

Company Profile 2017



Metropolitan Expressway Network





Contents

01	Metropolitan Expressway Network
03	President's message and Management Principles
05	The Metropolitan Expressway: A History
07	Metropolitan Expressway Renovation Program
09	Safety
13	Comfort
19	The Future and the Environment
27	Challenge
33	Human Resource Development
37	Financial Statements
38	Corporate Profile and Group Companies

Networking People, Communities and Daily lives



President's message

Toshitaka MIYATA

President

We, Metropolitan Expressway Company Limited (Shutoko) engage day and night in the construction, maintenance and management of the major arterial road networks in the Greater Tokyo Area, the Metropolitan Expressway. With the opening of the Yokohama North Line (linking Yokohane Line and Daisan-Keihin Line) in March 2017, the expressways operated by Shutoko now extend some 318km in length and have an average traffic volume of some 980 thousands vehicles a day. Amid this situation, we believe our mission is to keep ensuring customers' safety

Management Principles

Basic Principle

We connect people, communities and Daily lives within the Greater Tokyo area through our safe and smooth Metropolitan Expressway network, contributing to the affluent and comfortable advancement of society.

Management Principles

Customers first

In pursuit of safety and comfort, we provide high-quality services that guarantee customer satisfaction.

Coexistence with local communities

Our goal is to create a better environment and to develop local communities by working together with community members.

Social responsibility

We build relationships of trust with our customers, community members and investors through our strong ethical perspective and high level of transparency.

Autonomous management

We manage our business efficiently and soundly, and assertively expand our operations into new business fields.

A vibrant work environment for employees

We create a work environment in which our employees can develop their own abilities, allowing them to cultivate a sense of pride and achievement.



and security, moreover to provide high-quality services constantly thinking from customers' view point.

In the Metropolitan Expressway, over a half century passed since the opening in 1962 between Kyobashi and Shibaura has aged its structures progressively, and besides, five times more traffic volume of heavy vehicles comparing with local roads of Tokyo 23 wards imposes a heavy burden on road conditions. Under these circumstances, in order to fulfill our mission, while performing regular inspections and repair works precisely, employing newly introduced technologies like smart infrastructure management system (*i-DREAMs*®), we implement large-scale renovation and repairment projects, such as Pier Section of Higashi-Shinagawa and Reclamation Area of Samezu.

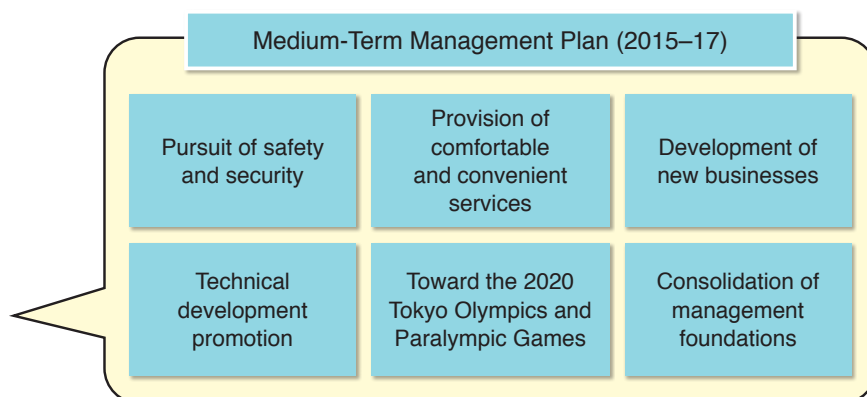
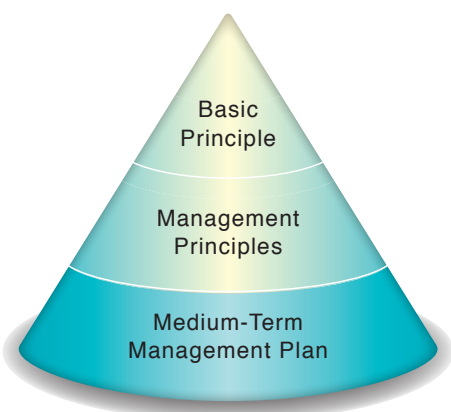
Along with them, network development such as Shin Omiya-Ageo Road (Yono – Ageo Minami), launched in 2017 and Yokohama Circular Northwestern Route, measures against bottlenecks such as improvement works of in-between junctions (Itabashi and Kumano-Cho), and traffic safety measures are in progress actively.

Furthermore, in preparation for the 2020 Tokyo Olympics and Paralympics we, while making efforts to improve our highway landscape, will take a key role in their transportation network to contribute to their success.

Going forward, Shutoko will continue making contributions to creating a more affluent and comfortable society through our operations, networking people, communities and daily lives in Tokyo metropolitan area. We would very much appreciate your continued support and understanding.

Medium-Term Management Plan (2015–17)

As part of the tenth anniversary of our incorporation, we returned to our basic principles and established our Medium-Term Management Plan 2015–17, with “Safety, Security, and Comfort” and “People, Communities, and Daily lives” as the key themes. The entire Shutoko Group will provide a safe, secure, and comfortable Metropolitan Expressway by promoting the policies stipulated in the Medium-Term Management Plan.



The Metropolitan Expressway: A History

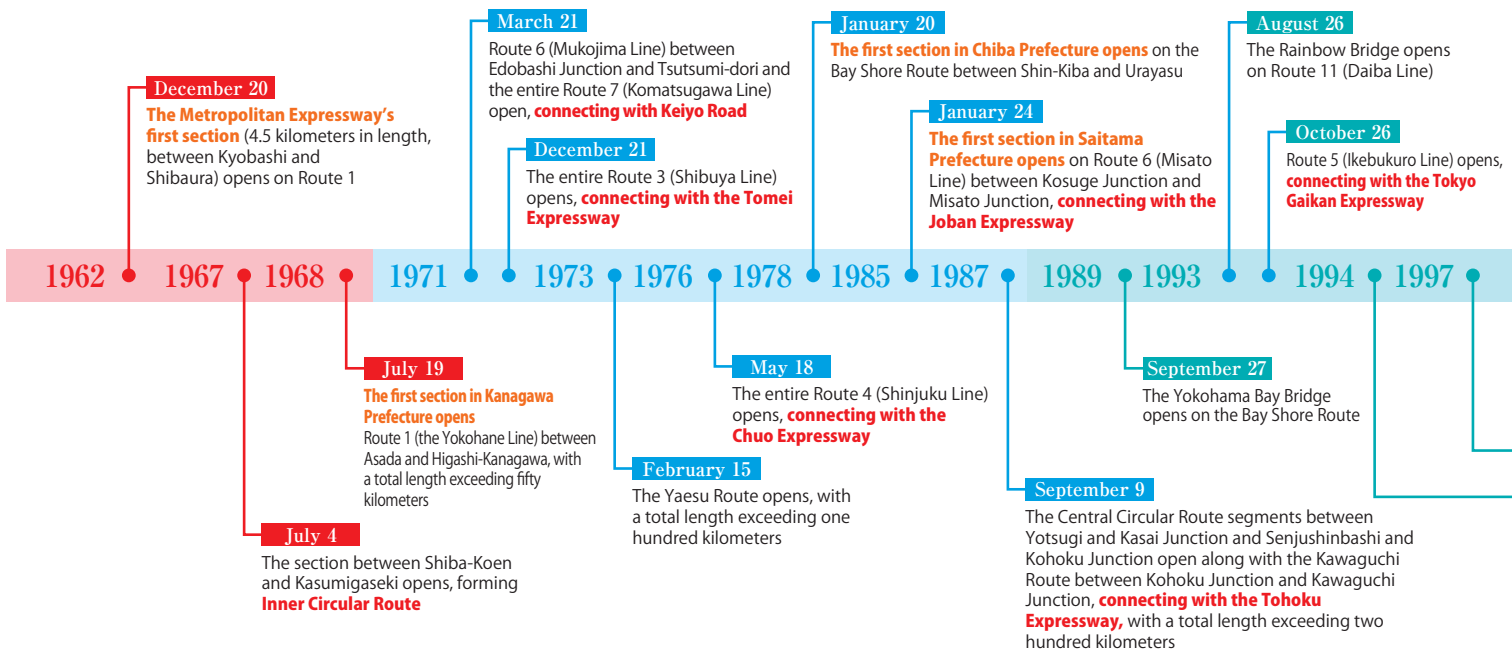
We have been developing the Metropolitan Expressway network since the early 1960s



Constructing the Inner Circular Route and radial routes
1962–70 (Phase 1)

Connecting with intercity expressways
1971–88 (Phase 2)

Opening ceremony for Route 6 (Misato Line) between Kosuge and Misato Junction, 1985



Opening ceremony for the Route 1 (Ueno Line), 1969



Opening ceremony for the Shiba-Koen to the Kasumigaseki section of the Inner Circular Route, 1967

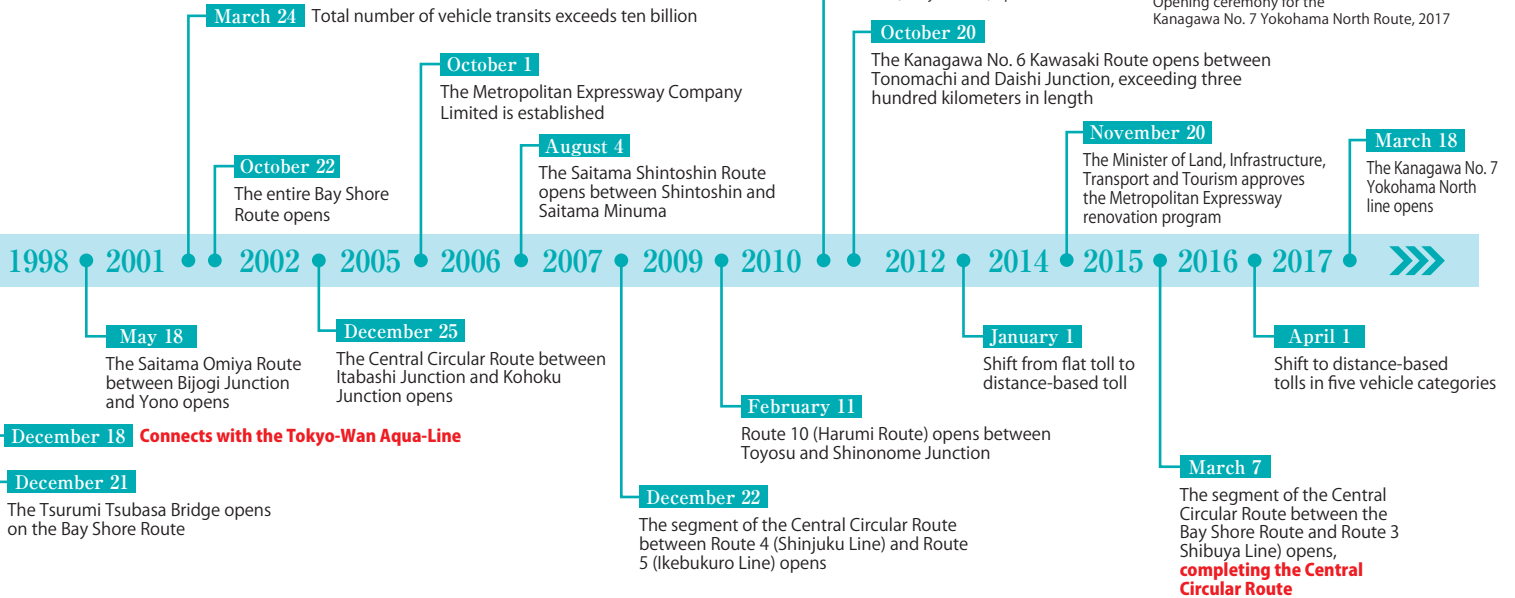


Opening ceremony for the segment of the Yamate Tunnel on the Central Circular Route between the Bay Shore Route and Route 3 (Shibuya Line), 2015



Additional network expansion

1989– (Phase 3)



Opening ceremony for the Yokohama Bay Bridge on the Bay Shore Route, 1989



Ceremony for the opening of the entire Route 4 (Shinjuku Line), connecting with the Chuo Expressway, 1976



