gogoļa street cross-over until the Central Railway Station (6), Central Railway Station platforms (7), the Central Railway Station (8), Origo buildings (9), Station square (10), square in between of Gogoļa and Turgeņeva streets at the Southern side of the embankment (11), railway embankment from the Central Railway Station until Dzirnavu street (12), connection of Elizabetes and Timoteja streets (13), Klavu street (14), Dzirnavu street overpass (15).

Requirements for inclusion of solutions identified at the previous preliminary studies

- 1520 mm gauge railway tracks and the new 1435 mm railway tracks must be designed in accordance with Appendices ‘5_1_17_cross_sections_of_embankment’, ‘5_3_1_location_of_railway_tracks_part_1’ and ‘5_3_2_location_of_railway_tracks_part_2’.

Requirements for the structural solution

- Within the parts of the Sketch Design, where possible and functionally justifiable, levelling of the existing railway embankment must be planned in order to rebuild the connection between different parts of the city and to create an open public space.
Visual requirements

- Public premises with access from open public space must be planned along the public pedestrian roads and bike paths at the respective level of building.

- Service and supply zones should be isolated from public area. In case the requirement above cannot be fulfilled due to objective reasons, service and supply zones should be screened with landscape forms, greenery or environmental design elements.

Requirements for the design of pedestrian roads and bike paths

- Connections of pedestrian roads and bike paths between the Railway Station and bridge as well as connections to city’s transport infrastructure must be provided.
9.3.1. Part from the bridge until Prāga street overpass

Objects within this part, which must be considered – railway embankment from the railway bridge until Prāgas street (1), Riga International Bus Station (2), and Prāgas street overpass (3).

Requirements for inclusion of solutions identified at the previous preliminary studies

- 1520 mm gauge railway tracks and the new 1435 mm railway tracks must be designed in accordance with Appendices ‘5_1_17_cross_sections_of_embankment’, ‘5_3_1_location_of_railway_tracks_part_1’ and ‘5_3_2_location_of_railway_tracks_part_2’.
- Levelling of the existing embankment must be provided for placement of 1435 mm railway tracks. Overpass on which the existing 1520 mm railway tracks and the new 1435 mm railway tracks will be located, must be planned instead of the embankment pursuant to Appendix ‘5_1_17_cross_section_of_embankment’.
- Minimum free height under the railway overpasses – 4.5 m.

Functional requirements

- Maximum free height must be provided under the railway overpass in order to use this space for transport and public space infrastructure in the future and for operations of Riga International Bus Station.
- Building construction volume of Riga International Bus Station must be partially or fully placed under the overpass with exits to 13. janvāra street and ensuring functionality of the bus station. When planning building
volumes under the overpass, visual and functional corridors to the adjacent streets in the Old Town over the 13. janvāra street should be anticipated.

- New visual and functional solution for entrance and bus arrival points of Riga International Bus Station must be developed avoiding crossing of pedestrian and transport flows.
- A possibility to ensure kiss&ride function, taxi stops and accessibility to the bus station from 13. janvāra street side must be considered.

**Requirements for the design of pedestrian roads and bike paths**

- Convenient, safe pedestrian crossings compliant with accessibility requirements must be provided under the railway overpass by improving the connection between city parts.
- A perspective possibility of construction of multifunctional premises for improving passenger services and functionality of the open public space must be provided under the railway tracks in areas where such solutions do not create a barrier between city parts.

**Visual requirements**

- Constructions should be developed in an elegant and light manner, in order to provide aesthetical impression. To decrease the separation barrier effect of the Riga International Bus Station and canal banks and surrounding by releasing its territory to open public space.
9.3.2. Requirements for the part from Prāga street overpass until the Central Railway Station

Objects within this part, which must be considered – railway embankment from Prāgas street overpass until Gogoļa street (4), shopping centre ”Titāniks” (5), Gogoļa street cross-over and railway embankment from the Gogoļa street cross-over until the Central Railway Station (6).

Requirements for the structural solutions

- 1520 mm railway tracks and the new 1435 mm railway tracks must be designed pursuant to Appendix ‘5_1_17_cross_sections_of_embankment’, ‘5_3_1_location_of_railway_tracks_part_1’ and ‘5_3_2_location_of_railway_tracks_part_2’.

- A possibility of full or partial replacement of railway embankment with two-way railway overpass must be considered, maintaining the existing height of railway tracks and ensuring the planning solutions of station’s railway tracks and their connections.

- Demolishing or rebuilding shopping centre “Titāniks” must be developed if necessary for the construction of the new railway tracks, pedestrian roads and bike paths. The design of the new overpass must be created in the manner of providing elegant, light and aesthetical impression, not an impression of massivity.

