

# SUSTAINABILITY REPORT 2021



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# Hazama Ando's Sustainability Strategies

At Hazama Ando, we are striving to become a corporate group that meets the expectations of society and creates greater social value. To achieve this, we have established key strategic themes (material issues) from the perspective of the environment, society, and governance (ESG).

## Hazama Ando's Materiality

### Materiality ① Helping to solve social issues and create value for society

Create new value in various facets of our businesses and flourishing alongside the communities we serve as we move toward the realization of a sustainable society

Key CSR Themes	Key Performance Indicators	Relevant SDGs
Achieving the satisfaction of society and customers and earning their trust	Productivity improvement (fiscal 2025 target) (Compared to fiscal 2020) <b>Over 10%</b>	  
Working in harmony with the communities we serve	Patent applications (fiscal 2025 target) <b>75/year</b>	 

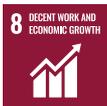
### Materiality ② Protecting and being attuned to the natural environment

Contribute to the realization of a carbon-free, recycling-oriented society with a low environmental impact to pass on the earth's abundance to the next generation

Key CSR Themes	Key Performance Indicators	Relevant SDGs
Creating environmental abundance	CO <sub>2</sub> emissions reduction (fiscal 2030 target) Total reduction rate for Scope 1 and Scope 2 emissions (compared to fiscal 2017) <b>33%</b>	  
	Use of electricity from renewable energy sources (fiscal 2030) <b>80%</b>	 

### Materiality ③ Promoting sustainable management and taking full responsibility for corporate actions

Realize fair and honest business practices across the supply chain as the foundation for sustainable management

Key CSR Themes	Key Performance Indicators	Relevant SDGs
Conducting fair and honest corporate activities	Serious work-related accidents <b>0 cases</b>	  
Creating safe, comfortable working environments	Compliance training participation rate <b>100%</b>	  
Engaging in dialogue with stakeholders		

# Pursuing Further Value Creation

## Identifying Core SDGs and Disclosing Key Performance Indicators

To fully elucidate the potential social impact of the Four Value Creation themes, we identified core SDGs to prioritize our actions in addressing the various material issues of the Group. We aim to improve non-financial performance in the Chapter I phase of the medium-term management plan while clarifying the content of our actions to achieve the SDGs. We also disclosed performance indicators correlating to the core SDGs, to make visible our progress in realizing sustainability strategies related to the material issues.

Going forward, this framework will be instrumental as we implement a PDCA cycle, serving as a central index of the social and environmental impact strategies we have developed, integrating financial and non-financial actions.

## Priority Core SDGs and Key Performance Indicators

Material Issues Key CSR Themes Relevant SDGs	Key Actions	Core SDGs	Key Performance Indicators	Metrics	Deadline (FY)	Specific Measures
<b>Helping to solve social issues and create value for society</b>  <b>Key CSR Themes</b> ■ Achieving the satisfaction of society and customers and earning their trust ■ Working in harmony with the communities we serve  	▶ Innovate infrastructure creation with leading-edge, high-quality solutions  ▶ Continue to deliver resilient, leading-edge lifestyle and economic foundations to society		■ Productivity improvement  ■ Number of patent applications	10% or more (compared to FY2020) 75/year	2025  2025	■ R&D of technology that contributes to labor saving, automation, and disaster prevention and mitigation ■ Bolstering the life cycle support business ■ Promoting activities that contribute to society and culture
			■ Number of on-site tours  ■ Environmental and social contribution activities (volunteer activities, participation in clean-up activities, etc.) - Civil engineering sites - Building construction sites - Offices	100 or more tours/year  3 times/site 3 times/site 80 times/year	—  2021	
<b>Protecting and being attuned to the natural environment</b>  <b>Key CSR Themes</b> ■ Creating environmental abundance  	▶ Continue rigorous efforts to reduce the Group's environmental footprint (low CO <sub>2</sub> emissions, high recycling rates, biodiversity conservation)  ▶ Actively develop services to help reduce society's environmental impact		■ CO <sub>2</sub> emission reduction rate (Scope 1 and 2) ■ Proportion of A rank or higher in the simplified CASBEE rating (Comprehensive Assessment System for Built Environment Efficiency)	33% (compared to FY2017) 60% or more	2030  2021	■ Promoting a low-carbon business model ■ Offering energy-saving solutions ■ Using renewable energy for in-house electricity ■ Investing in clean technology ■ Augmenting environmental site visits ■ Promoting small environmental footprints and high recycling rates at work sites, reducing waste ■ Developing life cycle assessment methodologies
			■ Number of ZEB projects ■ Proportion of renewable energy used for electricity	5 80%	2021 2030	
			■ Serious environmental incidents ■ Recycling of construction site waste - Civil engineering: Reduction of overall mixed waste volume - Building construction: Reduction of mixed waste intensity at new construction projects	0 cases  1 ton/construction cost (100 millions of yen) 7 kg/total floor space (m <sup>2</sup> )	— 2021	
<b>Promoting sustainable management and taking full responsibility for corporate actions</b>  <b>Key CSR Themes</b> ■ Conducting fair and honest corporate activities ■ Creating safe, comfortable working environments ■ Engaging in dialogue with stakeholders  	▶ Foster workplaces where diversity is valued, and employees can draw on their individuality and different abilities  ▶ Inculcate respect for rights and work practices to protect employee health and safety		■ Serious work-related accidents ■ Frequency rate	0 cases 0.40 or less	— —	■ Preventing work-related accidents ■ Promoting health management ■ Expanding recruitment of women ■ Enabling fair and fulfilling work, enhance employee benefits, pursue personnel development ■ Ensure thorough compliance
			■ Ratio of female employees (full-time)	15% or more	2025	
			■ Eight or more closures in four weeks ■ CCUS* card clock-in rate ■ Information security course attendance ■ Compliance training attendance	100% 40% 100% 100%	2021 2021 — —	

\* CCUS = Construction Career Up (=Advancement) System: A system that uses IC cards distributed to skilled workers to gather their on-site work history and qualifications based on industry standards.  
The card clock-in rate (work history record rate): the number of skilled workers who clocked in using card readers, etc., when entering construction sites ÷ the total number of skilled workers who entered construction sites.

## Engagement that Addresses Risks and Opportunities

To make steady headway in addressing the material themes the Group has identified, we are working to grasp fully the expectations, concerns, and demands of our stakeholders and build a mechanism to reflect these in our activities, while always being attentive to the risks and opportunities involved. Since the start of 2020, the COVID-19 pandemic has significantly impacted our ability to take action related to each key theme. Considering this context, we are implementing a PDCA cycle sensitive to changes in business and living styles in a “new normal” or “post-COVID” environment.

### Social and environmental risks and opportunities facing the Group: Elements that gained importance in the fiscal year ended March 2021

#### Risks Surrounding Our Businesses

##### Mounting calls for non-financial management approaches and financial implications

- ▶ Changes to social and economic systems adapting to the pandemic and a post-pandemic world
- ▶ Calls to enhance disclosure of climate change and diversity strategies

##### Impact of climate and disasters on business

- ▶ Impact of the COVID-19 pandemic on order volumes in Japan and overseas
- ▶ Ongoing reinforcement of business continuity plans in response to catastrophes

##### Increasingly sophisticated social expectations and technical requirements in line with infrastructure demand

- ▶ Growing needs for infrastructure design that corresponds to business practices and lifestyles under the “new normal”
- ▶ Customer demands to address digital transformation (DX) initiatives

##### Needs for further improvement in the occupational safety environment

- ▶ Reinforcing health and safety management amid the pandemic
- ▶ Growing interest in society in non-crisis health management

##### Need for compliance and risk management across the supply chain

- ▶ Rigorous measures at each site to prevent COVID-19 infection
- ▶ Respect for human rights, including among overseas business partners

#### Opportunities to Contribute to Society and Pursue Mutual Flourishing

##### Improving customer satisfaction and contributing to society by building high-quality, resilient social infrastructure with superlative environmental performance

- ▶ Heightened social expectations for low-carbon solutions, labor-saving solutions, and other solutions that address social change
- ▶ Creating further value and boosting efficiency by incorporating digital technologies into our construction

##### Attracting quality personnel and building mutually flourishing relationships with excellent partner companies by promoting occupational safety and working style reforms

- ▶ Expanding opportunities to secure more diverse human resources by offering flexibility in working styles
- ▶ Pursuing technological innovation and boosting competitiveness by means of diverse human resources

##### Conducting fair and honest business activities, building relationships with and contributing to society by strengthening partnerships with local communities

- ▶ Promoting a more open supply chain through more rigorous enactment of the Group’s procurement policy

## Stakeholder Engagement

Amid ongoing changes in social values, to fulfill the Group's responsibilities as a member of society and continue to realize building operations that are of value to customers and society, Hazama Ando believes that the process of dialogue and collaboration with various stakeholders is essential. Based on this, we are taking advantage of various opportunities and pursuing initiatives to reflect the concerns of society in our corporate activities.

Stakeholder	Approach, Policy	Major Channels for Dialogue	Major Themes, Areas of Interest
<b>Customers</b>	Attentive to the needs of customers and the demands and expectations of society, we will pursue secure, safe, high-quality "good building operations" based on our solid technological prowess. Through these operations, we will strive to bring about customer satisfaction, earn greater trust from society, and address social issues.	Customer inquiry desk, satisfaction surveys, business activities	High-quality building operations, construction that addresses social issues
<b>Shareholders and Investors</b>	By means of timely and appropriate disclosure and two-way dialogue, we will seek the evaluation of shareholders and investors as appropriate. Their opinions and requests will also inform our corporate activities, as we strive to enhance corporate value by contributing to the advancement of society.	Meetings with investors and shareholders, general meeting of shareholders, results announcements and briefings, investor and shareholder information website (timely disclosure, etc.), site tours	Timely and appropriate disclosure, disseminating information in terms of both risks and opportunities
<b>Business Partners, Collaborating Companies</b>	By engaging in fair business practices and building a supply chain that is sensitive to human rights, occupational health and safety, and the environment, we will collaborate in helping to bring about a sustainable society and create social value, aiming to grow along with our partners.	Hazama Ando Cooperative Association, business activities, exhibitions, events	Occupational health and safety, appropriate construction management, fair business practices
<b>Employees</b>	To enable diverse employees to work securely, safely, and in a rewarding way as they reach their full potential, we will cultivate working environments and various support systems and endeavor to treat employees fairly and support career development.	Employee satisfaction surveys, regular interviews, labor-management consultations, employee helpline	Occupational health and safety, consideration for diversity, career development, fair treatment
<b>Local Communities</b>	Through our business activities and social contribution activities in various regions, we will contribute to the advancement of local communities and the cultivation of future generations, fulfill our duties as a corporate citizen, and seek to coexist with the communities we serve.	Social and cultural contribution activities, site tours, hands-on workshops	Support for local communities, including harmonious relationships and cultivation of future generations

## Our CSR Policy

**Pursuing rigorous CSR management and helping to bring about a sustainable society are the essential mission of a company. Guided by this conviction, Hazama Ando has established a CSR Policy and is implementing various activities to realize the policy's aims. Going forward, to further reinforce our efforts involving the SDGs and ESG and carry forward the themes set forth in the Group's materiality, we will continue to instill in every employee the policy that forms the backbone of our CSR activities. We will also work together across the Group to meet the ever-increasing expectations of society for a truly sustainable corporate strategy.**

### CSR Policy

**Through the practice of secure, safe, high-quality "good building operations" that draw on sound technology and passionate commitment, Hazama Ando will contribute to the advancement of society and our customers and seek to bring about an abundant, bright future.**



# Helping to solve social issues and create value for society

## Overview of 2020 Results

To address the material issue of helping to solve social issues and create value for society, the Group is implementing PDCA activities based on two key CSR themes.

Under the key theme of achieving the satisfaction of society and customers and earning their trust, we are pursuing operations that are deeply connected to Goals 9 and 11 of the SDGs, which we identified as core SDGs for this materiality. In the fiscal year ended March 2021, we actively developed technologies, construction methods, and management systems utilizing ICT, AI and building/construction information modeling (BIM/CIM) technology. Our goal was ongoing improvement in customer satisfaction by means of greater productivity, comfort, resilience, and quality control. Our achievements have been recognized by various awards.

Under the key CSR theme of working in harmony with the communities we serve, we continue to undertake corporate citizenship activities, working to contribute to and participate in local communities as a member of society. As in the previous fiscal year, in the fiscal year ended March 2021, the COVID-19 pandemic required special care for various events. We engaged in cultural contribution activities and held site tours and other events appropriately while taking pains to prevent infection.

**1 Activity Highlights**

**Proactive Use of BIM Technology**

We are constructing a cross-process building information modeling (BIM) platform that leverages digital information across the entire building life cycle, from initial and basic project planning and implementation design to the drafting of estimates and the building production process, up through building maintenance and operation.

One highlight in the fiscal year ended March 2021 was our participation in a joint project of the Ministry of Land, Infrastructure, Transport and Tourism’s BIM Promotion Committee. The project aimed to verify the effectiveness of a BIM workflow and analyze issues in integrated design-build methods. Staff from throughout our design and construction divisions took part. Through this project, we established a front-loading BIM workflow that closely links BIM data with all processes from design to construction, enabling rapid, agile decision making. This positions us to incorporate production blue-prints, construction methods, and other building production information into the design stage, improving both quality and productivity while reducing environmental impact.

We upgraded the Production Design Office, which was responsible for linking data across the design and construction stages, to a full-fledged department, to more intensively

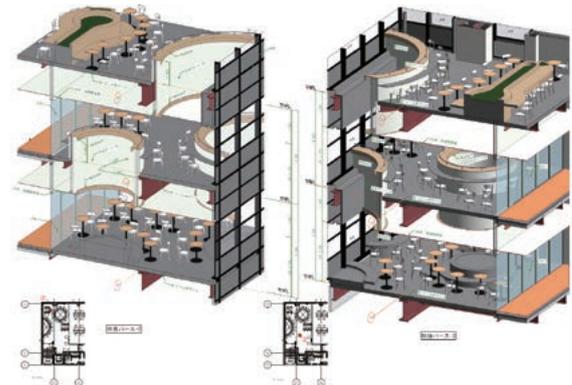
promote cross-process BIM and harness the effectiveness of a front-loading workflow starting in the fiscal year ending March 2022. This provides us with a framework for centrally managing production design BIM, BIM production blue-prints, and construction BIM. At the same time, we have assigned key BIM personnel to the Construction Technology Management Division, Project Promotion Department, and Construction Management Department, strengthening the BIM implementation framework Group-wide.

We are employing BIM for all projects carrying construction costs of over 1 billion yen. We are also implementing a front-loading BIM workflow for design-build projects (where we carry out both design and construction services). From the fiscal year ending March 2022, we will expand BIM workflows into the maintenance field as well.

By further cultivating the use of BIM throughout the building life cycle from design to construction and maintenance, we are working to create high added value that combines safety, high quality, high productivity, and low cost. In this way, we aim transform the building production system into one which can “contribute to enhancing society by construction,” as stated in our Corporate Philosophy.



Front-loading at the design stage.



Front-loading at the production design stage.

**2 Activity Highlights**

**Supporting the Art of Possibility Project: Posting Works by Artists with Disabilities at Construction Sites**

Hazama Ando is supporting the Art of Possibility Project\* jointly undertaken by Toppan Printing Co., Ltd., NPO Support Center DREAM, and the Borderless Art Organization foundation by posting work by artists with disabilities on the temporary walls enclosing construction worksites. Seen by countless passers-by, the walls serve as a platform making the artists’ work widely available to the public. As of May 2021, artwork had been exhibited at 10 sites nationwide. We will continue this initiative to help build a society in which artists with disabilities can continue to find fulfillment through creative activities.

\* An initiative that places value on artwork created by artists with disabilities (“art of possibility”), aiming both to address the social issue of supporting the independence of persons with disabilities and to pursue economic activities.



A child passing by observes the work of an artist.



# Achieving the satisfaction of society and customers and earning their trust

By providing society with high-quality buildings backed by superior technology, Hazama Ando is striving to boost customer satisfaction and earn society’s trust.

## Policies and Approach

### Approach

Civil engineering and building construction provide Hazama Ando’s points of contact with society. Thus, the first step toward contributing to society is our commitment to achieve “good building operations” that are responsive to the needs of customers, offering high quality at a fair cost. We want to earn the trust of society at large by continuing to support the daily lives of people through highly reliable buildings.

### Quality Policy

Promote construction activities using reliable technology, contributing to society and seeking customer satisfaction.

- 1 Understand customer demands and legal requirements, and see situations from the customer’s perspective.
- 2 Pursue activities that add greater value at each stage of sales, design, construction, and follow-up support.
- 3 Develop and implement new technologies to address the further expectations of customers and society.
- 4 Continuously improve quality management systems and pursue high quality.

### Pillars Supporting Our Initiatives and Promotion Framework

#### 1. Quality Control and Improvement Efforts

Based on our quality management systems, the Group is engaged in production activities to boost customer satisfaction at each stage of sales, design, construction, and follow-up support.

