

ARK Hills Sengokuyama Mori Tower



■Toranomom-Roppongi District Class 1 Urban Redevelopment Project: Redevelopment Project Overview and History	...2
■ARK Hills Sengokuyama Mori Tower: Overall Plan/Building Site Environment with Rich Greenery	...4
■ARK Hills Sengokuyama Mori Tower (Offices)/Realizing Greatly Flexible Space	...5
■ARK Hills Sengokuyama Residence/ARK Hills Sengokuyama Terrace (Residences) /Proposing a new way of living in Tokyo	...7
■Commercial Space/Supporting Office Workers, Residents, and Neighbors	...8
■Safety and Security	...9
<ul style="list-style-type: none"> •High earthquake resistance by incorporating the latest technology •Ensure business continuity with an emergency power generation system that uses city gas 	
■Environment	...11
<ul style="list-style-type: none"> •Promotes realization of a low-carbon society: Officially certified with an S Rank, the highest evaluation granted by CASBEE •Creation of a green area to promote biodiversity: First project in Japan to be awarded the highest rank (AAA) by the JHEP evaluation •New gate system “Passmooth” to strengthen energy conservation, safety, and security. 	
■Culture	...14
<ul style="list-style-type: none"> •Artwork that will be a symbol of the district: Public art “Infinite” 	

■ Toranomon-Roppongi District Class 1 Urban Redevelopment Project: Redevelopment Project Overview and History

This redevelopment project involves a project site covering approximately 2.0 ha. The district is next to the “Roppongi-Toranomon District Redevelopment Project” designated by Minato Ward (designed in 1988 and revised thereafter to become the “Roppongi-Toranomon District Comprehensive Urban Redevelopment Project (Preliminary Plan),” and from 1989 the district residents and the developer (Mori Building) have worked together on this urban development project with the strong desire “to create a safe and secure neighborhood to live in that will extend into the future to the generation of our grandchildren.”

During this time many fluctuations in the state of the economy have been experienced, including the collapse of the bubble economy and the Lehman Brothers shock, but surveys and studies have been continued to steadily move forward the redevelopment plan while obtaining the agreement of the pertinent rights holders until in 2008 approval was obtained to establish the urban renewal association, which is the executor of the project, and for the rights conversion plan, which was agreed to by all rights holders, and made it possible to begin construction in 2009 for completion in August 2012—24 years after the redevelopment related study meetings were first held.

History

1989	Redevelopment related study meetings with the local community are started
	:
December 2001	Toranomon-Roppongi District Urban Redevelopment Preparation Association established
August 2007	Urban plan decision announced
July 2008	Toranomon-Roppongi District Urban Redevelopment Association established
October 2009	Groundbreaking
August 7, 2012	Construction completed

Project Overview

Location:	Toranomon 5-chome, Roppongi 1-chome, Minato Ward, Tokyo
Project Name:	Toranomon-Roppongi District Class 1 Urban Redevelopment Project
Developer:	Toranomon-Roppongi District Urban Redevelopment Association (Director Naoko Hamada)
Association Members:	Mori Building Co., Ltd., Toraroku Development Special Purpose Company
Planners:	[General Plan] Mori Building Co., Ltd. First-Class Registered Architectural Office [Cooperating Designers and Cooperating Planners] (Exterior Design) Pelli Clarke Pelli Architects (Construction) Irie Miyake Architects and Engineers (Equipment & Electrical Work) Kenchiku Setsubi Sekkei Kenkyusho (Framework) Yamashita Sekkei Inc., Obayashi Corporation (Residential Common Areas Design) Casappo & Associates (Residential Private Space Design) GC Design Studio (Outdoor Facility Design) Townscape Design Institute, Inc. (Lighting Design) Uchihara Creating Lighting Design, Inc. (Sign Design) GK Sekkei Inc.
Builders:	(Construction Work) Obayashi Corporation (Electrical Equipment Work) Kinden Corporation (Air Conditioning/Plumbing Work) Sanken Setsubi Kogyo Co., Ltd. (Crane Work) Hitachi, Ltd.
Construction site:	Approx. 2.0ha
Site area:	<C-1 Zone> Approx. 15,370m ² <C-2 Zone> Approx. 510m ²
Floor area:	Approx. 143,720m ²

Floors	(Mixed-use building) 47 floors above ground, 4 floors below ground *Residences floors 3 to 24, Offices floors 25 to 47 (Residential building) 8 floors above ground (According to the Building Standards Act, 6 floors above ground, 2 floors below ground)
Height:	(Mixed-use building) 198.9m *From Onemichi Level (TP30) (Residential building) 23.915m *From Onemichi Level (TP30)
Residences:	(Mixed-use building) 243 units (Residential building) 33 units
Main uses:	Offices, shops, residences

This redevelopment project is located on an approximately 2.0 ha site close to the Tokyo Metro Nanboku Line Roppongi 1-chome Station and the Hibiya Line Kamiyacho Station. The northeast side of the site is the super high-rise multipurpose zone designed for concentrated intensive use, and the south side of the site is the medium to low height zone with open spaces for abundant greenery.

