

Automated Bicycle Parking Facility



GRIN BaseTM EC

Specifications

Mechanism	Elevator (Rotating)	
Capacity	200 Bicycles (Standard Spec)	
Operation Method	Card Reader (IC Card + IC Tag)	
Vehicle Delivery Time*	15 Sec. (Average)	
Usage Type	Monthly / One-time / Rental Cycle (Combined Use Possible)	
Bike Specification	Tire Size	18 - 28"
	Tire Width	Max. 56 mm
	Total Width	Max. 650 mm
	Total Length	Min. 1400 mm, Max. 1950 mm
	Total Height	Max. 1350 mm
	Front Basket Width	Max. 580 mm
	Rear Basket Width	Max. 530 mm
	Weight	Max. 40 kg

* Time from swiping card to exit door opening

*Product specifications may change without notice.

*"ECO Cycle" is a registered trademark of GIKEN LTD. in Japan.

GIKEN

Construction Solutions Company

www.giken.com

CONTACT US



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GIKEN

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GRIN BaseTM EC

Culture Aboveground, Function Underground

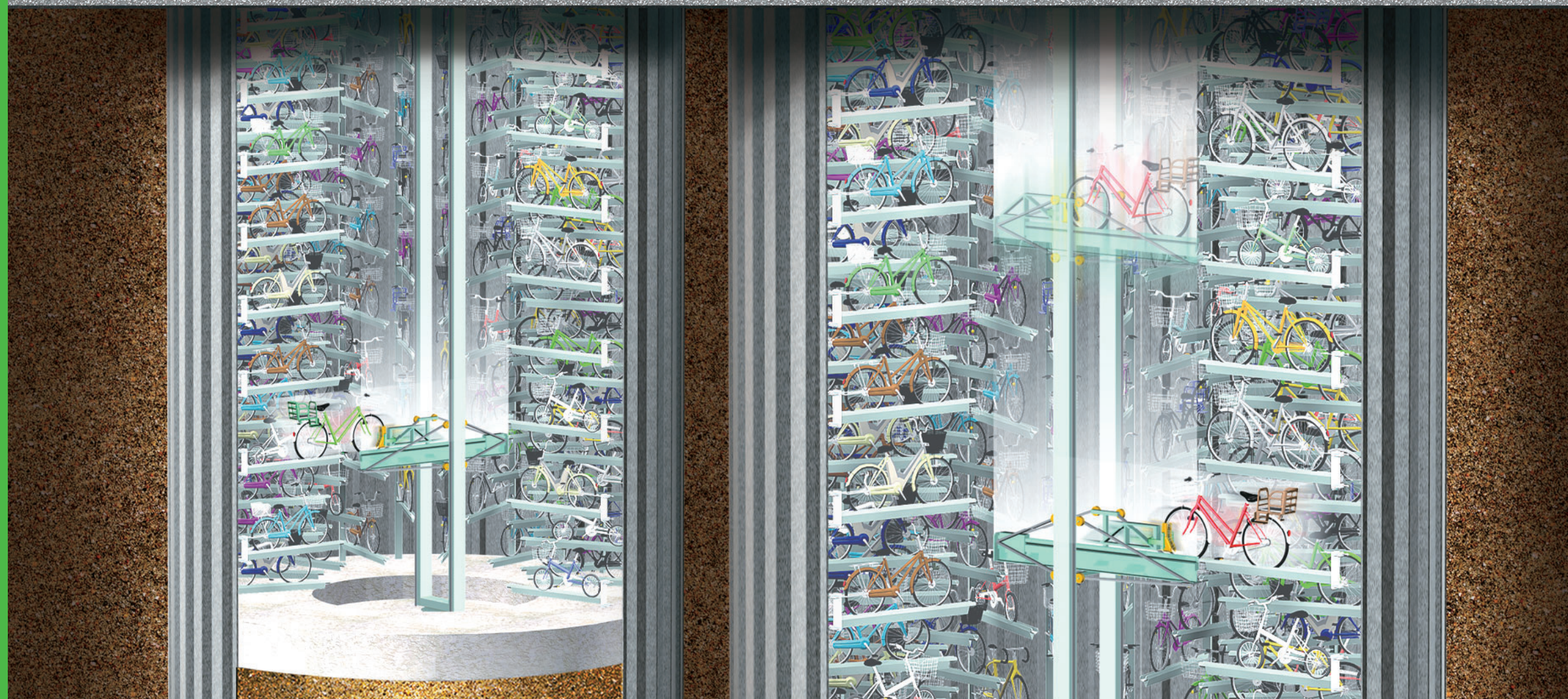
GRIN Base EC is an automated bicycle parking facility developed with the concept of "Culture Aboveground, Function Underground".