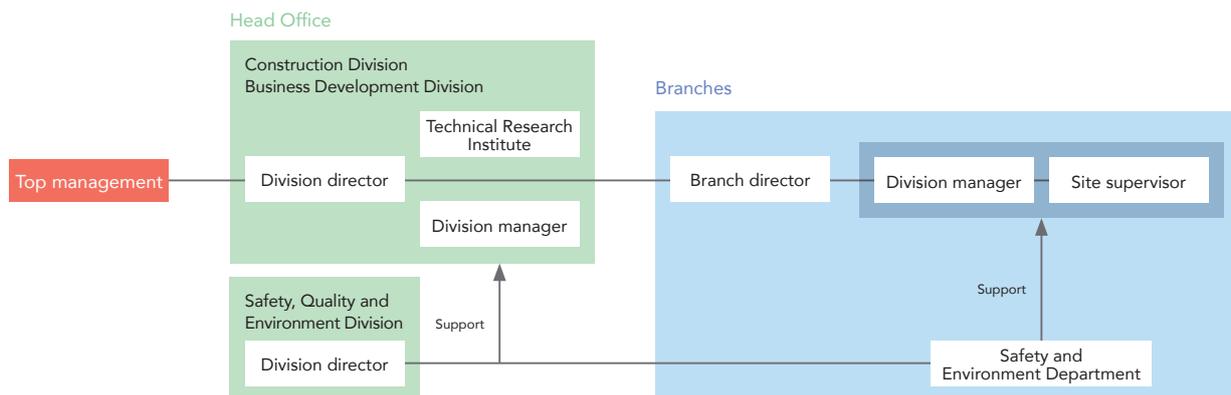
Under the leadership of the representative director, the director of the Construction Division, who oversees civil engineering and construction operations as well as technology and R&D, is in charge of quality control, and also promotes efforts to maintain and improve quality control. We are also making continuous improvements through management reviews and internal audits, and ensuring that these are implemented at each branch and construction site.

#### 2. Forward-Looking Development of Technology and Construction Methods

We have a two-fold approach to research and technological development: construction technology directly tied in with construction sites, carried out by the civil engineering and construction technology management divisions of the Construction Division; and R&D of basic and advanced technologies undertaken by the Technical Research Institute. The various technology management divisions are in charge of developing technology that supports construction in specific projects; they implement and guide the use of technology on site. The Technical Research Institute is concerned with longer-term issues, advancing R&D of new technological areas ranging from basic to cutting-edge technologies.

We have also established an Innovation Department, under the direct control of the president, to plan and carry forward new businesses that contribute to the diversification of the Group’s earnings base, and to plan and implement IT solutions that increase operating efficiency.

#### Quality management system promotion framework



## Pillars Supporting Our Initiatives 1: Quality Control and Improvement Efforts

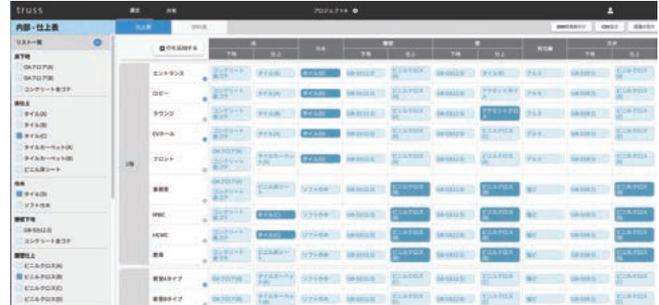
### Startup for Cloud-Based Selection of Building Materials: Digital Transformation through Open Innovation

As adopted in the Hazama Ando Accelerator Program 2019, formulated to promote open innovation, in December 2020 we invested roughly 100 million yen in Truss Inc.

Truss is a startup venture that operates “truss,” a cloud-based service for selecting building materials, which compares and examines materials from among various manufacturers to find the best products. Since July 2019, we have been jointly developing a finish schedule system with Truss using the truss platform. With the system, building design departments can create a finish schedule in less time and immediately share information about the schedule. Also capable of linking to building information modeling (BIM) platforms, the system is expected to contribute to digital transformation.

The recent investment is positioned to get the truss business fully up and running while expanding its scope, as well as to generate further business synergies with the

Group. We will continue to jointly develop the system and promote its in-house deployment and integration with our BIM and other in-house systems.



Finish schedule system.

### Various Awards

Numerous technologies and projects developed by the Group have been recognized with awards.

Granting organization	Award	Technology, projects recognized
Atomic Energy Society of Japan (AESJ)	52nd Atomic Energy Society of Japan Award (2019)	Radiation Shielding Handbook (Basic, Applied) (author: Koichi Okuno, Senior Researcher, Technical Research Institute)
Hokkaido Branch, East Nippon Expressway Co., Ltd.	Fiscal 2020 Excellence in Construction and Excellence in Construction Process Management	Sasson Expressway Zenibako Interchange Reconstruction
Tohoku Electric Power Co., Inc.	Miyagi Power Engineering Center Director's Award	Shin-Sendai Thermal Power Station service road and other improvement work and related removal work
Public Buildings Association	17th Public Buildings Award for Excellence	Kunimi Town Hall, Fukushima Prefecture
Ministry of Land, Infrastructure, Transport and Tourism Kanto Region Development Bureau	Fiscal 2019 Excellence in Construction and Excellent Construction Engineer Award	Yokokan Nanei Interchange/Junction Substructure (No. 28) Construction Supervising Engineer Takeshi Suwabe
Ministry of Land, Infrastructure, Transport and Tourism Kanto Region Development Bureau	Fiscal 2019 Excellence in Construction and Excellent Construction Engineer Award	2016 New Construction of Shakusui Sluice Gate Supervising Engineer Kiyoshi Owada
Clay Science Society of Japan	Fiscal 2020 Technology Award	Research and technological development for large-scale bentonite construction used in radioactive waste disposal
Japan Society of Civil Engineers (JSCE) Construction Management Committee	Fiscal 2019 Public Procurement Symposium Good Practice Award	Use of early contractor involvement (ECI) approach in Futaenotoge Tunnel to support faster disaster recovery
Japan Society of Civil Engineers (JSCE) Construction Management Committee	Fiscal 2019 Public Procurement Symposium Excellent Lecture Award	Futaenotoge Tunnel Construction (Aso Block) Using ECI Approach Deputy Site Supervisor Arata Yoneda
Association of New Urban Housing Technology	Fiscal 2020 CFT Structural Award	Shikokuchuo City New Government Building
The Nikkan Kensetsu Kogyo Shinbun, Ltd. (Daily Engineering & Construction News), Kinki Construction Association	Construction Technology Expo 2020 Kinki Featured Technology Award	Construction progress management system using 4K fixed-point camera images
Japan Construction Machinery and Construction Association (JCMA)	Fiscal 2020 Construction and Construction Machinery Symposium Excellent Paper Award	Development of a system for AI to automatically detect construction machines from videos Kentaro Hayakawa
Tokyo Charming Construction's Identity (CCI)	1st CCI Tokyo Young Engineer/Female Engineer Achievement Award	Kita-Tama No. 2 Water Reclamation Center Pump Station Construction and Seismic Retrofitting Shota Kusuyae, Kanako Komura
Japan Society of Civil Engineers (JSCE)	Fiscal 2020 Japan Society of Civil Engineers Outstanding Civil Engineering Achievement Award	Achieving fast reopening of disaster recovery lifeline by applying ECI approach to Futaenotoge Tunnel construction
Japan Society of Civil Engineers (JSCE)	Fiscal 2020 Japan Society of Civil Engineers Outstanding Civil Engineering Achievement Award	Takao River Underground Bypass Channel Project: Building an underground bypass channel directly under a river flowing through a densely populated residential area
Tohoku Electric Power Network Co., Inc.	Certificate of Commendation (for Major Contributions to Stable Electric Power Supply)	Civil engineering work for Nagamachi-minami Subway Line cable replacement construction

## Pillars Supporting Our Initiatives 2: Forward-Looking Development of Technology and Construction Methods

### New Crack Inspection Method Using Autonomous Driving Floor Crack Detection Robot: More Efficient Inspection with Robots

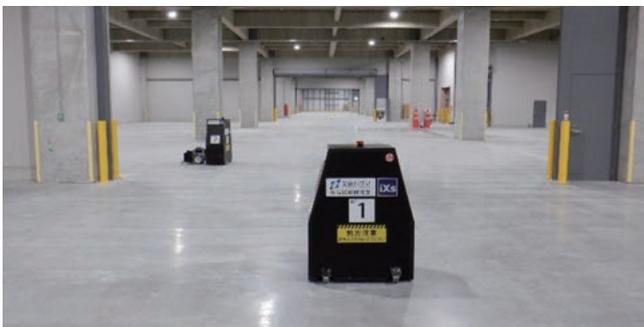
Amid concerns about a shortage of skilled workers in the construction industry, labor saving in construction work and efficiency in inspection work have become pressing issues. In response, in collaboration with iXs Co., Ltd., we developed an autonomous driving crack inspection robot capable of automatically inspecting the floors of spacious structures for cracks.

Photographing the floor while moving autonomously, the robot immediately detects cracks 0.1 millimeter or wider, applying AI to photographic images to color-code cracks in 0.1-millimeter units. Results are automatically displayed as a schematic. The robot saves labor and the time needed for inspection and creating schematics of cracked areas, lowering manhours to about 40% compared to the conventional

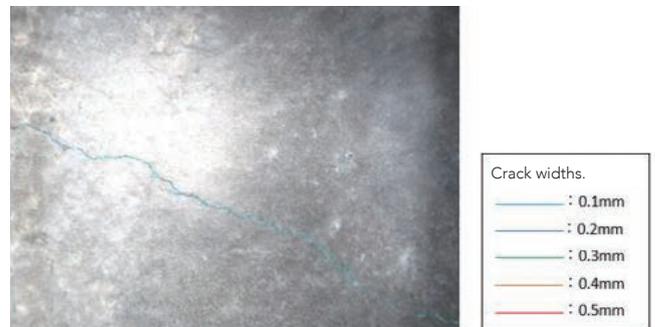
close-up visual inspection. Also, one person can operate multiple robots using a tablet-based monitoring system that tracks the robots' inspection status.

Based on this technology, the Group established a new crack inspection method for concrete floors. We verified the effectiveness of the system in the spring of 2021, employing it as a building inspector to inspect all warehouse floors of a newly built, four-story logistics facility—a total of about 45,000 square meters.

We will phase in the robot to inspect for cracks at logistics and manufacturing facilities built by the Group, aiming to boost the efficiency of inspection work and productivity at work sites.



The robot inspects for cracks at a construction site.



A crack is detected and color-coded.

### Development of Waterless Drill Boring Technique for Use in a Wide Range of Ground Conditions

Japan is currently undertaking a large-scale renewal of expressway tunnels. A water-based drilling method is typically used when boring mountain tunnels. However, with swelling ground or other unfavorable ground conditions, using water to drill disturbs the ground, and methods that do not use water are considered more effective. Moreover, depending on the mountain, different ground conditions and groundwater levels are to be expected when drilling. In collaboration with a company specializing in foundation work, the Group developed a boring technique that enables waterless drilling with a wide range of geological properties. With a view to applying the technique to renewal work inside expressway tunnels that are in service, the technique

uses an ultra-compact drill with superior mobility, and equipment compact enough to be loaded on a normal vehicle. The technique achieves efficient work in limited spaces.

This technique is distinguished by its use of air rather than water, and a screw attached to the boring rod. The drill can perform boring work at various angles. We conducted trials under multiple ground conditions, including in actual tunnels, confirming the technique's reliability for boring work.

Going forward, we aim to apply the technique to expressway renewal work and other projects, focusing on measures to prevent ground heaving inside in-service expressway tunnels.

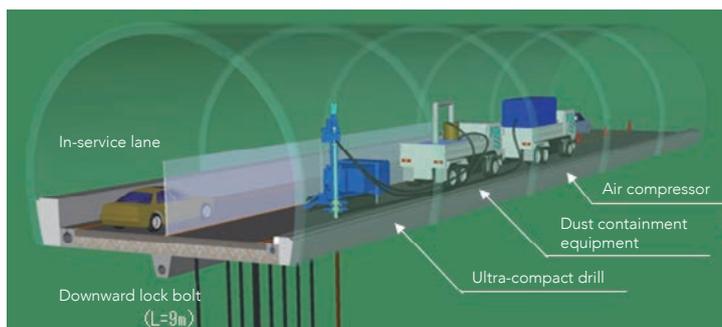


Image of boring work inside an in-service expressway tunnel.



Trial construction in a tunnel.

### Trials of Automated Construction Machinery with Kobelco

The Group is working on the development of ICT-based automated operating systems for construction machinery, with the aim of improving productivity at construction sites. Construction at sites requires multiple types of machinery, and to date we have developed an automated operating system for vibration rollers and bulldozers.

Recently, with Kobelco Construction Machinery Co., Ltd., we also developed automated technology for the power shovels that are widely used at construction sites. In November 2020, at our Technical Research Institute, we conducted a trial in which one human operator controlled an automated shovel while operating a normal power shovel manually. Specifically, the autonomous driving shovel scooped up

excavated dirt and loaded it onto a dump truck, while the manual power shovel provided the dirt to be loaded. The human operator “taught” the automated shovel beforehand, recording operating data. The trial confirmed that automated operation based on such data performed as expected. In addition, AI enabled the power shovel to “recognize” the shape of a mound of dirt and a dump truck. Building on this information, the automated shovel carried out its work, making adjustments along the way.

Based on the results of this joint research, the Group and Kobelco Construction Machinery will continue to work together to develop even more advanced automated operating technology for more practical applications.



Automated operation trial for a power shovel.



The shovel automatically detects the dump truck bed.

### Developing a Remote Operating System for Mobile Crushers with Continuous Belt Conveyors

The Group is moving forward with development of an integrated mountain tunneling management system (i-NATM®), seeking to use ICT to significantly boost productivity in tunneling work. As part of this effort, in collaboration with Aoyama Kiko Co., Ltd. and Taguchi Industry Inc., we developed a mobile crusher remote operating system, with the goal of improving safety and applicability in tunnel construction. The system works with mobile crushers that use a continuous belt conveyor to transport rock scraps created by tunneling.

The mobile crusher can be operated remotely using a tablet installed in the cab of a wheel loader. While monitor-

ing the crushing status of excavated rock scrap by camera, the operator can adjust the operation of the crusher as needed and add more scrap rock, simplifying the scrap loading process. Also, since it does not require a worker to monitor crushing status and operate equipment on the crusher in person, the system helps to save labor and improve safety.

Going forward, we plan to phase in this system for tunneling work that uses continuous belt conveyor systems, targeting significant improvements in construction productivity.



Mobile crusher (owned by Aoyama Kiko).



Tablet-based operation.



# Working in harmony with the communities we serve

As a corporate citizen, the Group places high value on our relationships with the various communities we serve through our operations and work proactively to maintain and foster harmony in the community.

## Policies and Approach

### Approach

Building operation sites are supportable only with daily cooperation between the Group and local residents. We will continue to contribute to the various communities that make up the regional societies in which we work, fulfilling our duties as a corporate citizen.

We view as an equally important corporate responsibility our actions, as a Group entrusted with education and culture, to contribute to the younger generation as they prepare to shape the future. We are promoting activities in multiple directions to this end.

#### Pillars Supporting Our Initiatives

- 1. Activities that Contribute to Society
- 2. Activities that Contribute to Culture

## Pillars Supporting Our Initiatives 1: Activities That Contribute to Society

### Site Tours and Other Activities

We hold tours at our various sites for local residents and elementary, junior high, and high school students, to provide a venue for interaction with the community and to gain greater understanding of our business. We also carry out a range of CSR activities at these sites.

#### Kanto Branch: Temporary Wall Spray Paint Art Exhibit at AEON MALL Kawaguchi Construction Site

The Group took steps to reach out to the local community at the new construction site of the tentatively named AEON MALL Kawaguchi (customers: Saibo Co., Ltd., AEON MALL Co., Ltd.) in Kawaguchi, Saitama Prefecture. We installed electronic signage on the temporary walls enclosing the site

to visualize noise, vibration, and dust, confirm the work schedule, and allow people to write opinions on a bulletin board. We also provided the art club of the local Hatogaya High School with about a 500-meter-long, 3-meter-high section of wall to serve as a vast canvas for spray paint art.

The spray paint art, created by 19 members of the art club with the theme of “four seasons,” transformed the cold, impersonal walls blocking off the site into a lively and colorful space, which drew the attention of local residents. After the artwork was completed, the Group used a drone video camera to capture both the artwork on the wall and the artists, and presented the club with the video.



Temporary wall spray art exhibit.



Artists at work creating their art.

### Tokyo Branch: Exploring Heavy Construction Equipment at Takamatsu Kindergarten

On the site of the seismic reconstruction work on the playroom wing and second building of Takamatsu Kindergarten (customer: Doukanyama Gakuen) in Tokyo’s Nerima Ward, the Group held an event to allow kindergarten children and their parents to see and touch heavy construction equipment.

In addition to talking about “working vehicles,” we allowed attendees to climb on board the heavy construction equipment. By actually sitting in the operator’s seat and touching the equipment, children could feel more familiar with the construction industry. At a time when the COVID-19 pandemic limited the events that could be carried out at the kindergarten, this event, held as a part of recreation, helped to give children an unforgettable experience.

We will continue to engage in activities to convey the appeal of the construction industry to children.



Children learning about “working vehicles.”

