

TAKENAKA Corporate Report 2015




We disclose to our stakeholders the details of the projects and activities we are pursuing as a corporate group with the aim of realizing a sustainable society through our corporate reports and Web site.

■ Editorial policy


We have compiled this Takenaka Corporate Report 2015 for the purpose of presenting the Takenaka Group CSR Vision and describing the projects undertaken by our corporate group as a whole with maximum clarity. Its contents primarily comprise details related to activities conducted by Takenaka Corporation. Contents, case examples and data that cannot be covered in the report due to space constraints will be featured on the Takenaka Corporation Web site. This report integrates our corporate brochure (introductory overview of our businesses) and sustainability report (CSR activity report), which were formerly issued as separate publications. It also seeks to obtain the full understanding of our stakeholders by incorporating our medium-term management plan as well as our principal financial and nonfinancial data in order to present the business operations implemented by our group on a global scale.

Corporate Web site
(Japanese/English)
www.takenaka.co.jp

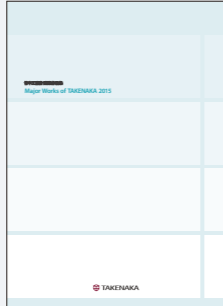


- Major Works
- Solutions
- Corporate Information
- CSR Activities


Corporate Publications (Japanese/English)



Corporate Report
(Japanese/English)



Major Works Report
(Parallel Japanese/English)



Financial Report
(English)

Financial and nonfinancial information concerning the company is presented in an integrated, compact format. Its business operations and results (works) are introduced in greater detail.
*Separate technology and solutions publications are also available.

Provides detailed coverage of financial and nonfinancial information across a wide range.

■ Period of coverage

January ~ December 2014. Some contents concern activities conducted outside this period.

■ Scope of coverage

The contents include the activities of the Takenaka Group centered on the activities of Takenaka Corporation.

■ Reference guidelines

The Ministry of the Environment, Environmental Reporting Guidelines, 2012 and the Japan Standards Association's draft translation, ISO26000 (Guidance on Social Responsibility), 1st edition, November 1, 2010, were employed as references in compiling this report.

■ Period of coverage

April 2015 (next issue April 2016). We have also published the report on our Web site to make it available to larger numbers of readers.

■ Inquiries

Public Relations Department,
Tel: 81-3-6810-5140

CONTENTS

- 03 Management Perspectives
- 05 Company / Group Overview
- 07 Takenaka Milestones
- 09 Group CSR Vision



11

Group Growth Strategy

13

Special Feature 1

TAKENAKA Sustainable Smart Community

Special Feature 2

Pursuit of Improved Productivity

Special Feature 3

Disseminating the Traditions and Culture of Architecture

19

Business Activities

- 21 Architecture — Customer dreams into reality
- 25 International Operations — Supporting the global expansion of our customers
- 27 Development — Urban and Regional Rebirth
- 29 Engineering — Solutions on the leading edge
- 31 Corporate Group — Principal domestic Takenaka Group companies
- 32 Technological Development — Technological development by the Takenaka Corporate Group



33

Stakeholders

- 35 Global Environment
- 37 Local Communities
- 39 Customers
- 41 Employees and Cooperating Companies
-
- 43 Management
- 45 Group Companies
- 47 Dialog with Stakeholders
- 48 External Perspective



- 49 Financial and Nonfinancial Highlights



Seeking realization of a sustainable society

Since the founding of our business, we have consistently provided architectural structures that respond to the expectations of our customers based on our management philosophy, "Contribute to society by passing on the best works to future generations." The role that corporations are called on to play in society changes with the times. Today they are being asked to contribute to solving large numbers of problems confronting our world on a global scale, including such issues as climate change and overpopulation. We wish to maintain a sensitivity to change at all times. To this end, we will continue our ongoing dialog with people everywhere and our diligent efforts to improve our technologies with the aim of providing optimal solutions to the needs of the era. Leveraging the strengths of our whole corporate group, we will contribute to urban creation by building cities and towns in which people can live in safety and security and to achieving a sustainable society with the aim of establishing a path to a better future for the earth.

