



**NATIONAL STANDARD OF THE
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Design standards for urban passenger transport hubs

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1 General

1.0.1 This standard is formulated in order to meet the needs of the development of urban passenger transport in my country and make the design of urban passenger transport hubs in my country safe, reliable, convenient, efficient, economical, environmentally friendly, and technologically advanced.

1.0.2 This standard is applicable to the design of newly built, expanded and reconstructed urban passenger transport hubs.

1.0.3 The design of urban passenger transport hubs shall not only comply with this standard, but also comply with the current relevant national standards.

2.1.1 urban passenger transfer hub

In the urban passenger transport system, it is a place for collecting, distributing and converting passenger flow for lines of different modes of transportation or different directions and functions of the same mode of transportation.

2.1.2 Passenger collecting volume

The sum of the passenger flow arriving at the hub by various modes of transportation (including non-motorized transportation), excluding the transit passenger flow of the hub.

2.1.3 Passenger distributing volume

The sum of passenger flow leaving the hub by various modes of transportation (including non-motorized transportation), excluding transit passenger flow.

2.1.4 Passenger flow through passenger

Passenger flow directly passing through the hub without transfer.

2.1.5 daily passenger flow

The sum of all-day assembly and evacuation passenger flows of various transportation modes in the hub (including pick-up and drop-off passengers), excluding the transit passenger flow of the hub.

2.1.6 peak hour passenger flow peak hour passenger flow

The largest hourly passenger flow in the daily passenger flow.

2.1.7 circulation road

Connect the roads between the divisions in the hub and the road network outside the hub.

2.1.8 connection road

It is set along the periphery of the hub building and provides services such as temporary parking of vehicles.

2.1.9 Changqu Road parking aisle

The interior road of the parking lot (garage).

2.1.10 Access throat in the transitional section of the entrance and exit

The internal road of the hub refers specifically to the passage connecting with the surrounding municipal roads.

2.1.11 curbside

In the range of pedestrian entrances and exits of buildings, the roadway area for motor vehicles to park and passengers to get on and off.

2.1.12 Emergency response system (ERS)

The emergency response system within the hub that reports to the relevant management department and provides disposal orders according to the emergency plan when an emergency occurs in the hub.

2.1.13 integrated management information system (IMIS)

Collect the traffic flow, passenger flow and traffic operation status in the public area of the hub, and obtain the frequency, operation status, passenger flow and other information of various transportation modes through the traffic information sharing mechanism; comprehensively analyze, process and store the information; Publish information such as guidance, notification, and publicity; establish an integrated management system that communicates with transportation, security, emergency management departments, and related industry management departments.

2.1.14 traffic management system (TMS)

A management system for real-time guidance and control of road traffic flow in hub public areas and emergency response to emergencies.

2.1.15 passenger information system (PIS)

It is an information system that collects real-time passenger flow information in the public area of the hub and various modes of transportation; releases passenger flow induction information through information boards and query terminals, and enables orderly passage of passenger flow in the hub.

2.2 Symbols

A--the distance between the base opening of the main road entrance and the level intersection;

B--the distance between the base opening of the main road exit and the level intersection;

C--the distance between the base opening of the secondary trunk road entrance and the level intersection;

D--the distance between the base opening of the secondary trunk road exit and the level intersection;

D1--the distance between the front and rear parking spaces of the in-line bus stop without overtaking lane;

D2--the distance between the front and rear of two parking spaces in an in-line bus stop with an overtaking lane that can be driven in and out independently;

D3--the distance between the front and rear parking spaces of the in-line bus stop with overtaking lanes that cannot be driven in and out alone;

D4--the length of the parking space of the zigzag docking station;

L - the length of the bus (electric) car;

Ls--the length of the bay of the bus (electric) car bay stop;

P--Daily Passenger Flow of the Hub;

Pc--the resident population of urban area;

Q--the number of passengers transferring at peak hours in the transfer plaza or transfer hall;

Qh - the maximum number of people gathered in the transfer plaza or transfer hall;

Sh--the area used for traffic transfer in the transfer plaza or transfer hall;

Si - per capita usable area;

Th - the time to pass through the transfer plaza or transfer hall;

n - the number of berths at the station;

alpha--super peak coefficient.

3.1 Classification and Grading

3.1.1 Urban passenger transport hubs should be divided into urban comprehensive passenger transport hubs and urban public transport hubs. Urban comprehensive passenger transport hubs should include aviation hubs, railway hubs, highway passenger hubs, and passenger port hubs. Urban public transportation hubs should include urban rail transit hubs and bus (electric) hubs.

3.1.2 The urban passenger transportation hub shall be classified according to the daily passenger flow of the hub within the planning period, and the classification shall comply with the provisions in Table 3.1.2.

3.2 Passenger Flow Forecast and Analysis

3.2.1 The passenger flow forecast of the hub should include the total passenger flow forecast of the hub, the traffic mode share rate forecast and the passenger flow forecast of