### Operations of Memento Display Hall in Fukushima Prefecture Wind Down

Namie-machi, in the Futaba District of Fukushima Prefecture, was one of the towns damaged in the Great East Japan Earthquake. The Group was tasked by the Ministry of the Environment to help with recovery by collecting, transporting, and sorting wreckage in tsunami-hit areas. During this work, we unearthed an array of items from before the earthquake, such as photos, memorial plaques, school supplies, toys, stuffed animals, and mobile phones. As an extension of our cleanup operations, we opened a Memento Display Hall in July 2014 to store and display about 17,000 discovered items, hoping to return items to their owners. We operated the Display Hall for roughly six and a half years, but given the decline in people coming to pick up lost items in recent years, closed the doors on March 21, 2021, ten years after the earthquake.

Altogether, more than 10,000 people visited the venue, and we were able to return about 2,700 mementos to their owners.



Items on display in the Memento Display Hall.

### PR at the Technical Research Institute

The Technical Research Institute, which opened in 1992 in Tsukuba, Ibaraki Prefecture, has been carrying out R&D for more than a quarter of a century. Since its opening, the Institute has served as a venue for publicizing the activities not only of Hazama Ando but of the construction industry as a whole, as we have invited a host of visitors to discuss how the infrastructure of people’s lives is created.

Although visits were suspended in the fiscal year ended March 2021 over COVID-19 concerns, a typical year includes

various events. During Science and Technology Week, for example, there is a tour of the Institute for the general public, sponsored by the Ministry of Education, Culture, Sports, Science and Technology. There is a science and technology promotion program for elementary school students, called “Tsukuba Little Professors.” We also offer on-site hands-on workshops for Japanese and foreign students. To gain awareness of our technology going forward, we will continue to proactively interact with people in Japan and overseas.



“Tsukuba Little Professors” visit (held prior to the COVID-19 pandemic).



Students participate in an on-site hands-on workshop (held prior to the COVID-19 pandemic).

## Pillars Supporting Our Initiatives 2: Activities that Contribute to Culture

### Preserving, Repairing, and Restoring Cultural Properties and Historic Buildings

For many years, the Group has engaged in preserving, repairing, and restoring cultural properties and historic buildings. Projects completed in the fiscal year ended March 2021 included the earthquake-resistant construction work for the brick Kuroshima Catholic Church, an important cultural property in Sasebo in Nagasaki Prefecture, and the large torii gate standing at the entrance of the Kamo Wakeikazuchi Shrine precincts, an historic site known as the Kamigamo Shrine. Hazama Ando has been widely recognized for its technology, not only for buildings but also in the preservation and repair of stone walls.

We are also focusing on technological development that combines advanced and traditional techniques. We created a 3D model of the wooden framework of an historical building built over 100 years ago, in the Taisho era, and superimposed it on the assembly design model using building information modeling (BIM) technology, verifying that this approach was effective in saving labor in design and construction.

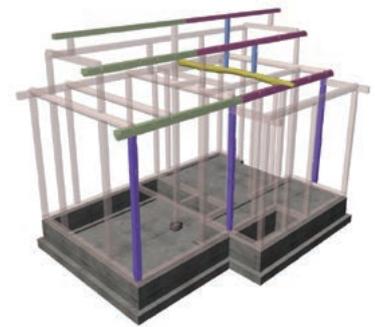
Going forward, we will continue to contribute to society by applying the technology we have accumulated over the years to the preservation, repair, and restoration of cultural properties, historical buildings, and civil engineering structures.



Kuroshima Catholic Church (photo provided by Sasebo City Board of Education).



Main torii gate at Kamo Wakeikazuchi Shrine.



Provisional assembly model.

### Supporting Dedication of Outdoor Firelight Noh Performances at Meiji Jingu Shrine

Hazama Ando co-sponsors the dedication of outdoor firelight Noh performances held at Meiji Jingu Shrine in Tokyo every autumn. Since the first such performance was attended by Prince Hironomiya (the current Emperor) in 1982, it has been held 39 times.

The Group's involvement in the Noh performances began in 1980, when we received an order for the construction of the National Noh Theater in Tokyo's Shibuya Ward. The outdoor performance by firelight was started in the hope of helping to pass on traditional Japanese performing arts and spark interest in the study of Noh theater. Every year, desiring a wide range of people to enjoy Noh by firelight, we invite about 2,000 people to attend without charge, including people from the general public chosen by lottery. The performances have been well received, not only by spectators but by the Noh and Kyogen (short comic play) performers themselves.

The 39th dedicated firelight Noh performance was held at Meiji Jingu Shrine on October 18, 2020, marking the shrine's centennial anniversary. This year, however, our top priority was on preventing COVID-19 infection and on the health and safety of visitors, so the dedicated performance was carried out without spectators.



The 39th dedicated firelight Noh performance held at Meiji Jingu Shrine, entitled "Shōjō" (Photograph: Fuminori Mikami).



## Protecting and being attuned to the natural environment

### Overview of 2020 Results

In addressing the material issue of protecting and being attuned to the natural environment, we have sought to construct a business framework that can help realize the key CSR theme of creating environmental abundance, centered around the approaches of reducing environmental impact and risks and taking steps to achieve biodiversity.

To establish a PDCA framework for each issue with reference to the supply chain, Hazama Ando formulated environmental objectives and targets for the three-year period ending March 2022, and is pursuing various actions to achieve them. Among measures taken in the fiscal year ended March 2021, we moved forward with initiatives that are of keen interest to stakeholders, involving the realization of carbon-neutral businesses. Steps included the Hazama Ando Next-Generation Energy Project, shifting to net zero-energy building (ZEB) standards for construction projects, and introducing electricity from renewable energy sources at construction sites.

Hazama Ando has identified Goals 7, 12, and 13 as the core SDGs linked with this material issue. Guided by key performance indicators, we plan to further accelerate the promotion of carbon-neutral businesses from the fiscal year ending March 2022, as well as establishing a business framework that contributes to a circular society and low environment impact.



## 1 Activity Highlights

### New LCA Method of Environmental Building Assessment: Company Dormitory Receives Carbon Footprint Certification

Looking ahead to the realization of a carbon-free society, the Group is pursuing various efforts to reduce greenhouse gas emissions related to the construction business. One notable example is the life cycle assessment we carried out at the dormitory for single employees we built through a design-and-build method in Kawasaki in Kanagawa Prefecture. We obtained our third carbon footprint certification for this building.

To build a carbon-free society, it is crucial to quantitatively analyze CO<sub>2</sub> and other environmentally harmful substances and correctly assess their environmental impact. Studies suggest that life cycle assessments, which quantify the volume of resources extracted from the environment and the volume of substances emitted, are effective in assessing the environmental impact of construction. Given the sheer volume of materials used in the construction field,

however, implementing such assessments has proven difficult, prompting calls to establish fair and reliable assessment methods. For this reason, the Group is studying efficient life cycle assessment mechanisms. The dormitory project was our latest initiative. The project obtained carbon footprint certification, which discloses the results of CO<sub>2</sub> emission calculations, the most widely recognized component of green building.

Going forward, we will also work to apply the EcoLeaf environmental labeling system to buildings. This system calculates and discloses a range of environmentally harmful substances as well as CO<sub>2</sub>. We will take steps to realize carbon-neutral construction throughout the life cycle of buildings, including using building information modeling (BIM) and achieving net zero-energy building (ZEB) status for projects.



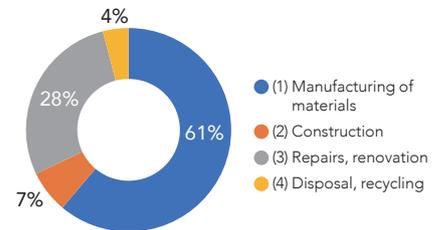
Saginuma single employee dormitory.

Carbon footprint of Saginuma dormitory.

Per 1 square meter floor space,  
useful life of 65 years



CO<sub>2</sub> visualization carbon footprint  
Registration: JR-AA-21001C  
<https://ecoleaf-label.jp/english/>



\* Figures are based on design data. Furnishing, exterior work, and building operation stages are not included in the scope of the survey.

## 2 Activity Highlights

### Biodiversity Greening Initiatives at the Technical Research Institute

“Greening” buildings ties into conserving biodiversity and achieving Goal 15 of the SDGs, which is to “protect, restore, and promote sustainable use of terrestrial ecosystems.” In recent years, greening has also been incorporated as an element of so-called green infrastructure, given its multiple functions, such as providing comfort, mitigating the thermal environment of buildings and the heat island phenomenon, purifying the atmosphere, and storing rainwater.

The Technical Research Institute is carrying out trials in biodiversity greening involving building exteriors. One facet of the trials is creating a biodiversity greening field by planting trees including *Eurya japonica*, a species local to Tsukuba

where the Institute is located. Not simply limited to creating visual harmony, beauty, comfort, and a better thermal environment, biodiversity greening also helps to conserve biodiversity.

Specifically, the Institute is developing technologies that facilitate more efficient maintenance. For example, a normalized difference vegetation index (NDVI) is used to quantify plant activity, while three-dimensional point cloud data ascertains the size and shape of trees. We are also examining connections with the surrounding ecosystem by monitoring the activity of wild animals using infrared cameras. Finally, we are focusing on actions to raise awareness of these efforts both inside and outside the company.

### Biodiversity Greening Initiatives at the Technical Research Institute

**Hazama Ando Technical Research Institute**

Creatures that entered the trial biodiversity greening field (infrared photos)

- Raccoon dog
- Pheasant
- Bunting
- Lark

Pruning to lengthen the lifespan of trees

Transplanting to an environment suitable for growth

Maintenance of exterior green space

Drone

Aerial photography

Color photographs taken by drone

Activity Low

High

NDVI image captured by aerial photography

Point cloud data on trees

Point cloud data of the Institute's exterior green space



## Creating environmental abundance

To pass on an abundant global environment to the next generation, the Group will actively work to bring about a carbon-free, circular society. We will also take actions to protect, restore, and create biodiversity to help realize a society that can coexist with nature.

### Policies and Approach

#### Approach

We revised the Group's Environmental Policy in April 2018 to further accelerate environmentally oriented management aimed at bringing about a low-carbon, circular society that can coexist with nature. Starting in the fiscal year ended March 2020, based on new three-year environmental objectives and targets, we are steadily putting environmental practices in place. We are also taking steps to help bring about a carbon-free society by obtaining Science Based Targets (SBT) certification and participating in the RE100 (Renewable Energy 100%) initiative.

#### Environmental Policy

To protect the abundant green earth and bring about a sustainable society, we will contribute to protecting the environment and reducing environmental impact across the Group.

- 1 Work to reduce greenhouse gas emissions to help bring about a low-carbon society
- 2 Reduce construction by-products to help bring about a circular society
- 3 Take actions to protect, restore, and create biodiversity to help bring about a society that coexists with nature
- 4 Continuously improve environmental management systems and achieve greater results from environmental conservation

#### Key Environmental Initiatives

We have established key medium- and long-term environmental initiatives to give concrete shape to the Environmental Policy.

- 1 Initiatives related to global warming
  - Reduce greenhouse gas emissions and promote energy saving
- 2 Initiatives related to biodiversity conservation and sustainable use
  - Consider risks to biological resources and ecosystems and minimize impact
- 3 Initiatives to ensure material recycling and build a circular society
  - Mission to achieve net zero construction waste
  - Extend the life cycle of buildings, build an environmentally conscious society
- 4 Initiatives related to water conservation
  - Work toward conserving a sound water environment attentive to the conservation of regional characteristics and biodiversity
- 5 Initiatives related to air quality conservation
  - Reinforce efforts to combat air pollution and deal with asbestos, etc.
  - Reinforce efforts to address living environment issues such as noise and vibrations
- 6 Initiatives to establish comprehensive chemical substance measures
  - Increase understanding of environmental risks caused by chemical substances and reduce risks

#### Three-Year Environmental Objectives and Targets (Fiscal 2019–Fiscal 2021)

The Group established three-year environmental objectives and targets in the fiscal year ended March 2020. In addition to initiatives to bring about a low-carbon, circular society that can coexist with nature as indicated in the Environment Policy, we formulated key medium- and long-term environmental targets to give concrete shape to the policy. In terms of greenhouse gas emission reductions, we set a new target for procuring electricity from renewable energy sources. We are stepping up efforts to shift to net zero-energy building (ZEB) standards as an environmentally friendly target for design. In terms of bringing about a society that can co-exist with nature, we set targets for biodiversity conservation actions. To bring about a circular society, we set a target for the reduction of mixed waste intensity. In terms of environmental risk management, we are targeting increased environmental site visits.

In addition to these targets to implement the Environmental Policy, we are promoting environmentally oriented management across the Group. We hold events during Environment Month and engage in other activities to raise environmental awareness, and set goals for actions that contribute to the environment and society.

### Three-Year Environmental Objectives and Targets (Fiscal 2019–Fiscal 2021)

1. Actions to prevent global warming						
Area	Objective, target	Unit	Fiscal 2019	Fiscal 2020	Fiscal 2021	
<b>1.1 Reduce greenhouse gas emissions</b>						
Shared	Procure electric power from renewable energy	(%)	Switch energy sources starting with feasible sites	20%	30%	
Civil Engineering	As an initiative to cut CO <sub>2</sub> emissions at the construction stage, introduce LEDs for temporary underground lighting at new tunneling or shield work sites	(%)	Rate of introduction: 100%	Rate of introduction: 100%	Rate of introduction: 100%	
Civil Engineering	CO <sub>2</sub> emissions per completed construction at the construction stage	(tons of CO <sub>2</sub> /100 million yen)	54.5	53.5	52.5	
Building Construction	As an initiative to cut CO <sub>2</sub> emissions at the construction stage, introduce LEDs for temporary lighting at new work sites	(%)	Rate of introduction: 100%	Rate of introduction: 100%	Rate of introduction: 100%	
Building Construction	CO <sub>2</sub> emissions per completed construction at the construction stage	(tons of CO <sub>2</sub> /100 million yen)	11.0	10.5	10.0	
Civil Engineering and Building Construction	Supply energy through a next-generation CO <sub>2</sub> cogeneration plant	—	Equip plant	Start consignment at model work site	Start monitoring to adjust output based on model work site demand forecast	
Offices	Reduce CO <sub>2</sub> emissions at head office, branches, and sales offices Total reduction compared to fiscal 2013	(%)	1.5	3.0	—	
Offices	Reduce CO <sub>2</sub> emissions at head office, branches, and sales offices Total reduction compared to fiscal 2019*2	(%)	—	—	1.0	
<b>1.2 Promote environmentally friendly design and technology</b>						
Building Construction	Enhance overall environmental performance by applying simplified CASBEE rating (Comprehensive Assessment System for Built Environment Efficiency)	(%)	Proportion: 100% A rank: 40% S rank: 5%	Proportion: 100% A rank: 50% S rank: 6%	Proportion: 100% A rank: 60% S rank: 7%	
Building Construction	Shift to net zero-energy building (ZEB) standards	(projects)	Verified: 1 (cumulative) Proposed: 3	Verified: 2 (cumulative) Proposed: 4	Verified: 3 (cumulative) Proposed: 5	
Civil Engineering	Develop, implement environmentally friendly technology	—	Explore implementation	Development, underlying technology trials	Implement at model site	
Construction Technology	Develop, implement environmentally friendly technology	—	Explore implementation	Explore goals, monitor	Partially set target values	
<b>2. Actions to conserve biodiversity</b>						
Area	Objective, target	Unit	Fiscal 2019	Fiscal 2020	Fiscal 2021	
<b>2.1 Steadily pursue biodiversity-friendly initiatives related to construction projects</b>						
Shared	Instill understanding of biodiversity conservation, take definitive actions at spotlighted work sites, make new proposals, conduct internal and external PR	(cases)	30	30	30	
Technology	Examine, develop technology related to biodiversity	—	Examine, develop technology	Technology development, trials	Application to projects	
<b>3. Actions to build a circular society</b>						
Area	Objective, target	Unit	Fiscal 2019	Fiscal 2020	Fiscal 2021	
<b>3.1 Recycle construction waste</b>						
Civil Engineering	Reduce total mixed waste per completed construction by containing waste generation on site and strengthening sorting processes	(tons/100 million yen)	1.20	1.10	1.00	
Building Construction	Reduce mixed waste intensity per total floor area at new construction projects	(kilograms/square meter)	7.7	7.3	7.0	
<b>4. Actions to manage environmental risk (protecting water and air environments, comprehensive chemical substance measures)</b>						
Area	Objective, target	Unit	Fiscal 2019	Fiscal 2020	Fiscal 2021	
<b>4.1 Actions to prevent environmental accidents</b>						
Civil Engineering and Building Construction	Augment environmental site visits	(%)	Civil Engineering: 25% Building Construction: 25%	Civil Engineering: 40% Building Construction: 40%	Civil Engineering: 60% Building Construction: 60%	
<b>5. Actions to promote environmental awareness, actions to contribute to the environment and society</b>						
Area	Objective, target	Unit	Fiscal 2019	Fiscal 2020	Fiscal 2021	
<b>5.1 Promote environmental awareness</b>						
Shared	Establish and promote Environment Month activities (participation rate)	(%)	75%	78%	85%	
Shared	Promote environmental initiatives through environmental and eco-site visits	(activities)	20 or more	25 or more	30 or more	
<b>5.2 Enhance actions to contribute to the environment and society</b>						
Shared	Promote more robust actions that contribute to the environment and society Acquire external recognition	(activities)	4 or more	5 or more	—	
Shared	Promote more robust actions that contribute to the environment and society Take actions to contribute to the environment and society*1	(actions)	—	—	Civil Engineering: 3 per work site Building Construction: 3 per work site Offices: 80 per year	

Shared: Indicates entire Group (Civil Engineering, Building Construction, technology R&D, and offices)

\*1 Revised November 4, 2020

\*2 Revised April 28, 2021

Pillars Supporting Our Initiatives

1. Reducing Environmental Impact and Risks

2. Taking Steps to Achieve Biodiversity

Pillars Supporting Our Initiatives 1: Reducing Environmental Impact and Risks

CO<sub>2</sub> Reductions in Initial Trial Year of Hazama Ando Next-Generation Energy Project

The Group launched a trial of the Hazama Ando Next-Generation Energy Project in April 2020 as part of our efforts to address energy-related issues in Japan.