April 2015
Chairman and CEO



We wish to take this opportunity to offer our sincere apologies once more for the considerable inconvenience caused to subway passengers as well as to other concerned parties when a large volume of water flooded Nagoya Station on the Higashiyama Line of the Nagoya Municipal Subway system recently, requiring an extended suspension of subway operation. We and all our employees reaffirm our awareness of our potential as an architectural firm to exert a serious impact on society at all times, and our companywide commitment to efforts to prevent any future recurrence of such incidents.

"Urban Creation" with prosperity and peace of mind

Society's expectations of architectural firms such as ours are undergoing drastic changes. We are expected to respond decisively to wide-ranging needs, including earthquake disaster recovery efforts and energy and environmental issues, development of more stable and abundant national land, and construction of cities and infrastructure around the world as well as the globalization of corporations' business operations. Cities and buildings are expected to fulfill increasingly sophisticated and diversified functions in today's era of changing lifestyles and corporate activities. Last year we established the "Takenaka Group CSR Vision" and the "Takenaka Group Message." With these as a basis, we intend to promote activities that contribute to realizing a sustainable society through "urban creation" with prosperity and peace of mind, thereby enabling people to lead happy, fulfilling lives, as the best partner for society and our customers.

April 2015
President and COO

Working as a group to satisfy customer expectations in every stage of urban creation