With a compact entrance booth, it requires minimal space aboveground and provides more than 200 parking spaces underground.

It brings cultural enrichment to the city by promoting bicycle use and preventing disorderly parking.



You can watch a video
of the GRIN Base.



Features

Pursuit of Comfortable User Environments

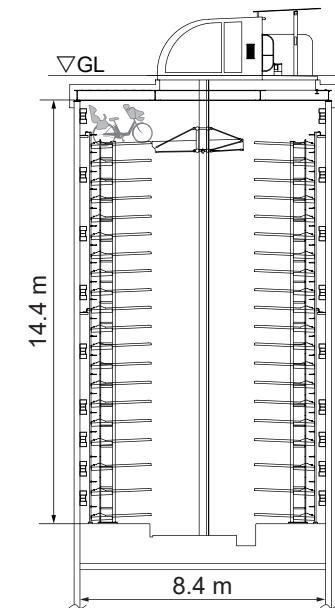
GRIN Base offers a comfortable bicycle parking environment that satisfies both the users and the community by providing easy operation, fast storage and retrieval, and a design that blends in with the surrounding environment. In addition to providing protection from rainwater and theft, the robust construction can withstand an earthquake with a seismic intensity of 6 upper to ensure safe and secure use.

Underground Model

Based on the concept of "Culture Aboveground," model has a structure with high accommodation efficiency installed underground. A compact booth that harmonises with the surrounding environment a comfortable space.

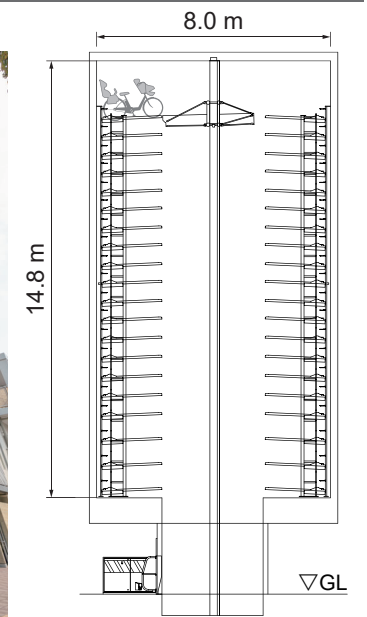


Function Underground," the underground model has a structure with high accommodation efficiency installed underground. A compact booth that harmonises with the surrounding environment a comfortable space.



Aboveground Model

The aboveground model can be incorporated into buildings without sacrificing accommodation efficiency and convenience of the underground model. By installing an exterior glass wall, this model becomes an attractive bicycle parking garage that adds an iconic feature to the building.



Achievements

Urban parks



Sidewalk



Complex facility (Underground)



Complex facility (Aboveground)



Speed

High Speed Retrieval

The fastest retrieval time is 10 seconds (average of 15 seconds), which is the industry's fastest speed*. This performance ensures comfortable operation unaffected by congestion even during rush hours.

*According to our research in 2024

Simple Operation

Press a button for parking and swipe an IC card for retrieval.
Easy and simple operation made accessible to all users. Traffic IC cards can be used.

Parking

The GRIN Base automatically recognizes the tag attached to bicycles. Users can park with a single push-button.

1 Set the bicycle along the guide rail.



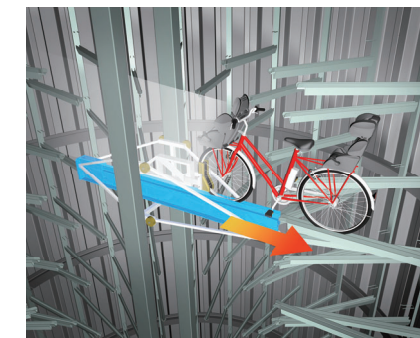
2 Step back from the mat and press the button.