The trial entails three types of experiments at multiple energy demand sites in remote locations, including at the Technical Research Institute. (1) We installed a power generation plant that combines a fuel cell capable of using CO<sub>2</sub>-free hydrogen\* as fuel with a gas engine generator-based cogeneration system. Heat generated is supplied to accommodation facilities on the same site. (2) In the main building of the Technical Research Institute, we reduced electricity demand by drawing on existing energy-saving technologies, and distribute the amount of power saved across a wide area. (3) The low-CO<sub>2</sub> electric power generated by the above-mentioned plant is distributed to multiple wide-area demand sites using a self-consignment system.

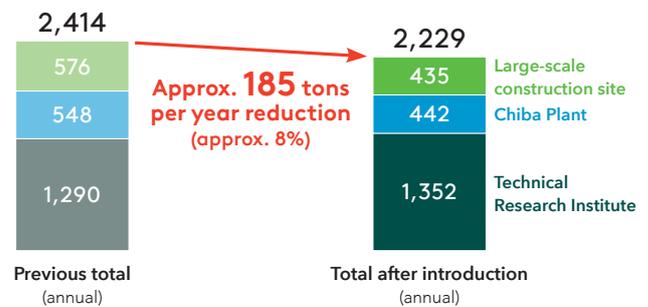
In this way, we are comprehensively managing electricity and heat used at three facilities and establishing demand forecasts for different building applications—a laboratory, a plant, and a construction site. We are also accurately adjusting power supplied by the cogeneration plant. The trial, which has been running for a year, has reduced total CO<sub>2</sub> emissions at the three facilities by roughly 8%. By continuing

to verify and improve outcomes, we are aiming to establish even more optimal low-CO<sub>2</sub> energy management. This project better positions the Group to help bring about a carbon-free, sustainable society.

- \* CO<sub>2</sub>-free hydrogen:
  - Hydrogen with low greenhouse gas emissions during manufacturing
  - Hydrogen produced in a way that significantly reduces CO<sub>2</sub> emissions
  - Hydrogen considered to have higher environmental performance, with a focus on CO<sub>2</sub> emissions at the manufacturing stage

CO<sub>2</sub> Emissions at Three Facilities\*

CO<sub>2</sub> emissions (tons/year)



\* Emissions before introduction and in the fiscal year ended March 2021.

Shifting to ZEB Standards and Building a Green Track Record

Another approach toward bringing about a sustainable society is our shift to net zero-energy building (ZEB) standards\*<sup>1</sup>. We have been steadily gaining technological prowess and establishing a track record in this area.

For an office building completed in February 2021, we obtained ZEB Ready certification under the Building-Housing Energy-Efficiency Labeling System (BELS) for large buildings with a total floor space of more than 10,000 square meters. This construction segment is seen as crucial for the transition to ZEB building. We are realizing offices that combine both comfort and health and energy saving, obtaining the top S ranking under the CASBEE Smart Wellness Office\*<sup>2</sup> system, a tool for evaluating office comfort and health.

Demand for Nearly ZEB or ZEB-qualified buildings will continue to rise. To address this demand, we renovated a section of the main building of the Technical Research Institute and have been carrying out ZEB trials since July 2020. We are gaining expertise in emerging technologies such as heating and cooling air conditioning systems that utilize exhaust heat generated by energy plants, panel heating and cooling systems, lighting control based on perceptions of brightness, and IoT-based environmental control systems. Going forward, we will further accelerate the shift to ZEB construction by incorporating these technologies into actual projects.

\*1 ZEB (Net Zero Energy Building) is a building that has targeted a net-zero balance of annual primary energy consumption.

<https://www.ad-hzm.co.jp/solution/zeb/> (Japanese only)

\*2 CASBEE (Comprehensive Assessment System for Built Environment Efficiency) Smart Wellness Office evaluation and certification.

<https://www.ibec.or.jp/CASBEE/english/certificationE.htm>



Technical Research Institute (renovated testing area).

## Renewable Electricity Introduced at Construction Sites

As a participant in the Science Based Targets (SBT) and RE100 (Renewable Energy 100%) initiatives, Hazama Ando is committed to working to achieve carbon-neutral management. In the fiscal year ended March 2021, we worked to reduce greenhouse gas emissions brought about by construction work by introducing electricity derived from renewable energy sources at several active construction sites.

Going forward, we will continue to introduce renewable electricity to more sites and implement various initiatives to promote carbon neutrality in our business activities.

## Active Implementation of "Ash-Crete" Concrete Technology

In constructing the port facilities for the Fukushima Daiichi Nuclear Power Station, we applied a high-flow mortar with a high coal ash content to fill the interior of the mega float that is serving as the steel caisson for the project. We have been developing a proprietary "ash-crete" technology using high coal ash content, and have effectively used more than 1.6 million tons of coal ash to date. This was the first time for us to apply "ash-crete" mix design technology to create high-flow mortar using much finer aggregate than conven-

tional materials, enabling us to achieve appropriate quality control levels. Plans call for more than 100,000 tons of coal ash, sourced from the nearby Hirono Thermal Power Station, to be used in this project. (About 90,000 tons have been used so far). The project, which started in the fiscal year ended March 2019, is set for completion in the fiscal year ending March 2022. We are helping in this way to reduce environmental impact by effectively and steadily using coal ash over the long term.



"Ash-crete" used to fill the interior of the mega float.



Characteristics of freshly poured "ash-crete" filler.

## Pillars Supporting Our Initiatives 2: Taking Steps to Achieve Biodiversity

### Biodiversity Initiatives for Goal 15 of the SDGs: Active Use of Ikimono Plus and Ikimono Info

Ikimono Plus (ikimono means "living thing" in Japanese) is a building greening design tool used to support the planning of green projects that take biodiversity into consideration. The tool helps to enhance functionality of CASBEE (Comprehensive Assessment System for Built Environment Efficiency) evaluations. After jointly developing the tool in the fiscal year ended March 2014, we are using it in our design-build projects, as well as extending its in-house implementation, such as through seminars for newcomers to various design departments.

Ikimono Info is an in-house biodiversity database that got up and running in the fiscal year ended March 2016. It contains examples of internal and external initiatives at construction sites and related external information. We use the database when making technical proposals to customers or exploring construction methods that allow the preservation of rare organisms at construction sites.

#### SUSTAINABLE DEVELOPMENT GOALS



Ikimono Plus

Ikimono Info

# Environmental Factsheet

Hazama Ando continues to collect and verify a range of quantitative data on environmental activities, which informs our consideration of environmental goals from a longer-term perspective. Key data from activities in the fiscal year ended March 2021 are shown below.

## 1. Environmental Management System

Hazama Ando acquired ISO 9001 and ISO 14001 certification as a new company on April 1, 2013. We are continuously working to improve our quality and environmental management systems (QMS and EMS).

In line with the September 2015 revision of the ISO standards, we reviewed and completely overhauled our quality and environmental management systems in the fiscal year ended March 2017, and the revised systems went into operation in April.

### Results of QMS and EMS Internal Audit

Audit period	Number of divisions audited				
	Head office management divisions	Branch office management divisions	Civil engineering work sites	Building construction work sites	Total
September–November 2020	13(19)	38(49)	16	19	103

Notes: Sampling rates of the audit were roughly 27.5% for the head office, 49% for branch offices, 12% for civil engineering work sites, and 9% for building construction work sites.

A combined QMS and EMS audit was performed.

Since group audits were carried out for multiple internal departments of the head office and branch offices, the number of audits and divisions differs. Figures in parentheses indicate the number of divisions.

### Results of External Review

In the fiscal year ended March 2021, we underwent a recertification review by the Japan Testing Center for Construction Materials, a review and registration organization. This was the eighth QMS review and seventh EMS review for the Group.

Date of review	Sites reviewed	Review results	
		ISO 14001	ISO 9001
Surveillance November 11–18, 2020	Head office, Technical Research Institute, Building Management Division, Tokyo Branch, Osaka Branch, Kyushu Branch	Major nonconformities: 0 Minor nonconformities: 0 Observations: 0	Major nonconformities: 0 Minor nonconformities: 0 Observations: 0

### Results of Management Review

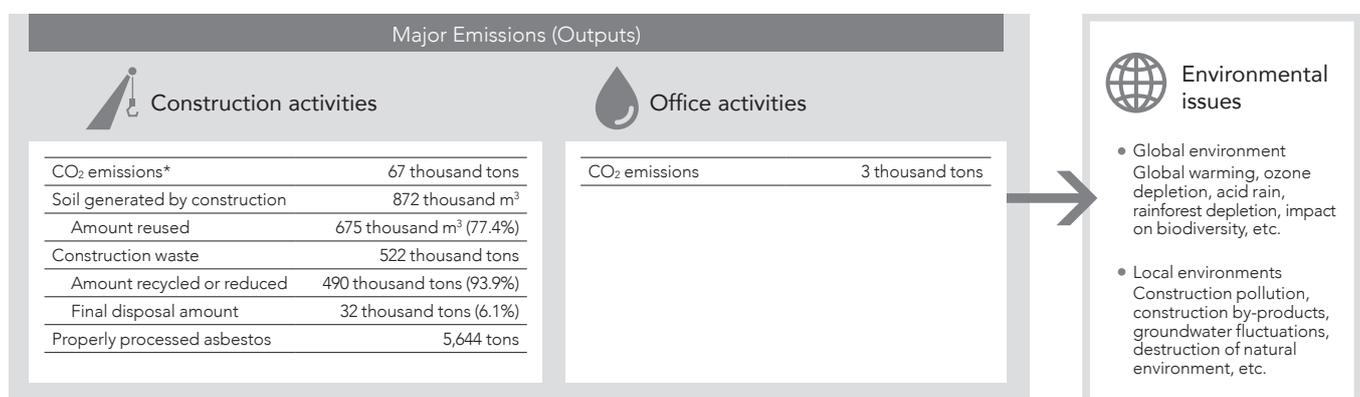
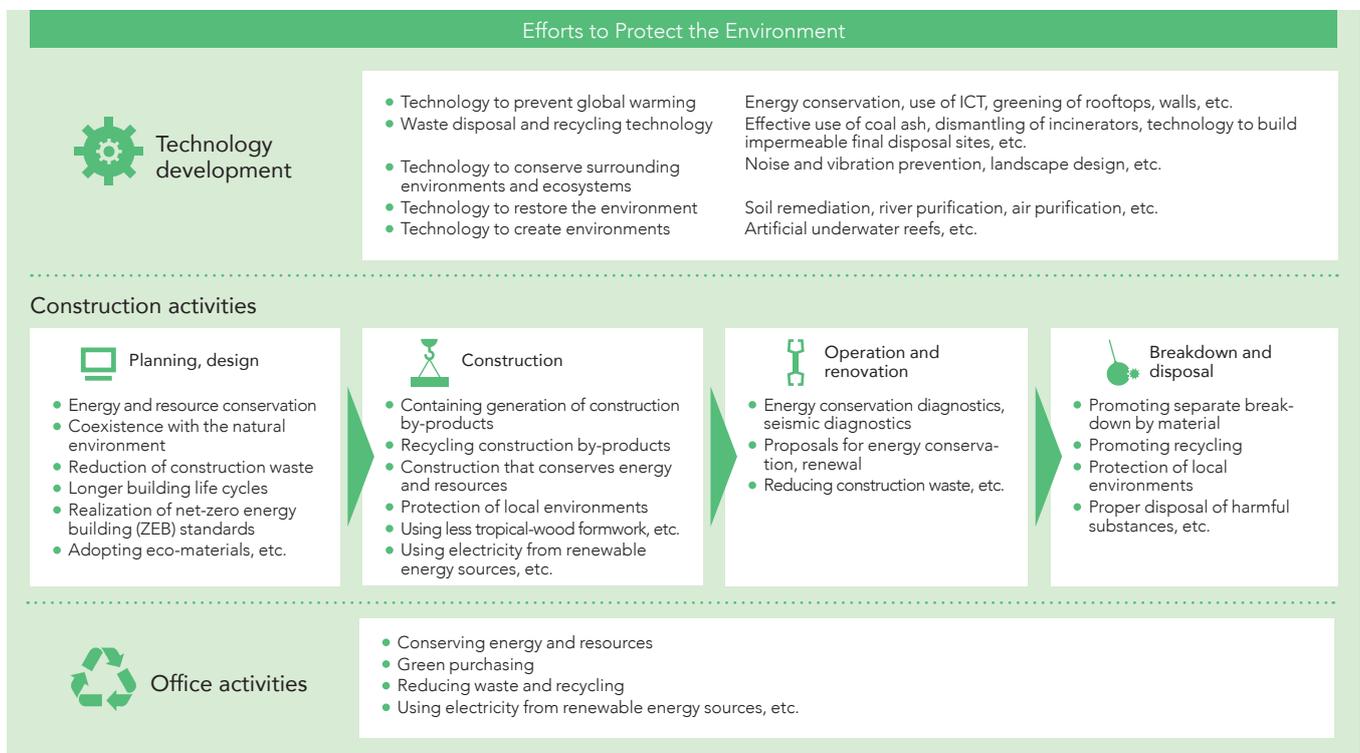
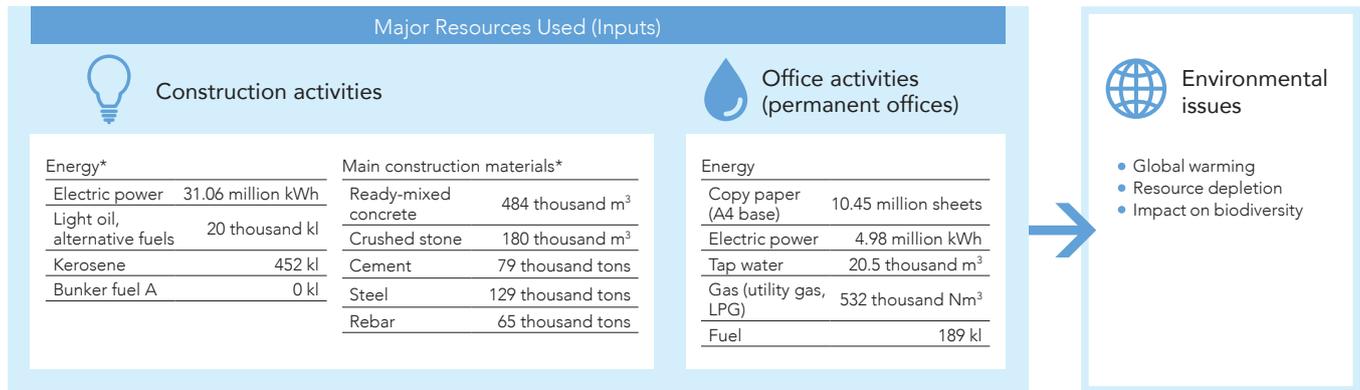
Top management of the Group carried out a management review in July 2020 and February 2021. The President in March 2021 issued the directives from the management review applicable to the fiscal year ending March 2022.

### Compliance with Environmental Laws and Regulations

By means of interim and fiscal year-end reports, environmental site visits, and internal QMS and EMS audits, we confirmed that the Group is compliant with environmental laws and regulations. (In the fiscal year ended March 2021, there were no reports of serious violations of laws or regulations that materially affect the environment.)

## 2. Relationship with the Environment (Material Balance)

The following outlines the environmental impact of Hazama Ando's business activities in the fiscal year ended March 2021 in terms of the use of resources and emissions, as well as our efforts to protect the environment.



\* Estimated value calculated by sampling

### 3. Greenhouse Gas Emissions and Use of Electric Power from Renewable Energy Sources in Fiscal 2020 (Group total for the period from April 2020 to March 2021)

The table below shows the Group’s greenhouse gas emissions and the ratio of electric power from renewable energy sources in the fiscal year ended March 2021, based on SBT and RE100 standards. We will continue to pursue measures to meet our targets in helping address global warming issues.