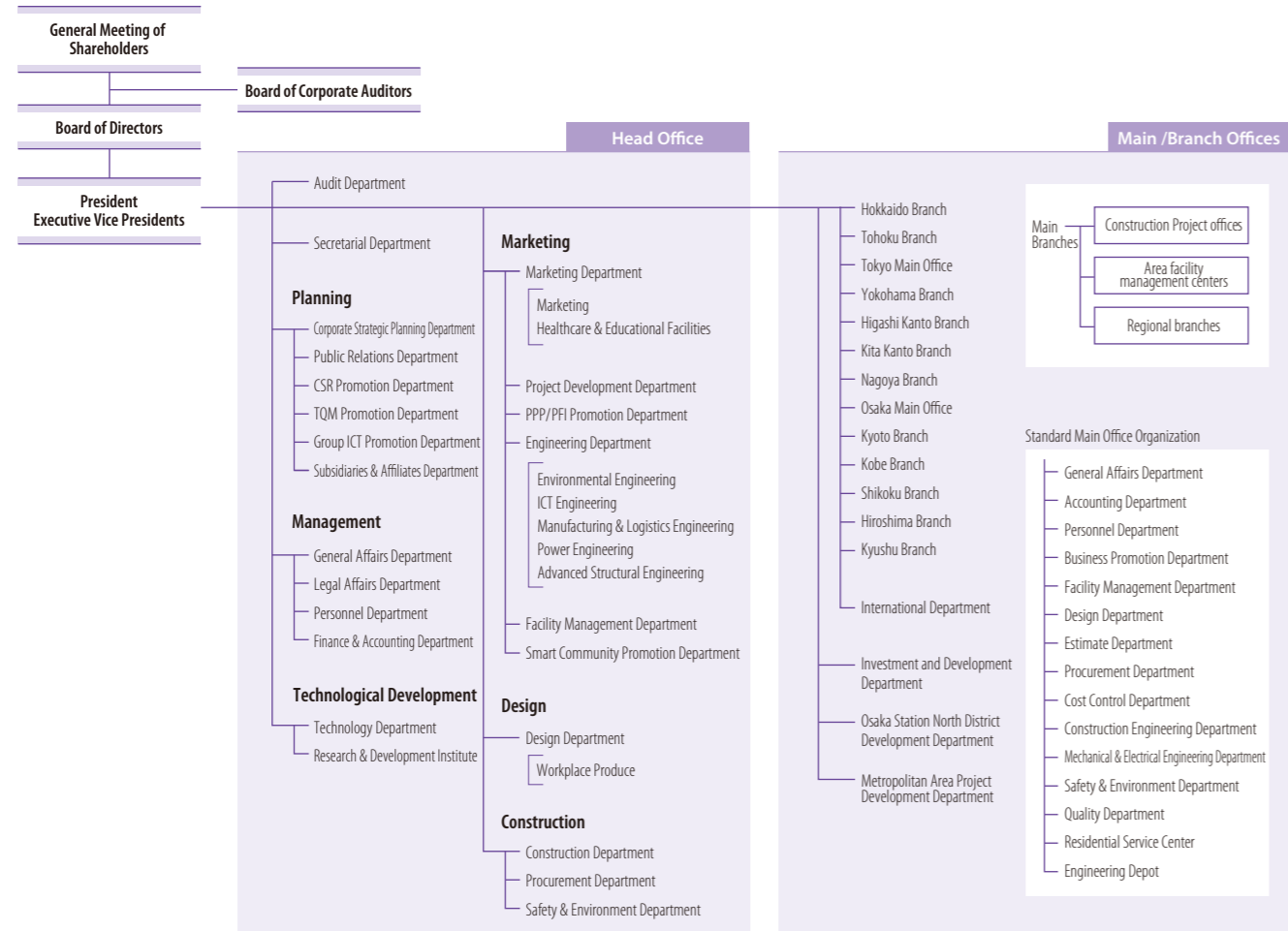
Takenaka Corporation Corporate Data

Company name	Takenaka Corporation
Head office	1-13, 4-chome, Hommachi, Chuo-ku, Osaka, Japan
Capital	¥50 billion (as of March 31, 2015)
Sales	¥1,150.6 billion (consolidated, fiscal 2014)
Construction licenses	Ministry of Land, Infrastructure and Transport Construction License (Special-26, General-26) No. 2744
Employees	7,436 (as of January 1, 2015)
License holders	Licensed first class architects2,505 Licensed first class building works execution managers.....2,304 Licensed professional engineers156 Ph.D.s.....111 (as of January 1, 2015)

Main Businesses	<ol style="list-style-type: none"> Undertaking, design and supervision of architectural and civil engineering works Studies, research, surveys, planning, evaluation, diagnosis and other engineering and management services for construction, regional and urban development, ocean development, space development, energy supply, environmental preservation and other projects Land preparation and housing construction Sales and purchasing, leasing, transaction mediation, maintenance, management and appraisal of real estate as well as real estate investment management
------------------------	--

Main Banks	Bank of Tokyo Mitsubishi UFJ, Ltd. Sumitomo Mitsui Banking Corporation Mizuho Bank, Ltd. Resona Bank, Ltd. Mitsubishi UFJ Trust and Banking Corporation Sumitomo Mitsui Trust Bank, Ltd., others
-------------------	---

Corporate Organization (as of April 1, 2015)