Functional requirements

- Convenient, safe pedestrian crossings compliant with accessibility requirements must be provided between the Central Railway Station and the Riga International Bus Station.

- Reconstruction of Gogoļa street overpass must be provided considering that the overpass is a local
significance architectural monument „Railway viaduct” (state protection No. 7806) included in the list of protected architectural monuments.

- At least the existing navigations dimensions for water transport must be maintained in the city canal.
9.3.3. Requirements for the part from the Central Railway Station until Dzirnavu street overpass

Objects within this part, which must be considered – platform zone of Central Railway Station (7), building of Central Railway Station (8), Origo buildings (9), Station square (10), square in between of Gogoļa and Turgeņeva streets at the Southern side of the embankment (11), railway embankment from the Central Railway Station until Dzirnavu street (12), connection of Elizabetes and Timoteja streets (13), Kļavu street (14), Dzirnavu street overpass (15).
Requirements for inclusion of solutions identified during the previous preliminary studies

- 1520 mm railway tracks and the new 1435 mm railway tracks must be designed pursuant to Appendices ‘5_1_17_cross_sections_of_embankment’, and ‘5_3_1_location_of_railway_tracks_part_1’. Structural solutions must be designed without affecting the quality of railway track and platform solutions pursuant to Appendices ‘5_3_1’ to ‘5_3_3’.
- Minimum free height under railway track overpass - 4,5 m.
- Connection and crossing of Elizabetes and Timoteja streets must be designed.
- Kļavu street must be extended within the zone of embankment and adjusted to the public transport flows.
- Access to the Central Railway Station and its platforms must be provided from all indirect connection points of platforms and surrounding streets.

Functional requirements

- The main building has a function of unified, multi-modal and multi-functional transport hub, which ensures efficient cooperation and connectivity of two railway systems, public transport and individual mobility solutions.
- In addition to other functions, the Central Railway Station serves as a city identification object.
- In the section from Central Railway Station until the new connection of Elizabetes-Timoteja streets, a bus passenger interchange point must be provided with the necessary passenger service infrastructure and possibility of placement of service rooms (see Appendix ‘5_1_19_traffic_study’).
- Solutions related to the new connection of Elizabetes-Timoteja streets must consider the use of these territories for the development of city’s public infrastructure, for instance, bigger capacity parking (up to 1000 parking lots), which would constitute a part of city’s common parking system, or for functions of an inter-modal transport hub. Multi-functional passenger service premises may be located under the overpass, but the priority must be given to creation of a high quality open public space.
- Layout of the building must ensure convenient and easy access to different types of transport vehicles as well as related functions – waiting rooms, ticket offices, office premises, technical premises etc.
- Efficient pedestrian flow between the Station square and the square between Gogoļa and Turgeņeva streets at the Southern part of railway embankment must be provided.
- Ticket sale and information points, ticket machines in the Central Railway Station must be provided pursuant to the estimated passenger numbers detailed in Appendix ‘5_1_9_analysis_visitor_flows’, providing for appropriate number of work places in accessible distance from all
platform exit points.

- The existing commercial premises with a minimum area of 6 500 m² must be provided. Functional connections with the existing building of “Origo” shopping centre and rebuilt Station building must be provided.
- Area of technical premises for needs of VAS ”Latvijas Dzelzceļš” (Latvian Railways) may not be less that in the existing building (800 m²).
- A proposal for spatial zoning and floor plans stating perspective functional use and area (m²) of each function must be provided.
- Solutions for adjusting the building of the Riga Central Railway Station and its surroundings to the needs of multi-modal public transport hub must be provided.
- Easy and convenient movement of visitors (pedestrians and cyclists) from surrounding territories to the transport hub must be provided.
- Short term parking lots and kiss&ride access must be provided
- Functional zones of square must be made pursuant to passenger flows and development of the Central Railway Station and its surrounding territory.
- Kiss&ride functions must be provided at the Station square and in the square between Gogoļa and Turgeņeva streets.
- Station square shall be preserved as a front court for public building, preserving its basic communicative functions, including pedestrian transit function.
- Accomplishments of landscape infrastructure improvements solutions must be in line with functional requirements and must ensure adjustment possibilities of the open public space to different kinds of public events.
- Maximum free height must be ensured under the railway track overpass so that it may later be used for the development of traffic and public space infrastructure.
- Rebuilding or demolishing of Dzirnavu street overpass must be considered in connection with the development of the new railway overpass.