•Mixed-use building (Sengokuyama Mori Tower, Sengokuyama Residence)

This building is one of the largest complex towers in the Roppongi-Toranomon area and consists of shops on the lower floors, residential space on floors 3 to 24, and offices on floors 25 to 47.

•Residential building (Sengokuyama Terrace)

This is a low-rise residential building that utilizes an open space with abundant greenery, a rarity in downtown Tokyo, to create an atmosphere like that of an independent house.

•Sengokuyama Plaza

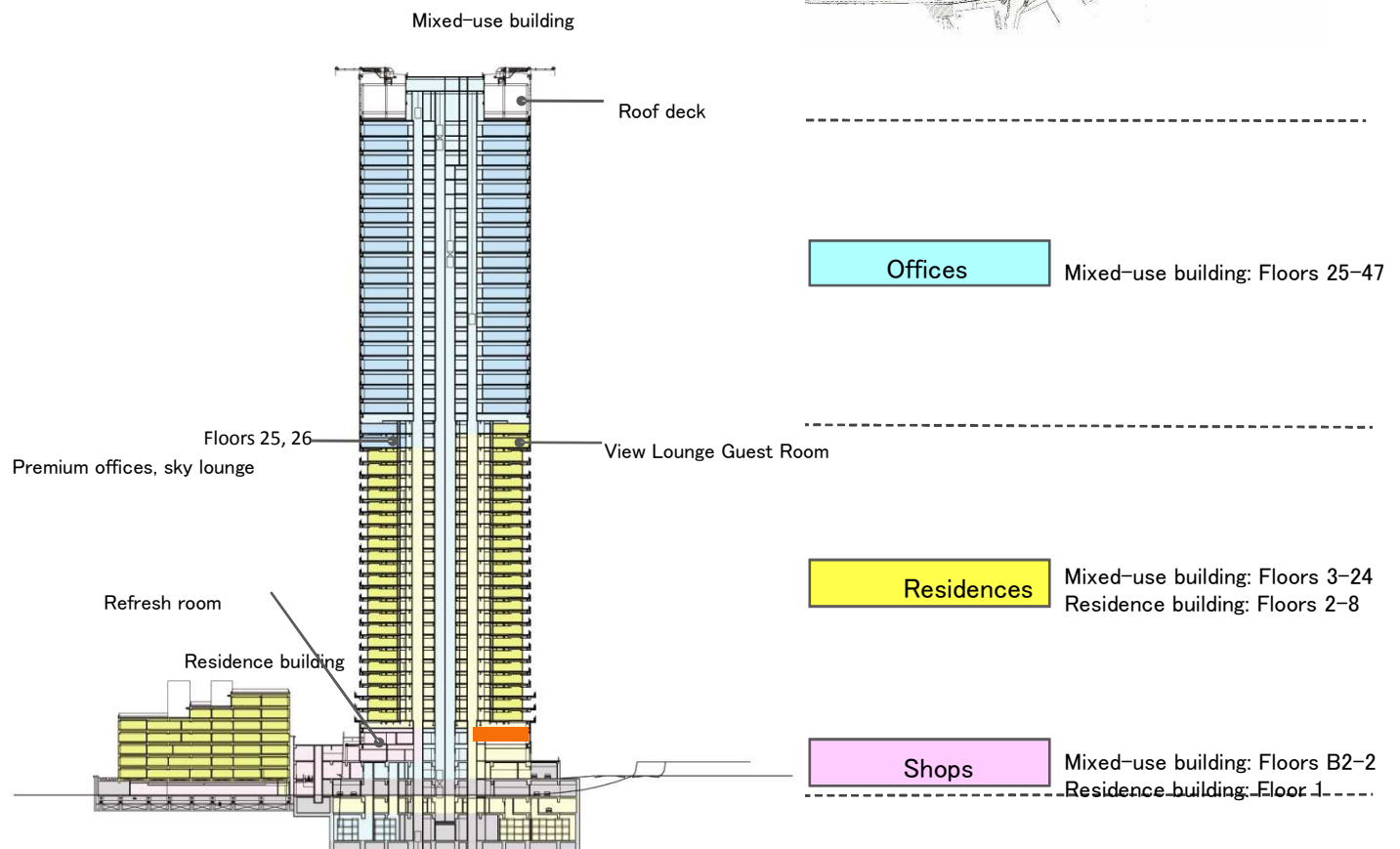
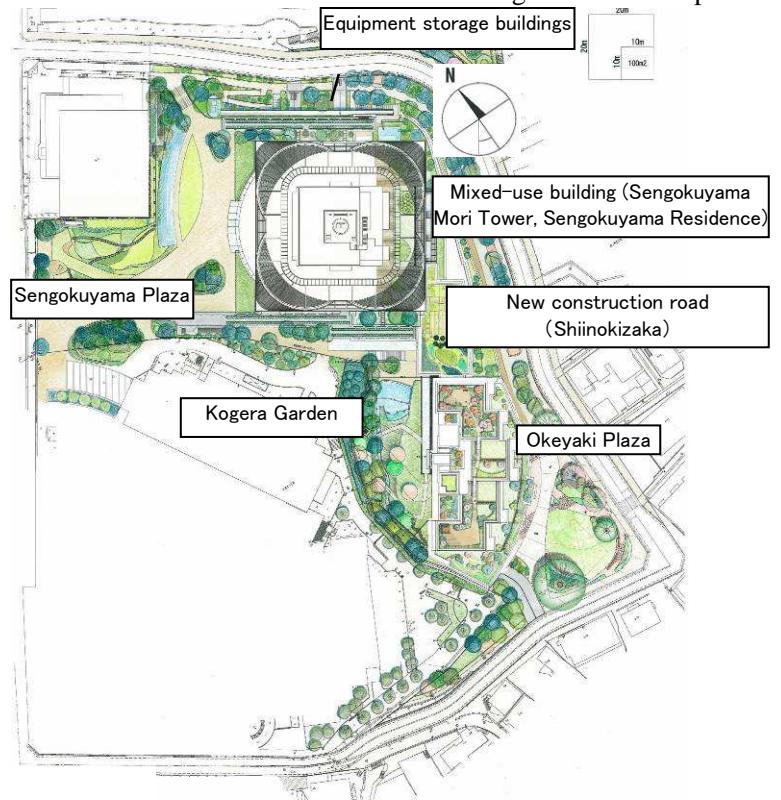
The green space created at the base of the mixed-use building, which serves as the front entrance, preserves the metasequoia, camphor, and other trees that existed prior to construction.