SBT Targets		RE100 Targets	
Greenhouse gas emissions		Ratio of electric power from renewable energy sources	
Scope 1 + 2	Fiscal 2030 <b>33%</b> reduction (compared to fiscal 2017)	Fiscal 2030	<b>80%</b>
Scope 3	Fiscal 2030 <b>22%</b> reduction*1 (compared to fiscal 2017)	Fiscal 2050	<b>100%</b>

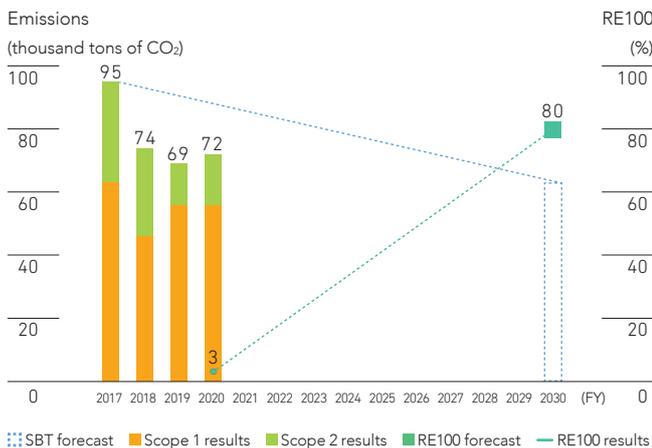
\*1 Only applicable to (1)-1: Main materials such as ready-mixed concrete, office supplies and (11): Use of sold products.

Category		Unit	Fiscal 2017 (base year)	Fiscal 2019 (previous year)	Fiscal 2020
SBT	Scope 1	Thousand tons of CO <sub>2</sub>	63	56	56
	Scope 2	Thousand tons of CO <sub>2</sub>	32	13	16
	Scope 1 + 2	Thousand tons of CO <sub>2</sub>	95	69	72
	Scope 3*2	Thousand tons of CO <sub>2</sub>	2,940	3,682	2,722
	(1) Purchased goods and services	Thousand tons of CO <sub>2</sub>	810	971	905
	(1)-1: Main materials such as ready-mixed concrete, office supplies	Thousand tons of CO <sub>2</sub>	541	699	660
	(1)-2: Purchased civil engineering and construction services	Thousand tons of CO <sub>2</sub>	270	272	244
	(2) Capital goods	Thousand tons of CO <sub>2</sub>	14	14	5
	(3) Fuel- and energy-related activities (not included in Scope 1 or Scope 2)	Thousand tons of CO <sub>2</sub>	6	10	11
	(4) Upstream transportation and distribution	Thousand tons of CO <sub>2</sub>	34	26	23
	(5) Waste generated in operations	Thousand tons of CO <sub>2</sub>	50	10	7
	(6) Business travel	Thousand tons of CO <sub>2</sub>	1	1	1
	(7) Employee commuting	Thousand tons of CO <sub>2</sub>	1	1	1
	(11) Use of sold products	Thousand tons of CO <sub>2</sub>	1,932	2,528	1,734
(12) End-of-life treatment of sold products	Thousand tons of CO <sub>2</sub>	91	121	37	
(13) Downstream leased assets	Thousand tons of CO <sub>2</sub>	0	0	0	
RE100	Electricity usage	MWh	60,707	28,401	37,772
	Electric power from renewable energy*3	MWh	–	85	1,252
	Ratio of electric power from renewable energy	%	–	0	3

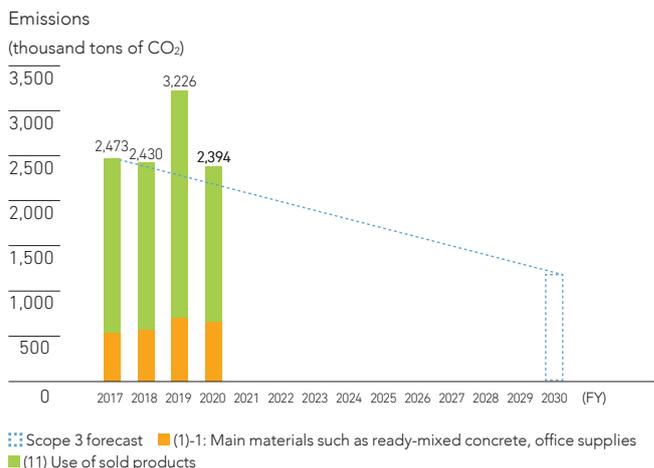
\*2 (8) Upstream leased assets, (9) Downstream transportation and distribution, (10) Processing of sold products, (14) Franchises, and (15) Investments are not applicable and are not included in the above calculations.

\*3 Includes only renewable energy electricity that meets RE100 standards.

Progress in Scope 1 + 2 and RE100 targets



Progress in Scope 3 targets



## 4. Progress toward Environmental Objectives and Targets in Fiscal 2020

(April 2020–March 2021)

Outcomes of activities for the fiscal year ended March 2021 toward achieving the environmental objectives and targets the Group has set over a three-year period are shown below. We will continue acting to reach the targets, guided by the Group's environmental management system.

Area	Objective, target	Unit	Group targets for fiscal 2020	Year-end Group results for fiscal 2020	Assessment
<b>1. Actions to prevent global warming</b>					
<b>1.1 Reduce greenhouse gas emissions</b>					
Shared	Procure electric power from renewable energy	(%)	20	3	×
Civil Engineering	As an initiative to cut CO <sub>2</sub> emissions at the construction stage, introduce LEDs for temporary underground lighting at new tunneling or shield work sites	(%)	Rate of introduction: 100%	Rate of introduction: 100%	○
Civil Engineering	CO <sub>2</sub> emissions per completed construction at the construction stage	(tons of CO <sub>2</sub> /100 million yen)	53.5	40.2	○
Building Construction	As an initiative to cut CO <sub>2</sub> emissions at the construction stage, introduce LEDs for temporary lighting at new work sites	(%)	Rate of introduction: 100%	Rate of introduction: 100%	○
Building Construction	CO <sub>2</sub> emissions per completed construction at the construction stage	(tons of CO <sub>2</sub> /100 million yen)	10.5	8.32	○
Civil Engineering and Building Construction	Supply energy through a next-generation CO <sub>2</sub> cogeneration plant	—	Started consignment at model work site	Continued consignment	○
Offices	Reduce CO <sub>2</sub> emissions at head office, branches, and sales offices Total reduction compared to fiscal 2013 Note: Excludes Technical Research Institute and Group companies.	(%)	3.0	37.2	○
<b>1.2 Promote environmentally friendly design and technology</b>					
Building Construction	Enhance overall environmental performance by applying simplified CASBEE rating (Comprehensive Assessment System for Built Environment Efficiency)	(%)	Proportion: 100% A rank: 50% S rank: 6%	Proportion: 100% A rank: 50% S rank: 0%	△
Building Construction	Shift to net zero-energy building (ZEB) standards	(projects)	Verified: 2 (cumulative) Proposed: 4	Verified: 3 (cumulative) Proposed: 3	△
Civil Engineering	Develop, implement environmentally friendly technology	—	Development, underlying technology trials	Development, trials conducted: 2	○
Construction Technology	Develop, implement environmentally friendly technology	—	Explore goals, monitor	Construction Division Proposed: 3	○
<b>2. Actions to conserve biodiversity</b>					
<b>2.1 Steadily pursue biodiversity-friendly initiatives related to construction projects</b>					
Shared	Instill understanding of biodiversity conservation, take definitive actions at spotlighted work sites, make new proposals, conduct internal and external PR	(cases)	30	37	○
Technology	Examine, develop technology related to biodiversity	—	Technology development, trials	Conducted examination on study group theme	○
<b>3. Actions to build a circular society</b>					
<b>3.1 Recycle construction waste</b>					
Civil Engineering	Reduce total mixed waste per completed construction by containing waste generation on site and strengthening sorting processes	(tons/100 million yen)	1.10	0.60	○
Building Construction	Reduce mixed waste intensity per total floor area at new construction projects	(kilograms/square meter)	7.3	6.06	○
<b>4. Actions to manage environmental risk (protecting water and air environments, comprehensive chemical substance measures)</b>					
<b>4.1 Actions to prevent environmental accidents</b>					
Civil Engineering and Building Construction	Augment environmental site visits Note: Visits to the civil engineering and building construction departments of branch offices	(%)	Civil Engineering: 40% Building Construction: 40% Proportion of visits compared to total sites in operation	Civil Engineering: 51.0% Building Construction: 56.7%	○ ○
<b>5. Actions to promote environmental awareness, actions to contribute to the environment and society</b>					
<b>5.1 Promote environmental awareness</b>					
Shared	Establish and promote Environment Month activities (participation rate)	(%)	Work sites: 78%	Work sites: 79%	○
Shared	Promote environmental initiatives through environmental and eco-site visits	(activities)	25 or more	28	○
<b>5.2 Enhance actions to contribute to the environment and society</b>					
Shared	Promote more robust actions that contribute to the environment and society Acquire external recognition Note: Volunteer activities, participation in cleanup activities, etc., are counted as actions to contribute to the environment and society in day-to-day management.	(activities)	5 or more	1	×

(Assessment) ○: met or exceeded target. △: somewhat below target. ×: far below target (less than 70% achievement).

## 5. Environmental Protection Activity Data

Hazama Ando collects and analyzes environmental protection activity data with the objective of efficiently pursuing actions to protect the environment and disclose information externally.

### Data Framework

Collection period ▶ April 1, 2020–March 31, 2021      Scope of data ▶ Head office, all domestic branches, three Group companies

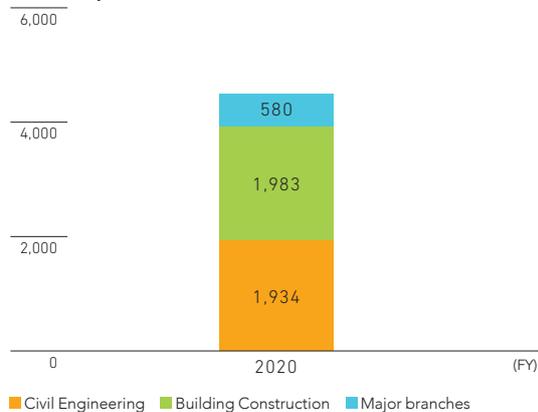
### Environmental Protection Costs

(Millions of yen)

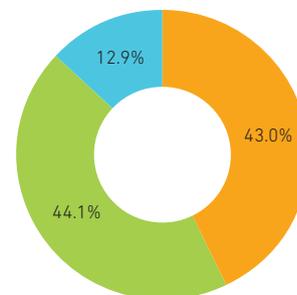
Cost category	Main activity	Fiscal 2020
Costs within business areas		3,589
① Pollution prevention costs	Pollution prevention measures at work sites (air, water, and soil pollution; prevention of noise, vibrations, etc.)	1,362
② Global environmental protection costs	Global warming prevention measures, energy conservation, alternative materials for tropical-wood formworks, etc.	81
③ Resource recycling costs	Containing generation of construction by-products, reuse, proper disposal, etc.	2,146
Upstream, downstream costs	Environmentally friendly designs and technical proposals, green purchasing (amount of increase)	169
Management activity costs	Regular EMS review fees; review personnel costs; environmental disclosure; environmental PR: environmental impact monitoring (survey, measurement costs); environmental education, study groups; cleanup and greening around work sites	232
R&D costs	R&D of environmental technologies	437
Social activity costs	Cooperation with community environmental protection activities, etc.	63
Environmental damage costs	Soil remediation, repair of environs, emergency response preparedness, etc.	7
<b>Total environmental protection costs</b>		<b>4,497</b>
Completed construction	Completed construction in Japan	311,301
	Ratio of Civil Engineering to Building Construction	41:59
Ratio to completed construction	Environmental protection costs/completed construction	1.44%

Environmental protection costs (by type of construction work, major branches)

(millions of yen)

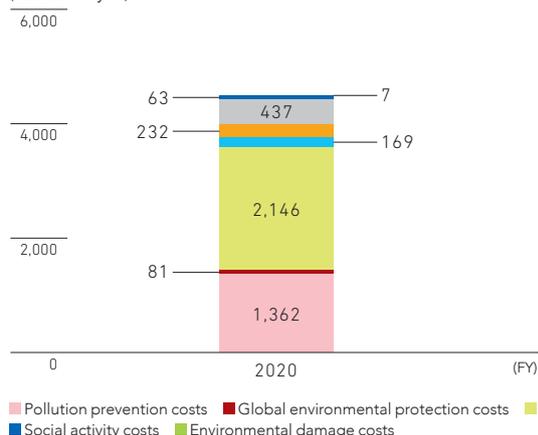


Breakdown of environmental protection costs by type of construction work, major branches (fiscal 2020)

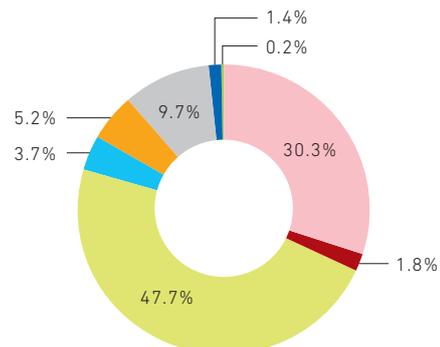


Environmental protection costs (by cost category)

(millions of yen)



Breakdown of environmental protection costs by cost category (fiscal 2020)



### Environmental Protection Impacts

Category	Impact	Unit	Fiscal 2020	
Resources used (inputs)	Electric power consumption (work sites)	million kWh	31.06	
	Light oil, alternative fuel usage (work sites)	thousand kl	20	
	Kerosene usage (work sites)	kl	452	
	Bunker fuel A (work sites)	kl	0	
	Copy paper purchased (offices, A4 base)	million sheets	10.45	
	Electric power consumption (offices)*1	million kWh	4.98	
	Tap water usage (offices)	thousand m <sup>3</sup>	20.5	
	Gas (utility gas, LPG) usage (offices)	thousand Nm <sup>3</sup>	532	
	Fuel (gasoline, light oil, kerosene, bunker oil) usage (offices)	kl	189	
	Steam, cold water usage (offices)	GJ	7,011	
Emissions	CO <sub>2</sub> emissions*2	Work sites	thousand tons	67
		Offices	thousand tons	3
		Total	thousand tons	70
	Soil generated by construction	thousand m <sup>3</sup>	872	
	Amount reused (rate)	thousand m <sup>3</sup>	675 (77.4%)	
	Construction waste	thousand tons	522	
	Amount recycled or reduced (rate)	thousand tons	490 (93.9%)	
	Final disposal amount (rate)	thousand tons	32 (6.1%)	
	Properly processed asbestos	tons	5,644	
Amount of valuable materials sold	tons	53,462		

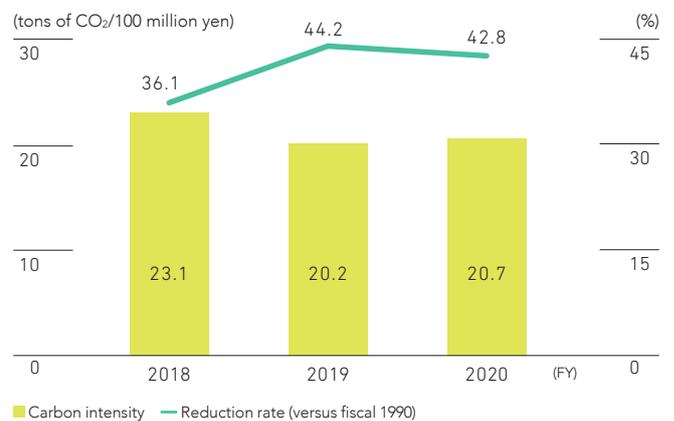
\*1 Includes experimental section of the Technical Research Institute

\*2 Calculated in accordance with the Act on Rationalizing Energy Use, the Act on Promotion of Global Warming Countermeasures, the Greenhouse Gas Protocol, etc.

#### CO<sub>2</sub> emissions



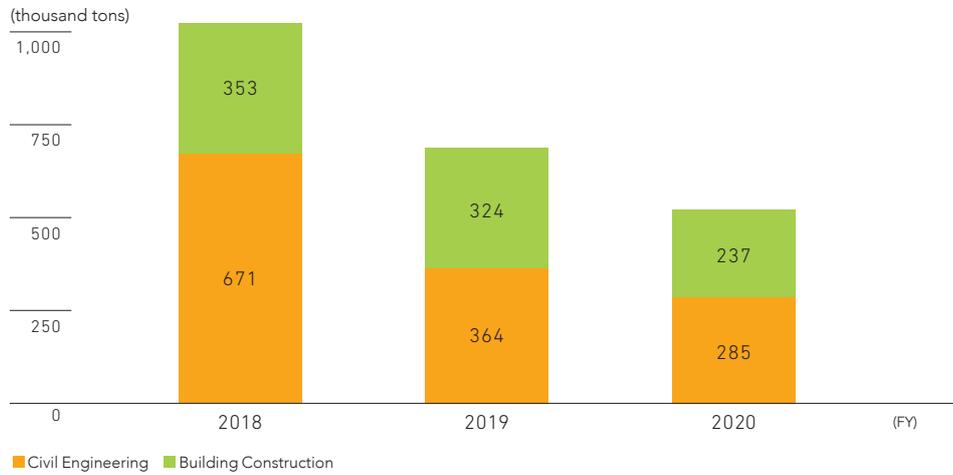
#### Carbon intensity



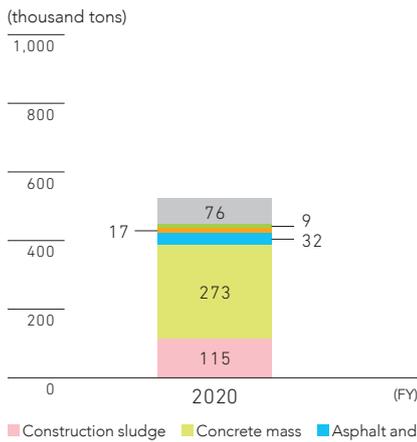
## 6. Construction Waste Disposal

The Group rigorously controls and appropriately manages waste by keeping clear track of the type and volume of waste generated at construction sites.