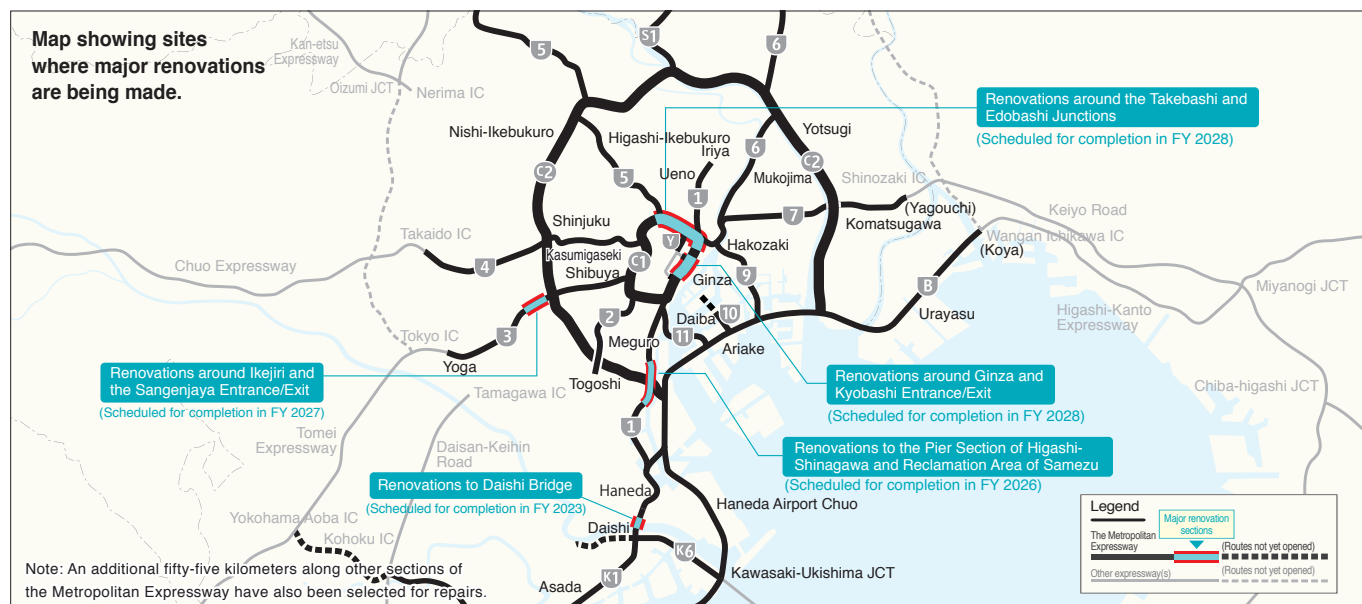
Metropolitan Expressway Renovation Program

We carry out renovation projects to ensure that the Metropolitan Expressway remains highly reliable over the long term

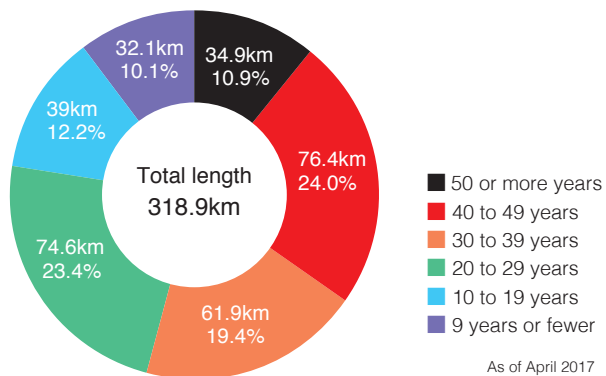
Making Major Renovations to Metropolitan Expressway Structures

Metropolitan Expressway Renovation Program

On January 15, 2013, a committee that was formed to research the way that major renovations to Metropolitan Expressway structures should be carried out passed along its recommendations to Shutoko. Renovations plans were drawn up based on these proposals, and the Ministry of Land, Infrastructure, Transport and Tourism approved the plans on November 20, 2014.



Percentage of years elapsed since opening



Program Type	Section	Length	Opened	Program Period
Major Renovations	The Pier Section of Higashi-Shinagawa and Reclamation Area of Samezu	1.9km	FY1963	FY2014~2026
	Daishi Bridge	0.3km	FY1968	FY2015~2023
	Ikejiri and the Sangenjaya Entrance/Exit	1.5km	FY1971	FY2015~2027
	Takebashi and Edobashi junctions	2.9km	FY1964	FY2015~2028
	Ginza and Kyobashi Entrance/Exit	1.5km	FY1962	FY2015~2028
Sub Total		8km		
Major Repairs	No.3 Shibuya Line, No.4 Shinjuku Line	55km	—	FY2014~2024
Total		63km		



Staff
Comments

Yuta SEKI

Project Department, Structural Design Room,
Renewal Design Division

● **What do you like about Shutoko? What do you think is good about Shutoko?**

I like the enthusiasm and great teamwork of the employees and the kindness of the seniors.

● **What task are you in charge of?**

I am in charge of designing for the "large-scale renewal project" which involves renewal work of the aging Shutoko to ensure long-term safety and security.

● **When do you feel your work is fulfilling and rewarding and what kind of company would you like Shutoko to become?**

To protect the safety of Shutoko's future, renewal work on aging areas of the Shutoko is an important project. Works on the expressway is extensive including the superstructure and substructure as well as attachments such as sound insulating walls, and as my decisions on the design work will finalize the structure, I feel a strong responsibility and find my work very rewarding. And when the structure that I was involved in designing is completed, I feel very happy. I will continue to focus on my daily tasks with the aim of maintain a safe and secure Shutoko 100 years into the future.

Renovations to the Pier Section of Higashi-Shinagawa and Reclamation Area of Samezu

More than 50 years have passed since The Pier Section of Higashi-Shinagawa and Reclamation Area of Samezu on the Route 1 of the Haneda line were opened in 1963. Although regular inspections and repairs have been carried out, serious damage has occurred due to severe use conditions and the extremely corrosive environment, and the structure requires renovation (reconstruction). Consequently, to ensure long-term durability and future maintenance management, this zone is rebuilt in a location a certain distance from sea level, crossover structures (public road, etc.) and parallel to the Tokyo monorail. Moreover, to improve traffic safety, the road width is changed from 17m to 18.2m.



Detour construction status (June 2017)

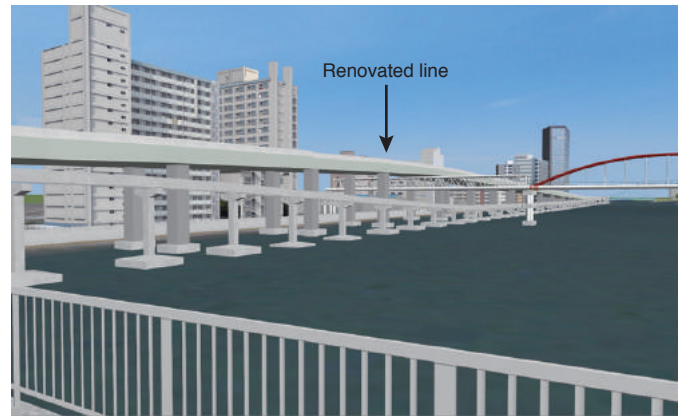
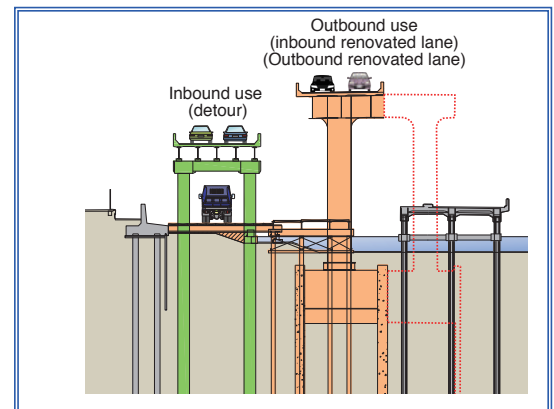
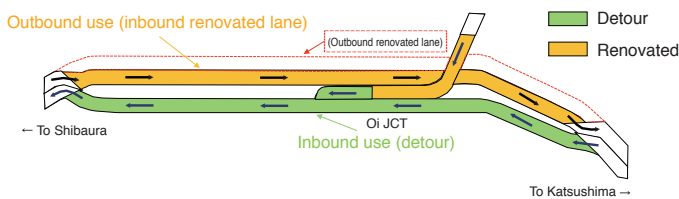


Image of the renovated line

Ensuring Traffic Flow by the Detour Pass

To reduce the effect on traffic, construction of the detour is set to ensure traffic flow.

During the Tokyo Olympics / Paralympics 2020, The detour is planned to be used as the inbound lane of Route 1 of the Haneda Line, and after the outbound lane is renovated, it will be used as the future inbound lane. Use of the existing structure for both inbound and outbound traffic is not planned.



Condition during the Tokyo Olympics / Paralympics 2020

Renovations to Daishi Bridge

The expressway Daishi bridge which crosses the Tama river, has many fatigue cracks throughout the whole bridge, due to extreme use condition caused by the heavy traffic of many cars.

For renovation, replacement of the whole bridge has been determined, in order to ensure long-term durability, maintenance properties, and safety.



Image of the renovated Daishi bridge

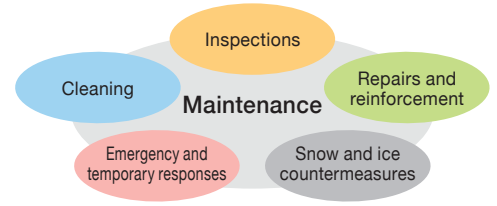


Safety

**We Work 24 Hours a Day, 365 Days
a Year to Keep Our Customers Safe**

Unceasing Maintenance and Management Are the Cornerstones of Safety

The daily tasks we carry out to ensure that our customers travel safely on the Metropolitan Expressway include meticulous inspections, damage repair and reinforcement work, road and facility cleaning, emergency and temporary responses related to road damage and fallen objects, and countermeasures for snow and ice in winter.



Inspections

Inspections are the starting point for road maintenance and management. We systematically and efficiently perform repairs to ensure that road facilities are always sound, pinpointing damage in the early stages and using that inspection data to prioritize repair sites.



Inspection with a cherry picker

Repairs and reinforcement

We also undertake reinforcement work to prolong the useful lifespan of structures in addition to repairing damage discovered during inspections. We perform our work at night or during periods when traffic volumes are low.



Work to eliminate expansion joints



Cleaning

Even a single can left lying on the road can cause a major accident, so we clean the roads throughout the entire network to ensure safe travel. We also clean tunnels, parking areas and other facilities to ensure your comfort when using the expressway system.



Tunnel wall cleaning



Road surface cleaning

Emergency and temporary responses

We have a 24-hour response team to repair road surface damage discovered during routine inspection patrols and facilities damaged due to traffic accidents, as well as to take care of emergency situations that arise as a result of natural disasters or other causes.



Spreading anti-freezing agents



Snow and ice countermeasures

We designate the period from December 1 to March 31 as a time for countermeasures against snow and ice to ensure safe winter travel. Depending on conditions, anti-freezing agents may be applied as an advance measure to prevent accidents due to frozen road surfaces. We also remove snow that accumulates to prevent road closures.



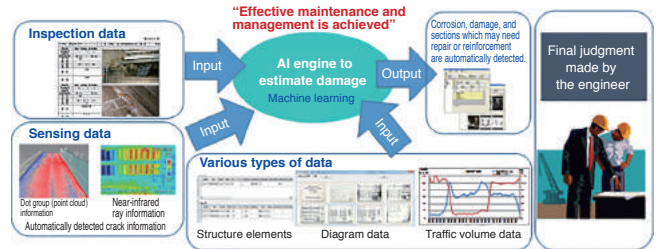
Emergency and temporary responses

Implementing Wide-Ranging, Meticulous Safety Measures

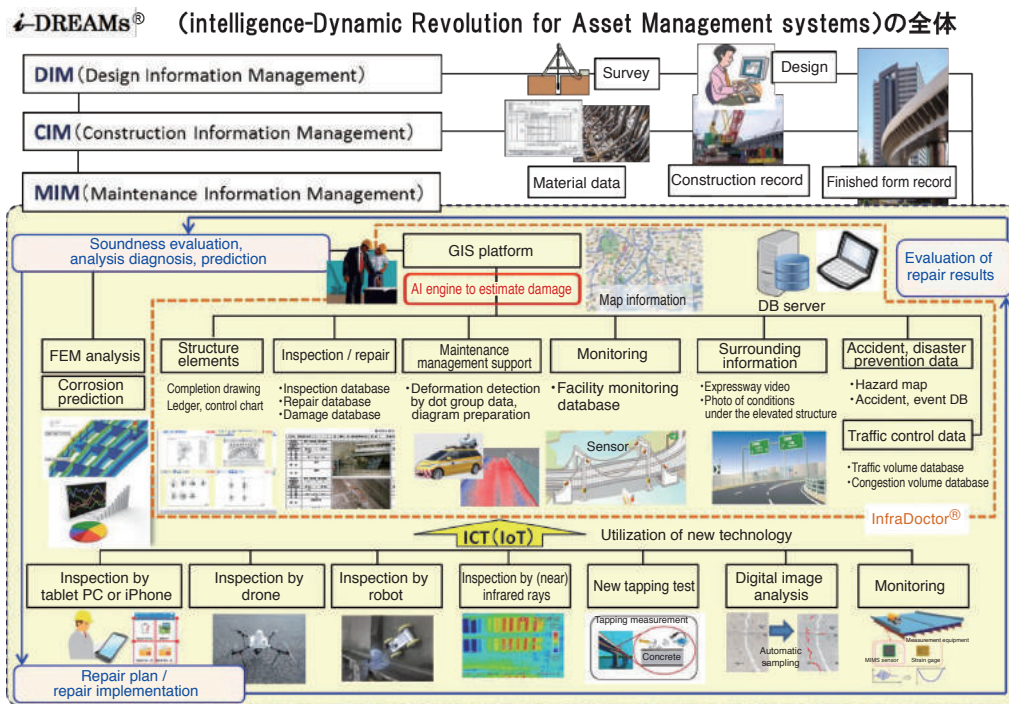
High Level, Effective Maintenance and Management is Achieved by the New Smart Infrastructure Management System.

i-DREAMs®

With the most advanced check technology, InfraDoctor®*, at its core, the road structure maintenance management support system utilizes the coordinated and comprehensively operated MIM. i-DREAMs® is a smart infrastructure management system which can use various data (DIM, CIM) in order to achieve high level, effective maintenance management. i-DREAMs® seeks to identify corrosion conditions inside a structure by utilizing the damage estimating AI engine, and automatically detecting areas which may require repair or reinforcement depending on the degree of damage.