3 The bicycle will be stored automatically.



4 Parking completed.



Retrieval

Simply by swiping an IC card, user can retrieve bicycle within a shortest time of 10 seconds (an average of 15 seconds).

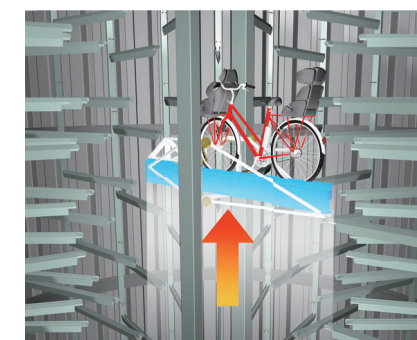
1 Swipe the card.



2 Step back from the mat.



3 The bicycle will be retrieved automatically.



4 Retrieval completed.



Supports Many Bicycle Types

GRIN Base can accommodate various type of bicycles, from commuting bicycles to mountain bicycles and electric bicycles.

Example of bicycles that can be parked *Japanese Specification



Commuting bicycles with baskets



Electric bicycles



Bicycles with child seats (front and rear)



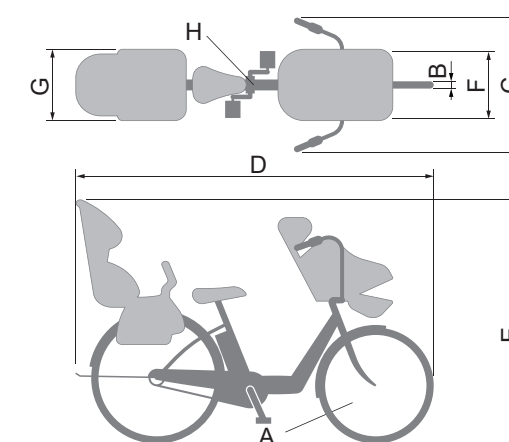
Small wheel bicycles / Foldable bicycles