•Kogera (Japanese Pigmy Woodpecker)Garden

This “is a convenient place for residence to relax” that has a biotope. Some dead trees are even left to stand to provide a home for song birds and insects.

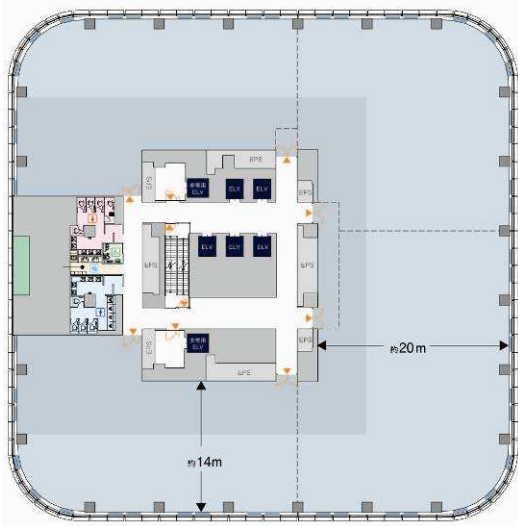
•Okeyaki (Large Japanese Zelkova Tree) Plaza

This grass plaza planted with a large zelkova tree as a symbol tree will be a lively place used for seasonal events.



■ Realizing Greatly Flexible Space ARK Hills Sengokuyama Mori Tower (Offices)

The offices on upper floors 25 to 47 of the ARK Hills Sengokuyama Mori Tower provide a view of the city center, and the standard floor lease rooms are approximately 2,000m² of very comfortable flexible office space without pillars. The standard floor ceiling height is 2.8m with a 150mm raised computer floor., and this is the first time the LED lights with automatic dimmers developed by Mori Building to provide good-quality light and provide significant energy savings have been used in the Forest Ceiling System, allows the layout, number of lights, and other features to be flexibly changed. Other measures have also been taken to reduce the environmental load, such as using Low-E double windows that reduce the heat entering the building through the windows.



Premium Offices

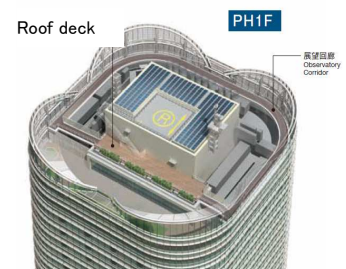
Floors 25 and 26 feature premium offices of approximately 80m² and 220m². There is also a Sky Lounge that doubles as a meeting room for tenant businesses and a place for people to interact. A full-time office concierge is also provided to support daily business activities, such as making arrangements for meeting rooms and catering services.



Sky Lounge (concept illustration)

Roof

The roof features a roof deck that provides a grand view of Tokyo. This is not only a place to relax but is also a rooftop work space where you can come up with new ideas.



View from Offices (32nd Floor)



Looking at Roppongi Hills



Looking east. On the left is the Loop Road No.2 Block III Zone under construction.