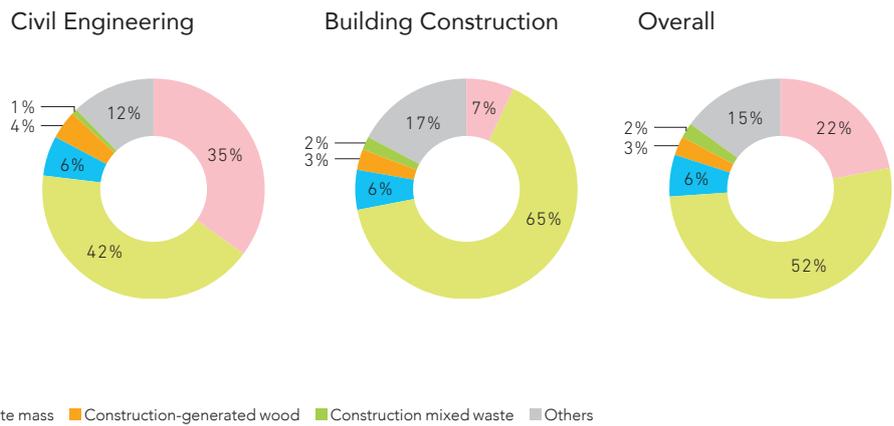
Total construction waste



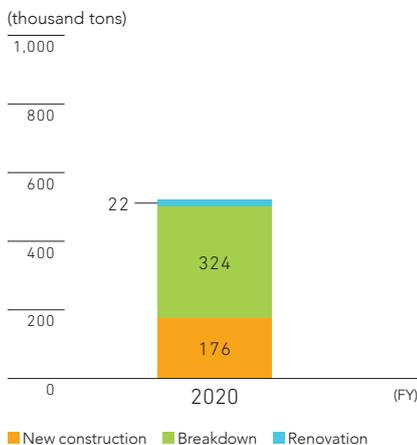
Emissions by type of waste



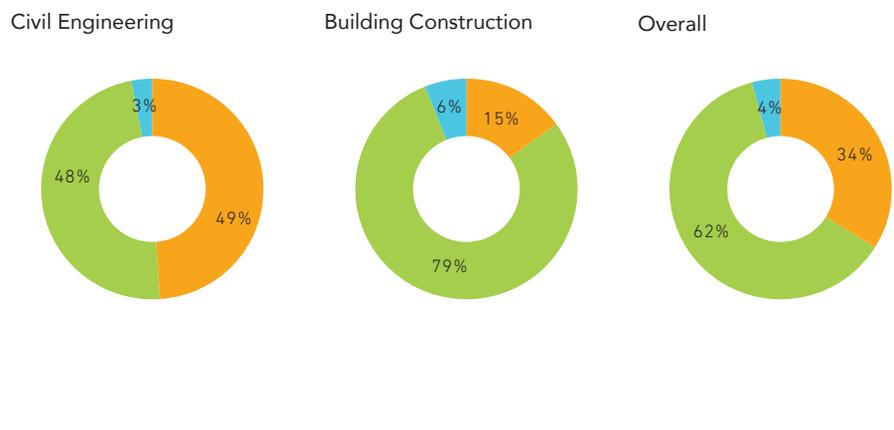
Breakdown of emissions by type of waste (fiscal 2020)



Emissions by type of construction



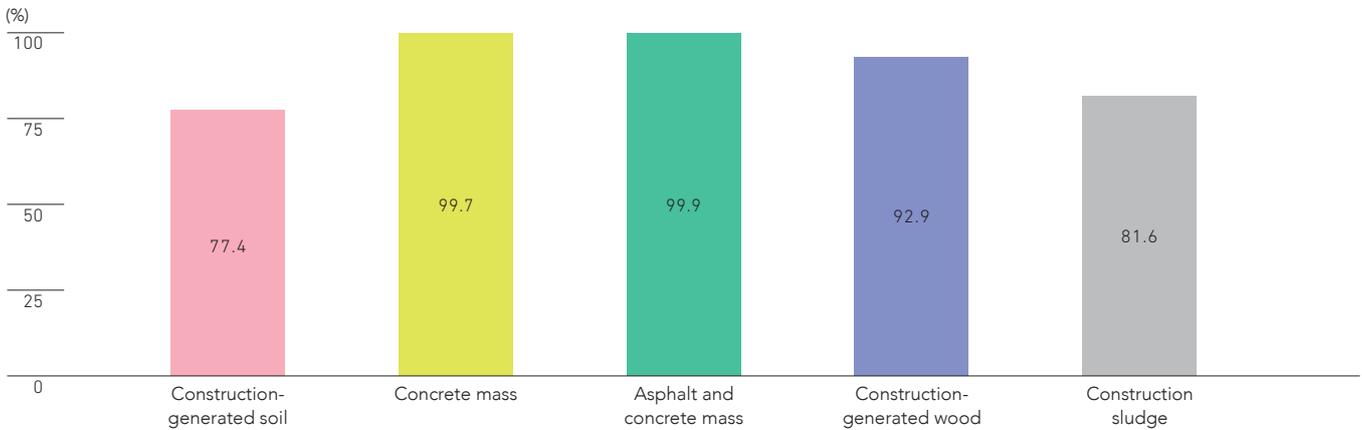
Breakdown of emissions by type of construction (fiscal 2020)



## 7. Using, Promoting the Use of Recycled Resources

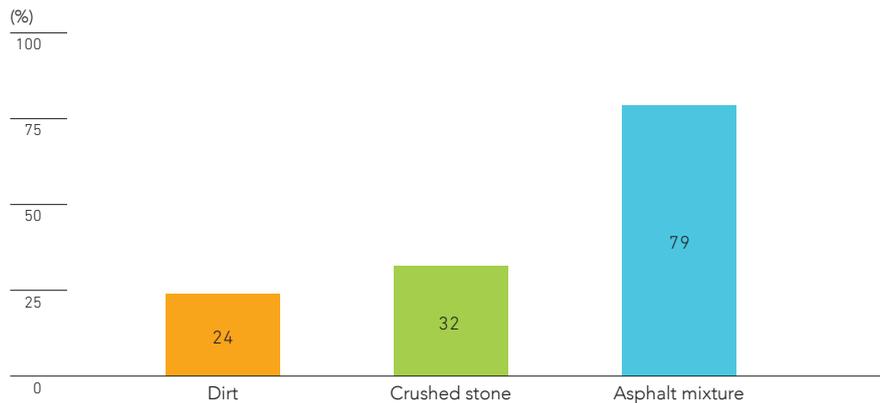
The Group is promoting the use of recycled resources in cooperation with partner companies to further broaden the effective use of resources.

Promotion of recycled resource use (fiscal 2020)



Note: Promotion of recycled resource use indicates reusing construction by-products on-site or transporting them to recycling facilities for use as recycled resources.

Recycled resource utilization rate (fiscal 2020)



### Recycling Under Wide-Area Recycling Designation System, etc.

The Group has formed tie-ups with various manufacturers to recycle waste materials such as gypsum board and autoclaved lightweight aerated concrete (ALC) products generated at new construction sites.

In the fiscal year ended March 2021, we consigned 607 tons of waste gypsum board directly to wide-area recycling designated contractors for recycling. We also turned over 53,245 tons of metal scrap, 86 tons of cardboard, and 131 tons of other materials to specialist recycling companies as valuable materials or exclusive recycling materials.

## 8. Green Procurement

Having established green procurement categories, the Group is procuring materials, equipment, and products and sourcing construction methods that have lower environmental impact.

### Green Procurement Results (Construction Divisions)

Category	Classification	Unit	Amount procured
			Fiscal 2020
Construction-generated soil		thousand m <sup>3</sup>	675.3
Processed soil recycled from construction sludge	●	thousand m <sup>3</sup>	58
Recycled hot asphalt mixture	●	thousand tons	28
Recycled aggregate, etc.	●	thousand m <sup>3</sup>	98
Recycled steel (electric arc furnace steel)		thousand tons	10.9
Recycled steel (electric arc furnace rebar)*		thousand tons	43.9
Blast furnace cement*	●	thousand tons	0
Coal ash cement*	●	thousand tons	0.1
Particle board, fiber board	●	thousand m <sup>2</sup>	0.9
Wood cement board	●	thousand m <sup>2</sup>	5.7
Tropical-wood alternative formwork (metal)		thousand m <sup>2</sup>	38.3
Tropical-wood alternative formwork (concrete)		thousand m <sup>2</sup>	0.1
Tropical-wood alternative formwork (other)		thousand m <sup>2</sup>	24.5
Effective low-quality soil utilization method	●	thousand m <sup>3</sup>	0.3
Construction sludge recycling method	●	thousand m <sup>3</sup>	0
Concrete mass recycling method	●	thousand m <sup>3</sup>	0.1
Slope greening method using logging timber or construction-generated soil	●	thousand m <sup>2</sup>	0
Permeable pavement	●	thousand m <sup>2</sup>	0
Rooftop greening*	●	thousand m <sup>2</sup>	0.5

\* Items included in Group-wide survey.

(Classification) ● : Government-designated procurement item Blank: Item recommended by Hazama Ando

### Green Purchased Office Supplies (Fiscal 2020)

	Copy paper (million sheets)	Business card blanks (thousand sheets)	Printed envelopes (thousand sheets)	Ring binders	Flat files
Total amount purchased	10.45	309	63	1,032	5,189
Green products	10.00	306	63	1,019	5,189
Green purchasing rate	95.7%	99.3%	100%	98.7%	100%



## Promoting sustainable management and taking full responsibility for corporate actions

### Overview of 2020 Results

Our response to the material issue of promoting sustainable management and taking full responsibility for corporate actions entails PDCA activities based on three key CSR themes.

First, under the key theme of conducting fair and honest corporate activities, we are pursuing ongoing measures to enhance governance and ensure rigorous compliance, the unchanging premises upon which a company is built. In fiscal 2020, in light of the COVID-19 outbreak and the advent of increasingly extreme natural disasters, we reviewed the risks facing the Group and reinforced business continuity plans. Under the theme of creating safe, comfortable working environments, in addition to continuously upgrading our safety framework in light of a 2018 fire accident, we are promoting health management that takes into account a post-pandemic context. Our efforts to respect diversity and human rights, including empowering women in the workplace and drawing on international human resources, are also bearing steady fruit.

A robust response to this material issue necessitates collaboration with everyone associated with our business. Under the key theme of engaging in dialogue with stakeholders, we continue reaching out to all of our stakeholders and plan to further step up efforts to engage and collaborate with them to achieve Goals 3, 5, and 8 of the SDGs, the core SDGs linked with this material issue.



## 1 Activity Highlights

### Standardized Nationwide Safety and Quality Training for Young Employees in the First Five Years

The Group’s health and safety management plan for fiscal 2020 called for standardized nationwide safety and quality training for young employees up to their fifth year in the Group. To bolster cooperation with the Hazama Ando Cooperative Association, every year we typically invite the participation of employees from major partner companies, conducting joint training using the training rooms and lodging facilities of the Group’s Technology Training Center in Tsukuba, Chiba Prefecture. In fiscal 2020, because of COVID-19, training involved only young employees of Hazama Ando. Of the six training sessions, the first three were held as a group at the Center, while the rest were conducted by means of streamed e-learning using computers at each company.

In addition to classroom lectures to convey the latest health and safety management initiatives of the Group, training focused on explanations and drills based on the manual the Group drafted in January 2020 to prevent falls involving pile drivers and cranes, as well as prevention of heavy machinery falls, which could lead to public disasters or other incidents. With the cooperation of 3M Japan Ltd., we also conducted hands-on safety education on the proper use of full harnesses, which are required in principle for “work at height” under revised industrial safety and health regulations in Japan. Participants then experienced suspension in the harness (or watched examples of suspension on video).



Group training (proper use of full harnesses).



Group training (being suspended by harness).

## 2 Activity Highlights

### Health Management Initiatives

Recognizing that efforts to maintain and improve the health of employees are indispensable to the Group’s sustainable growth, in July 2019 we issued a Health Declaration and launched full-scale health management initiatives. Our theme in fiscal 2020 was raising awareness of health management and carrying out measures. In addition to publicizing health management initiatives across the Group, we took steps to address health issues, including improving lifestyle habits such as exercise, diet, and smoking. Even with the COVID-19 pandemic in fiscal 2020, we worked to foster an environment for better health by remotely holding specific health guidance and mental health training usually conducted in person. To address the lack of exercise and promote more active communication, we also took part in a walking event, called “Walking All Together,” sponsored by the National Civil Engineering and Construction Health Insurance Association. To foster a healthier environment, we designate the 22nd of every month as a No-Smoking Day for smokers to encourage quitting, and as a Health Day for non-smokers to pursue their own health activities.

Every fiscal year-end we also carry out an employee health management awareness survey to quantitatively measure health in terms of lifestyle, absenteeism, and presenteeism. Based on the results, we analyze health issues facing the Group, which informs our activities in the following fiscal

year. As a result of our efforts, the Group’s industry ranking in the Health Management Survey supervised by the Ministry of Economy, Trade and Industry has risen steadily from the top 40%-50% in fiscal 2019 to the top 30%-40% in fiscal 2020. Going forward, we will solidify efforts made so far while carrying out measures for more effective lifestyle improvements and smoking control and stepping up health management initiatives.

#### Health Declaration

**Regarding the health of employees as a key management issue, Hazama Ando declares that it will strive for better health across the entire Group.**

#### Eight Key Initiatives for Health Promotion

1. 100% of employees will undergo regular medical examinations.
2. We will support employees utilizing the results of medical examinations.
3. We will foster an environment that promotes health.
4. We will work to improve eating habits.
5. We will work to improve exercise habits.
6. We will work to stop smoking.
7. We will work to ensure mental health.
8. We will work to further reduce long working hours.



# Conducting fair and honest corporate activities

## Policies and Approach

### Approach to Corporate Governance

The Group’s business activities are based on safe, secure, high-quality “good building operations.” Through these operations, we aim to contribute to the advancement of society and our customers and fulfill our mission and duty to society. To achieve this, we believe it is critical to maintain and improve a management system capable of responding swiftly to changes in the business environment, ensure the transparency and fairness of management supervision, and ensure rigorous compliance. To this end, we are working continuously to enhance our corporate governance.

**Pillars Supporting Our Initiatives**

1. Corporate Governance      2. Compliance      3. Internal Control and Risk Management

## Pillars Supporting Our Initiatives 1: Corporate Governance

### Overview of Corporate Governance Framework

To ensure more robust corporate governance, the Group makes a clear distinction between the Board of Directors and board directors as having decision-making and business execution supervisory functions, and the Management Committee, executive officers, and Executive Officers Committee as having a business execution function.

#### Decision-Making, Business Execution Supervisory Functions

##### Board of Directors

- To further clarify managerial responsibilities and enable the building of an optimal management framework that is responsive to changes in the business environment, the term for board directors is set at one year. The Board is also divided into directors who execute business and those who do not. There are no board directors with titles, with the only distinction being between representative board directors and board directors.
- As of June 29, 2021, the Board of Directors had nine members (including three external board directors, two of whom were women), consisting of executive and non-executive directors. External board directors, who are non-executive directors, play roles such as supervising and giving advice to management based on their experience and insight. The Board of Directors meets monthly to make decisions on important business matters and supervise business execution.

#### Business Execution Function

##### Management Committee

- The Management Committee meets monthly to discuss management strategy and other policies, check on the progress of business plans, and diversify and reinforce planning capabilities for the Group.

##### Executive Officers, Executive Officers Committee

- To increase the agility and flexibility of the business execution framework, the term for executive officers is set at one year. Executive officers’ business responsibilities and scope of authority are clarified by resolutions of the Board of Directors.
- To accurately and promptly convey business information to Group executives and share information between divisions, the Executive Officers Committee meets monthly.

#### Audit Framework

- As of June 29, 2021, the Audit & Supervisory Board consisted of four members, including two external members. Audit & Supervisory Board members work closely with the internal Audit Department, attend meetings of the Board of Directors and other important meetings, receive reports and explanations on the execution of job functions from directors and employees, and review key documents, as well as auditing the head office and other main offices and Group companies.

### Efforts to Enhance the Corporate Governance Framework

The Group established the Governance Advisory Board, a voluntary advisory board, to ensure the fairness, transparency, and objectivity of decisions made by the Board of Directors regarding the nomination and compensation of directors among other matters.