Road bicycles



Mountain bicycles

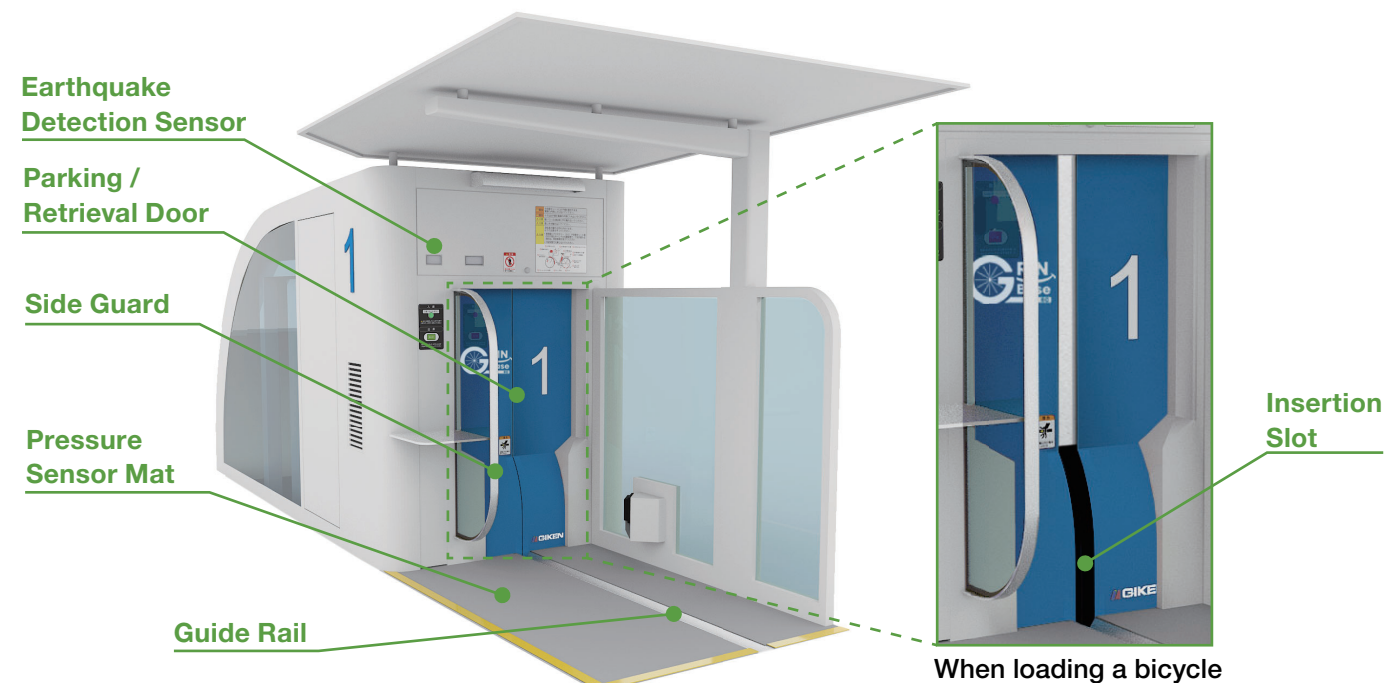


A	Tire Size	18-28"	E	Total Height	Max. 1350 mm
B	Tire Width	Max. 56 mm	F	Front Basket Width	Max. 580 mm
C	Total Width	Max. 650 mm	G	Rear Basket Width	Max. 530 mm
D	Total Length	Min. 1400 mm, Max. 1950 mm	H	Weight	Max. 40 kg

Safety

High Design Safety

GRIN Base comes with a complete set of safety features to ensure the safety of both the users and their bicycles.



Parking / Retrieval Door

The door only opens when bicycles pass through. This prevents users from entering the GRIN Base.

Side Guard

The guard prevents entry by children and ensures safety.

Insertion Slot

With the original mechanism of GIKEN, the slot opens only to the width of a tire when loading a bicycle, which prevents accidental entry and dropping of personal belongings.

Guide Rail

The sensors automatically detect and alert the user to take corrective action when the wheels are off the rail or when the rear wheel is locked, which will interfere with the transfer operation.

Pressure Sensor Mat

Sensor mat is designed to stop operation when a person is standing on the mat. If someone stands on the mat when a bicycle is passing through the door, the operation will be halted and the bicycle will be returned at a safe speed.

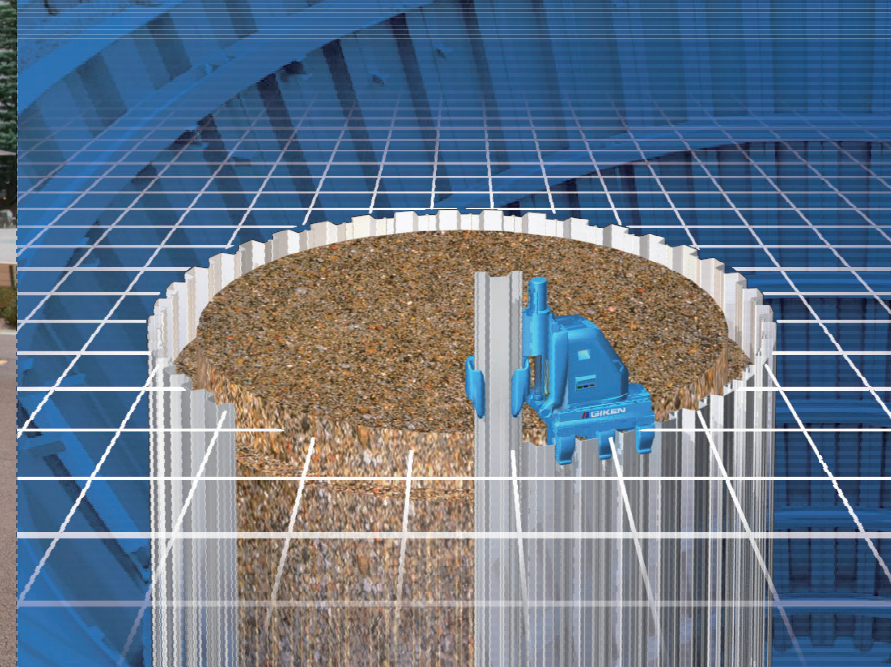
Earthquake Detection Sensor

An earthquake exceeding 100 gals will trigger an automatic halt to protect the bicycles.

Ecology

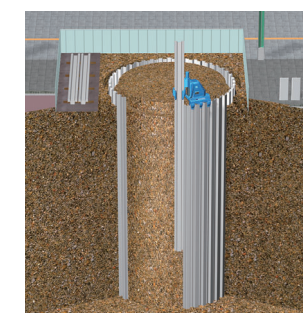
Design and Construction Concept

The Press-in Method, an original construction technology of GIKEN, minimises the construction period, space, noise, and vibration. The frame structure is designed for easy removal after use.

