

## **P02. BUILDING PROGRAMME**

**Unless stated otherwise, the requirements below are to be understood as recommendations and non-compliance shall not constitute a reason for excluding the competition entry from the evaluation and eliminating the participant from the Competition. The quality and comprehensive character of incorporating these requirements into the competition entry will be subject to scrutiny by the jury.**

**Only requirements for the design project part of the competition entry are listed. The conceptual part of the competition entry is left up to the participants' own invention.**

### URBAN PLANNING

- **Terminal location:**

The Terminal building can be placed next to the rail track or above it. The suggested solution must primarily meet the requirements regarding the functional and operational relation and the construction costs must be economically reasonable.

- **Retaining walls:**

Retaining walls can be added locally to the sloping cut for the track as needed to reduce the span. The construction of the wall must not collide with the clearance and the safety gap.

### HSR TERMINAL – PUBLIC SPACE

- **Departure hall:**

Publicly accessible 24/7. No specific check-in areas are planned within the Terminal in the sense of checking the passengers before boarding, yet the competition design should allow for this option. It is particularly recommended to separate the entrance to the platforms, and possibly also the separate waiting room, by a system of turnstiles with camera surveillance.

- **Waiting Room:**

A waiting room or other area suitable for waiting. This can be a separate room or space in the hall. Visual contact with the platform is recommended. Minor individual waiting rooms may be placed on the platform itself.

- **Toilets:**

Gents, ladies, cabins and baby changing stations with sufficient capacity.

- **Access to platforms:**

The competition entry is expected to incorporate footbridges, stairways, lifts, ramps, escalators or travelators which must observe the clearances and safety gaps specified in Annex **P04\_Profiles and cross sections**.

Furthermore, the following capacity is recommended:

During normal operation, the passengers should leave the platform in a time not significantly exceeding 30 seconds (excluding the crossing of the platform itself). Under normal conditions, each platform needs to be equipped with an access staircase wide enough to allow the passage of 240 people per minute, or a combination of escalators, lifts and ramps ensuring an adequate capacity.

In an emergency, the points of access to the platforms must ensure sufficient capacity for

the passengers to leave safely. A free space of 1,830 m<sup>2</sup> at minimum is required on the platform. This area does not include the 0.9 m strip along the boarding edge. The points of access should allow 2,050 people to leave the platform within 3 minutes.

Expected capacity of the staircase in both directions: 40 persons/min/1 m of width

Expected capacity of the escalator: Down: 60 persons/min/1 m of width  
Up: 50 persons/min/1 m of width

Expected capacity of the corridors and ramps: 40 persons/min/1 m of width

- **Barrier-free access requirements:**

We recommend observing TSIs according to Appendix 2.2.1 to Commission Regulation (EU) No 1300/2014 <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A32014R1300>

- **Platforms:**

The dimensions and the location of the boarding edges are prescribed in Annex **P03\_Area concerned** and must be observed. The height of the platform is 550 mm above the top of the rail, which is at an absolute altitude of 240.000 m.

The construction of the platform and the composition of the foundation layers are not a part of the subject-matter of the Competition. The design should include the selection of materials for the platform surface (paving), including the signalling, guiding and safety strips.

Lighting and an information and orientation system are expected, in compliance with the applicable standards.

- **Roofing:**

Roofing the entire width of the platform (between the boarding edges) and the entire length of the platform is recommended.

It is possible to design a roof connected to the Terminal or a separate roof for each platform. At the same time, the height and location of the supports must observe the clearances and safety gaps specified in Annex **P04\_Profiles and cross sections**.

- **Safety perimeter:**

In order to protect soft targets, the safety perimeter in front of the main entrance for passengers in front of the Terminal should be separated by mechanical devices protecting the area against vehicles running over the evacuees.

- **Operational area:**

An operational perimeter around the buildings should be designed for interventions by the rescue service.

- **Furnishings:**

Conventional or atypical furnishings with reasonable costs of production and maintenance may be used (at minimum sets of benches with backrest, benches without backrest, waste bins, waste sorting bins, information panels).

**HSR TERMINAL – MISCELLANEOUS FACILITIES**

- **Points of Sale:**

1 common space of approx. 25 m<sup>2</sup> with counter sale and information accessible from or placed in the hall.

- **Commercial spaces:**

3 to 5 individual units of approx. 15-30 m<sup>2</sup> (approx. 100 m<sup>2</sup> in total), allowing for a variable layout (newsagent, bakery, etc.), with common facilities. Supplies are allowed through the hall or separately from the outside.

- **Miscellaneous:**

Approx. 3 to 5 ticket machines in the hall, 1-2 ATMs  
Information system panel  
Advertising panels

- **Railway staff facilities:**

Transport office of approx. 15 m<sup>2</sup> for emergencies and management (max. 2 employees), security room of approx. 15 m<sup>2</sup>, common room, changing rooms, toilets, kitchen – not to be occupied permanently).

- **Cleaning and storage:**

Cleaning machines, maintenance room, storage room for material and technical support.

**HSR TERMINAL – BUILDING SERVICES**

HVAC machine room:	Ventilation, cooling, heating rated depending on the volume of the building.
Electrical wiring, electronic alarm system, MaR:	Switchboards and connection points rated depending on the volume of the building.
Water, sewerage:	Pipes and connection points rated depending on the volume of the building.

**HSR TERMINAL – RAILWAY TECHNOLOGIES**

Substation:	20 m <sup>2</sup>
Technology room:	20 m <sup>2</sup>
Cable channel:	Run outside the platform, within the track area.

**LANDSCAPING**

- **Integration in the landscape:**

In the wider target area, an integration into and an interconnection of the current biocorridors and biocentres is expected, as indicated in the zoning plan listed in **Annex P08\_Zoning plan**.

- **Rainwater management:**

Design a system for using rainwater from the buildings and soakaways for paved areas, depending on the geological conditions. Green roof as an option.

**PARKING**

- **P+R parking:**

3,000 parking spaces, including long-term parking in the P+R system. Within the overall context of the competition entry, parking can be designed as both outdoor and indoor, underground and above ground.

- **K+R temporary park:**

5 spaces near the entrance, roofed, illuminated.

- **TAXI stands:**

5 spaces near the entrance, roofed, illuminated.

- **BUS stops:**

4 bus positions for public transport buses, 18 m long, roofed, illuminated  
4 parking spaces with simple sanitary facilities for drivers.

- **Servicing:**

2 reserved parking spaces for deliveries, security and maintenance.

- **Bicycles:**

Covered bicycle rack, 50 U-shaped positions, total capacity of 100 bicycles.

**ROAD BRIDGE OVER THE RAIL TRACK**

- **Width:**

The deck's minimum width must allow for a two-way road, 7.0 m wide, a walkway and a two-way cycling path (placement on the western side is recommended).

- **Structure:**

The bridge structure should respect the overall urban and architectural solution of the Terminal. At the same time, the height and location of the supports must observe the clearances and safety gaps specified in **Annex P04\_Profiles and cross sections**.

- **Utilities:**

The location is affected by a medium-pressure pipeline and a local telecommunications cable. These utilities must be transferred through the bridge structure.