*InfraDoctor® InfraDoctor® is a maintenance management support system which utilizes GIS (geographical information system) and three-dimensional dot group data. It has been jointly developed by Metropolitan Expressway Company Limited, Shutoko Engineering Company Limited, Elysium Co., Ltd.



Inspecting Steel Structures and Taking Countermeasures Against Fatigue Damage



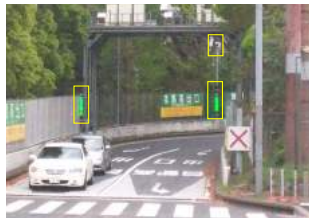
We actively engage in efforts to counteract steel structural fatigue. The Metropolitan Expressway's structures face harsh conditions, including greater heavy vehicle traffic volume. Fatigue damage occurs more readily in steel structures used in harsh conditions for long periods. We use nondestructive testing along with visual inspections to detect fatigue damage and ensure the Metropolitan Expressway's safety.

Traffic Safety Measures

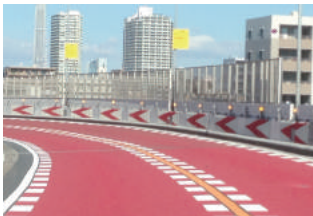
We carry out various traffic safety measures, including installing color-coded pavement and large warning signs to alert drivers. Signage and road surfaces that are color-coded according to direction of travel are other examples of this. Additionally, we continue to promote ways to prevent pedestrians from entering the Metropolitan Expressway, as well as to prevent major accidents caused by wrong-way driving. That includes reinforcing measures to prevent U-turns or wrong-way driving at junctions, on ramps, and in other locations where vehicles merge. We also have been installing sensor systems to detect and warn about pedestrians and wrong-way drivers that have entered.



Signs and road surfaces color-coded by direction of travel at Ohashi Junction



System installed to detect pedestrian entry or wrong-way driving and sound an alarm



Pavement color-coded to alert drivers near Kiba on Route 9 (Fukagawa Line)



Measures to prevent driving the wrong way when merging with the main traffic flow at Misato Junction

Support and Development of Safety Driving

Various PR activities related to traffic safety, such as implementation of safety traffic campaign and lectures, have been developed to promote traffic safety.

Moreover, cooperation with related agencies such as the police, and cooperation in the control of vehicles in violation to the Vehicle Regulations Order, and control of street racing.



Control of vehicles in violation of the Vehicle Regulations Order



Traffic safety campaign



Ginza Willow festival traffic safety event

Implementation of the Capital Expressway Safety Month

Set "Expressway Safety Month in the Capital" for May-June of each year, and develop various activities in order to raise awareness for the improvement of the safety of all employees.



Capital expressway watching



Capital express inspection / repair demonstration 2017

Tunnel Disaster Prevention and Safety Measures

We keep watch on tunnel interiors with the latest disaster prevention and safety equipment and our safety management organization.

The control center controls various equipment—including alarms and disaster prevention devices—to keep damage to a minimum and provide instructions to customers so that they can safely escape in the unlikely event that a fire breaks out inside a tunnel.

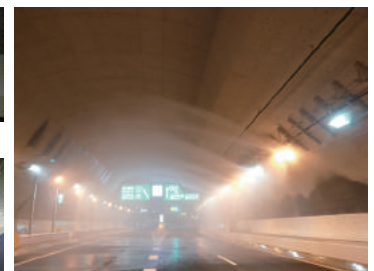
Additionally, we have a Metropolitan Expressway motorcycle patrol team—the first authorized emergency motorcycle unit run by a private company in Japan—to provide swift initial responses to accidents inside the Yamate Tunnel, improving safety inside the longest tunnel in Tokyo.



Emergency exit



Fire extinguisher and foam fire hydrant



Water spray equipment



Staff Comments

Kyou TOMOHISA

West Tokyo Bureau, Investigation/Environment Division

● **What do you like about Shutoko? What do you think is good about Shutoko?**

I like Shutoko's willingness to take on new challenges.

● **What tasks are you in charge of?**

I am in charge of traffic analysis and investigating measures to promote safety, security and comfort to our customers in the West Tokyo area.

● **When do you feel your work is fulfilling and rewarding and what kind of company would you like Shutoko to become?**

Shutoko continues to be used daily by many customers since it opened over 50 years ago. Thus, as a member of the Investigation/Environment Division, the moment I see measures that were deliberated and implemented to promote the safety, security and comfort to our customers, and also when such measures lead to a decline in the number of accidents, I realize that my actions led to promoting safety and I feel a very strong sense of fulfillment and responsibility.

I will continue to work hard to promote safety, security and comfort to your customers with the aim of creating an attractive Shutoko.



Comfort

**Striving to Support Drivers with
More Comfort and Convenience**

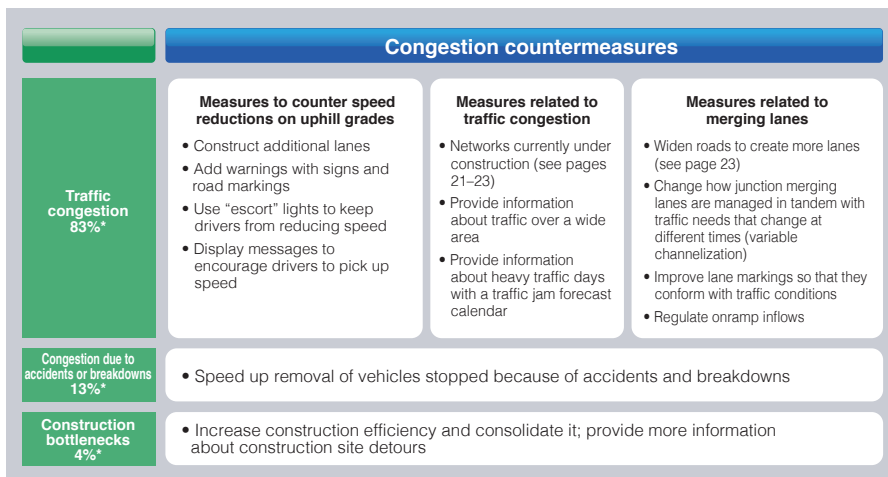
Implementing Various Innovations to Make Driving on the Metropolitan Expressway Smoother and More Comfortable

Striving to create a more comfortable Metropolitan Expressway in ways both tangible and intangible

Ensuring Comfortable Travel

Although congestion has been reduced, particularly on the Inner Circular Route thanks to the addition of new networks, increased traffic jams in the vicinity of the Central Circular Route and other issues still remain.

This is why we drew up “Metropolitan Expressway Vision for Enjoyable Driving”—our comprehensive program that combines bottleneck countermeasures such as building road networks and adding more lanes with visually-oriented measures such as providing traffic data in more sophisticated ways and improved signage and lane markings, all with the aim of making driving on the Metropolitan Expressway a smoother and more comfortable experience.



*2016 percentages (all routes, weekdays)

■ Installing “Escort” Lights

Guide lights installed alongside the road meant to encourage drivers to restore their driving pace—called “escort lights”—are displayed at speeds just a bit faster than the traveling speeds of drivers so that they do not reduce their speed and slow traffic down.



Escort lights near Ikejiri on the outbound Route 3 (Shibuya Line)

■ Improved Lane Markings to Match Traffic Conditions

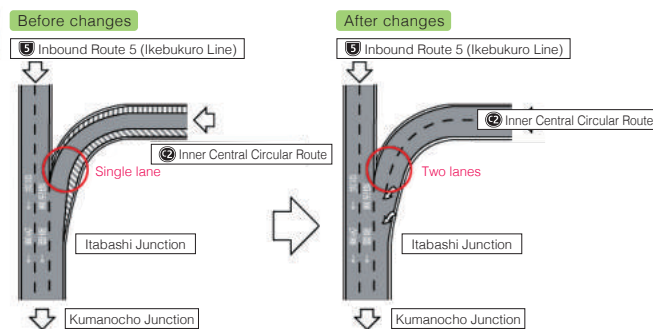
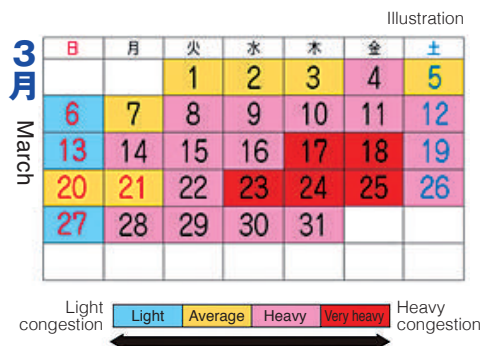
We are improving lane markings so that they conform to changing traffic conditions in tandem with changes in traffic volume.



Improved lane markings at Itabashi Junction on the inner Central Circular Route

■ Traffic Jam Forecast Calendar

We will provide information about heavy traffic days with a traffic jam forecast calendar—available on our website and leaflets—using past data to forecast congestion for each day at four levels from light to very heavy.



We Provide Traffic Information for a Comfortable Drive, and Promote its Improvement.

To support safe, comfortable, and smooth driving, we provide even higher level road traffic information.

Traffic Control System and Providing Information

We monitor traffic 24 hours a day, 365 days a year, and our patrol vehicles also promptly handle accidents and retrieve fallen objects.

Employing our traffic control system, we rapidly process the data that we are constantly collecting to provide customers with road traffic information in real time.

Road traffic information is delivered on message displays above the expressway and various other kinds of media, depending on the location.

Gathering information





Vehicle detector





Toll-free road emergency number: #9910



Video camera used in traffic control system

Emergency phone

Data processing



Large display in the traffic control center

Providing information

Anywhere you are
"mew-ti", traffic information app
"mew-ti" is a route search app with real-time traffic information.

Road message displays on local roads
Road text display
Road graphics display

Onboard ETC 2.0 services
We employ dedicated short-range communications to provide customers with ETC 2.0-compatible devices installed a higher level of information about road traffic and other data to help them drive safely, using graphics and sound.
Screen that provides wide area route information
Screen that provides information to help drivers drive safely

In the car VICS
Information about Metropolitan Expressway traffic conditions and safety is provided through radio wave beacons and other methods in text and graphic format to drivers who have VICS-compatible car navigation systems.
Radio wave beacon
A VICS screen

Before tunnels
Tunnel alert displays and traffic lights

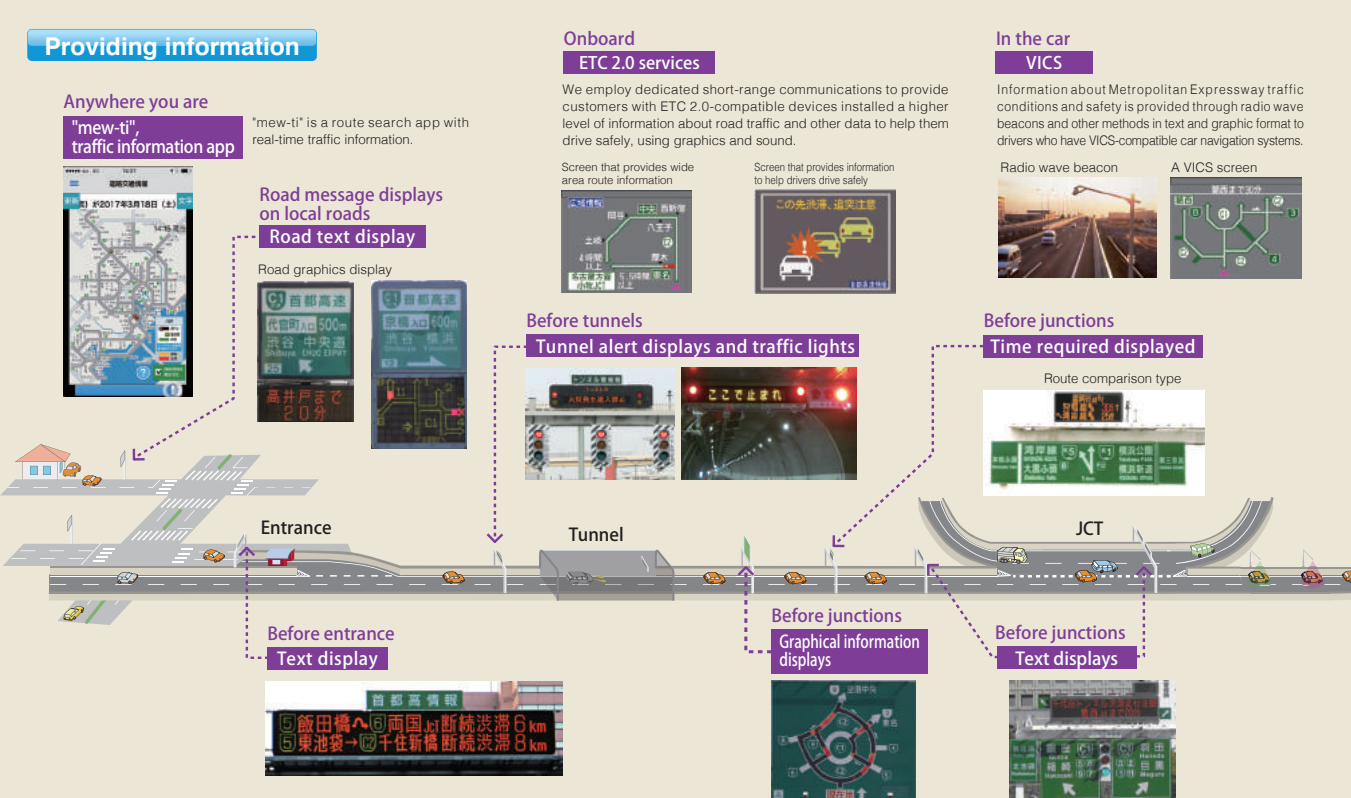
Before junctions
Graphical information displays
Text displays

