



Mori Building's Environmental Initiatives

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Meeting the Challenge of Sustainable Urban Development

Since its founding in 1959, Mori Building has been seriously committed to the Tokyo metropolitan area as a city and has continued to focus our attention on considering what a city should be. The ideal urban model we have arrived at is the Vertical Garden City, an ultra-high-rise city covered in greenery. Emphasizing the importance of safety and peace of mind, the environment and greenery, and culture and the arts, Mori Building has put these three themes into practical application in the creation and development of the Hills. In particular, the environment and greenery have been and will continue to be essential elements for Mori Building in realizing sustainable urban areas. Social issues such as global warming and plastic waste, the risks of which have rapidly become apparent in recent years, are the most important issues to be addressed in cities, where 70% of the population will be concentrated by 2050. Based on our achievements and know-how accumulated to date, Mori Building will continue to pursue the ideal image that meets the needs of the times for our dynamically evolving future society with its increasingly diverse values. We continue to take on the challenge of creating sustainable cities for the next 50 years, the next century and beyond.

Environment and Greenery



Culture and Art



Safety and Security



Our environmental philosophy and policies

Through our urban development and operations that are based on the ideal of a Vertical Garden City, the Mori Building Group contributes to realizing a sustainable society that paves the way towards our future, by moving forward with three initiatives: the harmonious coexistence of cities and nature, urban decarbonization and resource-recycling cities.

Harmonious Coexistence of Cities and Nature (Biodiversity, Conservation, etc.)

By developing cities in three dimensions, we create areas both at ground level and on the rooftops that account for biodiversity resulting in space where nature and people can coexist. Along with our various urban activities, Mori Building gives life to spaces that are resplendent in rich greenery, filled with the sweet sounds of birds calling and insects abuzz. We provide these spaces to help foster our communities of people.



Urban Decarbonization

By adopting various highly energy-efficient systems within a compact city model that combines a variety of urban functions in a three-dimensional way, we create urban areas that excel in environmental efficiency. Through our comprehensive, high-quality urban management, we implement thoroughly energy-efficient operation, and promote urban decarbonization by introducing renewable energy.



Resource-recycling Cities (Pollution and Resources, Water, etc.)

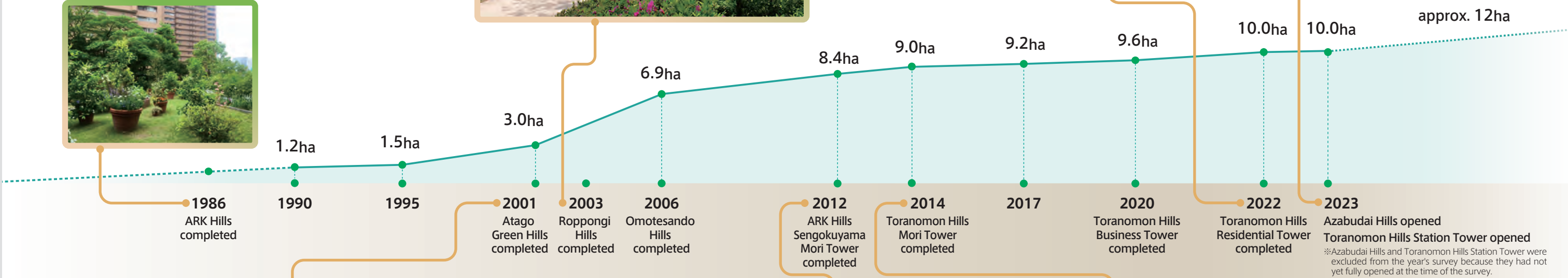
From the outset of the construction stage through to our daily operations, Mori Building implements the most appropriate pollution control measures and works with various parties to reduce, reuse, and recycle waste through efficient use of resources. By creating a framework and services to promote these activities, we aim to promote the transition to a circular economy, one which uses resources in a sustainable manner to establish resource-recycling developments.



02 Evolving and Changing through Greenery

Creating and nurturing greenery in the city

In the spaces and rooftops that are created through our Vertical Garden City concept, we bring to fruition and nurture abundant greenery that are appropriate not only for the developments themselves but also for this era in which we live.



1970s:
and prior:
development of
stand-alone
buildings

1980s:
Toward integrated site
mixed-use
development

1990s:
Transition from 'volume' to
'volume + quality' in greening

2000s:
Inheritance of the history
and nature of the land

2010s:
Toward preservation and
restoration of ecosystems

2020s:
Greenery related to
human activities

Started rooftop
greening on a
small scale

1986
ARK Hills completed
Large rooftop greening
through redevelopment

1997
ARK Hills garden renovation
Transitioning towards quantity and
quality

2001
Atago Green Hills
completed
Inheriting the history and
nature of the land.

2002
Motoazabu Hills completed

2003
Roppongi Hills completed
The Mohri Garden:
conservation of pond and
trees

2004
Holland Hills completed

2006
Omotesando Hills
completed

2012
ARK Hills Sengokuyama Mori Tower
completed
Conservation and restoration of
biodiversity

2013
ARK Hills South Tower completed

2014
Toranomon Hills Mori Tower
completed
Creating green spaces for its use of a
multi-level road system

2020
Toranomon Hills Business Tower completed

2022
Toranomon Hills Residential Tower completed
Developed greenery linked to Mount Atago

2023
Azabudai Hills opened
Creating a lush green plaza at the center of the site,
forming a new community where a diverse range of
people can gather.

Toranomon Hills Station Tower opened



Unifying the Green Belts

Creating the hub of an ecological network

To nurture a rich ecosystem in the heart of Tokyo, we envision an ecological network^{*1} in line with the Tokyo Metropolitan Government's "Basic Environmental Plan", Minato Ward's "Comprehensive Plan for Greenery and Water" and other government biodiversity-related plans, and are creating and developing green belts to serve as transit points and habitats for creatures that travel between the Imperial Palace, Shiba Park and other large-scale green belts in the area.

ARK Hills | 1986

In 1986, we created a large rooftop green space at ARK Hills, the first large-scale private redevelopment project. More than 40,000 trees have been planted in the green areas that cover more than 20% of the site, including the rooftop of Suntory Hall, and approximately 150 somei-yoshino cherry trees planted along the perimeter road have become a famous cherry blossom viewing spot.



Atago Green Hills | 2001

Atago Green Hills was created to maintain the rich nature and history of Seishoji Temple and Mt. Atago, and to create a green network with other green belts in the area such as Shiba Park. Sloped green areas have been preserved wherever possible, and new seedlings have been grown from seeds extracted from these preserved trees so that the local vegetation continues to thrive. Greenways run along the slopes, allowing visitors to enjoy nature while minimizing the impact on flora and fauna.



Roppongi Hills | 2003

Roppongi Hills uses various techniques and ideas to create distinctive greenery. The Mohri Garden is maintained to carry on the history of this area, by preserving its trees and structural legacy from the Edo period. Keyakizaka is lined with roadside trees, flower beds, and streetside furniture, forming a cityscape that combines art and greenery.



Azabudai Hills | 2023



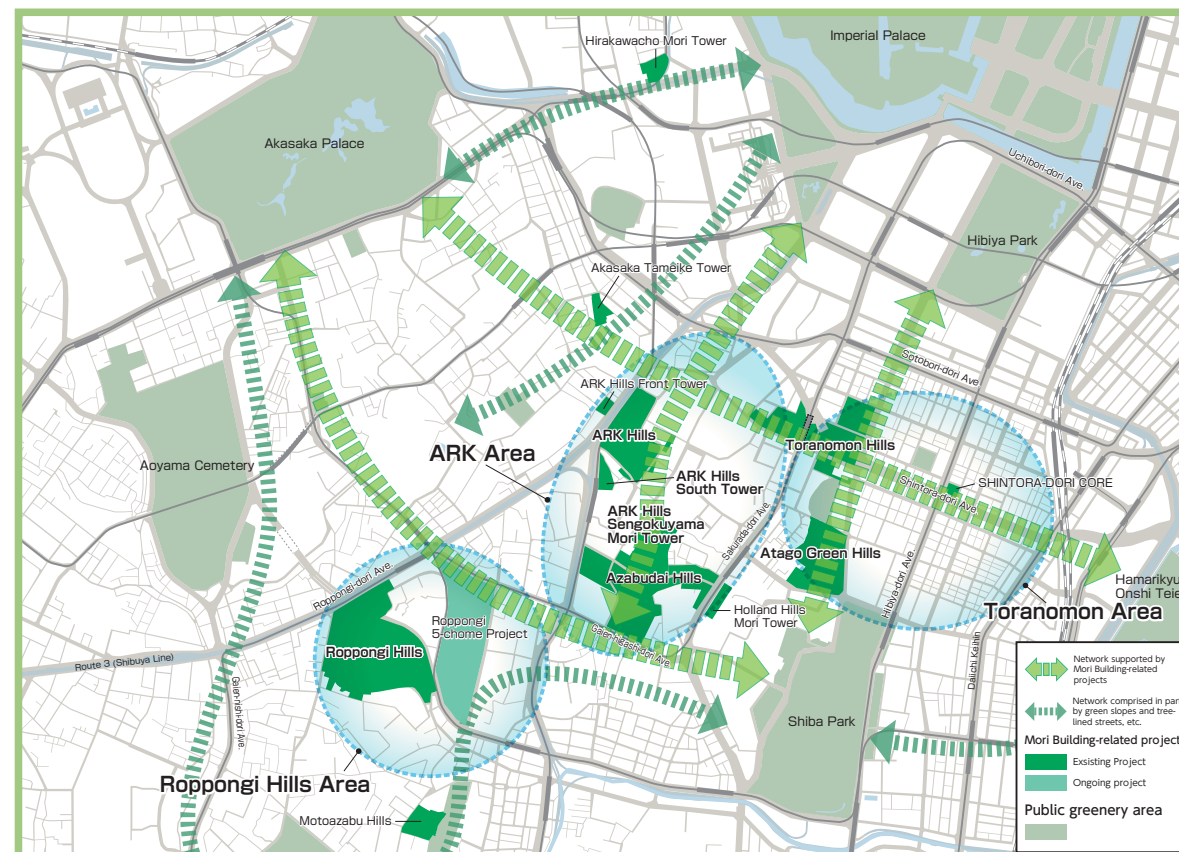
By taking advantage of the topographical differences in elevation and planting greenery throughout the entire site (which includes the rooftops of the lower-height structures), we made approximately 2.4 ha of green space a reality, including a central plaza of approximately 6,000 m², all within an established urban area in the heart of the metropolis. The amount of greenery after development has now become five times that which existed prior to development.