Requirements for the structural design

- If it is planned to perform construction on the Station square above the existing undergrounding car parking, then the current number of underground parking places may not be decreased and the limited bearing capacity of underground parking’s structures must be considered (also during building construction process).
Requirements for organization of visitor flows

- Visitors’ flows must be organized considering the perspective future passenger flows detailed in Appendix ‘5_1_9_analysis_visitor_flows’, paying particular attention to the peak hour solutions.
- Visitors’ flows must be organized considering the perspective development of the surrounding territories and creation of new pedestrian crossings, ensuring accessibility for visitors with special needs and convenient movement of visitors/passengers with luggage.
- Organization of visitors’ flows must be simple and understandable, signs and easily recognizable directions to the respective passengers’ destinations must be ensured avoiding crossing of flows as much as possible.
- Separated ways of passengers and stations’ visitors must be provided with easy and logical access to commercial areas. Pedestrian flow at ground level must be provided, as much possible avoiding movement of this flow underground or higher than the second level.

Visual requirements

- Passenger service zones (including ticket offices, waiting rooms, luggage rooms etc.) must be designed considering the estimated increase of passenger flow as detailed in Appendix ‘5_1_9_analysis_visitor_flows’, including a possibility of two or three level design of the Central Railway Station.
- Architectural solutions of platforms and platform coverage must be provided. Creation of unitary covering over the railway platforms is advisable. Such solution is peculiar to both historical and modern central railway stations in capital cities of Europe.
- It must be considered that the buildings at Stacijas laukums 2 (Station square 2) have cultural heritage value of a little significance, but some separate elements have high cultural heritage value: sign “Riga” (with neon lighting) against platforms, original doors, terrazzo floors, passenger hall stairways and gallery.
- Station Clock must be maintained as a landmark.
- Station square and the planned Central Railway Station square between Gogoļa and Turgeņeva streets at the Southern end of railway embankment must be a recognizable and modern quality design object. It must be specifically considered how to integrate the square into the city’s structure in order to promote transit flow of visitors there.
- Square must be designed as the Central Railway Station’s entrance square; total area of greenery may constitute less than 70% of square’s total area.
- Unified architectural solutions must be provided for the whole station’s ensemble, including platforms and their coverage.
Requirements for the sustainability of buildings

- At least BREEAM New Construction” Very Good” or equivalent building certification and level.
- Minimum energy efficiency class” A”.
9.4. Requirements for the study area

Requirements for inclusion of solutions identified during the previous preliminary studies

- Article 5 of the RHC Protection Law provides that within the RHC and its protection zone any activity, which may cause destruction or damaging of protected cultural heritage values situated therein is prohibited.
- One of the protected authentic cultural heritage values stated in the RHC Protection Law is historic waterways and waterbeds, including the City Canal. Solutions of aquatorium and neighbouring embankments must be in line with Article 579.4 of Binding Regulations of Riga City Council No. 38 of 07.02.2006, decrease of aquatorium of City Canal is prohibited.

Functional requirements

- Functional connections between buildings and infrastructure and the Central Railway Station in the whole study area must be provided.
- New pedestrian crossing must be designed on ground level of Kungu street route, marked and supplied with a crossing sign or a traffic light with pedestrian friendly operation regime.
- Pedestrian crossings at other crossing points of 13. janvāra, Marijas and Satekles streets must be designed on ground level considering a future or gradual decrease of traffic flows on these streets, pedestrian crossings must be designed based on wide lane or vacated area principle.
- Street crossings on the ground level must be designed; however, use of the existing underground tunnels for street crossing may be maintained if clear justification exists. They must be designed in highly functional, architectural and aesthetical manner, it must be ensured that underground
tunnels may be used by people with disabilities, baby carriages and cyclists using escalators or lifts, steps must be heated or entrance-exit points must be covered because ice and snow covered steps are dangerous and do not encourage the use of tunnels.

- Embankment of the City Canal must be extended and released to improve the open public space for pedestrians with green belt – as a prolongations of canal greenery on both sides of City Canal. The area of City Canal must be designated for recreation on water and tourism, whilst maintaining the authentic configuration of canal’s aquatorium.
- A possibility of building a new pedestrian bridge over Kārlis bassin must be considered.
- Demolishing of low value short term buildings situated between the Central Market Meat Pavillion and Gogoļa street must be considered; replacing it with front yard of Central market complex line with the design of the square between Gogoļa and Turgeņeva streets on the Southern side of railway embankment.
- The planned rebuilding of commercial area in the whole canal side section along the Central Market, including development of a high quality open public space, must be considered.
- The development of the left side of canal against the Central Market pavilions must be planned maintaining the typical design of canal side territories with a slope, the whole section until Krasta street must have a unified conception.

