Principals and Design of railway stations

Author: Dr. Nasre Azadani M.

Preface

Man and freight is one of the most important challenges in human life. This challenge has been existed since man used beasts for freight transferring up to now that we use shuttles to go to other planets.

Rail transportation was a commence that never ended even with progresses in other transportation system, such as air and road transportation. Special properties of rail transportation have made a different face among other transportation networks. Ability to heavy and huge haul, appropriate safety for passengers, suitable interaction with environment, low price, and etc. all factors for keeping this network dynamic.

Nowaday train speed increasing in some Rail Track up to 300 Km/h in the world, has showed a face of this transportation industry that we can’t omit this industry among other transportation system.

Railway station as a planning center and traffic absorption one side and train preparing in other side, full fill a key role in rail transportation contrary to road transportation that expand national and regional development along the roads, rail transportation this development depend on station location and development pole is formed in station circumference.

Appropriate station location along the network and space predicting and services proportional to type and demand volume traffic in a line can play a big role in rail transportation level.

We present station design principals after a review to railway fundamentals in the next chapter we discuss about number and types of station in a line, location principal of station in rail transportation network, location criteria and station site selection.

After that we introduce types of spaces and passengers and product owners needed services in station.

Repair shops and control and trains preparation centers for better servicing proportional to station type.

Has discussed in the final chapters between this subjects we discussed about rail track system and rail track geometry.

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