Looking at Tokyo Tower



Looking at Atago Green Hills (Mori Tower and Forest Tower)



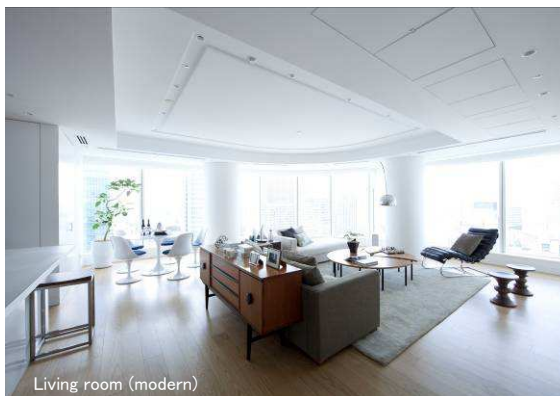
Greenery spreading out across the base of ARK Hills

■ Proposing New Ways of Living in Tokyo ARK Hills Sengokuyama Residence/ ARK Hills Sengokuyama Terrace (Residences)

Mori Building provides a large quantity of luxury rental housing for foreigners, such as Roppongi Hills Residence.

ARK Hills Sengokuyama Residence: The ARK Hills Sengokuyama Terrace has a total of 276 units (including the residences of rights holders). ARK Hills Sengokuyama Residence (243 units) on floors 3 to 24 of the mixed-use building offers a variety of tenant plans with mainly 2- to 3-bedroom units but with some units going up to 5 bedrooms and which balconies that are 4m wide.

The interior design was created by Ryuichiro Gokyu of G2 DESIGN STUDIO, who focused on daily living to achieve the “best normal” design.



These residences also feature bilingual service, a spa, view lounge, and other ancillary facilities as well as peace of mind because of the earthquake resistance and other features. Further, its close proximity to entertainment and cultural attractions offer a rich lifestyle and the great service offered in cooperation with the various facilities are the new standard for “MORI LIVING,” the residence brand being built by Mori Building.

In addition to rental units, some of the units are also being sold.

View Lounge & Guest Rooms

A view lounge and guest rooms with a view in the direction of Tokyo Tower are provided on the 25th floor.

The interior design was done by Kanji Ueki of Casappo & Associates.



An Entrance like an Art Museum

The 1st floor entrance displays real works of art in the public space to create a space that bring art into your daily life. The interior design was done by Kanji Ueki with the objective of creating a quality space for adults.



■ Supporting Office Workers, Residents, and Neighbors

Commercial Space & Auxiliary Facilities

ARK Hills Sengokuyama Mori Tower offers support for office workers, tenants, and neighbors through the MACHINO HOIKUEN Roppongi (Tokyo Metropolitan Government-licensed daycare center) to support the healthy development of children and shops of unique character, such as the venerable Chinese restaurant, Chateau Hanten (Mandarin cuisine), and Osorashio (French cuisine). There are also membership fitness clubs and spas in the 4 locations of ARK Hills, Atago Green Hills, Motoazabu Hills, and Roppongi Hills where members can use the spa.

○MACHINO HOIKUEN Roppongi (Tokyo Metropolitan Government-licensed daycare center) *Scheduled to open December 1

Machino Preschool utilizes a new education style based on the Italian Reggio Emilia Educational Approach where the care is provided through daily interaction with the care providers, parents, and neighborhood people to actively foster interaction with the surrounding community as the children develop. One aspect of the childcare is to actively promote interaction with the community to build a good community while giving the 0 to 6 year old children the opportunity to interact with people with a variety personalities and talents during this important time of character development.

The admission standards, etc., are set by the provisions for approved preschools.

○Hills Spa Sengokuyama

Hills Spa Sengokuyama is a membership fitness & spa with 1,400 sq.m. of space that serve as a “health and beauty base camp.” Since Hills Spa opened in ARK Hills in 2000, it has expanded to operating 4 spas including those in Atago Green Hills, Motoazabu Hills, and Roppongi Hills. The 5th facility, Hills Spa Sengokuyama, will have an aqua space with a 3-lane x 20m pool and a minus ion microbubble bath. The fitness gym has a view of Tokyo Tower and is equipped with the latest high-quality exercise machines. There is also a private studio and a beauty salon.



○Shodanin

In 1943, three years after the death of the calligrapher Hochiku Yoshida, the Shodanin Foundation was established as a repository for his collection and to continue his legacy through calligraphy exhibitions and related monthly publications. The holding of the Shodanin Exhibition, Chikushin Exhibition, and various Yakuin Exhibitions; the publication of the monthly calligraphy competition magazines “Shodan” and “Seisen;” and exhibits of items from the Foundation collection, cultural seminars and readings in the Hochiku Yoshida Memorial Hall are a few of its many activities.