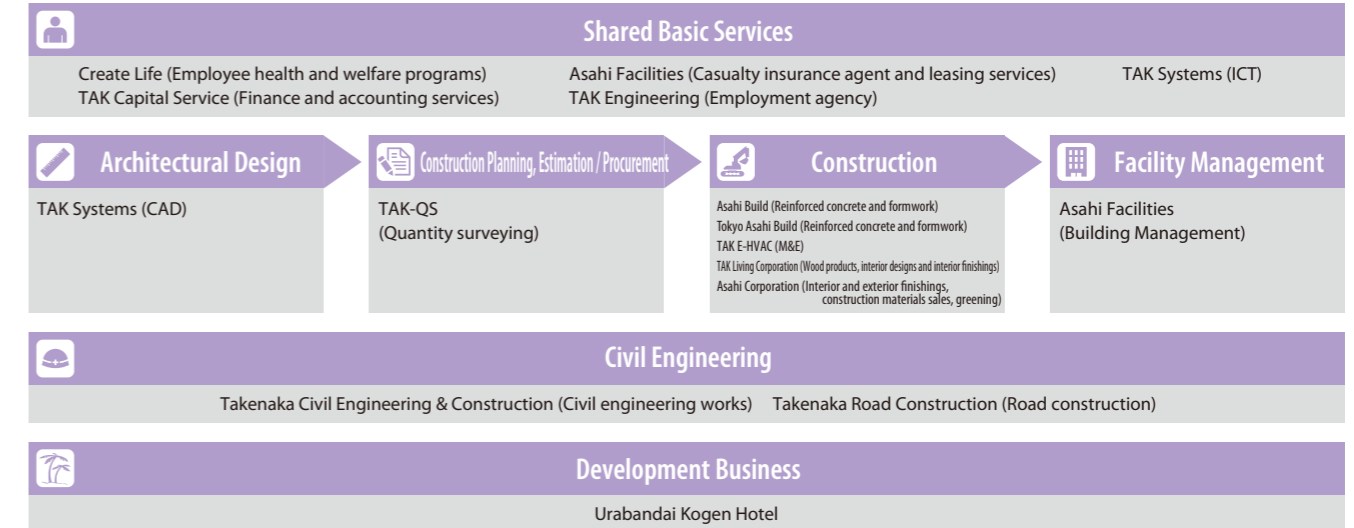
Main Domestic Group Companies and Contents of Business

The group's main overseas companies' locations are listed on page 25.

- Construction Business**
 - Takenaka Civil Engineering and Construction Co., Ltd.**
 - General contracting, planning and designing for public works and building construction
 - Takenaka Road Construction Co., Ltd.**
 - Road paving contracting, and manufacturing and sales of pavement materials
 - Asahi Build Corporation**
 - Steel reinforcement construction services and formwork fabrication and assembly services
 - Tokyo Asahi Build Corporation**
 - Steel reinforcement construction services and formwork fabrication and assembly services
 - TAK E-HVAC Corporation**
 - Electrical, plumbing and sanitation, and HVAC construction services
 - TAK Living Corporation**
 - Manufacturing and sales of wooden products, and interior and finishing construction services
 - Asahi Corporation**
 - Construction services centered on interior and exterior finishing, sales of construction materials, landscaping, tree planting, planning and implementation of greening projects, and sales of petroleum products

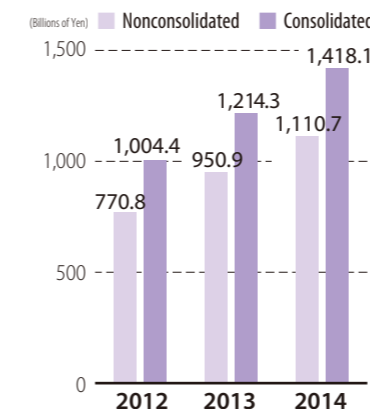
- Management and Engineering Businesses**
 - Asahi Facilities Inc.**
 - Building maintenance services, casualty insurance agent, and leasing services
 - TAK Systems Corporation**
 - Construction design, Construction-related CAD services, ICT support services
 - TAK Engineering Inc.**
 - Outsourcing services for engineering management related to construction, personnel dispatch services, and personnel introduction services
 - TAK-QS Corporation**
 - Outsourcing services for quantity surveying related to construction
 - Create Life Corporation**
 - Comprehensive outsourcing services related to employee health, welfare and benefits, and general affairs and human resources
 - TAK Capital Service Inc.**
 - Outsourcing factoring services and financial accounting services
- Development Business**
 - Urbandai Kogen Hotel**
 - Resort hotel and ski area operation

