

# Urban Railway with Integrated Urban Development

## - Railway Network Development -

**An urban railway network of 308km in length and with 157 stations develops a public transport oriented society.**



MRT (Mass Rapid Transit)  
Elevated Section of Yokohama  
Municipal Subway

Source: Transportation Bureau, City of Yokohama

Railway Network with Coverage of  
"15-min Accessible to Station"

Source: Road and Highway Bureau, City of Yokohama



- Station of Yokohama Municipal Subway Green Line
- Yokohama Municipal Subway Green Line
- Other Railway Station
- Other Railway Station
- Coverage of 15-min Accessible to Station

Kohoku New Town along with  
Yokohama Municipal Subway

Source: JICA Study Team

### Background and Objective

In the process of economic growth, cities have faced both local issues such as air pollution, traffic congestion and traffic accidents, and global issues such as global warming and depletion of resources. A car dependent society often suffers external diseconomy and slowdown of economic growth.

While logistics are managed by developing expressways and trunk road network, road capacity cannot meet demands of increasing person trips. To transport persons massively and effectively, a mass rapid transit network must be developed.

### Project Impacts

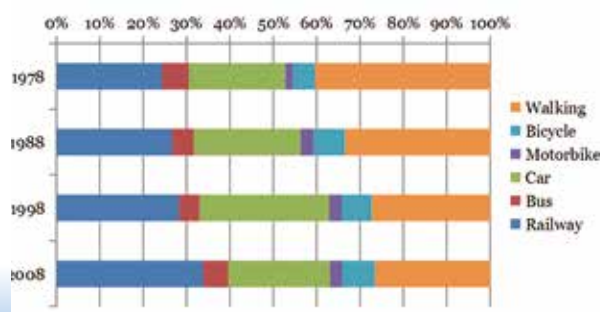
1) Promotion of urban development: Yokohama City developed a railway network consisting of the (i) Yokohama Municipal Subway

connecting the city center and the suburban areas to integrate urban development with public transport as well as reduce inconvenient transport areas, and (ii) other mass rapid transit railways such as the MM21 Line and Kanazawa Seaside Line to meet increasing demands of commercial and business districts of new waterfront areas.

2) Expansion of service coverage area of public transport: In 1997, Yokohama City indicated a quantitative target of "15 minutes access to stations" to promote public transport. At present, a

railway network 308km long and with 157 stations has been developed in cooperation with JR (former National Railway), private railways and municipal railways in Yokohama City. By developing new stations and railways, and by improving accessibility to stations, around 86% of the population was covered inside the catchment area of "15 minutes access to station" in 2005. Today, more than a third of citizens use railway, contributing to the realization of a public oriented society.

Modal Split in  
Yokohama City



Source: Results of Person Trip Survey, Tokyo Metropolitan Region Transportation Planning Commission

# Railway Network Development

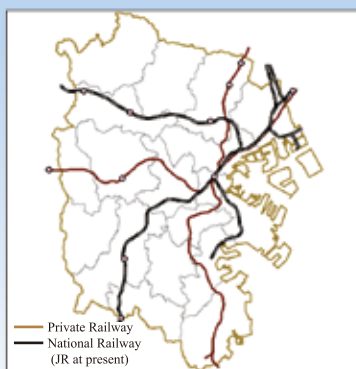
## Integrated Urban Development along with Urban Railway

During the period of population expansion from the 1950s, most railways were concentrated in Yokohama Station, but commuters just passed Yokohama and went to Tokyo. To enhance business and livable functions in Yokohama City, the City decided to develop a commuter line between suburban areas and urban centers (Kannai and Minato Mirai 21).

The Yokohama Municipal Subway connects the north-west suburban areas, the suburban center connecting to the high speed railway (Shinkansen), and the urban centers formulating a public transport network inside the City.

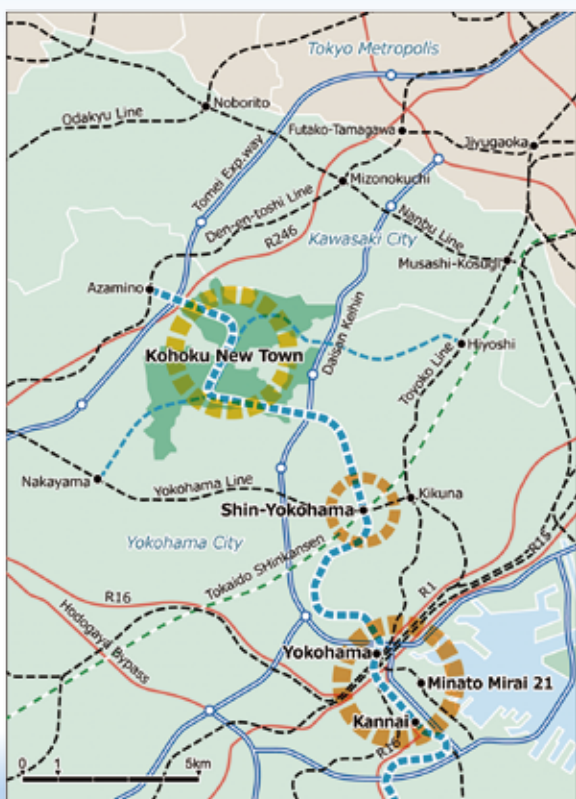
In particular, Kohoku New Town was developed and integrated with the subway to provide residents accessibility for commuting by connecting other railways as well as the center of Yokohama. Accessibility is one of the important criteria to increase value of real estate of the new

town, by inviting more residents and railway users and promoting private development investments.



Railway Network in 1965  
Source: Urban Development Bureau, City of Yokohama

Yokohama Municipal Subway Network in the North Area of the City



Source: JICA Study Team

## Development of Attractive Station to be a Symbol of the District

Minato Mirai 21 Line is a railway connecting the two urban centers of Yokohama Station and Minato Mirai 21 District. Yokohama Station is a terminal station to which JR, private lines and MM 21 Line connect. MM 21 Line goes underground through a commercial and business district along a port area, so passengers can access offices and commercial facilities easily and directly.

The stations themselves attract passengers and citizens not only to commute but also to enjoy shopping and rambling around the stations. In the case of Minato Mirai Station, passengers can directly access from the underground station the commercial building above the station.

Investment on extension of the railway network and development of attractive railway stations contributes not only to promoting railway utilization as a landmark, but also to reduce private vehicle movement and traffic congestion.

Railway Network Plan of Minato Mirai 21 Line



Source: JICA Study Team

Commercial Building with Underground Minato Mirai Station



Source: Nikken Sekkei LTD.