○Chateau Hanten (Mandarin Cuisine) *Opens September 10

This famed Chinese restaurant has been at its address in Mita, Minato Ward, for 47 years. Due to the deterioration of the building it occupied, it had to close its familiar location at the end of last year and will relocate to Sengokuyama Mori Tower.

Founder Nancy Chih Ma is a world-renowned chef, and she has passed down the secrets of her cooking to daughter Helen Ma Yamawaki and granddaughter Ema. The restaurant’s customers have included the Emperor, embassy officials, corporate top executives, and politicians.

For lunch you can select from weekly specials to course menus, and for dinner the selection includes single dishes, course menus, and banquet menus as well as special menus by request. Particularly acclaimed is the winter-only Sansai Hinabe, which is so popular it is difficult to get reservations for.



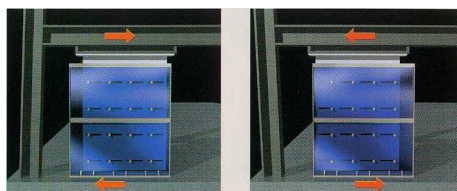
Other Shops or Restaurants

- Osorasio (French Cuisine) *Opening planned for the second half of November
- UESHIMA COFFED SHOP (Coffee shop)*Opens September 18
- Famima!! (Convenience store)*Opens September 12

High earthquake resistant performance is obtained by employing sway damping construction in the high-rise building and seismic isolation construction in the residential building.

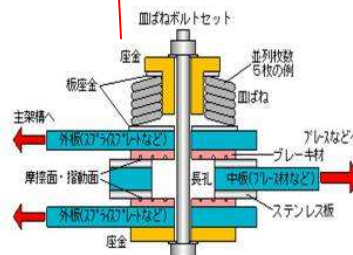
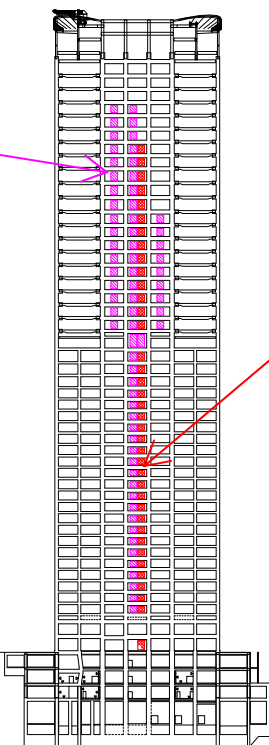
○ARK Hills Sengokuyama Mori Tower (Mixed-used building)

The 200m in height high-rise mixed-use building incorporates seismic isolation devices in the seismic isolation structure to absorb the earthquake energy to reduce motion during an earthquake. Using two types of seismic isolation devices produces a seismic isolation effect that reduces motion caused by wind to that caused by small to large earthquakes. This also provides a seismic isolation effect for long-period ground motion that is especially damaging to high-rise buildings.



Viscous motion suppression walls (302 units)

The steel container fixed to the floor is filled with syrupy viscous material, and when the steel plate suspended from the ceiling girder passes through this viscous material the viscous resistance suppresses the motion. This suppresses motion from the wind and small to large earthquakes.



Brake dampers (152 units)

The same material as used in automobile brakes is used to generate a frictional force that suppresses swaying. This effect is mainly used for large earthquakes.

○ARK Hills Sengokuyama Terrace (Residential building)

Seismic damping construction is used for the low-rise residential building. Laminated rubber and a device called an elastic slide bearing are used to float the building off of the ground to dampen the transmission of earthquake motion to the building.

Device that supports the building and isolates it from the ground (isolator)

■ Laminated rubber : 27 units



This resists vertical loads while the characteristics of the rubber allow it to deform in response to horizontal loads during an earthquake. This isolates the building from the building from the ground.

■ Elastic slip bearing: 10 units



This slides on top of a stainless steel plate to support the weight of the building while isolating the building from the ground.

Device that quickly shortens and converges the swaying (damper)

■ Oil damper: 4 units



The piston principle is employed to use the fluid resistance to absorb the earthquake energy.