Principle operations of main group companies

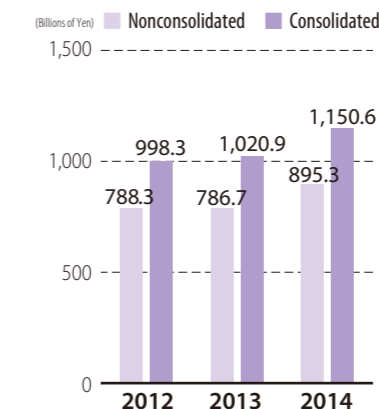


Transitions in performance

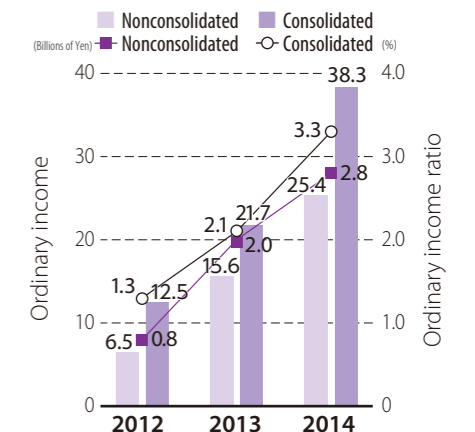
Orders received



Revenues



Ordinary income



Carrying on tradition and leading the way to a prosperous future

Since its foundation in 1610, Takenaka, as an architectural specialist, has handled many buildings that have become landmarks, thus playing a vital role in the development of our society. Architectural works are vessels to protect life and property, and at the same time they are social assets. They are the culture of their times that is passed on to future generations - Having the pride inherent in such work, we refer to the buildings we are involved with as "works of art." With a spirit that has been passed down from our founder Tobei-Masataka Takenaka, who was a master builder of shrines and temples, this philosophy is a way of thinking that puts customer dreams first and maintains high-level technology as an architectural specialist. Up until now we have participated in major projects that deeply affect Japanese society, economy and culture, and we have delivered a great number of works, engineering and technological developments to the world. In order to proactively promote the technological development that our times demand, we will continue to deliver the best quality, aim for prosperous "urban creation" worthy of society's trust, and further develop our consistent design-build system.

→ 1950

- 1949 **TAK Living Corporation** established.
- 1947 **Asahi Build Corporation** established.
- 1943 **TAK E-HVAC Corporation** established.
- 1941 **Takenaka Civil Engineering & Construction Co., Ltd.** established.

→ 1970

- 1969 **Asahi Facilities Inc.** established.
- 1963 Takenaka awarded first prize in **National Theatre Design Competition**.
- 1961 **Takenaka Road Construction Co., Ltd.** established.
- 1960 **Takenaka & Associates Inc.** established in San Francisco.
- 1958 333-meter high **Tokyo Tower** completed. **Urabandai Kogen Hotel** opened.
- 1957 **Antarctic Exploration Research Facilities Produced** Patent acquired for Takenaka caisson construction method. **Asahi Corporation** established.

- 1937 **Takenaka Corporation** established. Capital ¥1,500,000.
- 1934 **MEIJI SEIMEIKAN** (Marunouchi, Tokyo) completed.

- 1927 **Hitotsubashi University Kasamatsu Auditorium** completed.

→ 1920

- 1916 Ferroconcrete **Osaka Mainichi Shimbun Head Office Building** completed.
- 1912 **Takashimaya Kyoto Store** completed as Japan's first retail store building.

→ 1900

- 1900 **Mitsui Bank Warehouse** completed in Onohama district of Kobe.

- 1899 14th-generation head of family Touemon Takenaka moves to Kobe and founds the company within the year.

- 1897 **Mitsui Spinning Mill** completed in Nagoya.

- 1884 **Mitsui Bank Nagoya branch** completed.

- 1874 **Nagoya Garrison** barracks featuring Western-style architecture adapted to the Postrestoration era completed.

1610

Tobei-Masataka Takenaka establishes a business in Nagoya to engage in shrine and temple construction.



→ 2013

- 2014 Takenaka awarded Architectural Institute of Japan Award (Architectural Design) for **Meiji Yasuda Life Insurance New Toyocho Building**. **ABENO HARUKAS** opened.

- 2013 **Grand Front Osaka** completed.