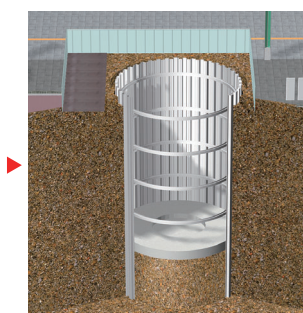


Construction Sequence

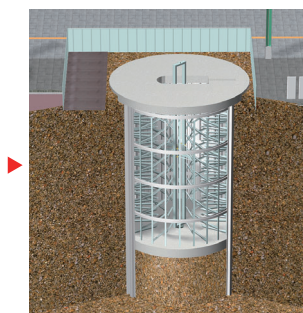
GRIN Base is constructed using a rational, temporary work-free method whereby the continuous wall built by press-in becomes the seismic structural wall of the bicycle parking. The prefabrication of machinery and equipment also reduces on-site work significantly and realises rapid construction.



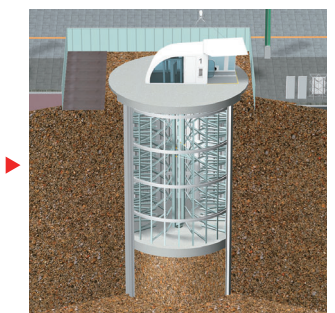
1. Install a specially designed piles to form a cylindrical wall using a dedicated press-in machine.



2. Excavate the soil inside the cylinder to create the underground space.

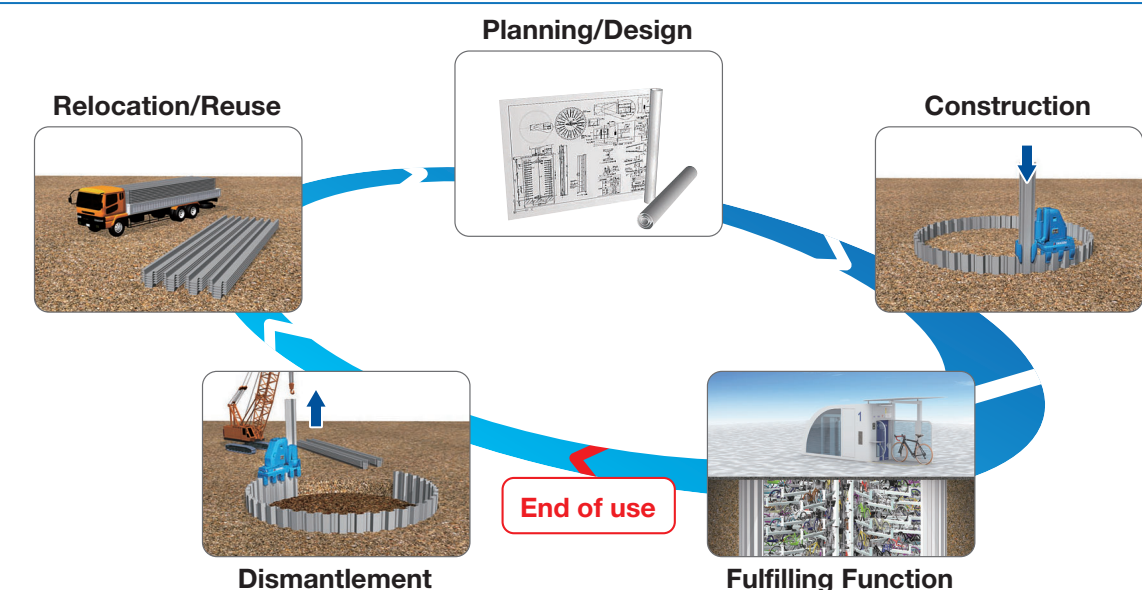


3. Install the mechanical equipment in the cylinder.



4. Finally the prefabricated entrance booth is fixed above ground.

Functional Structure™ - Easy to relocate / reuse



"The Right Function for the Right Time."

GRIN Base is designed with a "Functional Structure" considering up to the dismantling and removal phase when bicycle parking is no longer needed in the area. It can be easily removed, and its location can be restored to its original state by following the installation process in reverse order. The materials removed can also be reused, contributing greatly to a sustainable society.