Before junctions
Time required displayed
Route comparison type

Entrance

Tunnel

JCT



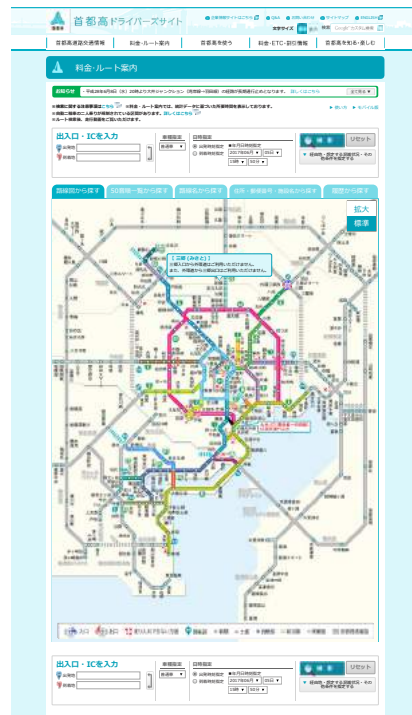
Provision of ETC2.0 service information regarding the Metropolitan Expressway (hereinafter referred to as Shutoko)

Development of ETC2.0 service which provides high level road traffic information and safe driving assistance has advanced utilizing ITS spot, and is functioning in approx. 180 locations on all Shutoko roads as of April 2017.



Information provision on the Shutoko Driver's Website

On the Shutoko Driver's Website, rates, routes, approximate travel time, road traffic information, and driving videos on road used can be confirmed.

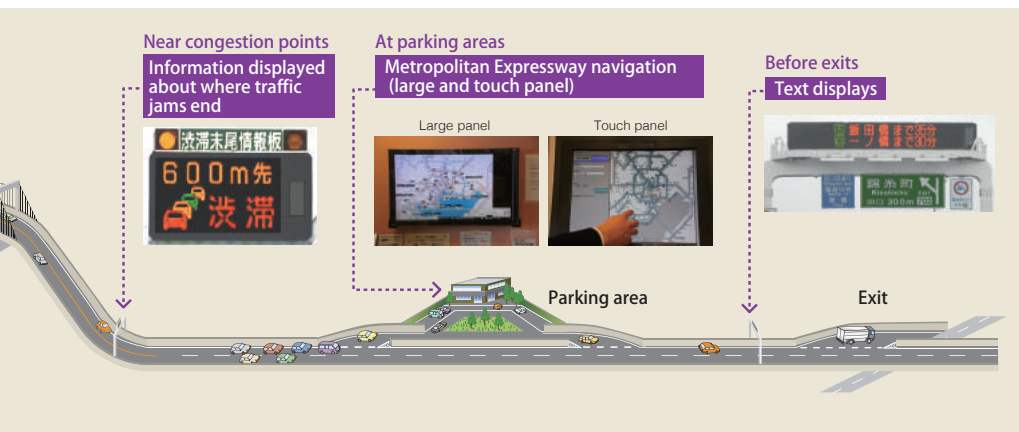


Toll Rates

ETC equipped vehicles	
Type of vehicle	Toll (minimum and maximum)
Mini vehicles and two-wheeled vehicles	¥270 ~ ¥1,070
Standard vehicles	¥300 ~ ¥1,300
Mid-size vehicles	¥310 ~ ¥1,380
Large vehicles	¥390 ~ ¥2,040
Extra-large vehicles	¥460 ~ ¥2,600

Drivers who pay cash	
Type of vehicle	Toll
Mini vehicles and two-wheeled vehicles	¥1,070
Standard vehicles	¥1,300
Mid-size vehicles	¥1,380
Large vehicles	¥2,040
Extra-large vehicles	¥2,600

Tolls from April 1, 2016 to March 31, 2021.
Customers who pay cash can use the whole Metropolitan Expressway system after paying the tolls for the vehicle categories in the above table at the tollbooth when first entering the expressway (except on certain segments).



Building an Even Better Metropolitan Expressway Along with Our Customers

We Listen Closely to Our Customers and Provide High-Quality Services

■Response to the voice of the customers

The Shutoko Customer Service Center has been established as a comprehensive window of inquiry for customers regarding Shutoko, and the Shutoko/ETC Call Center regarding ETC, in order to rapidly respond to the voice of the customers. To further obtain various opinions from our customers, an inquiry form (Green Post) has been established on the website as an opportunity to hear the voice of our customers.

■Examples of improvement as a result of responding to the voice of the customers

We seriously consider the requests and valuable opinions of our customers, and carrying out improvements.

Voice of the customer- "I was heading in the wrong direction on Hakozaki Rotary. I need guidance which can be easily understood.

Response measure- A guidance sign was installed that could be easily read, and which was color coded for each lane and direction.



Setting Up Enjoyable Drives with Local Community Help

We actively publicize outings via the Metropolitan Expressway, providing customers information about drives that local community members recommend through promotions unique to the season or area and via the web and radio.

■Driving Campaigns

We conduct campaigns year-round that recommend enjoyable drives suited to the season. Working together with local governments, tourism associations and sightseeing facilities around the Kanto area, we also provide suggestions about enjoyable outings.



Yamanashi Tourism and Products Fair (Daikoku parking area)

■Telling Customers About Bargains and Fun

Along with the driving campaigns described above, we continually deliver information on our PR campaign website about recommended driving locations, nighttime views and Metropolitan Expressway parking area events. Additionally, the Metropolitan Expressway's official Facebook page provides the latest Metropolitan Expressway information, including tips about outings.



Issuing CSR Report

The Shutoko CSR Report is issued to the stakeholders, including customers, in order to widely publicize our approaches.



Staff Comments

Kengo YOKOYAMA

Customer Satisfaction Promotion Department,
Customer Satisfaction Promotion Planning Division.

●What do you like about Shutoko? What do you think is good about Shutoko?

I like the fact that Shutoko serves as one of the local infrastructures of the Tokyo Metropolitan area.

●What tasks are you in charge of?

I am mainly in charge of promoting CSR activities to enhance company value, and planning PR events to further promote our company projects to our customers.

●When do you feel your work is fulfilling and rewarding and what kind of company would you like Shutoko to become?

In order to enhance company value, I believe it is important to accept the various opinions from our customers with sincerity and create a close relationship with them.

I feel a strong responsibility and sense of fulfillment being involved in this important duty, which can be said to be the core of the company, of building trusting relationships and responding to the expectation of the company's various stake holders.

I will continue to work hard on my daily tasks so Shutoko can be even closer to its customers and loved by everyone.

Creating Appealing Urban Parking Areas

Parking Areas

There are twenty parking areas, both large and small, on the Metropolitan Expressway.

We strive to maintain parking areas that all our customers can use in safety and comfort. These parking areas are equipped with toilets, break facilities, information areas and other amenities that consider universal design and use renewable energy whenever possible.

We operate urban parking areas where people can stop to rest while driving, and also provide various shops, automated retail machines that provide services 24 hours a day, and open terraces where customers can relax.

Locations of the twenty parking areas

Locations of the twenty parking areas

Parking areas with cafeterias or cafes

Unstaffed parking areas

Yoyogi parking area

Shimura

Kawaguchi

Kahei

Yashio

Minami-Ikebukuro

Komagata

Eifuku

Hakozaki

Yoyogi

Tatsumi Dai-ichi

Tatsumi Dai-ni

Yoga

Shibaura

Oi eastbound

Oi westbound

Ichikawa

Heiwajima inbound

Daishi

Heiwajima outbound

Daikoku

Heiwajima inbound parking area

Convenience store

Automated retail machine

Shutoko Free Wi-Fi available

Clean, convenient disabled accessible toilets

AED

Express buses and rail transfers

EV QUICK charging station for electric vehicles

Express Buses and Rail Transfers

We have built bus stops for passengers who use express buses headed for central Tokyo so they can get off at the Yashio and Yoga parking areas. Enabling passengers who wish to transfer from express buses to rail can therefore avoid congestion on the Metropolitan Expressway.

Transfer locations	Transfer ticket prices
Yashio parking area to Tsukuba Express Yashio Station (five-minute walk)	Yashio Station to Akihabara Station: ¥100
Yoga parking area to Tokyu Den-en-toshi Line Yoga Station (five-minute walk)	Yoga Station to Shibuya Station: ¥100

Shutoko Free Wi-Fi Service "Shutoko Free Wi-Fi"

We provide Shutoko Free Wi-Fi, a public wireless LAN service that anyone can use, inside our parking area facilities.

- Parking areas that offer the service: Heiwajima inbound, Yoyogi, Kahei, Yashio, Kawaguchi, Daikoku, Ichikawa and Shibaura
- Usage fee: Free (Use is possible any number of times up to half an hour per day)

Rapid Charging Stations for Electric Vehicles

Rapid charging stations for electric vehicles have been set up at eight parking areas located in various sites across the Metropolitan Expressway.



Rapid charging station for electric vehicles (Daikoku parking area)



Staff Comments

Machiko KANBE

West Tokyo Bureau, Facility Maintenance and Design Division

● **What do you like about Shutoko? What do you think is good about Shutoko?**

I like the strong sense of responsibility of the energetic employees.

● **What tasks are you in charge of?**

I am in charge of repair design works to address aging structures and improving customer satisfaction in parking areas, toll gates and repair bases etc. in the West Tokyo area.

● **When do you feel your work is fulfilling and rewarding and what kind of company would you like Shutoko to become?**

Parking areas and toll gates are familiar places for customers using the expressway. As we are able to implement our own ideas to make these building structures safe and provide an attractive space, I feel a strong responsibility and find my work very rewarding.

I will continue to work diligently on my daily tasks to create attractive and comfortable buildings so our customers will be satisfied.