- 2012 Superhigh-rise **Nakanoshima Festival Tower** completed in Osaka.

- 2010 **Takenaka India Private Ltd.** established.

- 2009 110th anniversary of company's founding. and **Marunouchi Park Building - Mitsubishi Ichigokan** completed.

- 2008 World's first high-rise condominium comprising three interconnected skyscrapers, **Island Tower Sky Club**, completed.

→ 2000

- 1997 **Nagoya Dome** completed.
- 1995 **Create Life Corporation** established.



- 1993 **FUKUOKA YAHUOKU! DOME**, Japan's first multipurpose stadium with a retractable roof, completed.

- 1992 Takenaka awarded the Japan Quality Award.

- 1990 **TAK Systems Corporation** established. **Takenaka (Malaysia) Sdn. Bhd.** established.



- 1988 **Tokyo Dome**, Japan's first all-purpose stadium with an air-supported membrane structure, completed. Chairman Renichi Takenaka awarded the Deming Prize. **TAK Engineering Inc.** established.

- 1987 **Yurakucho Marion** completed.



- 1986 Takenaka awarded Best Design Prize in **New National Theatre**, Tokyo International Design Competition.

- 1979 **Ashiyahama Seaside Town**, proposed by the ASTM Group, of which Takenaka is a member, completed.



- 1974 **Thai Takenaka International Ltd., PT. Takenaka Indonesia and Takenaka Corporation Singapore Office** established.

- 1973 **Takenaka Europe GmbH** established.

- 1972 **Tokyo Asahi Build Corporation** established.

→ 2007

→ 2007

- 2007 Chubu region's tallest skyscraper **MIDLAND SQUARE** completed. Large-scale integrated **Tokyo Midtown** and **Shin-Marunouchi Building** completed in central Tokyo.



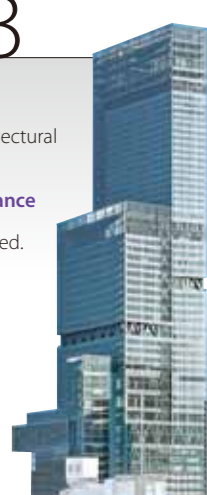
- 2006 World's tallest superhigh stratified base-isolation condominium **City Tower Nishi-Umeda** completed.



- 2003 **Takenaka (China) Construction Co., Ltd.** established. **TAK-QS Corporation** established.

- 2002 **TAK Capital Service Inc.** established.

- 2001 **Takenaka Corporation (U.S.A.)** established. **Oita Sports Park Oita Bank Dome and Sapporo Dome** completed.