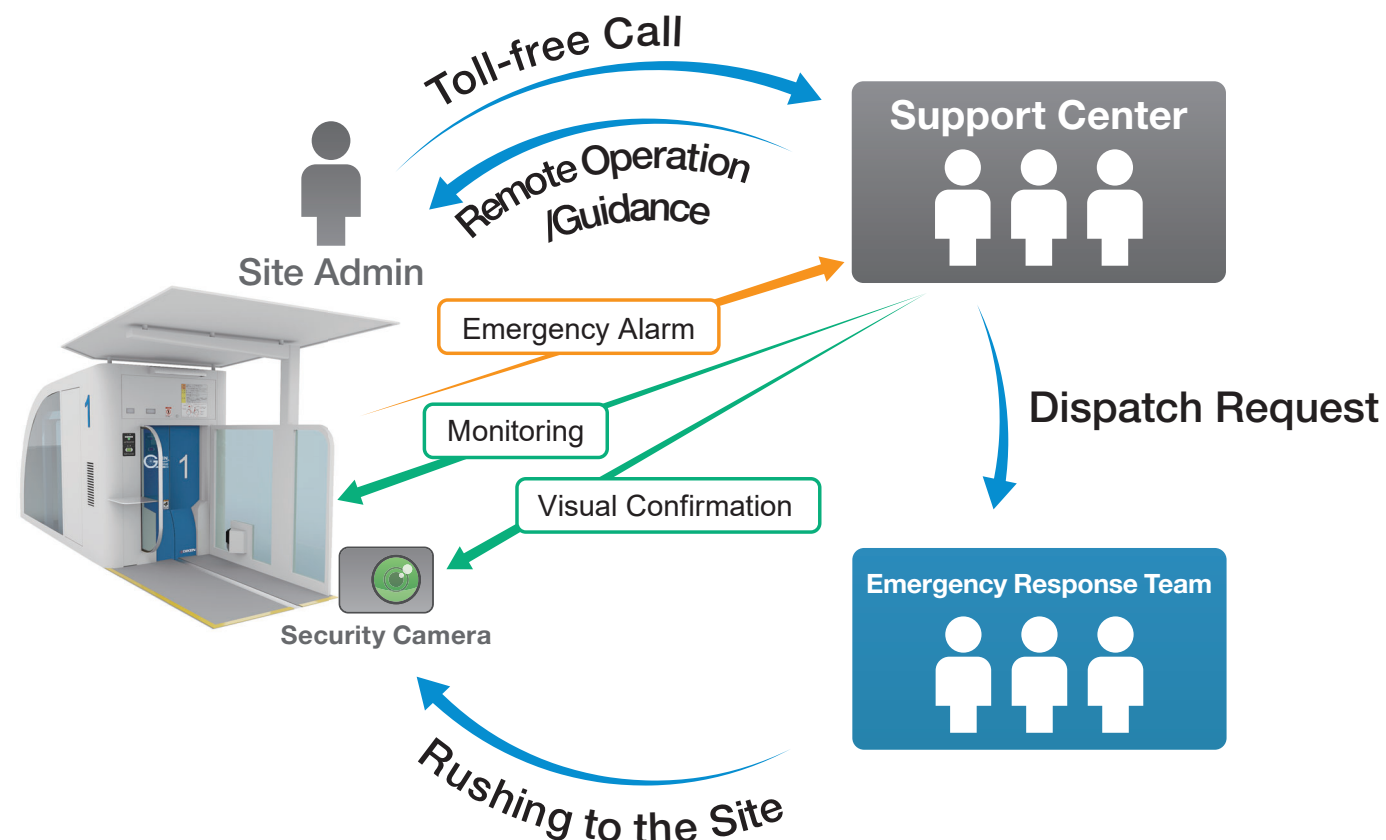
Support

Reliable Customer Support



Our Support System

In case of any malfunction, the emergency alarm will notify our support centre automatically and operations can be restored remotely. The technical person will be dispatched promptly in case remote restoration is not possible.



Real-time Monitoring

GRIN Base is equipped with a camera for monitoring the situation and responding promptly to any issues.

※Customer Support in international markets to be developed and agreed on a contract specific basis.

Contact



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