The Future and the Environment
By Smoothing the Flow of Road Traffic,
We Contribute to People, Communities and
Daily Lives in the Greater Tokyo Area

Promoting Convenient, Comfortable and Environmentally Friendly Road Networks

Efforts to Date

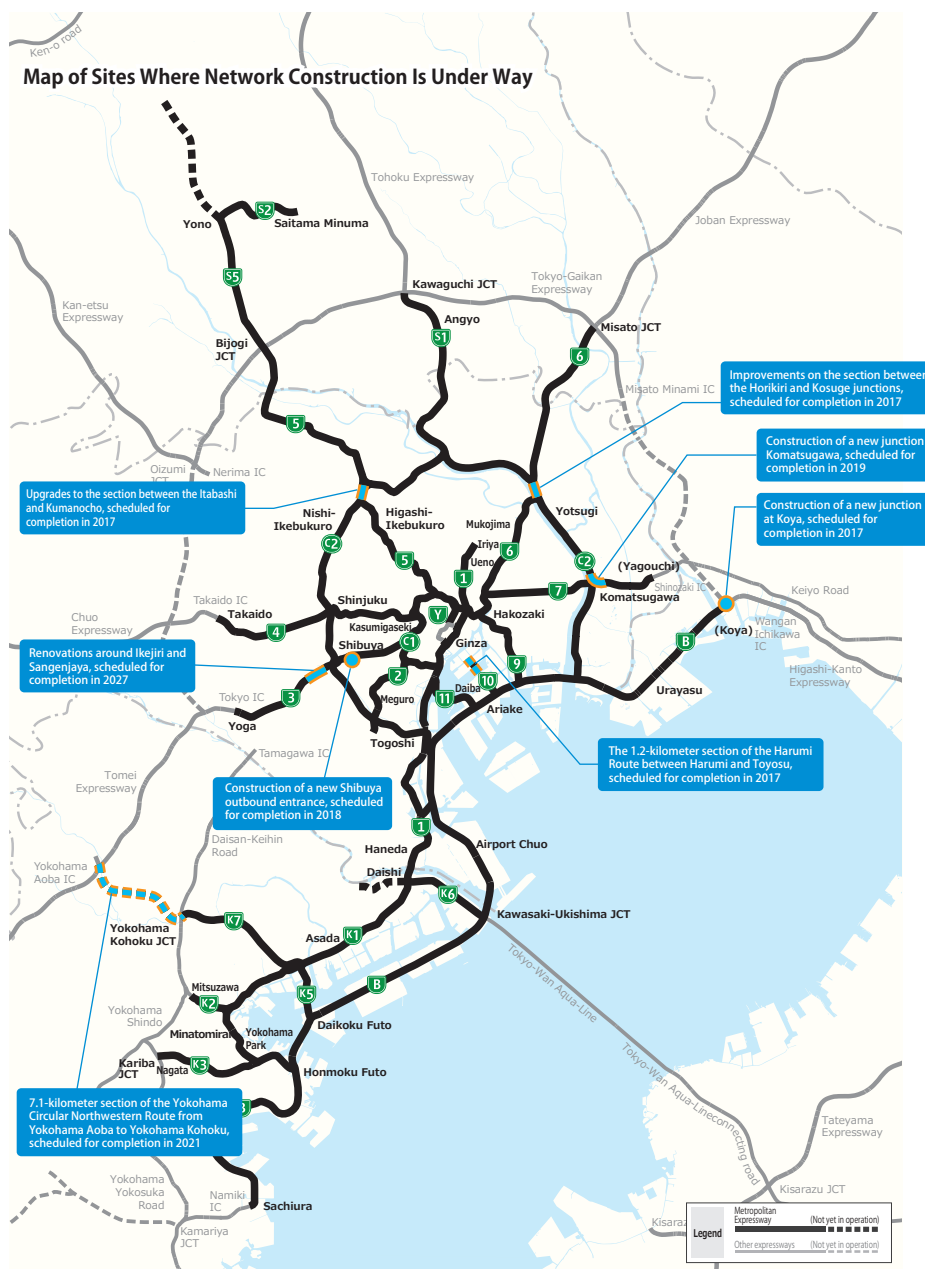
The completed Central Circular Route finally opened on March, 2015, when the Yamate Tunnel went into operation on the Bay Shore Route and Route 3 (Shibuya Line), five decades after the plan for it was formulated. The Central Circular Route has helped to ease the traffic concentrated downtown, reducing travel times and alleviating congestion. Kanagawa Route 7 Yokohama North Line (hereinafter referred to as Yokohama North Line) was opened on March 18, 2017. Access between the districts, such as Shin-Yokohama and Keihin Coastal area, has improved. By establishing such a network, the Cumulative effects* has spread a wide-range of economic activities as well as improved distribution efficiency.

*Cumulative effects: The social capital that has been provided will yield sustained benefits in citizens' lives and in economic activities.

Future Efforts

The Metropolitan Expressway can be used even more efficiently now that the complete Central Circular Route is open. We will continue to pursue measures directed at locations where congestion is predicted, strengthening our capabilities with steps such as widening routes and moving ahead with construction projects on new routes so that additional Central Circular Route network benefits can be added.

Furthermore, we are moving forward with the construction of the Yokohama Circular Northwestern Route (between Yokohama Aoba and Yokohama Kohoku) in the Kanagawa region. This route is expected to alleviate traffic jams on surrounding roads and offer improved convenience over a wide area by linking up with the Tomei Expressway and Yokohama's urban centers in Shin-Yokohama and the Keihin coastal area, enhancing access among local communities.



The Metropolitan Expressway: Convenient, Comfortable and Environmentally Friendly

TOPICS

Yokohama Circular Northern Route

Opened in March 2017

More Convenient Access to Seaport and Airport



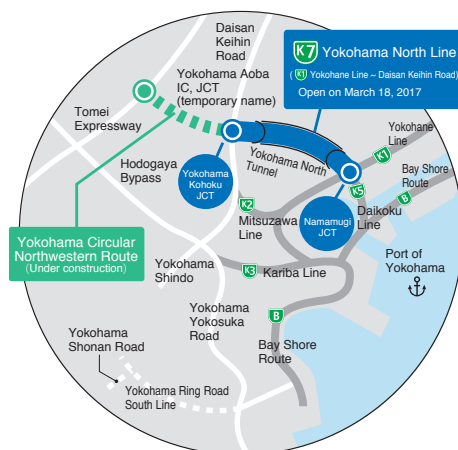
Area around Kohoku Junction



Yokohama North Tunnel



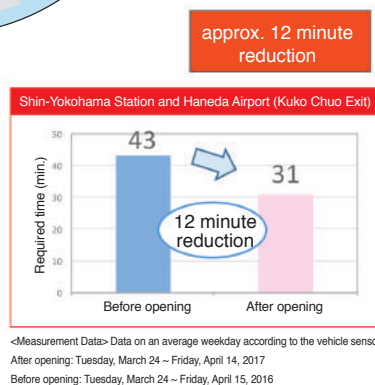
Area around Namamugi Junction



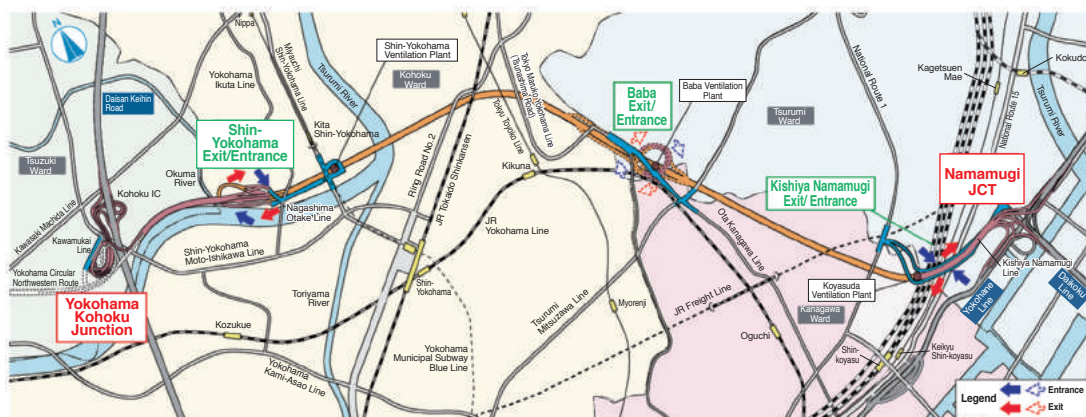
Yokohama North Line (Yokohane Line ~ Daisan Keihin Road) opened at 4:00pm, Saturday, March 18, 2017. The Yokohama North Line connects a distance of approx. 8.2km, from Yokohane Line to Daikoku Line, to the Daisan Keihin Road, covering approx. 5.9km and approx. 70% of the total distance of the Yokohama North Tunnel.

A major effect of opening the line is a reduction in time required between Shin-Yokohama Station and Haneda Airport (Kuko Chuo Exit) by approx. 12 minutes, even in high traffic (approx. 43 min → approx. 31min.) Moreover, the operating route used by highway buses connecting Haneda Airport to Shin-Yokohama Station, has changed to take advantage of the Yokohama North Line, resulting in a time schedule with a shorter required time.

Future maintenance of Yokohama Circular Northwestern Route is expected to further improve traffic convenience to the Tomei Expressway and Yokohama city north-west direction.



*Approx. required time during average heavy traffic periods (after 7 am for inbound, after 6 pm for outbound)
 *Used Kokoku IC before opening



*Construction of Baba Exit has progressed, tentative opening in 2019.

Networks Under Construction

■ Harumi Route Scheduled for completion in FY2017

The Harumi Route is a route expected to provide great benefits in alleviating Inner Circular Route congestion.

Work on this line commenced in 2001, and the section between the Toyosu entrance/exit and Shinonome Junction opened in February 2009. Work continues, and the plan is to complete the Harumi-Toyosu section early.



Harumi Line (Yurikamome Crossing)

■ Yokohama Circular Northwestern Route Scheduled for completion in FY2020, Tokyo Olympic & Paralympic Games

The Yokohama Circular Northwestern Route will connect with the Tomei Expressway at the Yokohama Aoba interchange and the Yokohama Circular Northern Route and Daisan Keihin Road at the Kohoku Junction. Joined to the Yokohama North Line upon completion, it will improve transportation over a wide area, linking the city's northwest and the Tomei Expressway with downtown Yokohama, Haneda Airport and the Tokyo-Wan Aqua-Line.

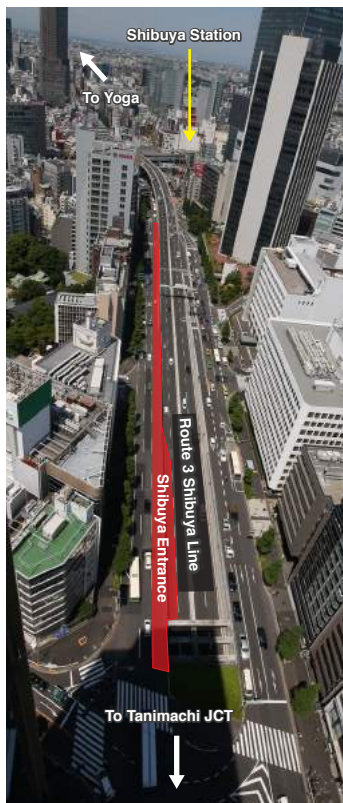


Yokohama Aoba IC / JCT (tentative) construction site

■ Shibuya Entrance scheduled completion in 2018

Construction of the Shibuya Entrance (outbound) is to create an entrance in suburban direction (Tomei Expressway direction) near Shibuya Station East Exit on Route 3, Shibuya Line. Construction of the Shibuya Entrance will improve access from center of Tokyo and near Shibuya Station to suburban direction.

Moreover, by transferring traffic which uses to pass through Ikejiri Entrance via Roppongi street and Route 246, which runs parallel to Shutoko, to the Shibuya Entrance, a reduction in traffic on the general road around Shibuya Station is expected. Construction of the Shibuya Entrance is expected to reduce required time to Ikebukuro direction and Haneda Airport direction.

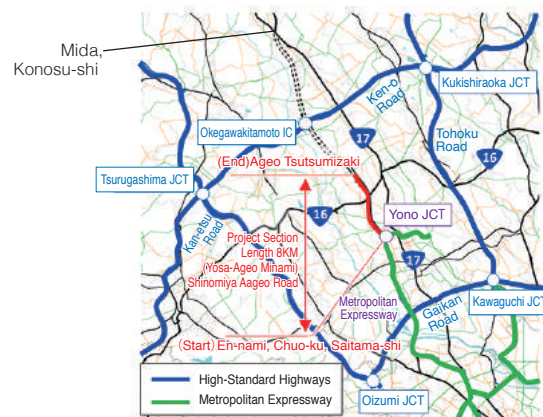


Shibuya Entrance planned location (near Shibuya, Shibuya ward)

■ New Omiya-Ageo Road (Yono~Ageo Minami)

The New Omiya-Ageo Road divides central Saitama prefecture north-south, and extends the limited expressway approx. 25.1km from Ennami, Chuo-Ward, Saitama City to Mida, Kounosu-City. Within this, a section approx. 8.0km extending from Ennami, Chuo-Ward, Saitama City to Tsutsumizaki, Ageo City is under construction.

This construction section is to be integrated with the existing Shutoko network, and seeks to reduce traffic accidents and ease traffic congestion on Route 17 Omiya bypass, as well to improve traffic access in metropolitan Tokyo and central areas in Saitama prefecture. In the future, operations will proceed with the goal of early completion, in cooperation with the co-operator, Kanto Regional Development Bureau, Ministry of Land, Infrastructure, Transport and Tourism.



Devising Strategies to Reduce Bottlenecks

We are moving forward on projects to enhance the Central Circular Route's functions to demonstrate its road network benefits.

Renovating the Section Between the Itabashi and Kumanochi Junctions (Scheduled for completion in FY2017)

Merging and diverging lanes exist on short segments on the section between the Itabashi and Kumanochi junctions that connects the Route 5 (Ikebukuro Line) and the Central Circular Route, so the traffic flow is complex and traffic jams occur on the three lanes on either side depending on the time of day. This project is meant to alleviate congestion by widening this section to four lanes on each side.



Itabashi and Kumanochi Junctions

Upgrading the Section Between the Horikiri and Kosuge Junctions (Scheduled for completion in FY2017)

Traffic volume is heavy on the inner Central Circular Route section between the Horikiri and Kosuge junctions, and the section has merging and diverging lanes on short segments. The traffic flow is complex, and there is chronic congestion on the three lanes on each side. This project is meant to alleviate that congestion by widening the section to four lanes on each side.

Note: The outer loop was expanded in March 2001.