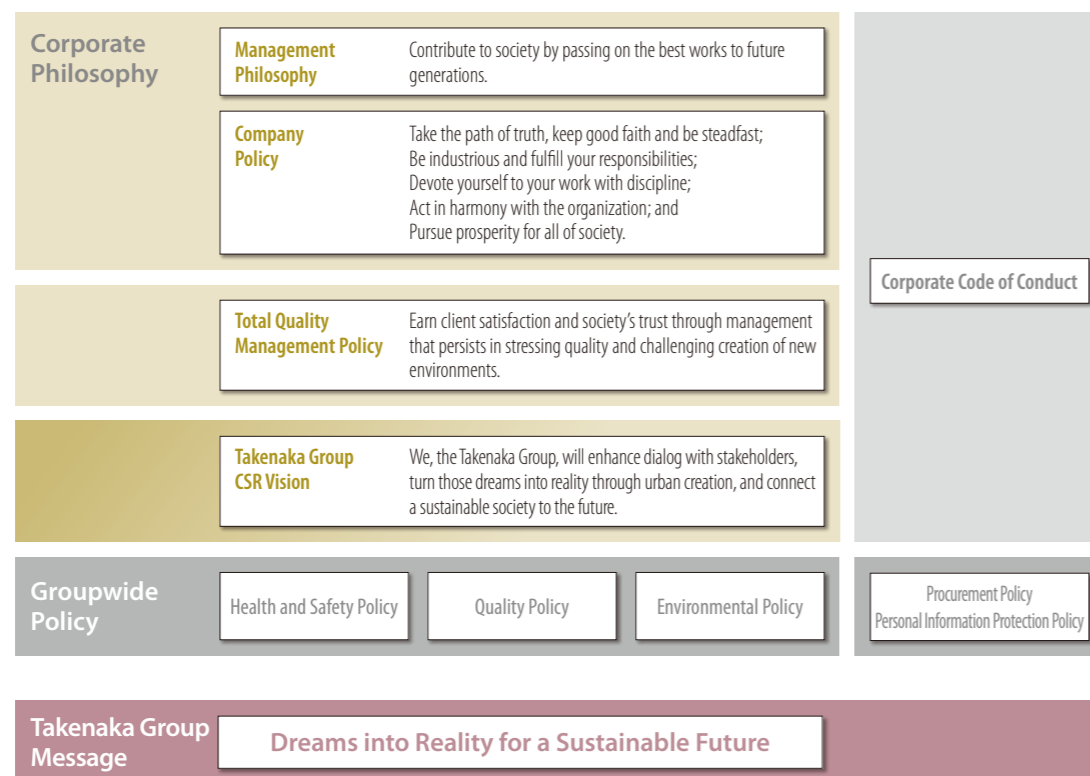


Dreams into reality for a sustainable future

We consider our management philosophy, "Contribute to society by passing on the best works to future generations," as our corporate mission. To achieve it we follow our company policy and handle every architectural project we undertake with the utmost care. This ensures quality management, which earns customer satisfaction and social trust, and raises the company's value to society.

We are required to engage in many more activities that share our corporate values with society than ever before as our stakeholders diversify and the functions of architecture change. Moreover, society faces various problems, such as energy and environmental issues, increased disaster risk, an aging social infrastructure, and a declining birthrate and aging population. The potential impact of these issues requires today's corporations to shoulder more social responsibility.

We formulated the Takenaka Group CSR Vision and the Takenaka Group Message, which incorporates this vision in communicating our corporate philosophy based on a concept of quality management, to express our commitment to deploying our group's concerted efforts and cooperating more closely with stakeholders and society to resolve social issues and realize a sustainable society. Each of us will take our corporate philosophy, the cornerstone of our business, to heart and promote quality management in accordance with the CSR action guidelines presented in our corporate code of conduct in order to realize this vision.



Realizing the combined aspirations of the Takenaka Group CSR Vision and Takenaka Group Message

Besides responding to the expectations of our stakeholders, who include the global environment, local communities, customers, employees and cooperating companies in our efforts to realize a sustainable society, we believe that the cities in which they all gather and pursue their various activities must be safe, prosperous and easy to live in both today and tomorrow. To assure this, we will enhance our dialog with stakeholders even further. We will combine the business capabilities of our corporate group in construction, civil engineering, real estate and development, facility management and urban renewal in order to realize a sustainable society of the future through urban creation with new added value.

Activities implemented with stakeholders to realize our vision

In order to respond to the aspirations of our stakeholders — who include the global environment, local communities, customers, employees and cooperating companies — we have identified 15 areas of activity in which specific CSR activities are to be promoted. We have, moreover, established management activities to support these efforts in accordance with our corporate code of conduct. Our aim is to contribute to realization of a sustainable society by steadily promoting these activities and resolving challenging social issues.

Management supporting fields of activity in which the aspirations of stakeholders are fulfilled to provide a legacy for the future



We seek to provide the best solutions to our customers' business challenges on a global scale to contribute to realization of a sustainable society through the concerted efforts of our entire group.

