



The Toei Oedo Line is working to ensure safety by installing platform doors and reducing the gap between the platform and the carriages.

The Tokyo Subway: Making One of the Best Even Better

Becoming further barrier-free for the Tokyo 2020 Games and beyond.

by John R. Harris

To call the urban rail system in Tokyo “one of the wonders of the world” is no idle boast. The vast web of train lines stretches from central Tokyo into the neighboring prefectures. With electric trains handling the bulk of vehicular journeys in the region, the network carries passengers with world-leading standards of punctuality, safety, and cleanliness. Of the 13 subway lines in Tokyo, four of them make up the Toei Subway, which is operated by the Tokyo Metropolitan Government (TMG). Spurred on by the Olympic and Paralympic Games Tokyo 2020, the Toei Subway resolved to make its facilities as accessible as possible to all users.

In 2017, working closely with the TMG, the national government and various organizations supporting people with impairments, the Tokyo 2020 Organising Committee published the Tokyo 2020 Accessibility Guidelines. This document outlined the ways in which the Tokyo 2020 Games competition venues, hospitality facilities, and the transport network in the city would be constructed or upgraded to be user-friendly for people with a range of special needs. Their recommendations included spatial specifications for wheelchair users, enhanced support for those with special visual needs, and accessibility training for staff.

Accessibility on transport networks has always

been an issue for the elderly, for passengers with children, and particularly for those with special physical needs. With the release of the guidelines, the Toei Subway expedited its efforts to upgrade its four subway lines to provide an even more barrier-free environment.

Movement: Even with elevators and escalators facilitating an access route from ground level to the platforms at each station, the width of electronic fare gates was still an issue. All stations now feature one wide gate and a ticket machine positioned at a lower height. Another challenge was addressing the gap between the platform and the trains.

In order to enable people with special physical needs to board and alight trains independently, the Toei Shinjuku Line has raised the height of the platform edges, and where there were wide gaps between the carriages and the platform, rubber gap fillers have been installed. Similarly, on the Oedo Line and part of the Mita Line, slopes have been added to the platforms to reduce the height differential with the train carriages. Inside the cars at these designated entry points are dedicated wheelchair areas. In addition, stations are being fitted with universal toilets that everyone can easily use, including wheelchair users.

Sight: The initial solution in Japan was the laying of now-ubiquitous yellow warning blocks on platforms—a Japanese invention that provides tactile feedback to people with canes. Other modifications include platform screen doors that Toei Subway and other Japanese operators are aggressively installing to retrofit their stations, and auditory cues, such as verbal announcements and bird calls that signal the locations of key facilities. Plus, braille signage is now in extensive use.

Language: Currently, audio and screened text announcements may be delivered in Japanese, English, Chinese, and Korean. A free smartphone app for foreign

tourists and the hearing impaired named *Omotenashi Guide* can also be used at 22 sets of ticket gates in 12 stations on the Toei Subway to pick up announcements and display the text in Japanese, English, Chinese, Korean, Thai, French, or Spanish. It works on rail systems across Japan, as well as at select airports and tourist attractions.

Ticket machines at all stations on the Toei Subway already offer guidance to visitors in eight languages. To complement these, large-screen ticket vending machines have been introduced at 32 locations. These machines—as well as dispensing a range of single tickets and day passes—also offer a variety of search functions to help users pick the optimum route. The ultimate step, though, is boldly futuristic.

Arisa is an AI-enabled robot concierge now on duty at Shinjuku-nishiguchi Station on the Oedo Line, and Sota, another AI-enabled robot, is located at Shimbashi Station on the Asakusa Line. With human-like gestures, they are already able to carry out simple conversations—so far in Japanese, English, and Chinese. While they still have much to learn, Arisa and Sota are already “selfie-magnets.”

The fruits of Toei Subway and the TMG’s efforts to improve accessibility for all in the run-up to the Tokyo 2020 Games are visible across the city. Building on its already established reputation, Tokyo is well-positioned to welcome an ever more diverse range of visitors in the coming decades.



Easily operated ticket vending machines with large 32-inch screens can display route maps, enabling anyone to purchase tickets without difficulty.

© Bureau of Transportation Tokyo Metropolitan Government