Toranomon Hills | 2014 ~



Toranomon Hills is situated where the north-south green axis (which runs from the Imperial Palace to Hibiya Park, Mt. Atago and Shiba Park) and the east-west green axis (which runs along Shintora-dori Ave.) intersect. Toranomon Hills Mori Tower received the highest-rank (AAA) of JHEP certification^{*2} for its use of a multi-level road system to create 6,000 m² of green space on artificial ground and for its biodiversity-conscious planting plan.



ARK Hills Sengokuyama Mori Tower | 2012

The green spaces of ARK Hills Sengokuyama Tower were established to preserve and restore the area's biodiversity. The resulting green areas have received the highest-rank (AAA) of JHEP certification^{*2}, a first in Japan. Following completion of the project, we have continued to maintain and manage the area with consideration for the ecosystem. We also provide opportunities for local residents to understand nature and interact with the living things around them such as by installing explanatory signboards and holding workshops.



^{*1} **Ecological Networks** : There is a need to create conditions in which living things can live easily, allowing movement by linking green areas that form the living bases for living things with other small-scale green areas and roadside trees. Such a network of habitats is referred to as an ecological network (extracted from Biodiversity and Greening Guide, Minato City)

^{*2} **JHEP (Japan Habitat Evaluation and Certification Program) certification** : This program quantitatively evaluates and certifies initiatives contributing to the preservation and restoration of biodiversity. It is developed and operated by the Ecosystem Conservation Society-Japan

04 Living in a Green Environment



ARK Hills

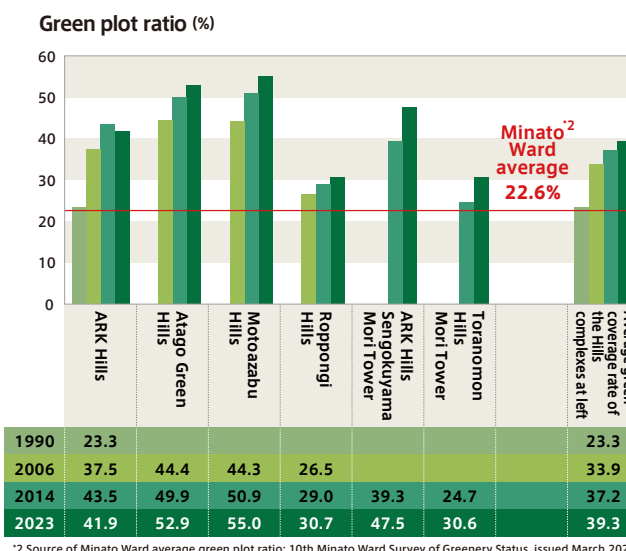
Increasing the Green Plot Ratio (GPR)

To understand the total amount of greenery in a given area, we have implemented the Green Plot Ratio*1 Survey since 2006. The percentage of green space and the total area of green space at facilities managed and operated by Mori Building such as ARK Hills and Roppongi Hills have increased year by year. This shows that Mori Building's urban development activities are contributing to the greenification of the city center.

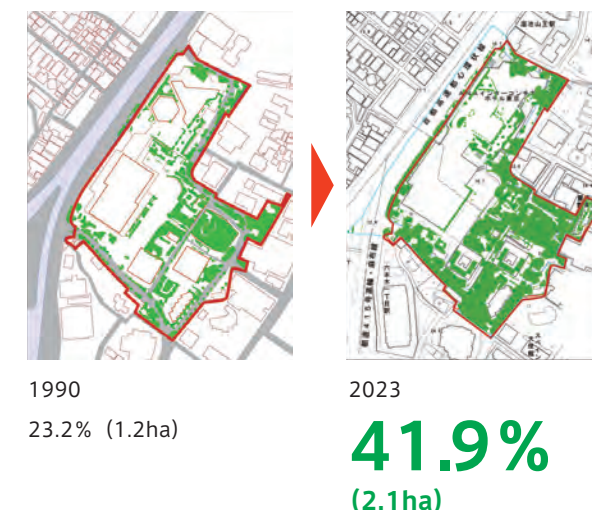
*1 Green Plot Ratio (= green area ÷ site area × 100%): calculated using aerial photographs, based on the Tokyo Metropolitan Government Green Plot Area Manual.

*2 Average of 22.6% for Minato Ward : from Minato Ward's average green plot ratio Greenery Survey (No. 10), published March 2022.

Green plot ratio at various Hills developments



Changes in the green plot ratio at ARK Hills



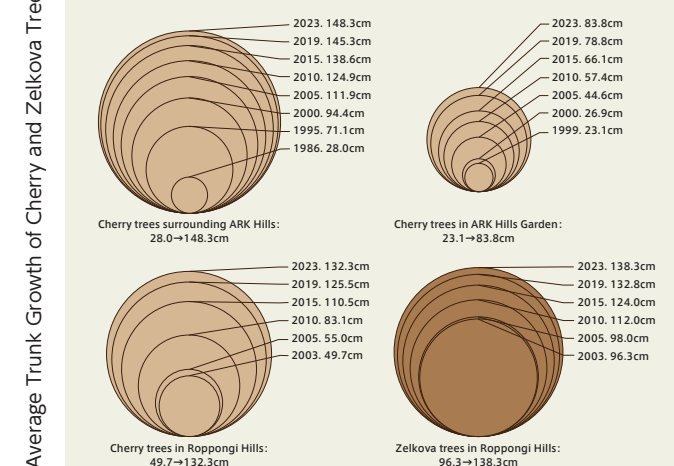
Helping greenery to grow

Plants grow over time, and Mori Building puts a great deal of effort into maintaining its plantings, nurturing them with care. When construction on the ARK Mori Building was completed in 1986, the average length of the cherry tree trunk circumference at ARK Hills was 28 cm; but in 2019, the average length of the cherry tree trunk circumference exceeded 145 cm. The trees are still gradually growing every year, even after over three decades. ARK Hills and Roppongi Hills are well known as two of the best cherry blossom viewing spots in Tokyo and are visited by many people every year.



Roppongi Hills

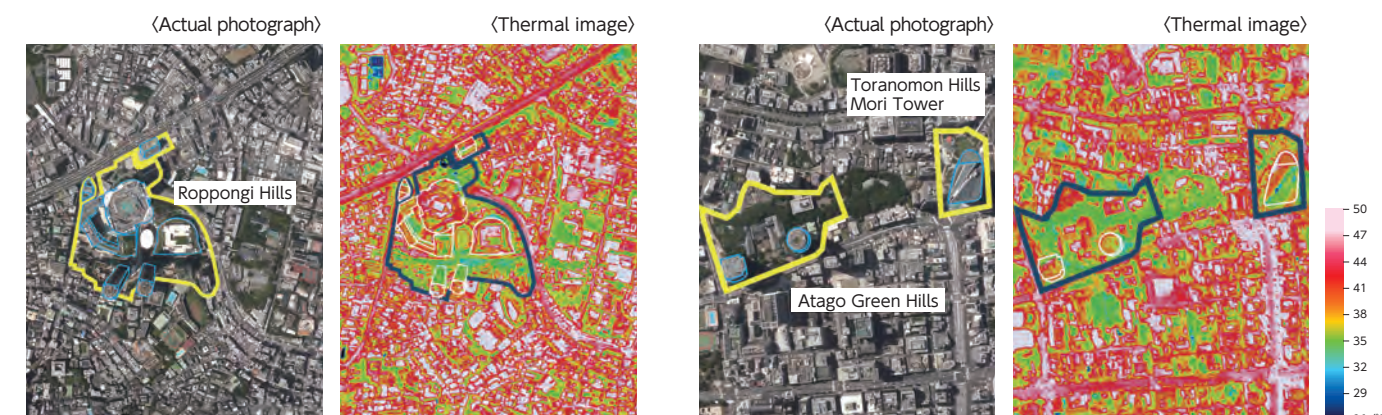
Growth of cherry and zelkova trees at ARK Hills and Roppongi Hills



Measures taken to mitigate the heat island effect

Thermal images (thermo-maps) of the areas around Roppongi Hills, Atago Green Hills and Toranomon Hills Mori Tower show that the surface temperature of the green spaces is 5°C to 15°C lower during the daytime than the asphalt pavement of the surrounding streets. This shows that creating more green areas where the city and nature coexist not only provides places where people can enjoy respite, but also helps to mitigate the heat island effect.

