Arak High speed Railway Station
Transport and Mobility Study

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**RAILWAY SYSTEM AND PROVISIONS**

**WIDE AREA ANALYSIS**

Iranian Railways

Ridership: 21 millions

System length: 12,998 kilometers

Stations numbers: 360

Freight: 31 million tons

Distance from Arak Station to Tehran: 260 km

Legend:

- **Route:** Malayer – Tehran - Mashad
- **Route:** Tehran – Ahvaz - Khorramshahr

Arak Station Train Schedule:

- 2 trains a day | train no. 182, 183
- 9 trains a day | train no. 118, 119, 130, 131, 132

**11 TRAINS A DAY | 7 TRAINS LINES**
**PROJECT LOCATION (TEHRAN-QOM-ARAK HIGH SPEED RAIL)**

**To Tehran**
**To Ahvaz**

**Wide Area Analysis**

Arak  
Province: Markazi Province  
Population: 526,182  
Area: 55,750 sqm  
Length of new line: 117 km
EXISTING STATION AND RAILWAYS
EXISTING ROAD NETWORK

- Railway
- Persian Gulf Hwy 56
- Primary roads
- Secondary roads
- Station’s path from Hwy

WIDE AREA ANALYSIS
The catchment area (isochronal) analysis maps the streets covered in 45 minutes by car from the train station, taking in consideration the current vehicular traffic within the area. Most of the city area is covered up to 25 minutes.
Phase 1: Suggested Design for Station

The City

South part of the city
Residential

The City

Square

Public Space
Technical Zone
Platform Access

Platform 1
Platform 2
Platform 3
Existing Depot

Pedestrian Bridge

Access to the south part

South part of the city
Residential
Phase 3: Future Development Expansion

South part of the city
Residential
PHASE 1

- Improving both private and public (buses) transport
- Reconfiguration of road access
- The proposed new road parallel to Chahar Sarbaz
- The parking area results well connected with the urban surroundings
- A bus terminal, taxi stop and a drop-off/pick-up area are proposed in the station forecourt to enhance intermodal connectivity between rail and other transport modes

ACCESS AND CIRCULATION SYSTEM

FUTURE DEVELOPMENT

- Reconfiguring both private and public (buses) transport
- Proposing a new connection from the southern access
- Reconfiguration of railway station access to the eastward and westward of road
- The proposed new road parallel to Chahar Sarbaz
- Linking between the highway connected station and urban surroundings
- Additional parking stop and drop-off/pick-up area proposed in the station forecourt to enhance intermodal connectivity between rail and other transport modes
GEOMETRICAL VERIFICATION

The suggested access system proposal is geometrically verified against potential critical maneuver to ensure a sufficient space for car and bus circulation. The analysis is carried out considering a travel speed between 10 km/h and 15 km/h, for private car 10km/h for buses, turning radius stands at 10m.
The parking area counts 154 angled parking places, served through a counterclockwise loop.
Thank you
for your kind attention