- Solutions of surrounding traffic hubs, intersections and streets must be in line with appendix '2_2_9_development_plan_of_traffic_infrastructure_of_RHC_and_its_protection_zone'.
- Street reconstruction solutions must provide one-way street pairs on Dzirnavu and Elizabetes – Timoteja streets and a possibility to widen tram traffic network, namely, building of tram infrastructure on 13. janvāra, Elizabetes and Dzirnavu streets in order to ensure connection with Maskavas street. (see Appendix '5_1_19_traffic_study').
- The most important and critical improvements, which must be made to Riga city street network and which must be prioritised in connection with development of Riga central multi-modal public transport hub, are:
  - Elizabetes – Timoteja street extension, building of connection under the railway line;
  - Reconstruction and extension of Kļavu street;
  - Modernization of the section of Gogoļa and Prāgas streets next to the railway line;
  - Dzirnavu street, Satekles street, 13. janvāra street,
Maskavas street and Krasta street modernization in order to improve traffic and pedestrian flows, improving the traffic lanes, improving the turning lanes, improving the traffic signalization, modernization, resetting of operational times, improvements of pedestrian ways and intersections, improvements of locations of public transportation stops and greenery.

- Connections of pedestrian roads and bike paths of the new bridge with the public outer space of city centre must be provided.
10. Materials to be submitted for the Sketch Design

10.1. General requirements

<table>
<thead>
<tr>
<th>Border of the competition site</th>
<th>Borders of the Sketch Design competition site are determined pursuant to the Appendix “3_1_1_topography_with_borders_of_competition_project_and_study_area” with the scheme of the territory.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Division of the Sketch Design scope</td>
<td>▪ Design proposal should be elaborated in such a way that it ensures the possibility to split logically the development of the territory and building construction volumes in stages thus ensuring an implementation of proposal partially or in a number of stages without losing its functionality.</td>
</tr>
</tbody>
</table>
| Bound document | ▪ Sketch Design (explanatory notes and scaled-down colour reproductions of the panels) must be submitted in paper form, in English language, in A3-size (297 x 420), in 3 (three) copies (one original and two copies, which are respectively marked as original and copies).  
▪ Additional graphical schemes or technical drawings may accompany the texts of the explanatory note.  
▪ Explanatory note must be made in computer print, pages must be numbered and the motto must be stated on the right upper corner of each page. |
| Panels | ▪ Sketch Design should be in English in any graphical or colouristic scheme. A1-size panels (594 mm x 841 mm) must be fixed to stiff backing boards and horizontally oriented. In the upper right corner of each panel – a motto must be indicated. It is recommended to leave space under the motto for the panel placement scheme. All texts must be in computer print. Height of the motto’s symbols must be 22 mm. It is not advised to use backing boards of thickness exceeding 5 mm.  
▪ The presentation of panels should demonstrate the proposed urban planning ideas for the Sketch Design Competition with respect to the aim and subject of the competition, and show the project on the whole (competition project site and competition study area) focusing on its urban planning, architectural and functional values and revealing in more detail the new bridge, overpass, station’s building construction volume and transport infrastructure in the existing urban environment. |
| Details of graphical material | ▪ Graphical material must contain the following information:  
▪ Transport organization scheme in the competition project site and study site in scale 1:5000;  
▪ a master plan of the competition study area in scale 1:3000;  
▪ a master plan of the Sketch Design with a concept of |
improvement and landscaping of the territory in scale 1:1000 for the following parts:

- The new railway bridge over the River of Daugava, including pedestrian roads two-way bike pathes,
- The overpass from Krasta street until Gogoļa street in scale 1:1000,
- Multi-modal public transport hub and the Station Square in scale 1:1000;

- Connections schemes of pedestrian roads and bike pathes to the new railway bridge in Pārdaugava, Zaļusala, Old Riga side and street intersections in scale 1:500;

- Typical floor plan schemes for the multi-modal public transport hub in scale 1:500, including parking lots with the names of rooms and their area, construction axes and dimensions between them,

- Characteristic sections of the new bridge, overpass and multimodal public transport hub in scale 1:500, with height marks, construction axes and dimensions between them,

- Cross-section of the new bridge detail in scale 1:200 with a legend of main construction elements;

- Cross-section of the station platform’s detail in scale 1:200 with a legend of main construction elements;

- Facades of competition objects (or typical details) in scale 1:500, with height marks, construction axes and dimensions between them;

- Typical detail/s of facade in scale 1:100 with a legend showing materials used for façade finish/filling, notes on special details if such are used;

- Necessary axonometric views and visualizations and/or photomontages of competition objects which characterise the synthesis of the suggested idea within the context of the existing urban environment, taking into account the main perspectives and vantage points, see Appendix ‘6_1_1_marked_view_points_of_photo_fixation_in_the_competition_territory’;

- Prevailing winds analysis of the new multimodal public transport hub, overpass and railway bridge.