Thermal images (thermo-maps) of the areas around Roppongi Hills, Atago Green Hills and Toranomon Hills Mori Tower



Roppongi Hills Rooftop Garden

05 Initiatives Towards Biological Diversity

Plans for planting and organisms observed in the Sengokuyama Mori Tower area



As the center of an ecological network that takes biodiversity into consideration, ARK Hills Sengokuyama Mori Tower features innovative green spaces that focus closely on the line between native and non-native species as shown on the Tokyo Potential Natural Vegetation Map. This focus allows us to witness the habitats of many birds, dragonflies and other organisms here.



Kogera Garden

A biotope provided as a place where residents can enjoy moments of respite close by. Dead tree stock has been intentionally placed to give small birds and insects a home.



Residents and staff work together to extract dragonfly larva and black snails for conservation

Certifications obtained by ARK Hills Sengokuyama Mori Tower



JHEP certification: AAA, the highest rank and first-ever achieved in Japan
(Ecosystem Conservation Society-Japan)

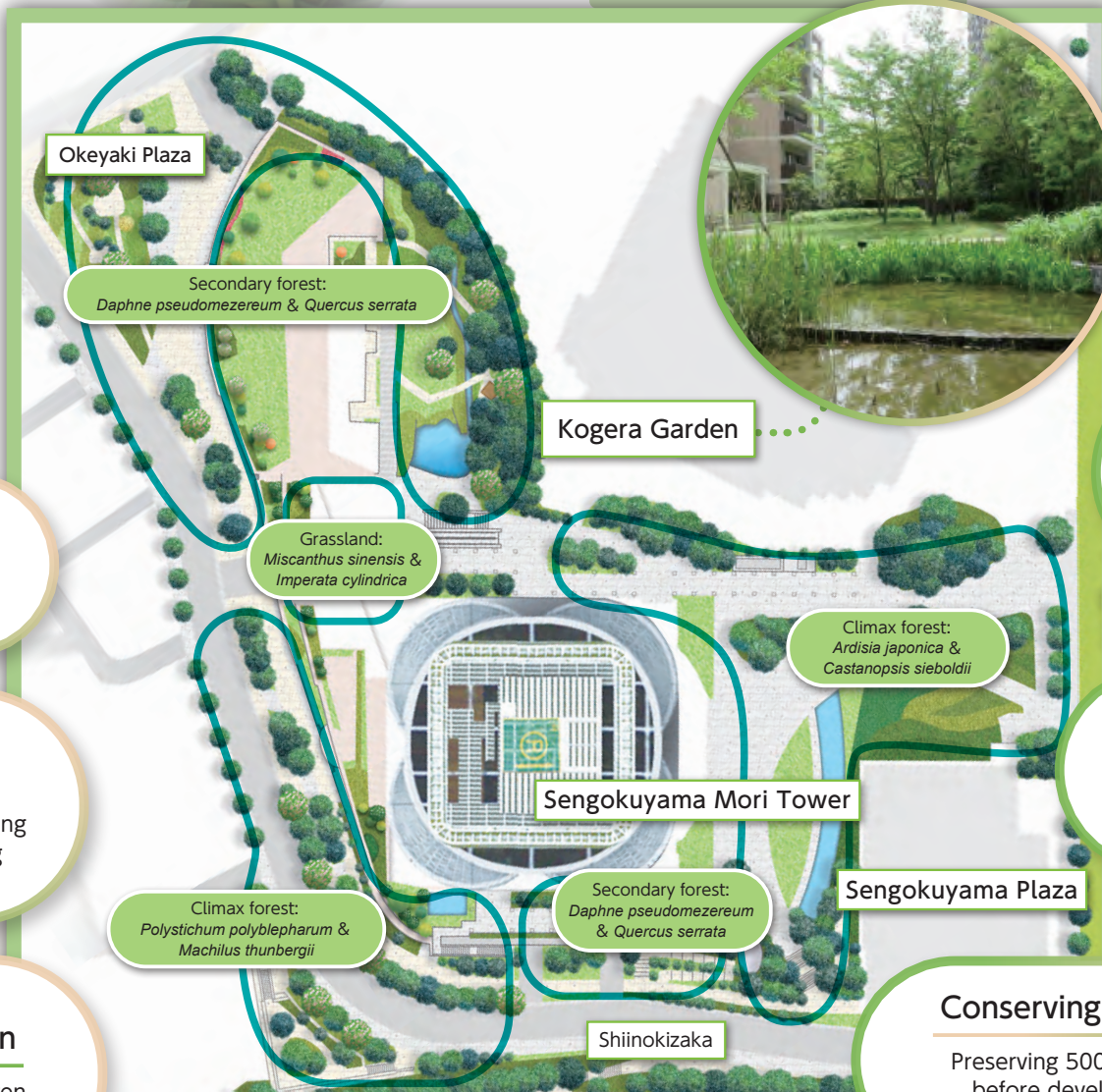


Designated as a registered Edo-no-Midori or Excellent Green Belt
(by the Bureau of Environment, Tokyo Metropolitan Government)



Cohesive green areas

Creating a sense of openness and continuity to green belts



Ecotones

Creation of transition zones that gently connect land and water areas and preserve ecosystems

Setting out dead treestock and ecostacks (places where organisms can live)

Breeding of forest floor organisms



Enriching soil organisms by accumulating fallen leaves

Enrichment of organisms in the soil



Conserving and utilizing soil

Preserving 500 square meters of soil before development Reusing the topsoil for landscaping



Three-dimensional spaces with thick greenery coverage

Continuous and varied green coverage comprising tall trees, shrubbery, grass, and moss; helping organisms to differentiate their habitats.

Planting based on vegetation that potentially exists in the region

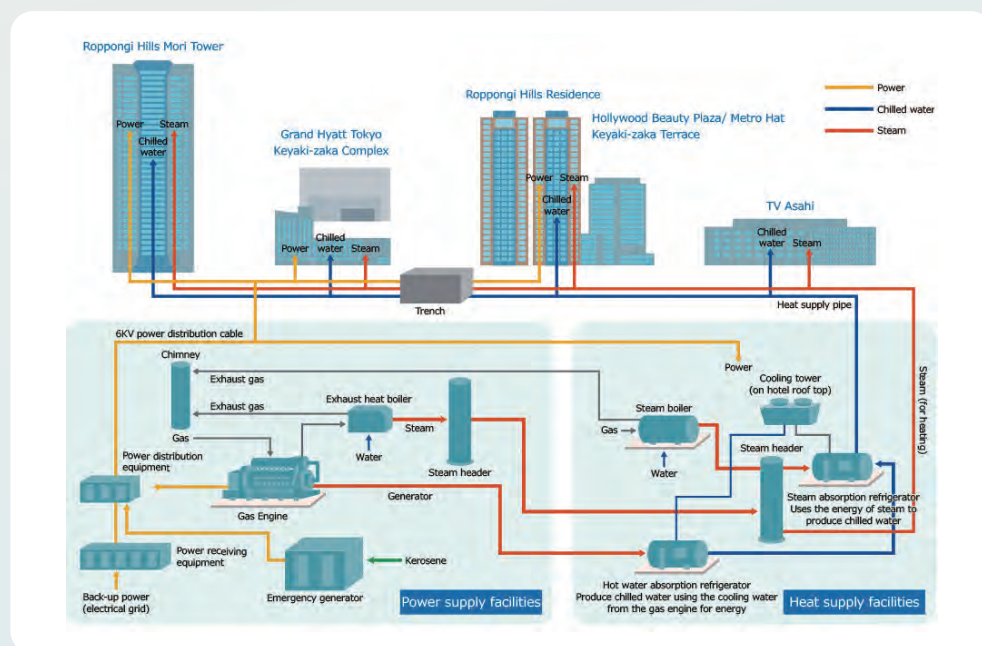
Planting plans in accordance with the Tokyo Potential Natural Vegetation Map Restoration of landscapes and ecosystems unique to the area

Area-Based Energy Usage and Renewable Energy

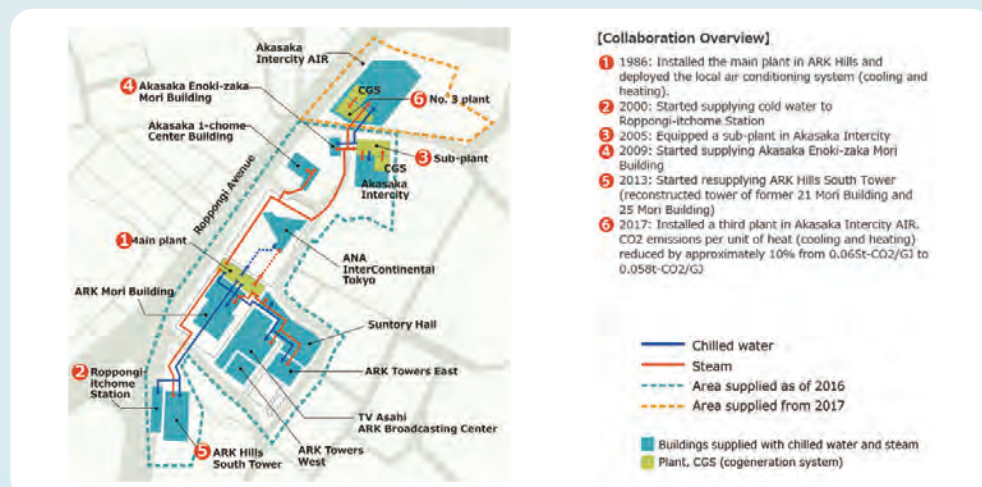
Area-based utilization of energy

Within urban developments in the city center, where energy density is high and is used in a variety of applications, we improve energy efficiency and energy security in the event of a disaster at the same time by creating a regional energy network, which promotes area-based use. At Roppongi Hills, our energy center installed under the Roppongi Hills Mori Tower is the source for this area-based energy usage. A large-scale gas cogeneration system is used to produce electricity, and the waste heat derived from power generation is used to generate steam for cooling and heating. With a diverse mix of uses, the energy demand (electricity and heat) for Roppongi Hills is leveled throughout the day, resulting in a high energy efficiency of approximately 76%. In the ARK Hills vicinity, we continuously expand our energy network in cooperation with neighboring development projects, going beyond Mori Building managed properties to further improve efficiency throughout the area.