■ U-damper: 4 units



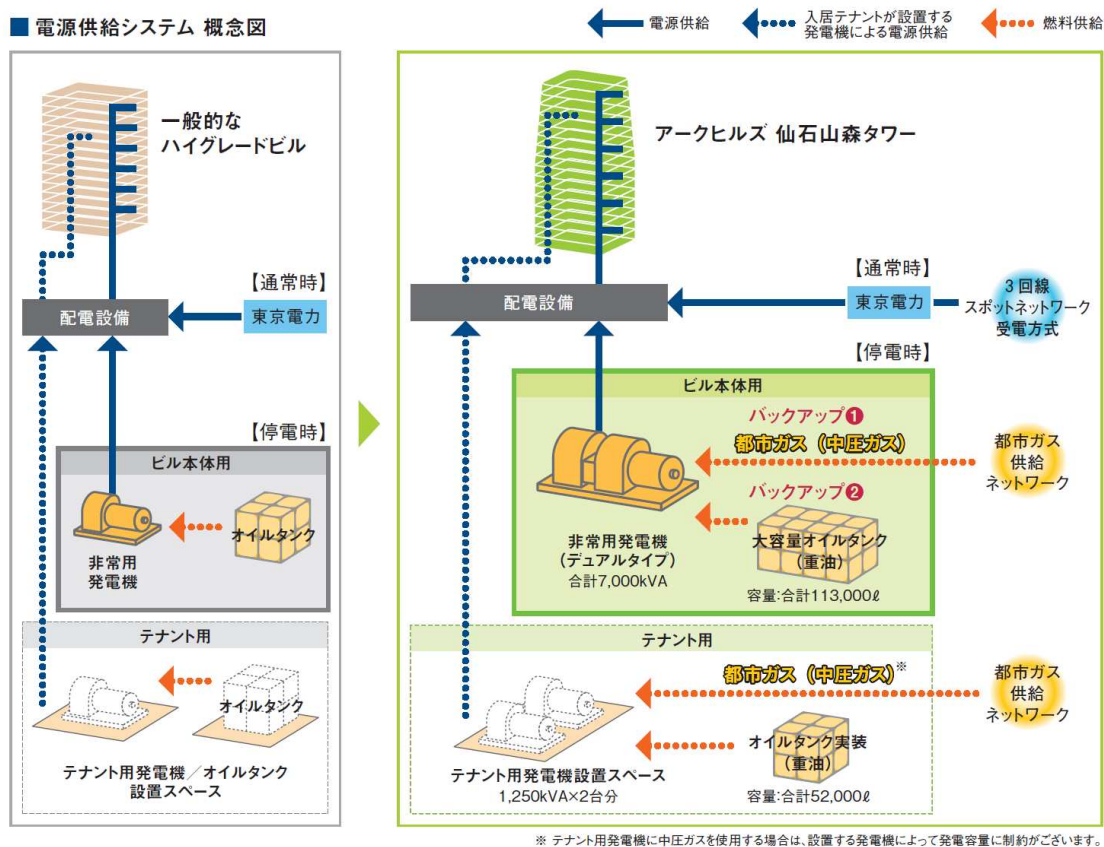
The steel bars bent into a U shape elastically deform to absorb the earthquake energy.

[Security and Safety] Ensure business continuity with an emergency power generation system that uses city gas

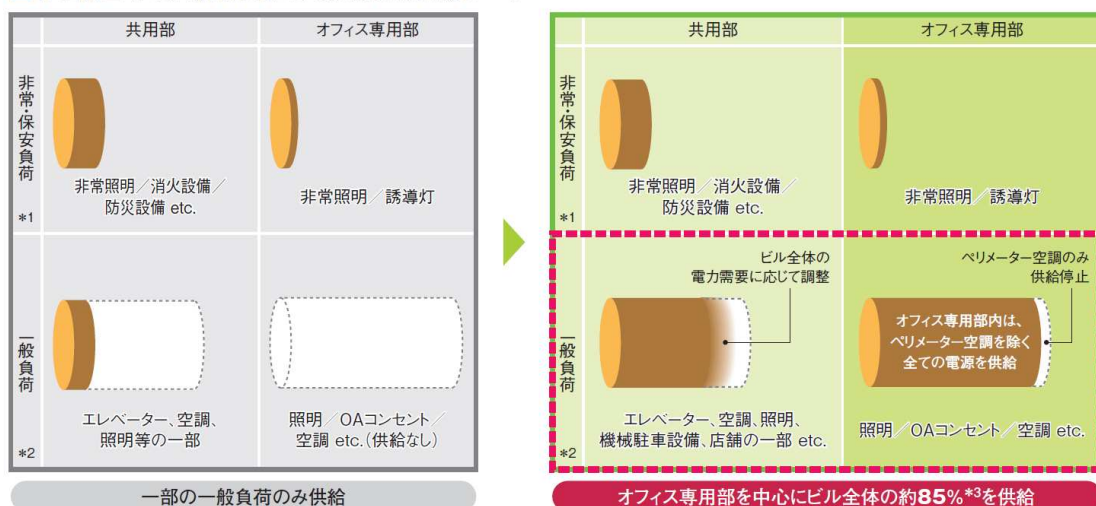
In response to the Great East Japan Earthquake that occurred on March 11, there has been increased concern about insufficient power supply and interest in business continuity plans (BCP) by companies, so to improve the ability to maintain urban functions and support the business continuity of tenant businesses, an emergency power generation system will be installed to use city gas (medium pressure gas) for in-house power production to allow tenant businesses to continue normal operations during a power outage.