Digital material

- Additionally, a CD-R, DVD or USB must be compatible with the Mac or PC systems and include:
  - Each panel in A1-size with 300 dpi resolution;
  - Scaled-down all A1-size panels in a PDF file with 300 dpi resolution in A3-size;
  - Images of all A1-size panels in a PDF file with 72 dpi resolution (1024 pixels);
• A bound document and all graphic materials required to show the project idea in a PDF file with 300 dpi resolution in A3-size.

• For publication in mass media not more than 5 graphic images (selected by the author), which describe the Sketch Design, must be submitted in JPG format (600 x 900 pixels).

• In order to use the proposed solution in the Sketch Design competition in the next stages of planning process and to integrate it into the local plan, three-dimensional (3D) spatial model must be developed and submitted, which could be used in the future in BIM (Building Information Management) concept. Output data is available in Appendix ‘7_1’.

• Each document must be marked with the Sketch Design motto. Two copies of the CD-ROM, DVD or USB must be submitted.

Motto transcript

• Entrants shall submit sealed A4-size envelope (210 mm x 297 mm) containing documents disclosing the identity/-ies of the Entrant(s).

• A motto shall be written on the sealed envelope.

• The envelope must contain documents in accordance with the requirements of paragraph 2.3.1.2. of the Competition Brief.

• The sealed envelope should contain no other documents than those listed above.

10.2. Requirements related explanatory notes of Sketch Design

Description and justification of the proposed concept

• The Sketch Design explanatory note must contain the following:

  • A description of an urban planning concept of the proposal, particularly emphasizing the design of the new bridge, analysis of the overpass construction and station’s building construction volume from the main perspectives;

  • A description and justification of the proposed conceptual, functional and architectural idea indicating the benefits to the city of Riga that the development of this part of the city would bring;

  • An analysis of the existing situation, site, existing buildings, which should be maintained, and proposed new building construction volume functional, compositional, constructive solutions and analysis of other problems related to the situation and proposed solutions, including floor plans reflecting at least the following functions – railway station platforms, public bus stop, public space, commercial space, parking;

  • A description of the operation principles of the main objects (basic terms of the building operation).

  • A description of the main compositional and structural ideas.

  • A description of sustainability solutions, considering life cycle cost estimates.

  • A description of the used structural, technical solutions and finishing/filling materials.
A description of the environment accessibility solutions.

Balance of the competition site

- An explanatory note should include the territory balance of the competition site for all plots of land jointly and separately for each allocated unit of land:
  - Construction area (m²),
  - Vacant area (m² and %),
  - Construction intensity (%),
  - Construction density (%),
  - The total (gross) area of each floor (m²) (measured along the external perimeter of the building),
  - Total height of the building construction volume (m),
  - Cubic capacity of the buildings (m³),
  - Number of car and bike parking spaces (number).

Visual impact analysis

- Visualizations taking into account vantage points, see Appendix ‘6_1_1_marked_view_points_of_photo_fixation_in_the_competition_territory’ shall be submitted.

Description of the building construction organization

- A description of the building construction works must contain the following:
  - Division of the construction works among the parts set within the boundaries of the Sketch Design site.
  - Division of the construction works into stages.
  - Main types of works, their scheduled deadlines and calendar plan.
  - Main risks, which must be considered during the project implementation and scenarios of their prevention.
  - Other necessary information, according to the participant’s view on the foreseen performance of building construction works, which allows better understanding of author’s idea delivered in the Sketch Design.

Construction costs

- Construction cost estimates must be made for building construction works within the Sketch Design site in line with maximum costs of construction detailed in the Competition Brief and pursuant to cost items detailed in Appendix ’5_8_1_construction_costs’.

11. The deadline for the submission of the Sketch Design proposals

- The deadline for submitting proposals – 4 calendar months.
12. Previous researches

1. Research **Integration of Rail Baltica railway line within the Riga central multimodal public transportation hub - elaboration of the technical solution** executed by „AECOM Rail Baltica Latvia Central Station Joint Venture” No.SM 2015/01 TEN-T.

2. Research **Detailed technical study and environmental impact assessment of the Latvian section of the European gauge railway line Rail Baltica** executed by general partnership “RB Latvija” No. SAM 2012/12 TEN-T.