Cogeneration system and district heating/cooling flow at Roppongi Hills



Energy network in the vicinity of ARK Hills

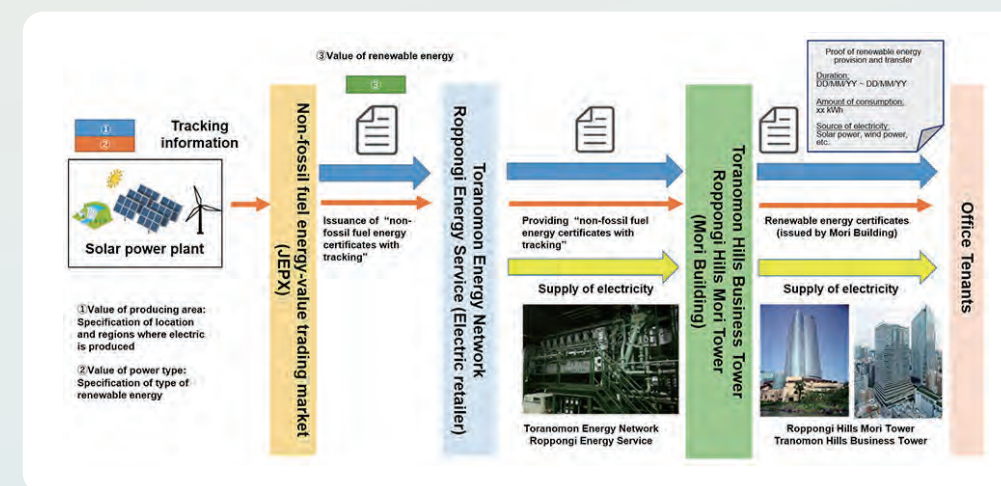


Use of renewable energy

Supply of electricity produced through renewable energy

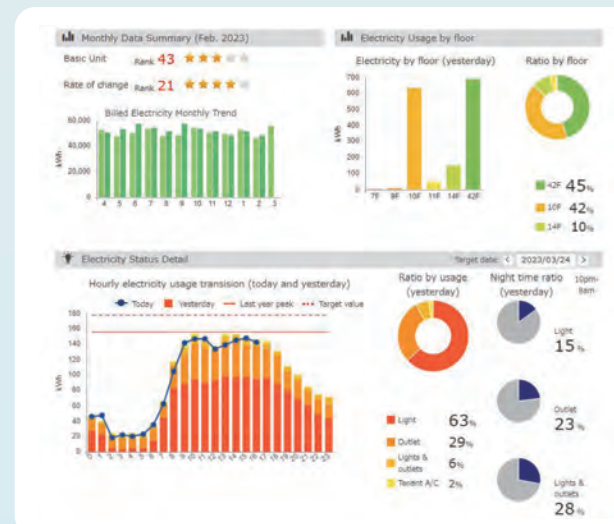
Roppongi Hills Mori Tower and Toranomon Hills Business Tower use their own energy plants to supply electricity based on renewable energy. We are the first office leasing company in Japan to supply renewable energy electricity and provide non-fossil fuel certificates to tenants who request them. Currently, approximately 70% of domestic electricity demand, mainly in Hills-class properties, is powered by renewable energy throughout the building (for both private and common-use areas).

Mechanism for supplying non-fossil fuel certificates to tenants using renewable energy electricity



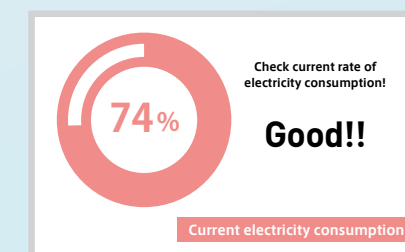
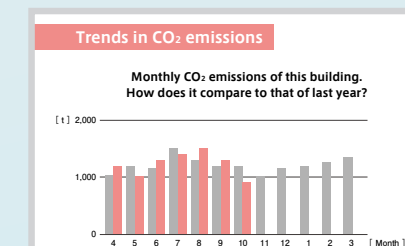
Energy Web system

Mori Building has developed a Web-based service that lets building tenants understand their own energy usage in visual form. This allows tenants to easily identify their own energy usage trends and the results of their conservation efforts in numerical and graphical form, which they can then use to formulate specific energy and power conservation measures.



Providing environment-related information

We have installed monitors throughout the development to provide environmental data such as CO₂ emissions for the entire building and hourly electricity usage. This data is used as a basis as we work with tenants to conserve energy and electricity.



Using State-of-the-Art Technologies

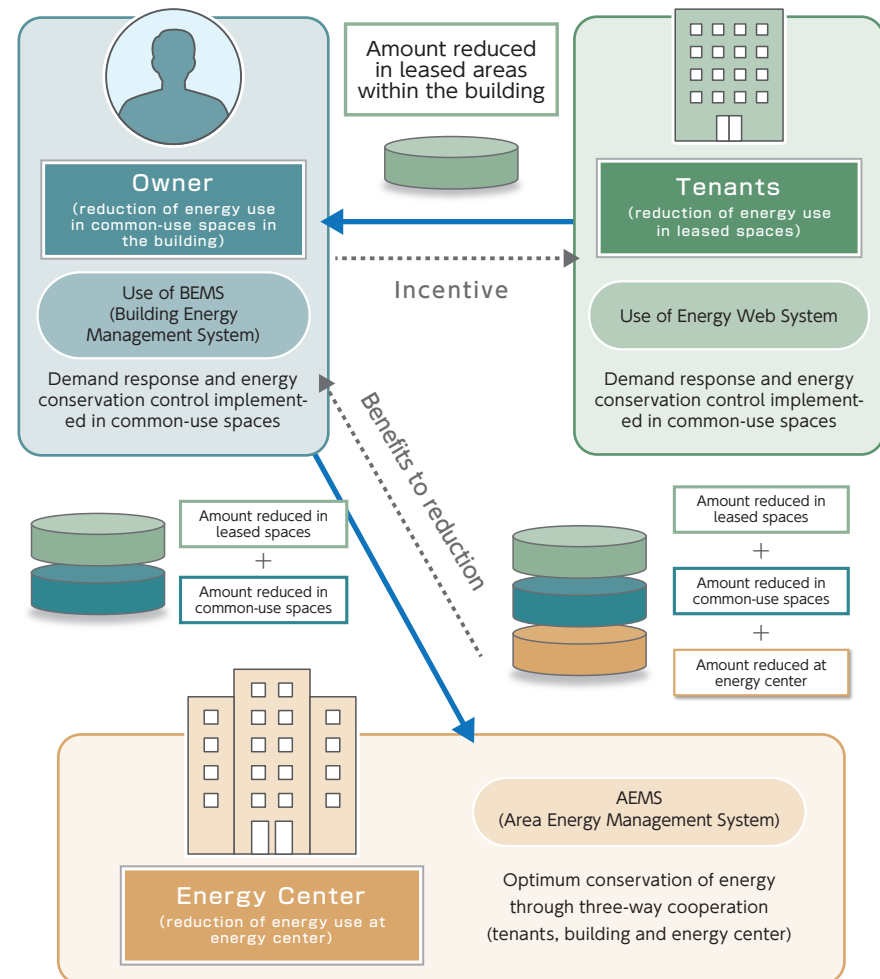
State-of-the-art technology used at the Toranomon Hills Business Tower

Supply and demand-based advanced energy management system

The tenants, building owners and energy center of Toranomon Hills Business Tower work together to implement demand response control (suppression of peaks in electricity and heating) and energy saving control during normal times.



Tenants / Building Owner / Energy Center
Realizing optimum conservation of energy through three-way cooperation

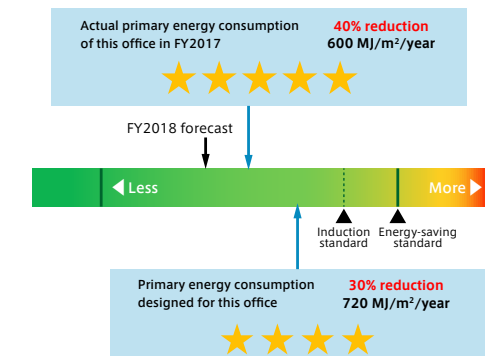


BELS for tenant use and performance disclosure system

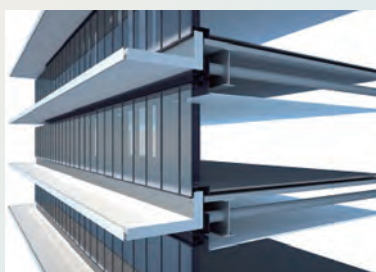
Toranomon Hills Business Tower has acquired the BELS (Building-Housing Energy-efficiency Labeling System) certification, which evaluates the energy consumption performance of not only the entire building but also the tenant-leased areas. The values disclosed by BELS represent building performance. By comparing these values with the actual energy usage amounts by tenants, the tenants gain a deeper awareness of energy conservation.