Horikiri and Kosuge Junctions

Construction of the New Komatsugawa Junction (Scheduled for completion in FY2019)

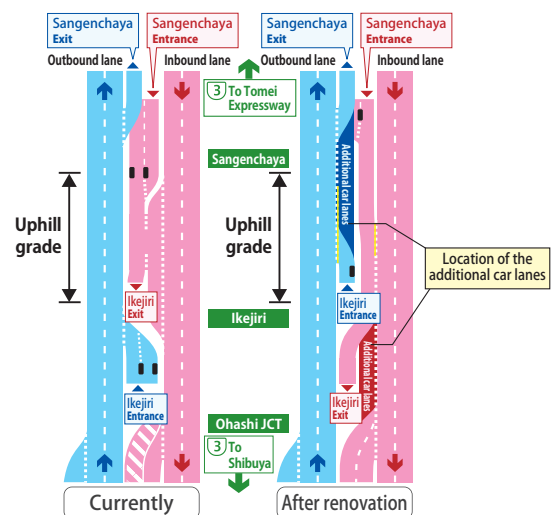
There is no connection between the Route 7 (Komatsugawa Line) and the Central Circular Route near Nishi-Komatsugawacho in Edogawa Ward, even though both roads intersect the area. This is a project to build a new road that connects Saitama and Chiba, and aims to efficiently use the Central Circular Route to expedite bypassing and dispersal of traffic concentrated downtown and alleviate traffic jams.



Komatsugawa Junction

Renovation between Ikejiri and Sangenjaya Exit (scheduled completion in 2027)

User traffic around Ikejiri / Sangenjaya on Route 3 of the Shibuya Line is heavy, with decreased speed due to incline and merging and exiting in a short section. There is much cross traffic and congestion. As well as setting additional car lanes between on and off ramps, the locations of the ramps will also be changed to improve efficiency in the bottle neck zone as much as possible.



Promoting and Utilizing Technological Development

Using and Developing Advanced Technologies

■ Basic policy for technical development

For Shutoko to continue to be an important road network with high-resilience and excellent function of international city Tokyo even 100 years from now, we develop world-leading, advanced and creative urban expressway technology centered on efficient and effective maintenance management / improvement technology. Furthermore, we utilize this technology to provide the same service to infrastructures inside and outside Japan.

■ Using Professionals We Have Trained to Contribute to Society

We contribute to society by posting professionals we have trained to teach part-time at universities and other methods. For example, we sent staff to serve as part-time instructors at Yokohama National University and Nihon University in 2017.

■ Joint research theme of projects which have carried out in recent years

Joint research with Universities

- Research and development to improve structural diagnosis of Shutoko (Tokyo City University)
- Research in damage prediction and measures in the event of major earthquakes such as those with an epicenter directly underneath Tokyo (Yokohama National University)
- Development of precast wall balustrade for renovation work (Saitama University)

Joint research with private corporations

- Research in floor panel connectors in the renovation of existing RC floor panels
- Research in effective coating removal method in re-painting in bridge

Shutoko has received awards for its use of technology, such as Technology Award of Japan Society of Civil Engineers

(As of July 1, 2017)

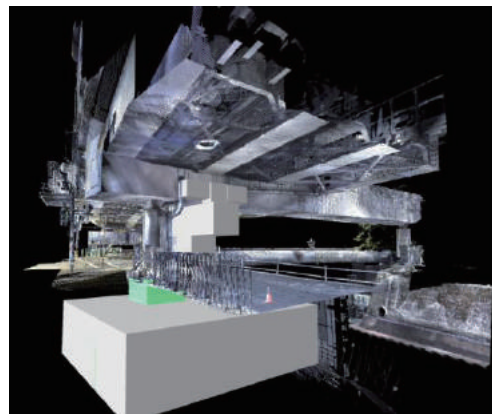
No.	Name	Award description
1	(Government agency) Japan Society of Civil Engineers Technology Award (Group I)	Construction of merging and exiting section using new shield tunnel expansion technology (merging and exiting section at the Yokohama North Tunnel Baba Exit / Entrance)
2	(Government agency) Japan Society of Civil Engineers Technology Award (Group II)	Construction of Expressway Kanagawa Route 7, Yokohama North Line <Urban expressway construction in consideration of conservation of surrounding environment>
3	(Government agency) Japan Society of Civil Engineers Technology, Tanaka Award (Work Department)	Bridge in Katsushima District, Shutoko Route 1, Haneda Line (Continuation of PC Gerber bridge)

No.	Name	Award description
4	(Government agency) Japan Pre-stressed Concrete Institute, Japan Pre-stressed Concrete Institute Award (Work Department)	Bridge in Katsushima District, Shutoko Route 1, Haneda Line
5	Infrastructure Maintenance Award Minister of Public Management, Home Affairs, Posts and Telecommunications Award, for excellent utilization of information transmission technology	Development of road / structure maintenance management support system which utilizes GIS and three-dimensional dot group data.
6	Yokohama City Yokohama / Human / City / Design Award <Street Scenery Department>	Okuma river truss bridge seen from Shin-Yokohama Park

Please visit <http://www.shutoko.jp/ss/tech-shutoko/jyusyou/> to see our record of previous awards.



Okuma river truss bridge



Development of road / structure maintenance management support system which utilizes GIS and three-dimensional dot group data.

Promoting Cooperation with Academia and Industry, and Promoting Learning by Disseminating Successful Research and Training Human Resources

We promote collaborations with academia and industry in all areas where mutual cooperation is possible, including Metropolitan Expressway construction, maintenance and management, the environment and other areas. We established comprehensive cooperation agreements with Yokohama National University and Saitama University.

Examples of cooperation

- Conducting joint or subcontracted research and classes funded by donations and related mutual exchanges of researchers and technicians
- Implementation of research projects that would be effective when implemented jointly, based on mutual exchanges of information and views
- Contributing products developed based on technical cooperation to society
- Conducting presentations pertaining to the latest research developments and expressways

Working to Create the Best Environments and form Harmonious Relations with Local Communities

Integrated Approaches to Creating Cityscapes and Comfortable Driving Environments

We implement measures to improve the Metropolitan Expressway's appearance, striving to ensure that it fits into the urban environment. Particularly for routes already in operation, we have drafted action plans for improving their appearance and commenced prioritizing locations whose appearance needs improvement, repainting elevated sections and improving the appearance of driving environments inside tunnels. We will also be working to improve the expressway's appearance and comfort so that we can offer appropriate hospitality in our role as the host location for the 2020 Tokyo Olympics and Paralympics.



Repainted elevated section near Tsutsumidori on Route 6 (Mukojima Line)

Improving Road Environments with Greenery

We have been planting plants along the expressway network to create safe, pleasant driving environments as well as heat island and global warming countermeasures.



Wall plantings at Yoyogi parking area



Greenery at Daishi Junction



Greenery on a Nishi-Shinjuku Junction girder

We Actively Adopt Environmentally Friendly Technologies to Benefit Expressway Areas and the Global Environment

We build environmentally friendly tunnels and improve the environments along our roads. Our tunnel structures transmit almost no noise or vibration from cars, and minimize the impact of vehicle exhaust along the road.

Additionally, we install soundproofing panels to cut the noise transmitted along the expressway and sound-absorbing acoustic panels on the undersides of elevated roads to minimize the sound reflected back to city streets. We minimize the noise tires make by eliminating expansion joints on bridges, and employ high-performance paving that drains well, which also reduces noise and vibration in the driving environment.

We also install road illumination by LED lights.

LED lights have less electricity consumption than conventional mercury arc lamps or high-pressure sodium vapor lamps, and have a longer life, contributing to energy saving and reducing global warming.



Sound insulation wall (transparent plate)



Yokohama North line



LED lights

Preparing for the 2020 Tokyo Olympics and Paralympics Games

We are working hard to enhance our globalization-oriented services—starting with safe, reliable transportation for Games participants—as part of our efforts to contribute to the success of the 2020 Tokyo Olympics and Paralympics Games.

1. Our Metropolitan Expressway 2020 Tokyo Olympics and Paralympics Games Promotion Office

We set up the Metropolitan Expressway 2020 Tokyo Olympics and Paralympics Games Promotion Office, headed up by our CEO, the day after Tokyo received the invitation to host the Olympics (September 9, 2013). We have been studying how to quickly and precisely handle the various tasks we need to tackle.

2. Our Metropolitan Expressway 2020 Tokyo Olympics Advisory Board

We have established an advisory board made up of outside experts to prepare for the 2020 Tokyo Olympics and Paralympics Games. Our goal is to obtain a wide range of advice about the Games' success and regarding the Metropolitan Expressway's efforts to serve as an engine that powerfully sustains growth from the perspective of the stronger international competitiveness anticipated afterward. Its deliberations are ongoing. Board chairman: Masayuki Wakui, professor, Faculty of Environmental Studies, Tokyo City University

Main themes: Improving services and appearance; safety and security

From 1964 ~ To 2020 ~ Beyond 2020

1964 Tokyo Olympics

The Metropolitan Expressway built for the 1964 Games continues to develop, and will contribute to the success of the 2020 Games.

2020 Tokyo Olympics

We will develop technologies honed for the 2020 Games, passing them on to the next generation.

Legacy

Contributing to Society

We work alongside local community members to be of service to their communities, and always strive to make a better environment a reality and to promote the development of local societies.

■ Working with Local Community Members

Community cleanups

We carry out quarterly cleanups beneath elevated Metropolitan Expressway sections and around facilities and parking lots in urban development zones. Our goals are to maintain good relations with local communities and to conduct educational efforts related to road beautification.



Neighborhood cleanup

■ Learning Support

Helping out with integrated studies

We actively assist with integrated studies, inviting students from nearby elementary schools to experience horticultural activities, such as rice planting at Ohashi Sato no Mori in Ohashi Junction and to plant flowers at the Bay Shore Route's Daikoku parking area. We also host participatory events about how society works and expand awareness regarding employment by having the children who represent our society's future familiarize themselves with the Metropolitan Expressway.



Shutoko Children Future Project



Rice-planting experience



Gardening activities at Daikoku parking area

Other project

■ Consigned road project

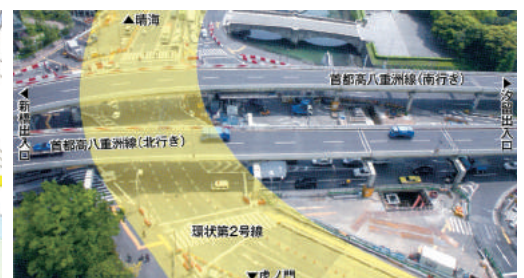
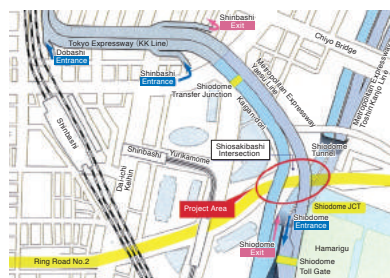
In Shutoko, new construction and renovation, etc. of roads related to Shutoko are carried out as projects consigned by local government etc. Major road projects currently consigned are described below.

- Loop Expressway 2 tunnel maintenance project
- New construction of Koya JCT

■ Loop Expressway 2 tunnel maintenance project

Loop Expressway 2 is an urban planned road in Tokyo with a total length of approx. 14km from Ariake Kotou Ward to Sakuma-cho, Kanda, Chiyoda Ward.

Within this, we have been consigned a maintenance project (temporary construction, drilling, and framing construction) of the Loop Expressway 2 tunnel which crosses the Shutoko Yaesu Line and Inner Circular Route, Shiodome tunnel.





Challenge

**By Using Diverse Ideas and Technologies,
We Develop a Broad Range of Businesses**

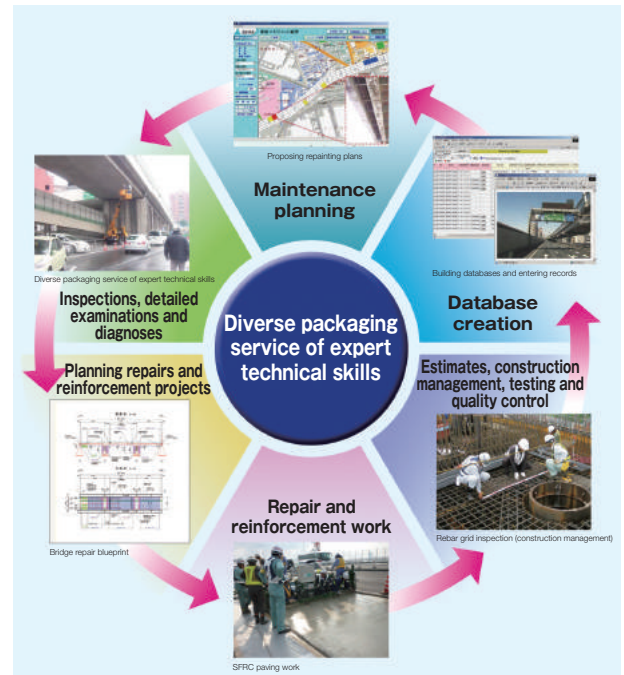
Technical Consulting Business

We promote technical consultation projects in Japan and abroad utilizing the professional technologies of the Shutoko Group achieved from previous planning, construction, maintenance, management, and traffic operations over the past 50 years.