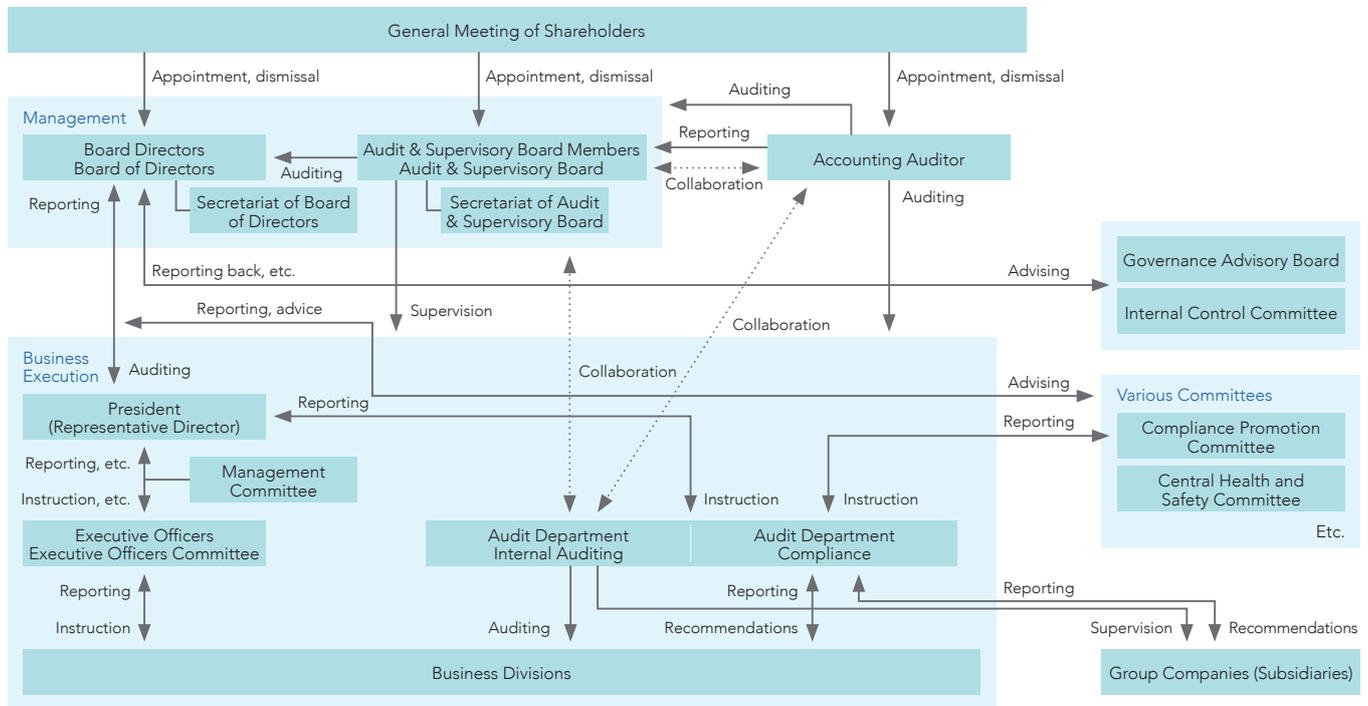
The Governance Advisory Board is chaired by an external board director, with a majority of members also external board directors. Its role is to advise the Board of Directors, resolve matters stipulated by its bylaws, and report results of

deliberations to the Board of Directors as necessary. The Board held eight meetings in the fiscal year ended March 2021. Matters taken up included the appointment and dismissal of board directors, as well as matters related to the new operating framework, such as executive personnel decisions and basic and performance- and stock-based compensation. Results were reported to the Board of Directors. The Board also categorizes priority skills required of board director candidates from the perspective of the longer-term

improvement of corporate value, sustainable business operations, and ESG management, and nominates diverse personnel with the requisite knowledge, experience, and abilities. A skill matrix summarizing the knowledge, experience, and abilities of each board director is disclosed in the notice of the General Meeting of Shareholders starting from the June 2021 meeting.

To continuously build corporate value and meet stakeholder demands, the Group will continue striving to enhance the corporate governance framework and to revise it in a timely and appropriate manner in response to changes in the environment. Details of our initiatives are discussed in the Corporate Governance Report, which can be found on the Tokyo Stock Exchange website or the Group's official website.

**Corporate Governance and Internal Control Frameworks**



**Pillars Supporting Our Initiatives 2: Compliance**

**Internal Compliance Promotion Framework**

We established the Compliance Promotion Committee, chaired by an external board director, to act as a deliberative and advisory body to ensure fair and transparent business operations based on the consistent policies of the Hazama Ando Group. We are also setting up a Compliance Promotion Office, made up of division directors and others, whose chief responsibility will be promotion planning. We are also assigning compliance officers and staff to each division and major Group company to effectively implement

various promotion activities.

Overseas, we have set up and are operating a system to specifically address bribery risk, and are working to raise awareness through educational activities in various regions. We continually check whether activities are being properly carried out. In the fiscal year ended March 2021, we offered an e-learning program for employees and local staff at all overseas offices to increase awareness of these risks.

**Implementation of Compliance Activities**

The Group is continuously taking actions with the objective of ensuring that a range of compliance activities are carried out in all aspects of the workplace.

**Compliance Education**

Our efforts to educate employees are based on an annual plan designed to further increase compliance awareness among officers and employees. In the fiscal year ended March 2021, we continued to confirm and evaluate compliance points relevant to each workplace, and augmented measures such as asking each workplace to devise ways of

ensuring awareness of compliance points in their day-to-day operations. We also distributed e-mail newsletters, held lectures by outside speakers and made use of online tests, and conducted group education based on job position. During Compliance Promotion Month in November, we carried out a series of measures, including issuing a message from top management, conducting video education, assessing compliance awareness, confirming the code of conduct, and putting up posters. In these ways, we are working to further boost compliance awareness.

### Compliance Manual

We completely overhauled the compliance manual with the highly focused objective of “useability.” We clarified once again the matters that all officers and employees need to understand and structured the manual so that it can be used effectively.

### Compliance Audit

The Audit Department conducts compliance audits at the head office, all branches, and at Group companies. Audit results are reported to the President, the Board of Directors, the Compliance Promotion Committee, and the Audit &

Supervisory Board. We are making the Group’s compliance framework more effective through various measures, revising, adjusting, and improving the framework as needed.

### Compliance Helpline

We have set up a Compliance Helpline for reporting and consultation across the entire Group, for the purpose of early identification and correction of compliance violations. In the fiscal year ended March 2021, there were no reports that would have a material impact on management. We actively ensure awareness of the reporting system, while placing top priority on protecting those who report violations.

## Pillars Supporting Our Initiatives 3: Internal Control and Risk Management

### Internal Control and Risk Management

We strive to maintain and operate relevant systems based on our internal control system policy.

We established the Internal Control Committee, an advisory body to the Board of Directors tasked with realizing a more effective, continually improving overall internal control system. The committee deliberates on the effectiveness and management status of the internal control system as a whole and measures to improve it, as well as the implementation, management, and revision of the risk management framework, and reports to the Board. We have also set up a Risk Management Subcommittee under the Internal Control Committee. Based on the Group’s risk management bylaws, this subcommittee identifies and evaluates key risks that require action by the whole Group and monitors the response

of each division. The Internal Control Committee regularly verifies the subcommittee’s findings.

In the fiscal year ended March 2021, the Risk Management Subcommittee added and revised items related to risks reflected in the business plan. After scoring each risk item according to the potential degree of impact and the likelihood of occurrence, the subcommittee reassessed all risks and updated the risk map.

The Internal Control Committee deliberated on revisions to the internal control system policy, on evaluations of both the management of the system and the effectiveness of the risk management system, and on priority risks considered by the Risk Management Subcommittee, reporting the results to the Board of Directors.

### Rigorous Information Security

Information security risks are increasing daily, as advances in ICT technology broaden the scope of application and cyberattacks grow more frequent and more sophisticated.

Because the Group’s medium-term management plan calls for the greater use of ICT, we regard information security as a critical management issue and are bolstering measures to mitigate risk.

#### 1 Collecting and Sharing Information

Our information security measures are informed by external information, such as the Cybersecurity Management Guidelines of the Ministry of Economy, Trade and Industry. We also actively participate in various conferences related to information security.

In addition, twice a year we hold study sessions for all related divisions, bringing in outside specialists. In this way, we analyze the risks facing the Group and explore and implement response measures.

In particular, it is vital to consider the distinctive environment of the construction industry, including fixed-term projects and the need to conduct business at customer sites and interact with numerous partner companies and workers.

#### 2 Four Pillars Supporting Our Response Measures

##### Establishing rules

We establish information security rules pertaining to actions to be taken with regard to the framework, roles, and employees, and convey these to employees.

##### Centralizing asset management

We centrally manage assets related to information systems, and are steadily implementing response measures and laying the groundwork to respond swiftly in the event of an accident.

##### Physical response measures

We are systematically rolling out and updating various tools, seeking to reduce risks automatically.

##### Personnel response measures

We carry out ongoing education, check inventory, and conduct audits to reduce risks that are not capable of being stopped physically.

#### 3 Examples of Specific Initiatives

##### Supply chain response measures

Recognizing the importance of response measures that encompass partner companies, we conduct ongoing educational activities, including for new onsite workers and education across the Group and partner companies during Japan’s cybersecurity month.

### Employee education

Using e-learning and educational videos, we revise content depending on the risk context. We also conduct regular, ongoing education for all employees.

#### Training for information security staff

We encourage staff to acquire IPA (Japanese information security agency) certification and train certified staff.

### Business Continuity Plan Recertification and Ongoing Training

The Group has formulated a business continuity plan which assumes a Tokyo inland earthquake or massive Nankai Trough earthquake. The plan is based on four objectives: (1) ensuring the safety of life, (2) preventing secondary disasters, (3) supporting recovery of customers, and (4) helping the community. We obtained construction company disaster-ready business continuity certification from the Kanto Regional Development Bureau of the Ministry of Land, Infrastructure, Transport and Tourism in October 2013 and from the Kinki Regional Development Bureau in April 2017. We have since continued to obtain recertification.

Japan has seen frequent natural disasters nationwide in recent years, which have grown more intense and more wide-ranging. We carried out training at all Group branches in Japan on November 4, 2020, which assumed the occurrence of a large-scale local earthquake. Training included setting up a response center, confirming the safety of personnel and construction sites, and ascertaining the extent of

### 4 Other Measures (Supporting Working from Home)

By augmenting the mobile telecommunications environment we already had in place, we are building the secure infrastructure needed to allow working from home.

damage at important related entities. The business continuity plan proved effective. Going forward, we will continue to revise and improve the plan, anticipating large storms, floods, and epidemics, striving to reinforce the Group's comprehensive resilience.



Group training in fiscal 2020.

### Formulation of a Procurement Policy

The Group's business activities depend on collaboration with partners. We recognize that engaging in procurement activities that align with our corporate social responsibility (CSR) necessitates actions up and down the supply chain. In March 2020, we formulated a Procurement Policy and are working with partners to promote CSR procurement.

#### Procurement Policy

##### 1. Compliance with laws, prevention of corruption, elimination of antisocial forces

We will comply with all relevant laws and regulations, international rules, internal rules, and social norms, and conduct sound procurement. We will eliminate all forms of bribery and corruption, while taking a resolute stance against anti-social forces that threaten the order and security of civil society, and will sever all relationships with such forces.

##### 2. Implementation of fair and honest procurement

When choosing business partners, we will evaluate each candidate comprehensively and fairly and make honest choices, considering factors such as quality, safety, price, delivery date, and technical capabilities.

##### 3. Respect for basic human rights and consideration for occupational health and safety

We will respect basic human rights, including eliminating child labor, forced labor, and other unfair labor practices as well as various types of discrimination and harassment. We will conduct procurement that is sensitive to working environments and health and safety.

##### 4. Consideration for the environment

In accordance with the Environmental Policy of Hazama Ando,

we will procure materials that contribute to conservation of the environment and reduction of environmental impact.

##### 5. Maintaining, improving quality and ensuring safety

To realize safe, secure, high-quality "good building operations," which are the basis of the Group's business activities, we will engage in procurement based on the ability to maintain and improve the quality of the buildings, services, and other products we provide and ensure safety.

##### 6. Contribution to local communities

Fully aware that companies are members of society, we will pursue procurement activities that contribute to the development of local communities and local economies together with our partners.

##### 7. Appropriate management of information and intellectual property

We will appropriately manage and protect confidential information, personal information, and customer information obtained through our procurement activities. We will also appropriately manage and use intellectual property held by the Group, without illegally obtaining, using, or infringing the intellectual property of third parties, including patents, utility models, designs, or trademarks.

##### 8. Building good relationships with business partners and mutual flourishing

Through our procurement activities, we will deepen mutual understanding with our business partners and strive to build good relationships. We will work together with partners to hone technical capabilities and develop human resources, aiming for the sustainable enhancement of corporate value.

# Creating safe, comfortable working environments



Our top priority is on ensuring the health and safety of our employees. In addition to complying with all relevant laws and regulations, we strive to cultivate working environments that ensure the safety and health of our employees as well as maintain their comfort.

## Policies and Approach

### Health and Safety Policy and Promotion Measures

The Group’s health and safety policy of “putting safety above all” values every human life. Based on this policy, we are taking ongoing actions to ensure that all of our people, including employees and workers on site, understand the significance of this policy and work together to build an accident-free Hazama Ando.

#### Health and Safety Policy

Putting safety above all

#### Health and Safety Slogan

Point-out and call-out safety confirmation  
Follow the rules and work safely  
“Check”

#### Health and Safety Promotion Measures in Fiscal 2020

- 1 Better safety management through an occupational health and safety management system
- 2 Rigorous safety education
- 3 Prevention of public disasters
- 4 Reduction of repetitive accidents
- 5 Thorough health management
- 6 Greater cooperation with the Hazama Ando Cooperative Association
- 7 Measures in the event of disaster

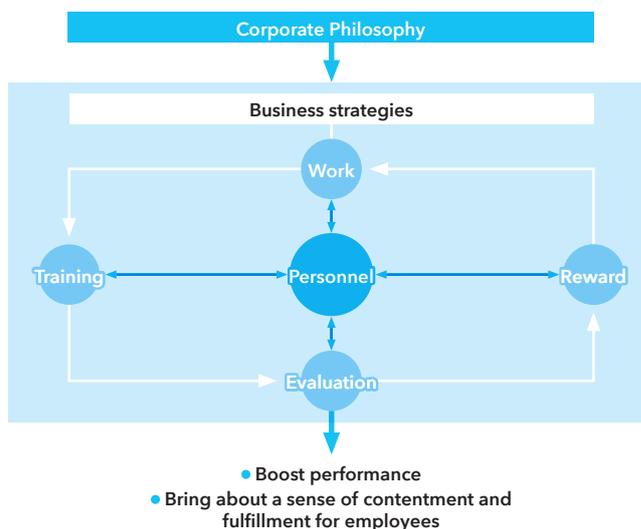
### Approach to Human Rights Awareness

In the course of respecting the basic human rights guaranteed to all people and fulfilling our corporate

social responsibilities, we are engaged in concrete activities to address a range of human rights issues, including social discrimination.

### Approach to Personnel

Grounded in the Corporate Philosophy, the guiding concept behind our HR systems is a personnel-centered cycle extending from work to training, evaluation, and reward. Through this cycle, we aim to foster employee fulfillment and motivation, boost performance, and bring about a sense of contentment for employees.



### Pillars Supporting Our Initiatives and Promotion Framework

#### 1. Occupational Health and Safety

The Group has built a framework to ensure that our health and safety policies are carried out. Under the supervision of the Safety, Quality and Environment Division and the Construction Division, we have formulated 10 Safety Steps to Avoid Repetitive Accidents as well as Hazama Ando Safety Rules, for all employees to observe. In line with these guidelines, we are working to make health and safety a part of the daily routine at all branches and work sites, as well as pursuing educational activities and other measures to further instill a safety culture.

#### 2. Utilization and Training of Human Resources

Hazama Ando’s human resources ideal is grounded in the concept that “building operations also build up people.” We have developed personnel training programs based on this concept. In addition to daily on-the-job training at each workplace, we offer employees an array of training options, such as group training based on managerial level and occupation. Participation in these programs is also reflected in the personnel evaluation system, and informs the appropriate use of human resources.

#### 3. Respect for Human Rights

We strive to ensure that the human rights of all officers and employees and everyone we come into contact with through our business are thoroughly respected. Supported administratively by the Personnel Affairs Department, the Human Rights Awareness Committee, an organization that spans the Group, maintains a harassment consultation desk and carries out various human rights awareness activities. Should a human rights violation be suspected, we will respond promptly while protecting the rights of the person seeking consultation.

# Pillars Supporting Our Initiatives 1: Occupational Health and Safety

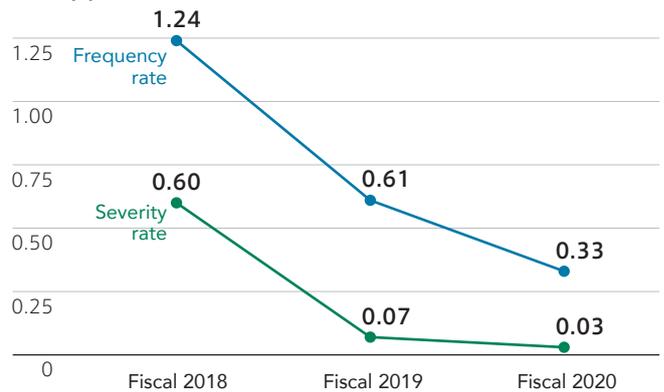
## Prevention of Work-Related Accidents and Safety Performance

Safety patrols are a key part of our safety management. We are implementing patrols extensively and efficiently, making use of ICT to carry out remote patrols and conducting patrols at remote locations and overseas sites as well. We are working to extend the reach of these initiatives. We have introduced remote and video-based safety education, shifting from typical group training, allowing us to expand the scope of training from a limited number to a broader target range. Thanks to these efforts, no fatalities or other serious work-related accidents occurred in the fiscal year ended March 2021.