Example of data disclosed to tenants



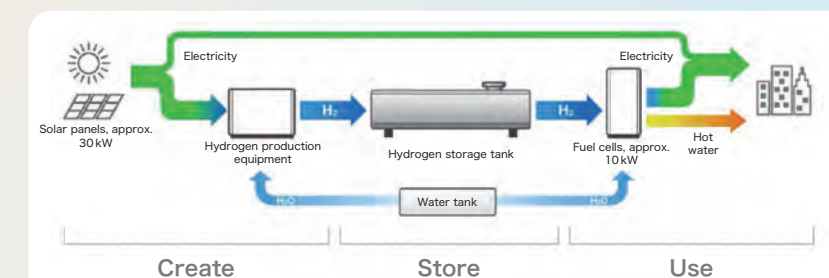
Facade featuring large sun-shielded eaves that blend with the landscape



These large eaves block the strong sunlight during the summer, but also draw sunlight into the building during the winter. The top parts of the eaves also feature plantings up through the eighth floor, for a characteristic design that harmonizes well with the landscape.

CO₂-free fuel cell system

Renewable energy from solar power generation is used to produce hydrogen for the hydrogen production equipment, which is then stored. Power is generated using fuel cells, and the power usage status is monitored.



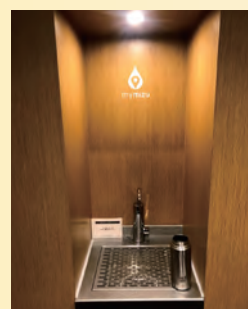
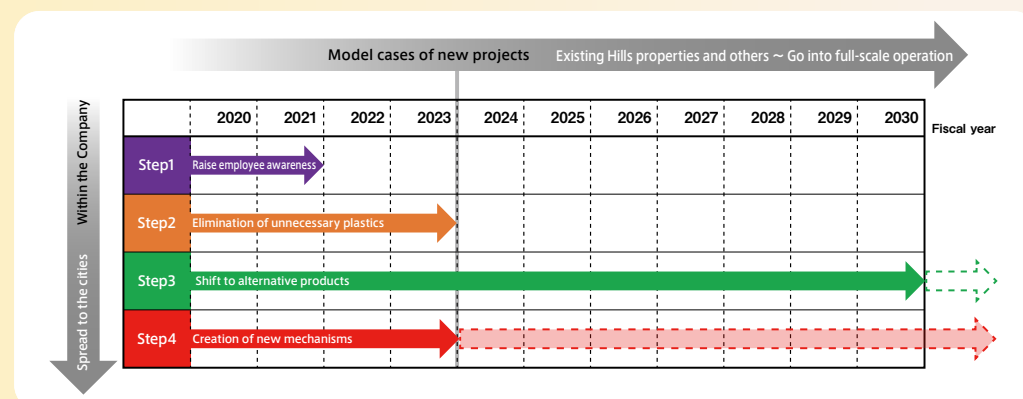
Recycling Resources in Our Urban Areas

Based on the Vertical Garden City concept, we make a resource-recycling city a reality by collecting and using resources such as waste material and water in an effective way. We also work together with our tenants and stakeholders to promote the separation of waste and increase the amount of waste that is recycled.

Aiming towards the reduction of plastic use

The Mori Building Single-Use Plastics*1 Reduction Challenge

The company-wide Mori Building Single-Use Plastics Reduction Challenge project was launched across the company to reduce one-way (disposable) plastics, setting a 2030 target of zero one-way plastic use in our offices and directly-managed service businesses (such as residences, hotels, and museums). We are promoting company-wide efforts to identify and reduce these one-way plastics in four steps: changing employee awareness, eliminating unnecessary plastics, transitioning to alternative products, and creating new systems. We are already working on initiatives such as replacing the amenities used in the residences, switching to different materials instead of plastic straws and cutlery, and eliminating the plastic bottles used for serving tea in the reception and conference rooms at our headquarters.



Cultural facilities

Setting up water spots to encourage people to bring their own bottles



Toranomon Hills Mori Tower

Aikasa umbrella sharing service



Hotels, members-only clubs, directly managed cafes

Elimination of plastic straws



Museum Shop

Changing the material used for plastic bags and selling inexpensive eco-friendly cotton bags

OFFICE

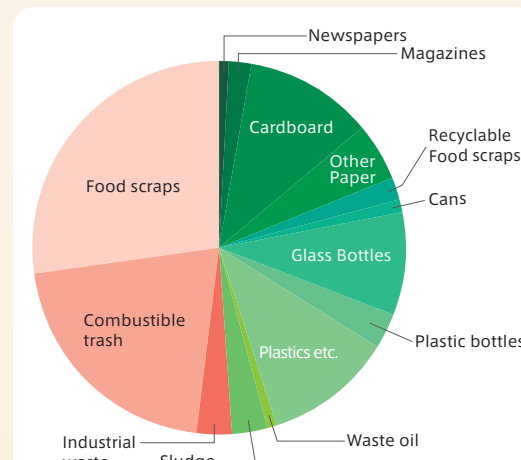
3R activities in office buildings

We have established our own rules for separating trash into 16 types within the building. Further, we work with our tenants in the process of recycling by providing special waste receptacles and stickers for sorting trash. The separated garbage is weighed, and the amount of waste along with the recycling rate is compiled for each building and reported to the tenants. Additionally, 100% of the paper and plastics that we collect are separated and recycled.

Separation of recyclable trash and list of recycled items



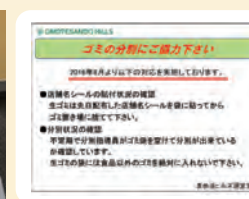
Recycling rate at Mori Building's domestic properties (non-construction-related): 50.9% (2022)



RETAIL

3R activities in commercial facilities

Omotensando Hills continues its efforts to achieve an 80% recycling rate in response to the revised Shibuya Ward Waste Ordinance.



- Review of recycling routes for food waste
- Explanations given at shop manager meetings; requests made for cooperation
- Distribution of shop name stickers, to be attached to garbage bags
- On-site confirmation of trash separation, tenant guidance and education
- For tenants serving food and drink: ensure proper separation and fluid drainage of food waste; for tenants selling products: ensure proper separation of burnable trash

CONSTRUCTION

3R activities in construction

In cooperation with construction companies, we aim to eliminate waste materials and debris at our construction sites. For new construction projects, we review the waste management plans and waste management reports to reduce and recycle waste.



Initiatives taken for interior renovation work

We are making efforts to ensure that waste materials are properly sorted during office interior renovation work, by using cage carts. This initiative helps to increase the ratio of materials that are recycled. By loading the waste materials onto separate carts, we can reduce the time required in collecting the materials as well as the time spent by vehicles waiting for their load. This also eliminates the need to transfer waste from one container to another, which reduces dust and improves the work environment. We also have reduced the number of hours spent using heavy equipment at the intermediate processing facilities, which contributes to a higher recycle rate and lower CO₂ emissions.

Construction-related waste: glass-ceramic and wood fragments, debris, metal scrap, waste plastic, tile carpeting, gypsum board waste

*1: A one-way plastic product is one normally discarded after a single use.

Creating Globally-Acclaimed Cities








Highest rank of accreditation under global standards

In the area of urban development, Mori Building is active in acquiring environmental performance certification for entire project (neighborhood-scale) zones and buildings. In addition to CASBEE certification by Japan's Ministry of Land, Infrastructure and Transport, we have obtained preliminary LEED certification, which is a U.S. environmental performance certification used most widely throughout the world; and WELL, which evaluates health and comfort. For LEED, we have received the highest rank (platinum) at the time of preliminary certification and for WELL, we have obtained the highest rank (platinum) in May 2024. Mori Building's urban development has also been recognized as meeting global standards.

Our policy for acquiring environmental certification

For flagship buildings, Mori Building aims to achieve the highest rank in environmental performance and green-ing-related certifications at the time of new construction, as well as acquire and maintain CASBEE, LEED, and other certifications after construction is completed.

Major certifications acquired and expected

	Buildings with preliminary Platinum certifications	Year of the Completion	CASBEE for New Construction	CASBEE for Real Estate	CASBEE Wellness Office	LEED ND (Neighborhood Development)	LEED O+M (Existing)	LEED BD+C (new construction)	WELL
									
Existing Projects	ARK Mori Building	1986		S					
	Atago Green Hills MORI Tower	2001		S					
	Roppongi Hills Mori Tower	2003		S					
	ARK Hills Sengokuyama Mori Tower	2012		S					
	Toranomon Hills Mori Tower	2014		S					
	Toranomon Hills Business Tower	2020	S			Platinum-certified (preliminary) in Mar 2021 (Toranomon Hills)	Gold certified		
	Toranomon Hills Residential Tower	2022							
	Toranomon Hills Station Tower	2023	S					Platinum-certified (preliminary) in Dec 2021	Platinum in May 2023
	Azabudai Hills	2023	S		S	Platinum-certified (preliminary) in Mar 2021		Platinum-certified (preliminary) in Dec 2021 (Mori JP Tower)	Platinum in May 2023 (Mori JP Tower)
International Projects	Shanghai World Financial Center	2008					Platinum (Office)		
	Hang Seng Bank Tower	1998					Platinum		
	JAKARTA MORI TOWER	2022							Platinum in Sep. 2023

* LEED BD+C and WELL acquired for office and commercial areas.