Domestic Technical Consulting Business

The Shutoko Group supplies technical consulting based on the specialized technical skills we have developed during over five decades of planning, constructing, maintaining, managing and operating the Metropolitan Expressway. We, focus on works related to inspections, diagnostics, planning repairs and designing earthquake-resistant reinforcements on road structures managed by national and regional public corporations.

- Inspections, diagnostics, repair planning, earthquake-resistant reinforcement project planning, repair work and construction management of road structures
- Investigating how to maintain the safety of construction adjacent to Metropolitan Expressway structures
- Dispatching specialized technicians to provide technical support
- Surveys and studies related to traffic planning and control (ITS)
- Examining the earthquake resistance of buildings and planning reinforcement projects
- Negotiation of public land, explanation of compensation, site acquisition process management, inquiry of compensation amount, preparation of land condemnation documents



Professional technologies possessed by the Shutoko Group

Detailed survey with diagnosis technology



Steel plate floor Automatic Ultrasonic Testing equipment (SAUT).

A non-destructive inspection technique to detect fatigue cracks occurring inside the steel plates

Effective maintenance with new our technology



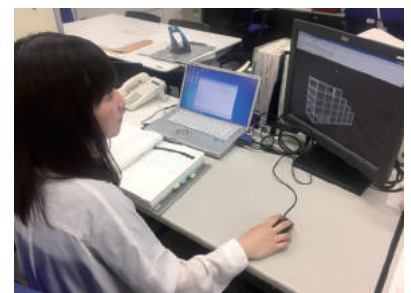
InfraDoctor®

An infrastructure management system which digitalizes the structure by three-dimensional point cloud data. Data is used with the inspection results ledger in the GIS platform (Photo of the measurement vehicle collecting three-dimensional dot group data)

In-house venture by First class Archited office

This office's primary line of business is to handle orders for earthquake resistance examinations and reinforcement planning for private sector buildings along trunk roads, helping to promote earthquake-resistant structures.

Additionally, the Tokyo Metropolitan Government has appointed our office as an earthquake-proofing advisor, and we give consultations with building owners about earthquake-proofing renovations.



International Technical Consulting Business

Overseas Technical Consulting Business

Expanding Our Technical Consulting Business Overseas

Kicking off with an order received from JICA in February 2010, we have been promoting our technical consulting operations abroad. We received an order for consulting work directly from Don Mueang Tollway Public Company Limited (Thailand) in January 2013. We will continue to expand overseas, using the various skills and expertise we have accumulated while planning, building, operating and managing the Metropolitan Expressway. In addition, we continue to seek further development to overseas.



Measuring ETC wireless transmissions at a Thai toll plaza



Information collection / confirmation survey for the maintenance of the urban traffic network in Duala, Cameroon.

We are also Involved in Overseas Road Investment Projects

In September 2011, JEXWAY “Japan Expressway International Company Limited.” was established by joint investment with three companies of NEXCO. We have participated in overseas road investment projects through JEXWAY.

■ Representative Office in Bangkok

Since June 2011, we have established a Representative office in Bangkok, Thailand, for further development of overseas projects. Centering on Thailand and surrounding countries, we promote international contribution in various fields such as maintenance management, traffic control, ITS, and technical consultation.



Street in Bangkok



Meeting including the locally hired staff

Social contribution activities in Japan and abroad

Contributions in Japan

The “Workshop on bridge maintenance management” has been regularly held since 2009, targeting technical employees of the national and local governments, in order to expand use of Shutoko technologies in road infrastructure maintenance management. In previous workshops, in addition to observation of on-site bridge maintenance management within the Shutoko Group, we work towards mutual technical improvement.



Observation of PC (pre-stressed concrete) beams, Gerber part, renovation construction
March 14, 2017 Route 4 Shinjuku Line, Sendagaya overhead box girder

International contributions

We have contracted “Memorandums of Understanding regarding Technical Cooperation” (MOU) with Indonesia, France, Myanmar, and Malaysia (total 11 agencies in 6 countries), starting with Ministry of Public Works and Transport in Cambodia. From now on, we will continue to build new relationships with other agencies, which will lead to greater promotion of overseas projects.



Signing ceremony of MOU with Projek Lintasan Kota Holdings Sdn Bhd (PROLINTAS) in Malaysia

Besides training carried out by JICA, etc., and receiving observations from government agencies from countries around the world, we carry out opinion exchanges for technical cooperation. Moreover, we dispatch JICA experts to government agencies in developing countries through JICA, cooperating in the provision of technical guidance and training of human resources. In recent years, we have carried out activities to introduce approaches used in Shutoko in order to promote traffic safety activities overseas.



Opinion exchange for technical cooperation with the Minister of Construction of Myanmar



Participation in a traffic safety campaign in Thailand

Operating Various Ventures to Contribute to People's Lives

Together with our affiliates, the Shutoko Group runs various ventures and establishes new ones to establish a stable, long-term business foundation. We adopt the customer's point of view so that we can contribute to the lives of members in all communities.

Parking Lot Business

City Planning Parking Lots

We operate City Planning Parking Lots that underpin urban activities in five locations, with spaces for a total of well over two thousand (2,100) vehicles.

- Shiodome parking lot: 455 spaces
- Kabutocho parking lot: 939 spaces
- Honcho parking lot: 306 spaces
- Shirauobashi parking lot: 226 spaces
- Sendagaya parking lot: 236 spaces



Map of City Planning Parking Lots

Parking Lot Business Using Sites Under Elevated Roads and Elsewhere

We operate and manage parking lots with space for a total of 5,600 vehicles in 58 locations beneath viaducts on the Metropolitan Expressway and other places. We have been installing surveillance cameras, adding equipment to enable us to handle digital cash, and taking other measures to enhance customer safety and convenience.



O-Path Ohashi parking lot



Parking lot entrance

Real Estate Business Operations

We operate Trias Shinyurigaoka, a rental property that occupies a former company housing site. We have made this venture an environmentally friendly living environment, installing solar-powered exterior lighting and ensuring plenty of space for exterior facilities, based on the concepts of design, construction, maintenance and management for safety and security; consideration for the community environment; and environmentally friendly measures such as arrangements of greenery to achieve a lower carbon footprint.



Trias Shinyurigaoka

Advertising and Communications Business

credit card Business

Various credit cards have been issued to be used advantageously by Shutoko.



Publication of Shutoko Jalan

We operate an advertising business and publish Shutoko Jalan, a free paper that provides helpful information to drivers and encourages them to use the Metropolitan Expressway and parking areas.



Lifestyle Services Businesses

Self-Storage Business

Taking advantage of the space below Metropolitan Expressway viaducts, Shutoko Self-Storage Ebisu helps people living in the surrounding area by providing a location to store household goods. This also creates a more pleasant living environment—including an environment with wall plantings on the building—and contributes to a more affluent, comfortable lifestyle for members of the community.



Shutoko Self-Storage Ebisu

Circulation Shutoko Project

Circulation Shutoko is part of our efforts to care for the environment—a recycling project designed to effectively use Metropolitan Expressway waste materials. We are collaborating with people who support this project to develop recycled products.



Circulation Shutoko Project's "Hataraku tote bags"

Metropolitan Expressway Product Development

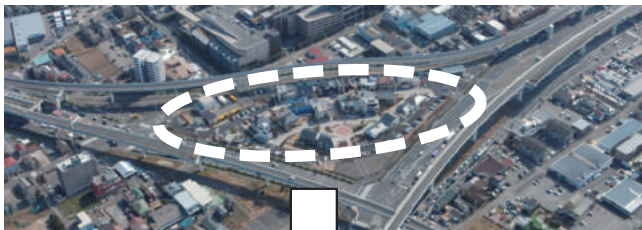
The idea for the Rainbow Bridge Metallic Nano Puzzle came out of our in-house suggestion system, and went on sale as Metropolitan Expressway's debut item. A high-quality metallic 3D puzzle that can be easily taken apart and reassembled to create a realistic figure, the Nano Puzzle is sold at seven Metropolitan Expressway parking areas and through the Shutoko Miyage web store.



Circulation Shutoko Project's "Hataraku tote bags"

Yono Urban Promotion Complex

The Yono Urban Promotion Complex offers drivers a parking area, information center and free recreation facilities, restrooms, convenience stores and other commercial facilities. In addition, there is a model home exhibition area that uses the space for events, and whose theme is "creating lovely, high-quality townscapes." Visitors can enjoy a carefree stroll in the attractive model homes section.



Yono Junction



Yono Urban Promotion Complex

Temp Staff Business

Shutoko Partners Co., Ltd. is a temp staff business and integrated personnel services company within the Shutoko Group. The company offers specific human resource services designed to enable optimum matchups among staff and companies who employ temp staff.

Insurance Agency Business

Shutoko Insurance Support Co., Ltd. is an insurance agency within the Shutoko Group that provides top-quality safety and security, fulfilling the insurance needs of customers.



Human Resource Development

**Training Professionals to
Sustain Our Operations and
Improve Our Organizational Capabilities**

Creating an Environment That Inspires Our Employees

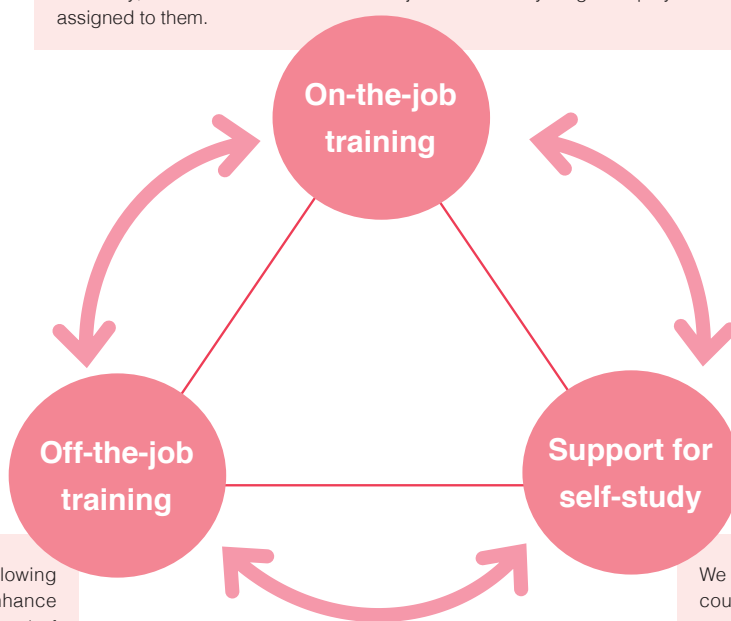
Promoting Human Resource Development

Encouraging employee development with on- and off-the-job training, support for self-study, and feedback interviews pertaining to personnel evaluations

We look for employees who approach their work with a sense of responsibility, coordinate with and support each other, and take on all challenges as a way to refine the skills they need to provide high-quality service that satisfies our customers. We promote human resource development with on- and off-the-job training, support for self-study, and feedback interviews pertaining to personnel evaluations.



Superiors, employees with seniority, subordinates and younger employees learn and develop together by teaching and being taught during the course of their daily duties. This boosts the company's productivity so that each employee can grow and become self-reliant. We have established a systematic training system in which each level of hierarchy has objectives pertaining to its importance and necessity, and leaders take roles on-the-job trainers as younger employees are assigned to them.



Training primarily involves following common themes meant to enhance the skills expected of each level of hierarchy; for individual departments to acquire knowledge, abilities and technical skills; and sending employees to training sessions offered by outside agencies to acquire specialized expertise. Training conducted for younger employees in particular involves posting them to group affiliates to improve their workplace skills and experience administrative tasks together with employees at group affiliates.

We help defray the cost of correspondence course tuition fees and financial aid for employees who acquire qualifications that require recommendations. Additionally, we have established overseas and domestic exchange studies programs to promote skills that will enable employees to support the expressway business and at the same time run diverse operations.

Used for training and instruction

Measurement of effect

Personnel evaluations

Feedback interviews pertaining to personnel evaluations

We emphasize feedback interviews on personnel evaluations as essential human resource development tools. Providing all employees with individual feedback on the outcomes of their personnel evaluations and sharing information about their individual strengths and weaknesses together with their superiors ties in with their future performance and growth.

Improving Technical Skills and Imparting Techniques

We are highly regarded in Japan and elsewhere for our advanced technical skills in three areas—the construction, use and maintenance of expressways in the Tokyo metropolitan area—that Shutoko has accumulated over more than fifty years. We strive to improve our technical skills and impart related techniques so that we can steadily and flexibly handle projects that call for even more sophisticated technical skills, and provide customers high-quality services.

OJT

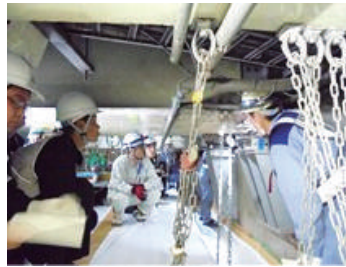
In-house workshops to improve basic and professional technology of young engineers, and VE activities for comprehensive technology improvement are continuously carried out.