At the same time, the number of business operator-related accidents and public, third-party accidents are on the rise from the previous year. It is crucial to have guidance and follow-up in various work situations.

Also, in response to numerous traffic accidents, in addition to sending out notifications requiring thorough vehicle registration and the installation of drive recorders, among other things, we continue to teach vehicle operators on site by means of accident prevention conferences and examples of dangerous experiences. We will continue to work

### Safety performance



Frequency rate indicates the prevalence of work-related fatalities and injuries per 1 million working hours. Severity rate indicates the degree of the disaster, in terms of the labor loss days per 1,000 working hours.

with partner companies to reduce traffic accidents through measures such as enhancing compensation and offering driving instruction.

## Efforts to Eliminate Repetitive Accidents

In the construction industry, many work-related accidents are repetitive in nature. The Group has compiled case studies of past accidents and established 10 Safety Steps to Avoid Repetitive Accidents, which we update every year. We are implementing these measures in construction projects both in Japan and overseas.

### 10 Safety Steps to Avoid Repetitive Accidents

1. Prevention of accidents due to falls
2. Prevention of accidents involving floor and wall openings
3. Prevention of accidents due to dropping of suspended loads or toppling during lifting
4. Prevention of accidents caused by contact with heavy machinery
5. Prevention of accidents due to fire use
6. Prevention of accidents through appropriate worker assignments based on sound health management
7. Prevention of accidents due to handling of high-pressure, high-output equipment or general equipment
8. Prevention of third-party or public disasters
9. Prevention of accidents due to slope collapse or shaft wall collapse
10. Prevention of accidents involving scaffolding platforms

To deepen understanding of safety, we have introduced virtual reality-based learning using dangerous experiences. By using simulated experiences of various other accidents, we are working to heighten the ability of workers to foresee potential accidents by inculcating a sense of fear the danger involved.



Virtual reality image (virtual fall).



Virtual reality goggles.

## Measures to Prevent Recurrence of Fire Accidents

Following a fire accident at a construction site in Tama City, Tokyo, in July 2018, the Group determined to eliminate any situation on site where a fire could break out. We formulated measures to prevent recurrence based on the findings and recommendations of outside experts. Top management expressed their strong determination for there never to be another serious accident, directing all officers and employees to ensure that recurrence prevention measures were implemented, while once again recommitting the Group to the principle of our health and safety policy—"putting safety above all"—which takes precedence over processes, costs, or any other conditions or constraints.

We put in place a range of specific measures, including revising safety rules such as prohibiting the use of fire around combustible materials, enacting more rigorous rule enforcement and checks on implementation, conducting training according to actual site conditions, enhancing safety education, and ensuring more thorough evacuation and response measures.

We will take measures to prevent recurrence and thoroughly implement safety rules. We will also pursue ongoing improvements, steadily implementing a PDCA (Plan, Do, Check, Act) cycle for occupational health and safety management, and working with partner companies to further raise occupational health and safety standards.

## Introducing a Self-Propelled Disinfecting Robot: Offering Security through UV Disinfection

Responding to the COVID-19 pandemic, we collaborated with Unicast Inc. and Internet Research Institute Ltd. to propose a solution to make sterilization and disinfection safer and more labor-saving through robotic automation. We conducted nighttime trials of a self-propelled disinfecting robot at our facilities.

The robot is equipped with a deep ultraviolet lamp and can run autonomously using laser-based simultaneous localization and mapping (SLAM) technology. This makes it possible to irradiate specified areas with UV rays following a preset route, while avoiding obstacles, and automatically return to the charging port. The trials took place on the ground reception floor of the head office and at the Technology Training Center in Tsukuba. The trials confirmed the

robot's battery capacity and showed that it could perform the work and return to the port as programmed.

The robots we currently have can be used at other facilities as well, such as for disinfection at a facility where there has been a case of COVID-19 infection, or for the daily disinfection of common areas. We are confident this will lead to labor saving in disinfection work.



Self-propelled disinfecting robot.

## Pillars Supporting Our Initiatives 2: Utilization and Development of Human Resources

### Hazama Ando's HR Development: People and the Group Growing Together

Developing human resources is a key focus for the Group. In addition to core on-the-job training in the workplace, we also offer off-the-job training by means of group education depending on managerial level and specialty for each occupation, as well as "on-the-chance training," which means offering a wide range of job opportunities, including workplace rotation.

We have for many years conducted training for new employees at the Technical Research Institute under the guidance of experienced in-house instructors. In the pro-

gram, new employees themselves perform nearly all construction tasks, such as raising scaffolding, ordering materials and equipment, and placing concrete.

We are taking steps to further enhance HR development. In the fiscal year ended March 2020, we added The 7 Habits of Highly Effective People® training to encourage the growth of young employees and, from the fiscal year ended March 2021, added career development support training to the programs for some job positions.

#### Major HR Development Measures in Fiscal 2020 (Group Training by Job Position)

Type of training	Objectives	Participants
New employee training	Learning basic business manners and attitudes toward work	New employees
Leadership training	Fostering leadership and subordinate guidance skills and learning time management	Young employees (third year)
Basic management training	Learning the basic theory and actions of managerial roles	Group leaders (from ninth year)
Career development support training	Supporting career advancement of female employees and networking among female employees	Female group leaders (from ninth year)
Intermediate management training	Learning the theory of management that can harness organizational strength, time management as a leader, and diversity management	Assistant managers
Advanced management training	Developing individual management styles and learning organizational reform processes	Assistant directors

Note: The above excludes technical training.

### Taking Advantage of Diverse Human Resources

We are creating working environments where diverse human resources can draw on their individuality and enjoy their work regardless of nationality, gender, age, disability, or other difference.

In addition to realizing fair and open hiring practices, we have established a promotion system to reward employees who demonstrate stronger performance on the job.

Recognizing their immense potential to flourish amid globalization, we are actively employing foreign nationals, including locally appointing staff in overseas operations. For

foreign nationals in Japan, we support Japanese language learning and encourage networking with other foreign employees to encourage their performance.

We also support a balance between work and home life. We have introduced our own work-life balance support system and put out a child-rearing support guidebook and long-term care handbook to gain greater understanding of Group initiatives. Also, before maternity leave or before childcare leave for male employees, as well as before returning from leave, supervisors and HR staff meet with employees

to coach them on the importance of balancing work and home life. At the same time, by gaining the buy-in of supervisors, we are not only making it easier for staff to take

advantage of support systems but also helping to cultivate a workplace where employees can feel motivated and capable of growing after returning to work.

	Fiscal 2017	Fiscal 2018	Fiscal 2019	Fiscal 2020
Male employees taking childcare leave	2	6	9	8
Female employees taking childcare leave (percentage)	11 (100%)	24 (100%)	32 (100%)	13 (100%)
Returnees after childcare leave	17	9	19	9
Users of reduced working hour system	22	33	36	33
Job return applications	2	0	3	0
Employees rehired after retirement (percentage)	52 (83.9%)	50 (90.9%)	60 (84.5%)	58 (90.6%)
Foreign employees	31	33	51	54
Employees with disabilities (including special disabilities)	41 (26)	42 (24)	45 (23)	45 (22)

### Efforts to Promote Diversity

We are promoting diversity, including the empowerment of women.

The Group began holding diversity management training in the fiscal year ended March 2018. The training teaches that people have “unconscious bias” and that it is important to be mindful of this. Training covers not only the active role of women in the workplace but also cases related to male employees taking childcare leave and cases related to young employees. Participants learn that employee demands are growing increasingly diverse, and gain a greater understanding of how to manage a diverse staff. There is also a program to experience communication in a role-play format, which has received a great deal of positive feedback from participants.

In the fiscal year ended March 2021, we introduced new career development support training for female career-track employees. Although the proportion of female employees in the Group is growing every year, at less than 20% it is still low.

This program seeks to support women in overcoming the difficulties unique to being a minority. In its first year, the program targeted group leaders, with the objectives of career advancement and network building among participants. We plan to continue to refine the program going forward.



Career training for female employees.

## Pillars Supporting Our Initiatives 3: Respect for Human Rights

### Thorough Respect for Human Rights

We have set up a Human Rights Awareness Committee to explore and determine annual action plans. We have put in place a framework that encompasses group companies, such as setting up a consultation desk to enable prompt action should a human rights issue arise.

Harassment prevention has been a priority issue in recent years. We are conducting ongoing education by means of group training based on job position, video e-learning for all officers and employees including those of group companies, and online tests.

Furthermore, in the fiscal year ended March 2021, the Group formulated a Harassment Prevention Declaration based on the recognition that harassment in the workplace is a violation of human rights which degrades the workplace environ-

ment. When the Declaration was released, the president sent a message to all Group officers and employees expressing his strong determination to eliminate all forms of harassment.

We have also taken steps to ensure completely fair hiring practices and called for employees to submit human rights slogans (702 slogans were submitted in fiscal 2020), and are active in various organizations.

#### Harassment Prevention Declaration

- The Hazama Ando Group will never tolerate harassment in the workplace.
- We have a harassment consultation desk. We will protect privacy and deal with matters promptly and fairly.
- We will not treat disadvantageously persons seeking consultation about harassment or persons who cooperate with fact-finding.



# Engaging in dialogue with stakeholders

## Disclosure Initiatives

Seeking to contribute to the fairness and soundness of the financial instruments markets, the Group has established internal rules regarding timely disclosure and the management of insider information, which commit us to disclosing important company information to stakeholders promptly, accurately and fairly. We disseminate these rules throughout the Group.

The general manager of the Administration Division, who is in charge of disclosure, ensures that matters deemed

to require prompt disclosure are reported through the administrative department of the various branch offices. When any material corporate information arises, based on the securities listing regulations of the Tokyo Stock Exchange, corporate decisions are disclosed at the time of the company's resolution, and occurrences of material fact are promptly disclosed as soon as the company becomes aware of the occurrence.

## Disclosure to Investors

The Group holds results briefings for analysts and institutional investors twice a year, following second quarter results and full-year results. Explanations directly by top management cover Group performance, the current situation, and forward-looking management strategies. Briefings materials can be viewed on the Group's website. In the fiscal year ended 2021, to prevent COVID-19 infections, we held online video conferences, which included as many participants as prior years.

At the same time, based on the disclosure standards of the Tokyo Stock Exchange, we file disclosure information on the Timely Disclosure Information Transmission System (TDnet) and post it on the IR Library page of the Hazama Ando corporate website.



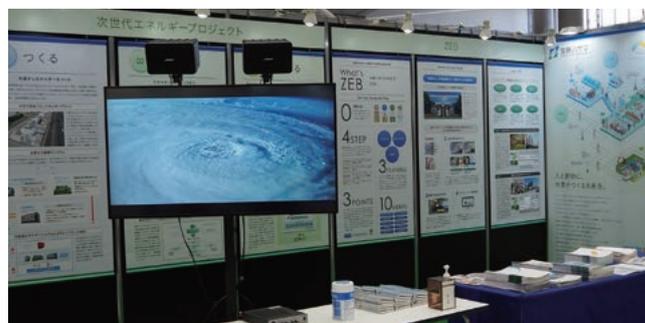
Results briefing (online).

## Sharing Technology and Research Achievements: Taking Part in Exhibitions Nationwide

Hazama Ando actively participates in exhibitions throughout the country to showcase a range of technologies in both civil engineering and building construction fields. Among the technologies we introduce are technologies that improve productivity, safety, and the quality of buildings through the digital transformation of construction techniques; technologies for responding to heavy rains, earthquakes, and other natural disasters; and technologies to boost energy efficiency in buildings.

Although fewer exhibitions were held during the year due to COVID-19, we displayed our civil engineering technologies mainly at exhibitions held by various regional development bureaus in Japan. We also took part in events that drew exhibitors and visitors from outside the construction sector, such as Global Warming Prevention Exhibitions and

Earthquake Technology Expos. In this way, we are actively gaining understanding of our initiatives while exchanging technological knowledge with a range of people.



2021 Global Warming Prevention Exhibition.

Date	Exhibition	Organizer	Venue
August 2020	Infrastructure Maintenance National Conference, Kinki Headquarters Forum 2020	Infrastructure Maintenance National Conference, Kinki Headquarters	Osaka
October 2020	7th Earthquake Technology Expo Osaka	Earthquake Technology Expo Osaka Planning Committee	Osaka
October 2020	Hokuriku SIP Technology Expo	Hokuriku SIP (Strategic Innovation Promotion Program), Kanazawa University	Online
October 2020	Construction Technology Fair 2020 in Chubu	Ministry of Land, Infrastructure, Transport and Tourism Chubu Region Development Bureau, Nagoya International Trade Fair Commission, Nagoya Industries Promotion Corporation	Nagoya
October 2020	Construction Technology Expo 2020 Kinki	The Nikkan Kensetsu Kogyo Shinbun, Ltd. (Daily Engineering & Construction News), Kinki Construction Association	Osaka
November 2020	2020 Chugoku Regional Construction Technology Development Exchange	Ministry of Land, Infrastructure, Transport and Tourism Chugoku Region Development Bureau	Okayama
February 2021	Construction Technology Expo 2020 Kanto	The Nikkan Kensetsu Kogyo Shinbun, Ltd. (Daily Engineering & Construction News)	Online
February 2021	Hokkaido Development Technology Workshop	Hokkaido Development Technology Workshop Planning Committee	Hokkaido
March 2021	25th Earthquake Technology Expo Yokohama	25th Earthquake Technology Expo Yokohama Planning Committee	Kanagawa
March 2021	Exhibit Technology Workshop	Kanto Technical and Engineering Office, Ministry of Land, Infrastructure, Transport and Tourism Kanto Region Development Bureau	Online
March 2021	13th Global Warming Prevention Exhibition 2021	Nippo Business Co., Ltd.	Tokyo

## Hazama Ando Foundation Established

Established in April 2020, the Hazama Ando Foundation started operations in October.

With an aging workforce and a decline in incoming young workers, Japan's construction industry is soon likely to face a major shortage of skilled workers. The most critical issue going forward will be securing a stable construction framework. There is a particularly urgent need to secure and train workers for the specialist contractors that undergird construction activities and form the core of "good building." We established the Hazama Ando Foundation with the hope of offering ongoing encouragement for the vibrant activities of specialist contractors.

In its first year, the foundation took steps to subsidize recruitment and training activities, setting up a fund to sup-

port the PR activities of specialist contractors and a fund to support training of young construction technicians and skilled workers. It also put out a booklet showcasing outstanding activities that serve as a model for other companies.

To contribute to advancement in the construction industry and the sustainable growth of the Group, we will seek through the foundation's activities to support the human resource development needed to carry the future of the construction industry.



## Collaboration with Hazama Ando Cooperative Association

The goals of the Hazama Ando Cooperative Association are to strive to put health and safety actions at the heart of construction, improve construction quality and technology, and, at the same time, pursue the mutual flourishing of the Group and association members. In addition to its head office, the association has 11 branches nationwide. Its roughly 1,400 member companies, who make up the core of the Group's construction operations, are engaged in various activities.

Particularly with regard to safety, under Hazama Ando's health and safety policy of "putting safety above all," the Group and the association together carry out safety activities on a daily basis. Every June, we also jointly sponsor a nationwide Safety Promotion Rally, to renew our efforts to further improve health and safety management standards and eliminate accidents.

The entire construction industry in Japan is working to support the career advancement of construction workers. Together with the association, the Group is pursuing initiatives such as supporting registration of business operators and

skilled workers. In addition, we regularly exchange information and opinions with each association branch to implement a system of eight or more closures in four weeks, a key part of working style reforms. In this way, we are further advancing and gaining understanding of Group initiatives while reflecting the viewpoints of association members in Group measures.



Nationwide Safety Promotion Rally (June 2021).

## Regular Meetings with Outside Experts

Seeking to listen to stakeholders and contribute to the realization of a sustainable society, the Group values the practice of sustainability management through stakeholder engagement. Guided by this notion, we are building a framework for dialogue with stakeholders through various opportunities that arise in our business activities.

In the process of determining core SDGs and disclosing key performance indicators (KPIs), we repeatedly deliberated on issues at the working level. We then examined and verified the content of these deliberations with the help of outside experts, taking into account trends of various guidance initiatives in Japan and overseas, before reaching a final decision. The core SDGs and KPIs will play a key role in the implementation of a PDCA cycle, serving as a central index of the social and environmental impact strategies we have developed, integrating financial and non-financial actions.

For the first time in two years, we held a conference on sustainable management in July 2021. We invited Masaatsu Doi,

a professor at Hosei University Graduate School of Social Well-Being Studies, who has repeatedly submitted third-party opinions for the Group. Professor Doi gave us meaningful suggestions regarding disclosure, and shared his opinions on the steady, ongoing reinforcement and evolution of our strategies.



Online conference with Professor Doi.