* The above information is tentative and subject to change according to circumstances.

Azabudai Hills and Toranomon Hills were the first properties in Tokyo to receive a preliminary LEED ND (Neighborhood Development) Platinum certification, the highest rank. On a worldwide level, the acquisition of the Platinum rank for a mixed-use development in a metropolitan center is a rarity.



LEED - Leadership in Energy & Environmental Design (LEED Certification)

Assessment of urban areas that offer abundant lifestyles with a low environmental impact

Mori Building's urban development assessed through LEED ND (Neighborhood Development)

- Mixed-use development with diverse urban functions
- Walkable urban areas centered around a plaza
- Power supplied by renewable energy
- Integrated with public transportation, such as new subway stations
- High local energy efficiency
- Positive attitude and action towards developing urban projects in cooperation with local landowners

LEED is a certification program that evaluates the strategies used when creating the highest class of buildings and urban environments and assesses how these strategies are realized. The certification recognizes buildings and urban development projects that take into consideration their potential positive impact on human health and promote the use of renewable and clean energy, all while reducing costs and resources. (Excerpt from Green Building Japan)

Mori Building's urban development, acclaimed through LEED CS

- Area-based utilization of energy
- Effective use of water resources
- Introduction of the state-of-the-art equipment and technology for high energy-saving performance
- Consideration at the construction stage of the building framework (active use of products certified with environmental labels and low life-cycle CO₂ building materials; measures to prevent damage to the building framework and interior wall surfaces)
- Mechanisms and systems for energy conservation in collaboration with tenants (introduction of demand response in tenant-leased areas)
- Renewable Energy Supply Plan using new equipment, etc.



The office and commercial areas of the Azabudai Hills Mori JP Tower and Toranomon Hills Station Tower have acquired platinum rank for WELL certification. The buildings are the first two properties in Japan to receive, the highest rank. The Azabudai Hills Mori JP Tower (office and commercial areas) includes the largest registered area in Japan to receive certification.



WELL Building Standard™ (WELL Certification)

Assessing the health and comfort of building occupants, as well as environmental performance

Mori Building's initiatives focused on human health, as assessed by WELL

Areas of focus in addition to our concept-driven urban development efforts

- Greenification focusing on plaza areas
- High-quality air environment, due to the installation of high-performance air-conditioner filters
- Healthy meals served at cafés
- Promoting exercise by walking in the plaza or on the connecting pedestrian decks, etc.

WELL is a system of evaluation that aims to create better living environments, by adding the perspective of human health to the design, construction, and operation of spaces. This is the world's first building and indoor environment evaluation system that focuses on the health and comfort of residents who live and work in buildings. In particular, biological criteria related to the occupants are verified, not only from an environmental engineering perspective but also from a medical perspective. (Excerpt from Green Building Japan)



10 Azabudai Hills

Azabudai Hills is based on the concept of a –Modern Urban Village– an urban area that is enveloped in greenery and which functions like a plaza that brings people together. This development is a sophisticated fusion of a variety of urban functions and facilities including offices, residences, a hotel, international school, commercial and cultural facilities, etc. and features a vast central plaza at its center. The project embodies Mori Building's compact city ideals (a city within a city) and represents the future of our Hills projects as the culmination of everything we have infused into the Hills projects to date. An urban renewal project that we had been working toward for 30 years finally got its start in August 2019, and in 2023 came to fruition in the city center as a city within the city.



M O D E R N U R B A N V I L L A G E

GREEN

An environment in harmony with nature, surrounded by lush greenery

Taking advantage of the topographical differences in elevation, we planted greenery throughout the project site, including the rooftops of the lower floors. In addition, the entire project area is 100% powered by renewable energy. In recognition of this, the entire project and the main building (Azabudai Hills Mori JP Tower) received the Platinum rank, the highest rank in the preliminary certification of LEED, the world's most widely used environmental certification.

WELLNESS

A community where a diverse range of people can live human beings.

A system whereby living and working in this development leads to wellness. By supporting mental and physical health in various ways throughout our daily lives, we aim to create an urban area where people of all ages can keep living healthy and vibrant lives. The project has also acquired preliminary WELL certification, making it the largest registered area in the world for this certification.

Overview of Azabudai Hills

Project name	Toranomon-Azabudai Area Type 1 Urban Redevelopment Project
Business operator	Toranomon-Azabudai Urban Area Redevelopment Association
Business method	Urban redevelopment project
Location	Toranomon 5-chome, Azabudai 1-chome and Roppongi 3-chome, Minato Ward
Project area	Approximately 8.1 ha (implementation area)
Site area	Approx. 63,900m ²
Total floor area	Approx. 861,500m ²
Main uses	Residences, offices, shops, hotels, international school, central plaza, cultural facilities, preventive medical center, etc.
Parking lot	1,874 spaces
Association members	273 (as of May 2023)
Start of construction	August 5, 2019
Completion	2023



Acquired preliminary platinum LEED ND (Neighborhood Development) certification, the highest rank
Azabudai Hills Mori JP Tower (office/commercial areas)
Acquired preliminary platinum LEED CS (Building Design & Construction) certification, the highest rank



Azabudai Hills Mori JP Tower (office/commercial areas)
Acquired platinum WELL CORE V.2 pilot certification, the highest rank



Azabudai Hills Mori JP Tower
Acquired S rank in CASBEE for Buildings (New Construction) and CASBEE Wellness Office certification, the highest rank

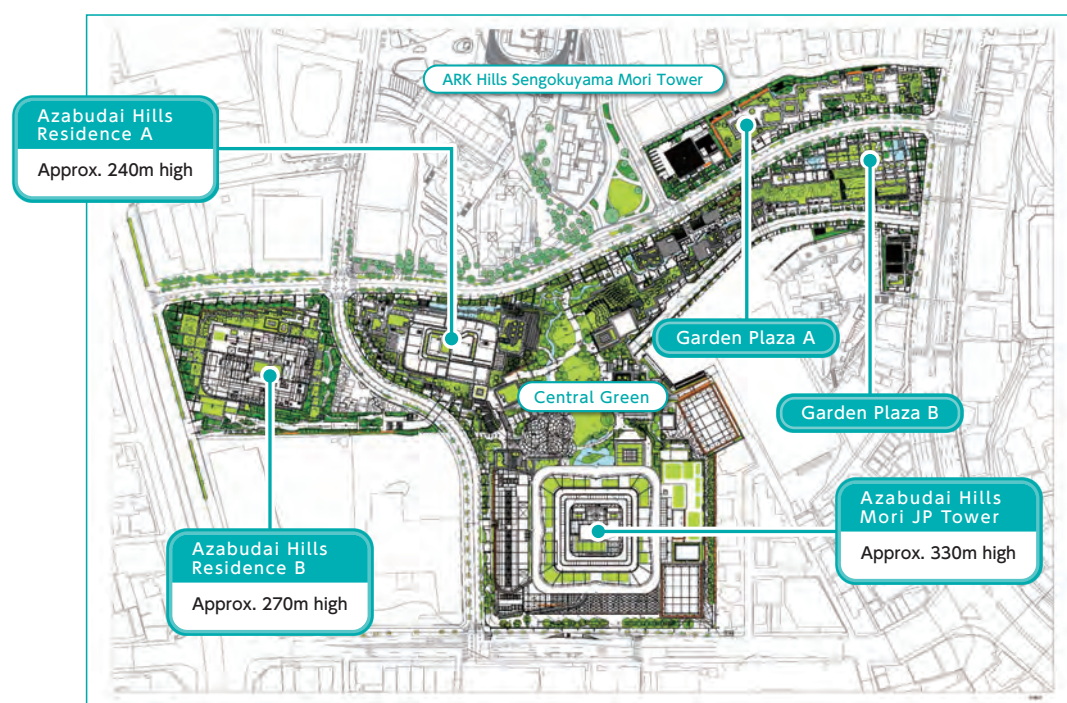
10 Azabudai Hills

Realizing a city that coexists in harmony with nature

Breathtaking greenery throughout the entire site

For Azabudai Hills, we first considered the flow of people and places where they would gather, and planned a seamless landscape designed around a central plaza. Then we added three ultra high-rise towers. This approach is in stark contrast to typical development methods, in which the locations of buildings are first determined and then greenery is used to fill whatever open spaces remain. By taking advantage of the differences in elevation and planting greenery over the entire site (which includes the rooftops of the lower-floored structures), we achieved approximately 2.4 ha of green space, including the Central Green of approximately 6,000 m² despite the project's location in an established urban area in the heart of the metropolis. By creating a landscape where water and greenery come together, we create a relaxing place full of nature that helps alleviate the urban heat island effect.

This 2.4 ha green space connects with the adjacent ARK Hills Sengokuyama Mori Tower, as the base of an ecological network. Our greenery plan also contributes to the further development of the south area in accordance with the Roppongi-Toranomon District Urban Development Guidelines (Minato Ward), and connects existing green spaces, serving as a node between the north-south and east-west directions of Mori Building's ecological network.