□ In-house workshop

Activities which target young engineers in various professional fields are carried out, seeking to solve technical issues in design and construction.

□ VE (Value Engineering) activities

Team activities which seek functional improvements and cost optimization targeting a specific theme are carried out. To achieve annual activity goals, we hold company report meetings, as well as participate and make presentations at national VE meetings.



An in-house workshop



A VE national meeting

OFF-JT

Practice-type training and actual operations training on the actual work site are carried out to strengthen on-site performance and improve application ability.

Moreover, annual technical achievements achieved through the activities of young engineers are summarized in theses and reports, as well as reported at presentation meetings, in order to share and pass down technical information.



Training



Technical presentation meeting

Self-education support

For the continuous improvement of expert technology and application ability, these are actively submitted and presented, and acquiring certification is supported and encouraged. Moreover, we support young engineers in their studies in Japan and abroad as they acquire expert knowledge and techniques which are necessary to respond to diversified and upgrading technologies.

Number of employees with major certifications *As of March 31, 2017

Professional engineer

61

Steel infrastructure diagnosis engineer

22

First-class architect

20

Doctor

8

Concrete assessor

45

VE specialist

3

Creating an Environment Where Employees Work Enthusiastically

Enhanced Work and Lifestyle Support

Enhanced Work and Lifestyle Support

We have set up services inside and outside the company that allow employees to discuss their careers, health and other topics. To create a positive and dynamic workplace, we also provide support systems for employee to maintain their mental health. Additionally, we work hard to create an environment in which employees can work in good health and with peace of mind through training and help, including various types of vaccinations.

Providing an environment conducive to success by promoting work-life balance

We are doing our best to reduce overall working hours by having employees leave by 7 p.m. four weeks a year, and encouraging them to leave on time with a “no-overtime day” every Wednesday. We also offer various systems to support a balance between work and child or nursing care. The number of employees—not just female employees but also male employees—taking parental leave or time off to help with childcare is also increasing yearly. In 2015, we acquired the “Kurumin” next-generation certification mark, a certification the Tokyo Labor Bureau gives to companies that provide support for the next generation.

Various programs that support work-life balance

Program	Description
Parental leave	Until a child reaches three years of age
Partial leave	Up to two hours a day until the end of March in the year a child reaches three years of age
Maternity leave (women)	From six weeks before the expected date of birth to eight weeks after the birth
Spousal maternity leave (men)	Up to three days during the period between the date of hospitalization for childbirth until the official procedures connected with childbirth
Childcare participation leave for men	Up to five days during the period from six weeks before the expected date of birth until eight weeks after the birth
Time off to care for sick children	Five days per child, and a maximum of ten days a year to care for children up to the third year of elementary school
Nursing care leave	Five days per person, and a maximum of ten days a year to care for sick or injured family members



“Kurumin” next-generation certification mark

We respect diversity and do our best to create an environment in which everyone can demonstrate their abilities to the fullest

We strive for a workplace in which every individual can work enthusiastically, employing people with a broad range of perspectives in mind while working hard to create an environment that conforms to diverse human resources.



Staff Comments

Mai EGUCHI

East Tokyo Bureau, Sales/ Road Maintenance Division

● **What do you like about Shutoko? What do you think is good about Shutoko?**

I like the fact that the employees here are very diligent and have a strong sense of mission.

● **What task are you in charge of?**

I am in charge of toll revenues, management of toll gates and attending to customer inquiries.

● **When do you feel your work is fulfilling and rewarding and what kind of company would you like Shutoko to become?**

As my child is still young, I am getting support from others in my workplace and work on a short shift. I do not just sit back and take advantage of my work environment, which I am grateful for, and am always conscious of “what I can do now” to maximize my full potentials in the limited time I work. I will continue to work hard as “the face of Shutoko”, as an employee who manages the toll gates where we greet our customers.

FY2016 Financial Statements

■ Consolidated financial statement

● Consolidated balance sheet (March 31, 2017)

(Unit: ¥100 million)

Item	Amount	Item	Amount
Highway assets in process	1,914	Outstanding payments	975
Other current assets	2,027	Other current liabilities	431
Total current assets	3,941	Total current liabilities	1,407
Property, plant and equipment	613	Corporate debenture related to road construction	1,240
Intangible assets	21	Long-term debt related to road construction	931
Investments and other assets	77	Other fixed liabilities	594
Total fixed assets	712	Total fixed liabilities	2,766
		Total liabilities	4,173
		Capital	135
		Capital surplus	135
		Earned surplus	288
		Other comprehensive income accumulated	- 82
		Minority interests	4
		Total net assets	479
Total assets	4,653	Total liabilities and net assets	4,653

Some amounts in the table above may not be fully accurate as fractional amounts under 100 million yen have been rounded down.

● Consolidated profit and loss statement

(April 1, 2016 to March 31, 2017)

(Unit: ¥100 million)

Item	Amount
Operating revenue	6,610
Rent expenses on highway assets	1,886
Administration costs of highway business and cost of sales	4,562
Selling, general and administrative expenses	106
Operating profit	55
Non-operating income	4
Non-operating expenses	1
Ordinary profit	59
Extraordinary profit	4
Extraordinary loss	6
Pretax profit of the current period	57
Corporation tax and other taxes*	△ 24
Net profit attributable to non-controlling interests	0
Net profit attributable to owners of the parent	82

Some amounts in the table above may not be fully accurate as fractional amounts under 100 million yen have been rounded down.

■ Individual financial statements

● Balance sheet (March 31, 2017)

(Unit: ¥100 million)

Item	Amount	Item	Amount
Highway assets in process	1,913	Outstanding payments	1,009
Other current assets	1,910	Other current liabilities	393
Total current assets	3,824	Total current liabilities	1,402
Property, plant and equipment	577	Corporate debenture related to road construction	1,240
Intangible assets	13	Long-term debt related to road construction	931
Investments and other assets	68	Other fixed liabilities	473
Total fixed assets	659	Total fixed liabilities	2,645
		Total liabilities	4,048
		Capital	135
		Capital surplus	135
		Earned surplus	166
		Total net assets	436
Total assets	4,484	Total liabilities and net assets	4,484

Some amounts in the table above may not be fully accurate as fractional amounts under 100 million yen have been rounded down.

● Profit and loss statement

(April 1, 2016 to March 31, 2017)

(Unit: ¥100 million)

Item	Amount
Toll revenue and other sales	2,695
Highway asset completion sale	3,673
Rent expenses on highway assets	1,886
Highway asset completion cost	3,673
Operating expenses	799
Operating profit of the expressway business	9
Related business revenue	205
Related business expenses	198
Related business operating profit	7
Operating profit of all businesses	16
Non-operating income	7
Non-operating expenses	0
Ordinary profit	23
Extraordinary profit	4
Extraordinary loss	6
Pretax net profit for the year	21
Corporation tax and other taxes*	△ 38
Net profit for the year	60

Some amounts in the table above may not be fully accurate as fractional amounts under 100 million yen have been rounded down.

※The tax effect accounting standard is applied to gain on transfer of benefit obligation relating to employees' pension fund will be earned in FY 2017.

Corporate Profile

(As of March 31, 2017)

Company Name: Metropolitan Expressway Company Limited

Representative: President Toshitaka Miyata

Location: 1-4-1 Kasumigaseki, Chiyoda-ku, Tokyo

Date of Establishment: 'October 1, 2005

Capital: ¥13.5 billion

Summary of Business:

- New construction, renovation, maintenance, repair, post-disaster restoration, and other express highway management
- New road construction, renovation, maintenance, repair, and other work on consignment from the national government, local governments, and other entities
- Operation, management, and other aspects of parking lots, expressway rest areas, and rental facilities located under elevated sections of highways

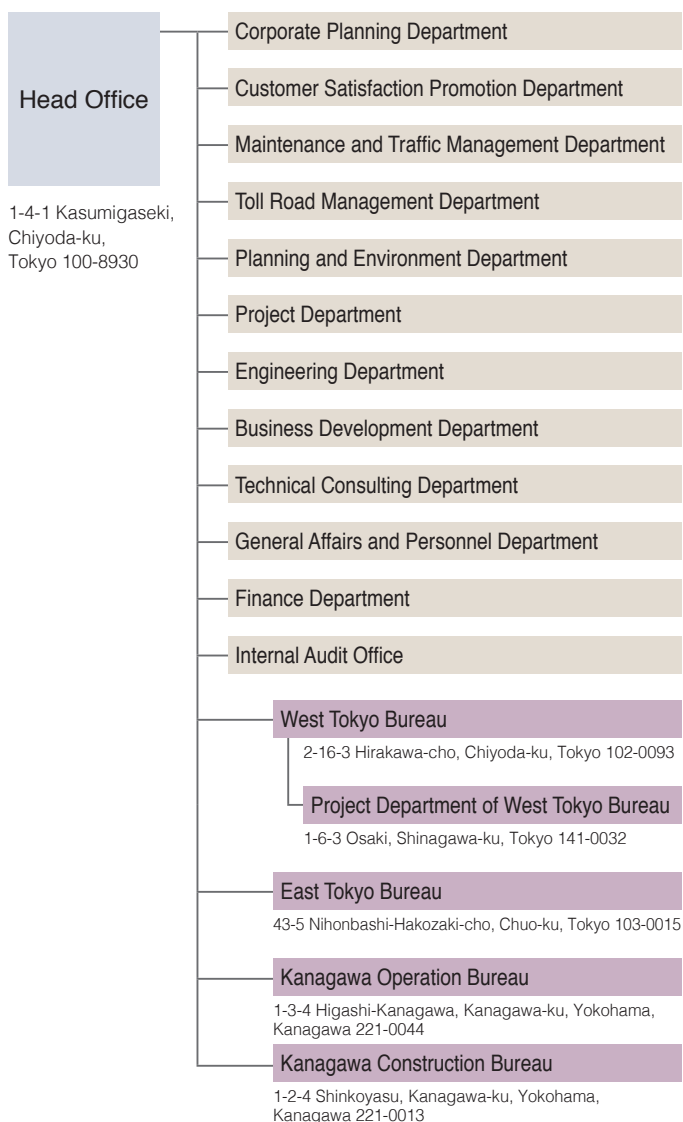
Employees: 1,047 people



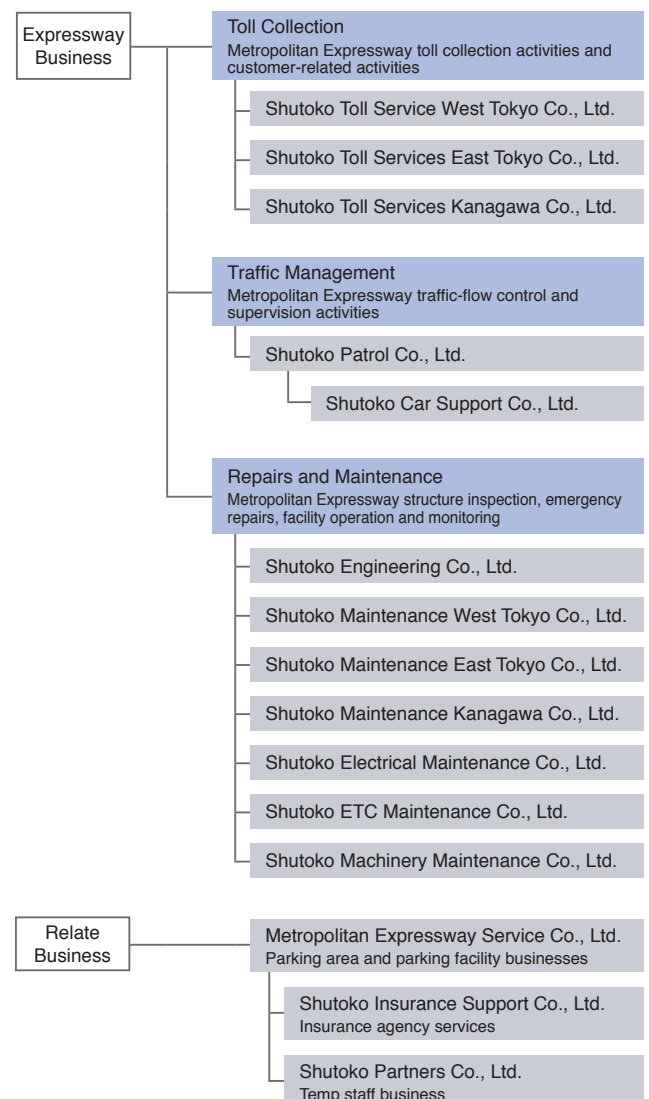
Triangular Stream Logo

This logo symbolizes the Metropolitan Expressway network that spreads out in three different directions from Tokyo to encompass Kanagawa, Chiba and Saitama prefectures. It also represents the company's stance with regard to supporting people, communities and lifestyles through network creation.

Organization



Shutoko Group Companies





Metropolitan Expressway Company Limited



This booklet is printed
on recycled paper using
vegetable oil-based ink.

August, 2017