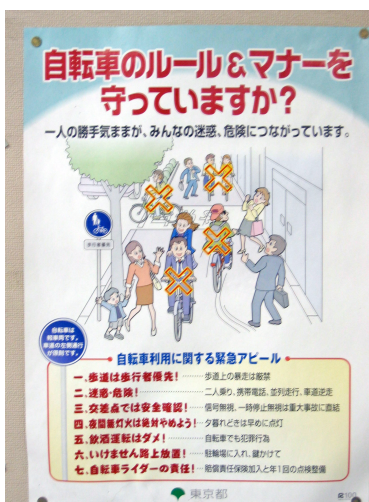
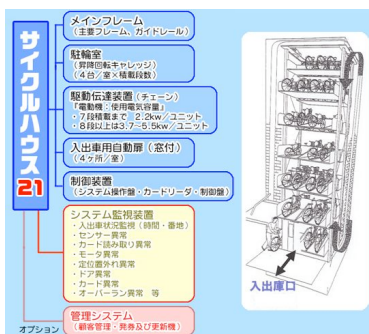


Design Resources > Design Responses > About Parking Facilities > Examples > Transport Interchange

Oizumi Gakuen, Tokyo, (JP)

July 2008



Facility:

1150 bicycles, 650 are bicycle parking spaces. And 500 are bicycles for rent on underground bicycle tower.

Provider:

Nerima City Office.

Designer/Architect:

Nerima City Road and Transport Office. The designer and maker of the several parking storage solutions is Cycle Techno Corporation.

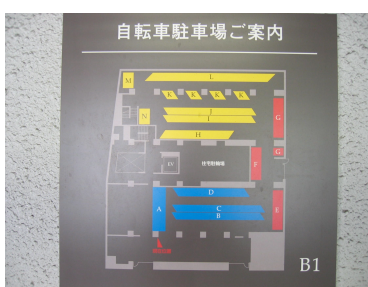
Post code 105-0004

Tokyo Minato-ku Shinbashi 1-16-8

Kureguran Shinbashi building TEL 03-3504-051 FAX 03-3504-0470

Cost of Provision:

Undisclosed Information



General Description:

Oizumi Gakuen Station is located in Nerima ward and served by the Seibu Ikebukuro line connecting northwest Tokyo with Ikebukuro. It's named after one of the most traditional schools in Japan, Oizumi School, attached to Tokyo Gakugei University located in this area. In fact Nerima ward is home to 69 elementary schools, 34 junior high schools, 10 high schools, the Musashino Academia Musicae, Musashi University, Nihon University Ekoda Campus, Sophia University, Shakujii Campus. It is a students' town.

This bicycle parking facility was built to serve the students who commute from in and around the area. The space below this provision features an underground bicycle renting system that offers 500 bicycles for rent. The cost of renting a bicycle is the same as paying to park your own bike in a space above ground. It is a model facility, due to its convenience and the positive social impact on the local community. This site has used a combination of storage solutions in order to optimise space and resources. The rental service stores its bicycles underground by using a lift conveyor belt system, all bicycles have the same specifications since the machine can only receive Japanese shopper bicycles (mamachari), these bicycles are constantly serviced by the parking staff. On the parking space part, the access is controlled in order to time and charge the user accurately, this is done by using an automatic tollgate which reads smart cards on arrival and release the bicycles once payment or subscriptions are confirmed on departure. The inside of the facility has been fitted with double deck tier racks, which optimise the space. The tier racks have two different heights in order to alternate the handlebars' positions and avoid bicycles pushing or dragging one against another.



Bicycles for rent being serviced

Location of Facility:

Oizumi Gakuen station served by Seibu Ikebukuro line, 50m away from the station gates (South exit)

Scale (capacity):

1150 bicycles, 650 are bicycle parking spaces. And 500 are bicycles for rent in an underground bicycle tower.

Length of Stay:

24 hours' use, open from 0530-0030.

Charges (cost to user):

The parking service is timed on arrival and charged upon departure by an automatic tollgate. 1-day ticket costs ¥100.

Ground level racks have higher demand than upper level ones and they cost ¥2000 (£10) a month, Students pay ¥1500 (£7.50). To promote the use of the upper level racks use, special prices have been set: one month is ¥1500 (£7.50), Students pay ¥1000 (£5 GBP).

The rental bicycle fees are ¥100 (£0.50) for less than 4 hours of use, ¥200 (£1) for 24 hour of use, ¥2000 (£10) for a monthly rental contract or if student ¥1500 (£7.50) for a monthly rental.

Signage:

There is signage within the facility displaying information about subscription application procedures, fees, and instructions to use the racks. There are 'way in' and 'way out' signs, as well as signage showing how to use the underground rental bicycles. Also short information about subscription application procedures and fees. There



are also maps, which show best practice-cycling manners and emergency numbers.

Furniture:

The rental area has Cycle Techno Cycle Tower 21 tier racks with card readers that time the bicycle rental period.

The interior of the bicycle parking area is fitted with 325 units of double tier racks providing 650 bicycle parking spaces. These racks are completely mechanical and have electronic inbuilt locks. The length of parking is timed by the gate system, an automatic tollgate also manned through smart cards.

Technical Requirements:

The rental Cycle tower 21 is built underground. The facility required a complex work of excavation (4500 m³) and foundations. The lift system is connected to a roulette arrangement that conveys bicycle spaces, linked to one another like a chain.

To enter the parking facility the bicycle has to go through a tollgate, which reads an access control card and opens and closes stainless steel barriers.

The racks are double deck tier type; they are NOT fitted with electronic assisted locks, so every user must lock his own bicycle by his own means.

Security, Guardianship and Lighting:

The facility has no appointed guardians. There is a staff member keeping the site, supporting customers and dealing with subscription applications. The staff members work from 0800-2100 on weekdays, Saturdays and Sundays 0900-1730. The site is well lit with fluorescent lights; there are also CCTV cameras in operation, which are monitored by the station staff.

Maintenance and Servicing:

All maintenance is managed from within the rail authority. Staff at the station are trained by the maker service racks and electric systems.

Service Period (how long it will last):

The building is meant to last 50 years, the underground lift system has 10 years' warranty if regularly serviced.

Strengths:

- In Tokyo many people own two bicycles, one on each end of their daily trip to work or school. This rental bicycle service is very convenient because it costs the same as paying for one's bicycle parking, without having to own and service a second bicycle.
- Controlling timing and charges on access with a tollgate is probably better than individual locks fitted on each bicycle

rack. Firstly because of the saving on energy, secondly because it uses fewer electrical mechanisms to maintain and service.

- The site is secure since access is controlled

Weaknesses:

- The double deck tier racks have very low rise wheel holders this has adverse effects on bicycles' stability, the bicycle wheels are more susceptible to damage, specially the spokes
- The style of rack limits the opportunities to lock the bike to the rack with a chain or a cable.
- The bicycles for rent are only shopper bicycles (mamachari type) with no gears. An option with 3 speeds would improve rental service.

Useful References:

Narrative description and further photographs:

<http://www.zai-ntk.or.jp/ooizumiminamitikaF.htm>

<http://www.zai-ntk.or.jp/jitensyaF.htm>

Youtube video:

<http://uk.youtube.com/watch?v=GOfkISMIGk0>

Maker of Cycle 21:

<http://www.cycletechno.com/cyclehouse21/index.html>