Conventionally, the supply of power from emergency power generation facilities in general office buildings is only used to support safety operations, such as evacuation lighting, ventilation, and firefighting equipment, but this emergency power generation system can supply approximately 85% of the building's overall estimated maximum power consumption including supplying power to special areas such as office equipment power outlets, lighting, and air conditioning in offices.

This system uses city gas supplied via disaster resistant medium pressure piping. In addition, greater heavy fuel oil storage tank capacity provides a secondary backup to continue supplying the same amount of power to powerfully support the safe and continuous conducting of business activities by tenant companies.



■ 停電発生時の非常用発電による電源供給対象イメージ



*1 消防法、建築基準法等によって定められた非常用設備(消火設備・排煙設備等)、およびビル管理者が任意に定める建物維持に最低限必要な保安設備(セキュリティ一部の設備機器等)
 *2 上記を除く、照明・OAコンセント・空調等、一般電力負荷 *3 ビル全体の想定最大使用電力の約85%を賅うことが可能です。
 ※ 電源切替時に瞬時停電が生じるため、完全無停電化にはUPS等の設置が必要です。

Officially certified with an S Rank, the highest evaluation granted by CASBEE

Environmental load reduction activities

- Heat island suppression: Actively use greenery on sites and roofs (Green coverage ratio: 30%)
- Install the latest energy saving equipment: Use LED lighting, etc.
- Use natural energy: Install solar power generation equipment
- Exterior sunlight blocking screens: Use Low-E double-glazed windows and exterior sunlight blocking screens
- Make equipment system more efficient: Install systems that visualize energy use, etc.
- Effectively utilize resources: Water green areas using rainwater, flush toilets using industrial water, 100% recycling of carpets, etc.

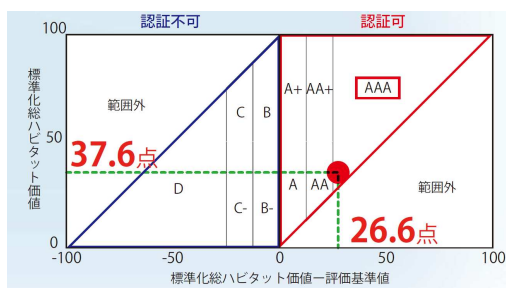


**[Environment] Creation of a green area to promote biodiversity:
First project in Japan to be awarded the highest rank (AAA) by the JHEP evaluation**

ARK Hills Sengokuyama Mori Tower planned the greenery areas after studying ecosystem possibilities with the intent of improving the area environment by creating a district where songbirds, insects, and other organisms can live. Prior to creating this plan, Mori Building became the first entity in Japan to be awarded the rank of “AAA,” the highest rank of JHEP certification*, by the Ecosystem Conservation Society-Japan. Further, to realize the plan, the advice of the Ecosystem Conservation Society was sought, and it recommended planting many of the plants that originally existed in the area, to leave dead trees as a home for organisms, and to use the pre-construction old soil as planting medium for the green areas of the site.

■当物件の生物多様性への取り組み

1.在来種・自然植生をベースとした緑地	●計画地の地域植生を再生する
2.まとまりのある緑地	●緑化効果を高め周囲の緑と結ぶ
3.緑被ボリュームの高い立体的な緑地	●生きものの住みやすさに貢献する
4.枯れ木や落ち葉といった特殊な環境要素への配慮	●多種多様な生きものの為の環境づくり



- 計画後の総ハビタット価値…37.6点
- 計画前の総ハビタット価値…11.6点
- 事業によって得られる総ハビタット価値…26.6点

The total habitat value obtained by the project was 37.6 (vertical axis), and the difference compared with the pre-plan value (evaluation value) was 26.6 (horizontal axis). These values show that the green area value from the standpoint of biodiversity greatly increased as a result of the project; thus resulting in receiving the highest certification ranking of AAA.

◆JHEP Evaluation System



*: JHEP Certification/Habitat Evaluation Certification (HEP: Habitat Evaluation Procedure)

This is a method for quantitatively evaluating a natural environment from the perspective of habitat that was developed by the US Department of the Interior in the 1980s. Consensus building tools, such as objectivity, reproducibility, and ease of understanding, are used to evaluate the excellent features, and this method is currently widely used in the United States for environmental assessments and nature restoration projects.