Using green belts for environmental education and awareness

Mori Building plans to hold environmental education and awareness activities at Azabudai Hills as well, such as the HILLS Machi-Iku Project*1, a hands-on activity program for parents and children.

*1: The HILLS Machi-Iku Project features a diverse range of experiential programs based on the themes of safety and peace of mind, the environment and greenery, and culture and the arts, with the development as the stage. The program is designed to share with children some of our accumulated know-how in urban development and the appeal created by those developments, as well as provide an opportunity to consider what the next generation of cities should be like, all while having fun and learning



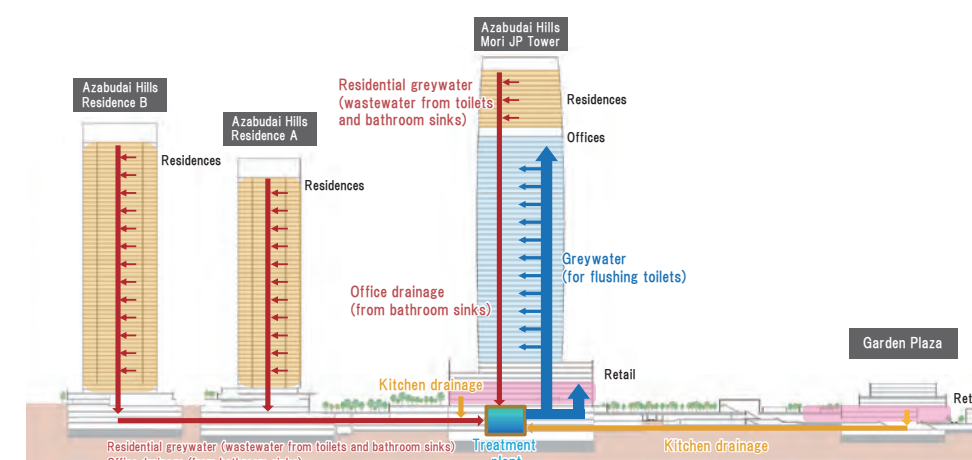
Water resource initiatives

On-site rainwater collection and reuse

In recent years, climate change has increased the frequency of extreme weather events. To prepare for monsoons, we have increased our budget for heavy rain countermeasures by 30% over the baseline laid out by Minato Ward. We also treat and reuse stored rainwater for use in sprinklers outside the building. Furthermore, we have planned for sufficient rainfall water permeation in the green areas as well.

Reducing the use of water

By proactively adopting water-saving faucets and showers, we have achieved a 40% reduction in water use vs. the baseline figure (the LEED standard, including reuse) for the entire project area. We also promote the effective use of water between buildings within the urban area. Greywater from the residential buildings is treated for reuse and used as water for toilet flushing and so on in the office buildings.

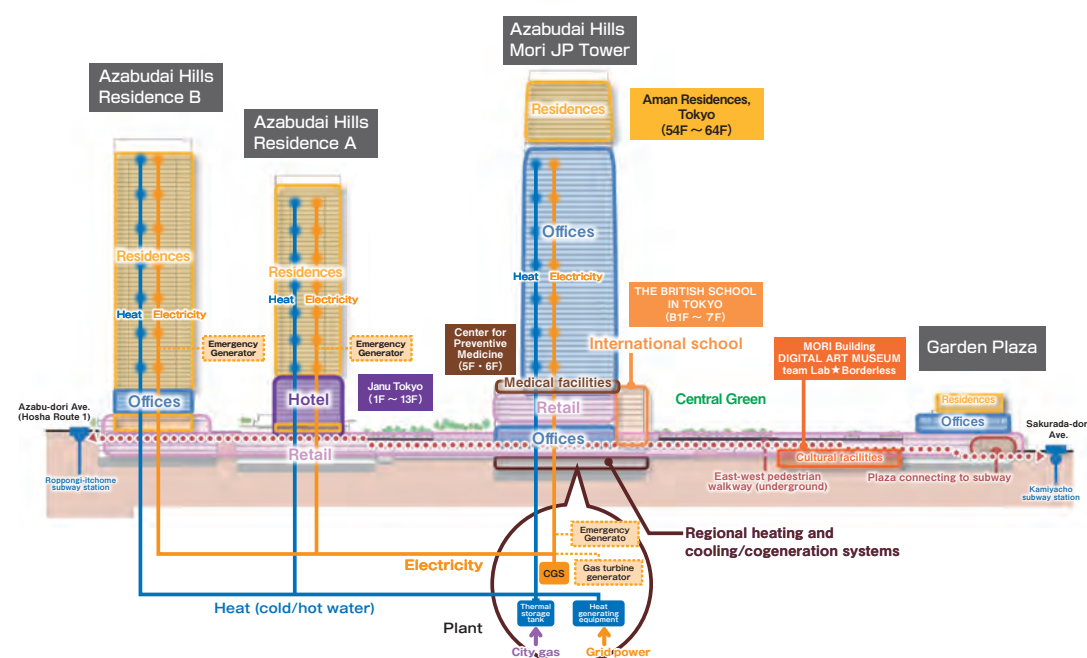


Azabudai Hills

Use of clean energy and resources

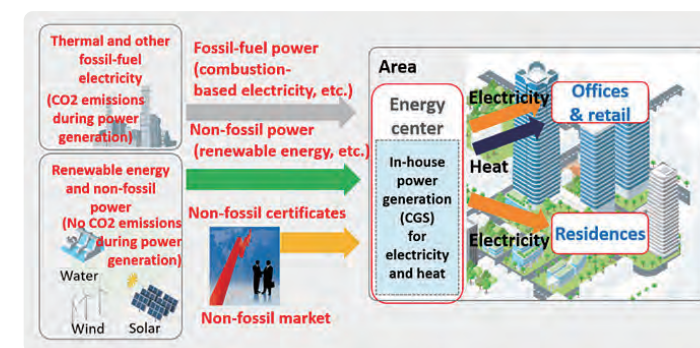
District heating and cooling for efficient energy supply

A high-efficiency energy center will be installed to supply energy to the development. Since energy usage tends to differ among offices, residences, hotels and so forth, energy usage can be leveled out by aggregating these multiple uses; and through proper control, energy can be used more efficiently. Furthermore, the energy center will also use AI technologies for efficient energy control. All of this allows for an efficient energy supply that can only be achieved in a compact, mixed-use development.



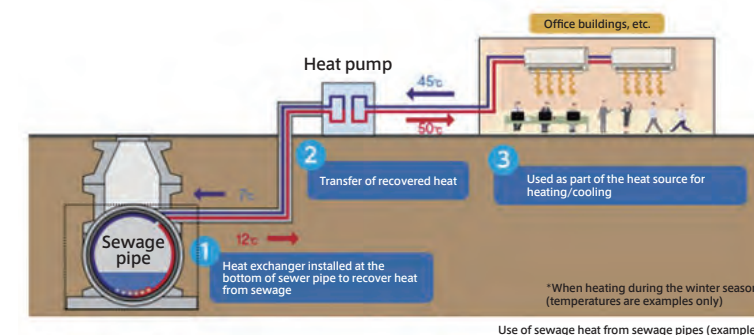
All electricity used throughout the development is renewable energy.

The entire development is powered by CO₂ emissions-free renewable energy, which is compliant with the RE100 standards, an international initiative. All electricity used in the shops, stores, residences, event facilities, electric vehicle chargers and so on come from renewable energy sources.



Using sewage heat for regional heating and cooling

Sewage heat is a form of renewable energy that was previously discarded, but here is used in part as a source of heat energy for cooling and heating the entire project area. This will help reduce CO₂ emissions by approximately 70 tons each year.



Circulating the resources used throughout the entire development

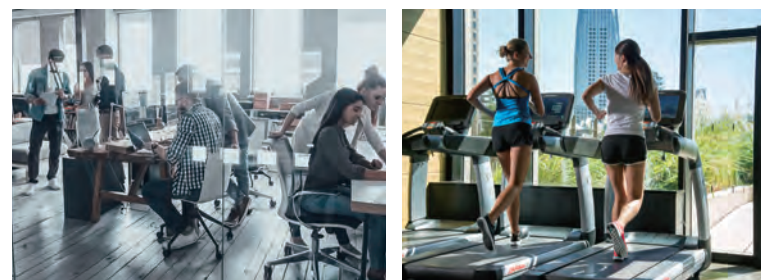
To reduce the total amount of waste, we have established an online system for visualizing how much waste each tenant generates, and charge tenants processing fees based on the amount of waste each generates. We have created a bottle-to-bottle recycling route for PET bottles in our efforts to expand the use of disposable plastic, with a circular economy in mind. We are installing water servers in the facilities, and café customers can refill their own water bottles at the cafés.

Wellness (health and comfort)

We provide a building environment that meets the health and comfort needs of the people there, but also improves environmental efficiency.

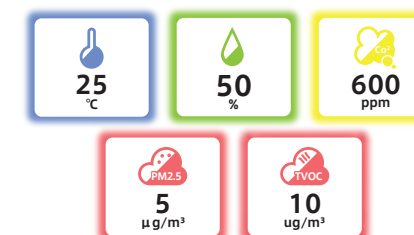
Here are the specific initiatives we carry out:

- Installing high-performance filters (MERV13) on air-conditioners that draw in outside air, to provide a high-quality indoor air environment
- Healthy meals served at cafés
- Promoting walking and other exercise activities in the plaza
- Installation of water purifiers at all drinking faucets
- Ensuring ventilation performance that meets U.S. standards



A new kind of indoor comfort

Data shows that our productivity increases with better office air quality and comfort. Air quality sensors are installed in the leased office space to measure factors such as temperature, humidity, CO₂ concentration, TVOC, PM 2.5, etc., and make this information easy to visualize online. We also provide tenants with an option to control the concentration of CO₂ inside their leased premises and set the concentration lower than usual. In doing these things, we offer a more comfortable and productive workspace.



Toranomon Hills

At Toranomon Hills, following on from Toranomon Hills Mori Tower, Toranomon Hills Business Tower and Toranomon Hills Residential Tower opened in succession, and the most recent addition to the development is Toranomon Hills Station Tower developed in conjunction with Toranomon Hills Station on the Hibiya Line (which actually began operations in June 2020). The entire area has evolved into an international urban complex with various functions such as world-class offices, residences, hotels, commercial facilities, incubation centers, transportation infrastructure and green spaces, all within walking distance. Toranomon Hills will lead the way in further strengthening the magnetism of Tokyo as an international city, by generating a succession of new businesses and innovations.



Green network

Toranomon Hills is at the nexus of the north-south axis of greenery from Hibiya Park through the Atagoyama area to Shiba Park, and the east-west axis of greenery from Akasaka-Toranomon Greenway to Shintora-dori Avenue. We will create a green network in collaboration with the surrounding redevelopment areas that includes the open space built on the artificial ground (approximately 6,000 square meters of lawn), parks, and greenways all built as part of the area's development.

Transportation network

A bus terminal with an area of approximately 1,000 m² was built that directly connects to Toranomon Hills Station on the Hibiya Line and Toranomon Station on the Ginza Line. The terminal is a departure and arrival point for airport limousine buses and the BRT (Bus Rapid Transit) system that connects the city center and bay side areas. By creating a pedestrian network that connects the entire area including Shintora-dori Avenue (which was created along with Loop Road No. 2), and by generating a new influx of people, Toranomon Hills serves as a new Gateway to Tokyo that connects the world with the center of the metropolis.

Energy network

The Toranomon Hills area uses a cogeneration system (CGS) to generate power and a district heating/cooling facility (DHC) to provide a robust source of independent energy suitable for a new international city center and global business center. The energy network extends from the first plant at Toranomon Hills Business Tower (completed in 2020) to Toranomon Hills Station on the Hibiya Line and the second plant at Toranomon Hills Station Tower (completed in 2023).

Project overview of Toranomon Hills

Site area	Residential units
Approx. 7.5 ha	Approx. 730
Total floor area	Commercial area
Approx. 800,000m ²	Approx. 26,000m ²
Office area	Green area
Approx. 300,000m ²	Approx. 21,000m ²

Toranomon Hills Station Tower

Site area	Applications
Approx. 13,900m ²	Offices, shops, hotel facilities, communication hub for business, parking lots, etc.
Total floor area	Completion
Approx. 236,640m ²	July 2023
No. of floors	
49 above ground, four basement levels	

G L O B A L B U S I N E S S C E N T E R



Acquired preliminary platinum LEED ND (Neighborhood Development) certification, the highest rank
Toranomon Hills Station Tower (office/commercial areas)
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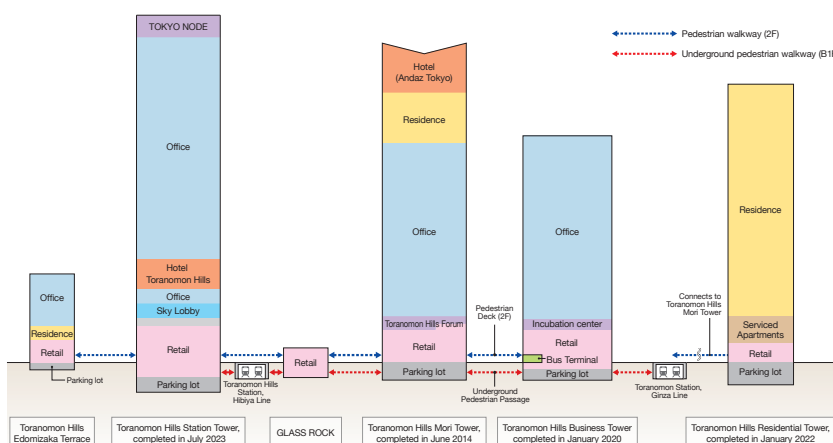
Toranomon Hills Mori Tower
Acquired S rank in CASBEE for Real Estate
Toranomon Hills Business Tower
Acquired S rank in CASBEE for Buildings (New Construction)
Toranomon Hills Station Tower
Acquired S rank in CASBEE for Buildings (New Construction)

Toranomon Hills

A walkable and compact area

1 Walkable streets

Improvements have been made to public transportation throughout the entire area, making the area more accessible. In addition, the roads and pedestrian flow lines are separated, and each project area is connected by walkways to create an urban area that's easy to navigate on foot. The urban functions of Toranomon Hills have been integrated to create a compact international business hub in the heart of the city providing a full range of facilities including residences, retail stores, conference areas, hotels, and plazas that support diverse lifestyles.



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© DBOX for Mori Building Co., Ltd.
Station Atrium (Image)

2 Greenery connecting the area

For Toranomon Hills, we have built a new green network that connects Toranomon Hills Mori Tower's Oval Plaza, the greenery of the lower floors of both Business Tower and Residential Tower, and the greenery of the neighboring Mt. Atago and Atago Green Hills with a new greenway.

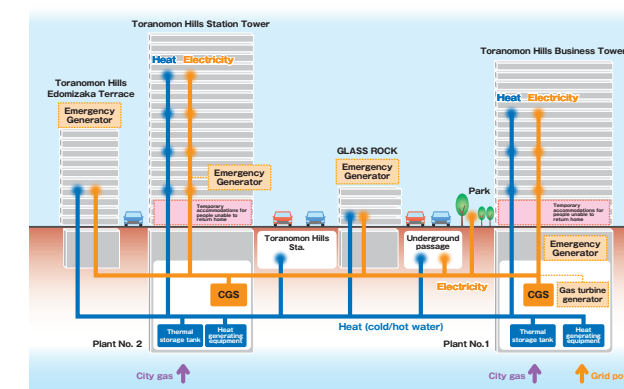


Our aim for the project is to create a lush green pedestrian network in collaboration with the businesses along the approximately 850-meter-long stretch from the Atago Shita-dori intersection at Toranomon Hills Mori Tower to Roppongi-dori. (Akasaka-Toranomon Green Road)

A development with sustainable systems

1 Strengthening energy security

- Electricity supply in times of disaster (using in-house power generation systems such as cogeneration systems, emergency generators, accumulators, etc.)
- Heat supply in times of disaster (using large-scale water thermal storage tanks, waste heat utilization equipment, etc.)
- Ensure redundancy by linking the available plants in the area



2 Operations based on electricity from renewable energy

At Toranomon Hills Station Tower, the electricity used for all the tenant-leased and common areas is RE100-compliant renewable energy.

3 Centralization of parking facilities, installation of EV chargers

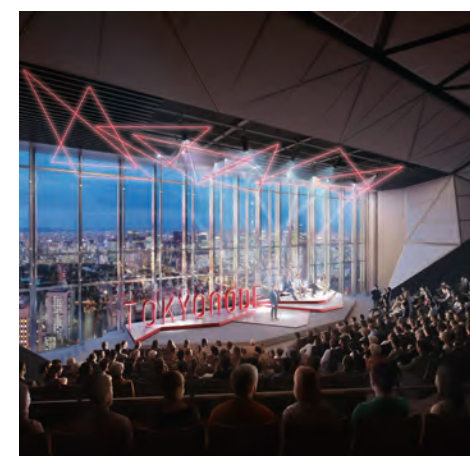
Installation rate for self-park spaces (including quick chargers shown in parentheses)

Station Tower	22.5%	(45.2%)
Mori Tower	23.4%	(24.3%)
Business Tower	50.0%	
Residential Tower	48.0%	(50.0%)
Entire Toranomon area	30.2%	(33.5%)



A city where new values are born

TOKYO NODE, an exchange facility open to large corporations, venture companies, entrepreneurs, and the general public has been established at the top of Toranomon Hills Station Tower. This facility is to serve as a communications hub for new businesses and innovation.

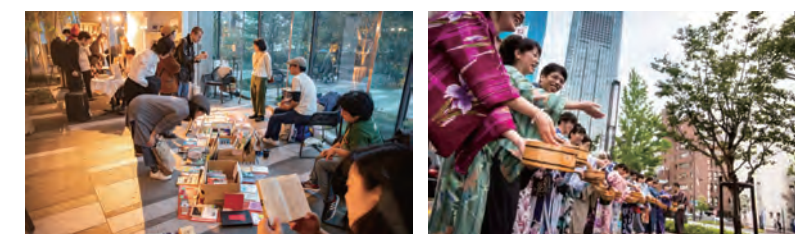


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TOKYO NODE at the top of Toranomon Hills Station Tower (sample image)

An open community that collaborates with the local community

Open-air cafés and markets are situated along the sidewalks; and festivals, parades, and other events will continue to be held using the entire road space, including the streets. We work together with the local community and government to create an open community, such as through urban cleanup activities.





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