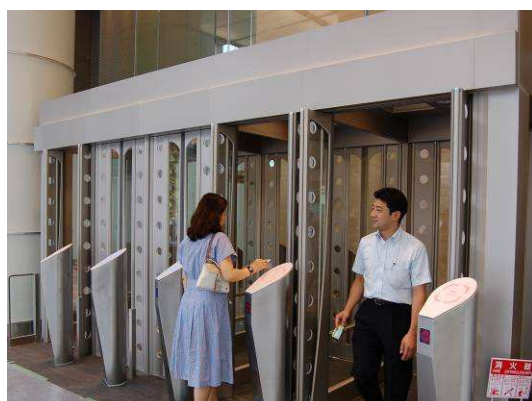
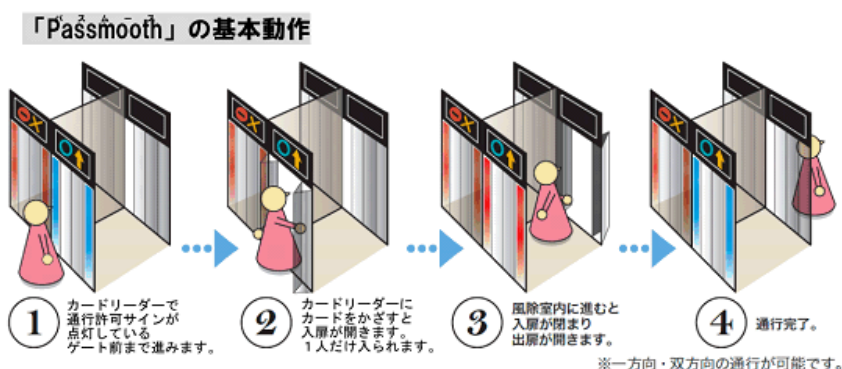
JHEP was created when the Ecosystem Conservation Society-Japan modified the HEP environmental evaluation method to use it to evaluate the activities of companies and other organizations. Activities for preserving and restoring biodiversity are objectively and quantitatively evaluated and certified using rankings to promote the implementation of effective activities.

[Environment] New gate system “Passmooth” to strengthen energy conservation, safety, and security

“Passmooth,” which uses a double door construction to suppress the amount of outside air flowing in, is a new entrance system that reduces the draft phenomenon caused by the wind blowing through high-rise buildings and that improves air conditioning efficiency. The lightweight folding doors both open and close quickly and are inherently safer.

■Main features

- ① Double door construction (interlock control) suppresses the draft phenomenon
- ② The moving doors are ultra lightweight to improve safety
- ③ A security system is used (verification system, accompanying person detection sensor) to prevent unauthorized entry.
- ④ The windbreak effect of the interlock control improves the cooling and heating efficiency in the building (improved energy saving effect).



Passmooth installed in 1st floor and B1 floor lobby. The door and security card reader form a motif of the building.



[Culture] Artwork that will be a symbol of the district: Public art “Infinity”

A public art object will be placed in front of the entrance to ARK Hills Sengokuyama Mori Tower under the direction of the Mori Art Museum.

This is a new work created by one of Brazil’s renowned artists, Tomie Ohtake, which he named “Infinity” to symbolize the hope for the area’s endless development and growth.



Infinity

Tomie Ohtake

Born in Tokyo in 1913 before becoming a Brazilian citizen.

Renowned Brazilian artist of Japanese descent.

She is known for his large number of abstract paintings and many large public projects that are found throughout Brazil.

When I arrived in Brazil in 1936, I had no idea I would become an artist. Later, when I became an artist in the 1950s, I couldn’t image that my work would be exhibited in Tokyo. Now, a second work will be exhibited in Tokyo, which is a very great honor!

This sculpture has endless activity. I used infinity to symbolize the rethinking of the future.

I am very grateful for to the Mori Art Museum and Museum Director Fumio Nanjo for allowing me to realize this project.

Tomie Ohtake (June 2012)

In addition to this, 10 works from 3 other artists (Kisho Mukaiyama, Guillaume Bottazzi, Tiger Tateishi) are displayed in 7 locations including the residence entrance and the Sky Lounge. In addition to this, pieces will be introduced for limited periods in a section of a shop that is under construction.

The art exhibitions that will be held in the shop that is under construction are part of the art project “MAM POP-UP”* that is planned and managed by the Mori Art Museum and that holds irregular exhibitions of the works of young artists and the Museum’s Mori Art Collection in vacant spaces and other locations around the city.

The Mori Art Museum was opened in 2003 as a symbol of Roppongi Hills as a cultural center. To date the museum has held 35 major exhibitions that attracted over 15 million people (total through 2011). Mori Building utilizes the knowledge and network it has acquired by operating the Mori Art Museum and planning exhibitions to plan public art for the Shanghai World Financial Center (completed 2009) and the Akasaka Enokizaka Mori Building (completed 2009) and jointly hold the Roppongi Art Night with Metropolitan Tokyo and other entities.

* “MAM POP-UP” Project

This is an art project that holds irregular exhibitions of the works of young artists and the Museum’s Mori Art Collection in vacant spaces around the city through the planning and management of the Mori Art Museum.

The first exhibit used the wall of ARK Hills to introduce the works *Cherry Boy* and *Sketches from über* (each 16m wide) of Yukihiro Taguchi, a young artist residing in Berlin. The planning and supervision was conducted by the Mori Art Museum (MAM) with the intent of increasing the popularity and understanding of modern art.



Scene of the first “MAM POP-UP” Project(ARK Hills)