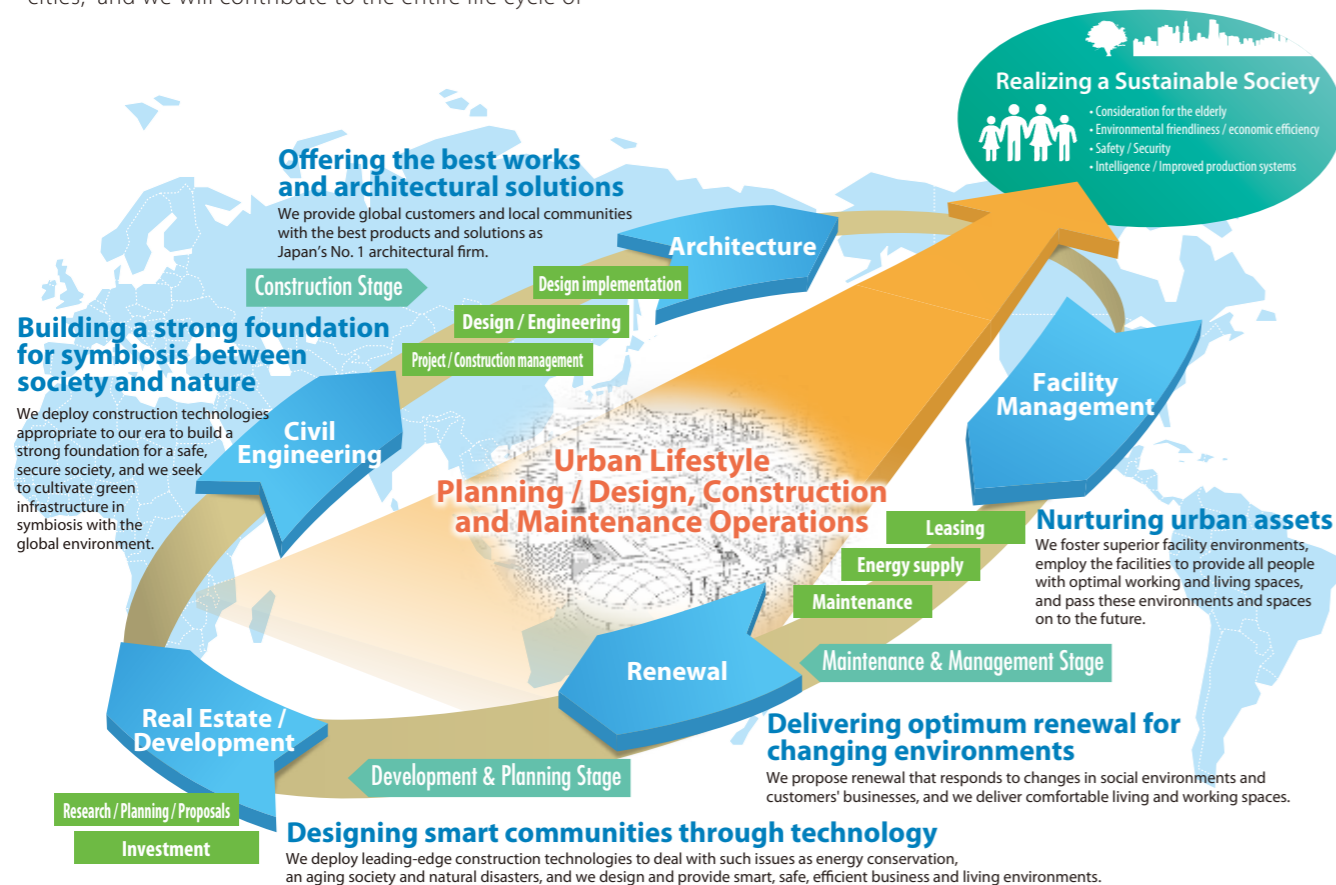


President and COO
Masahiro Miyashita

Group growth strategy toward 2025: Participation as a group in urban creation on a global scale

We have taken on the important mission of resolving wide-ranging issues facing society at home and overseas, and of achieving a sustainable society in which people can lead prosperous, happy lives with peace of mind. For that purpose we treat groupwide areas of business as "cities," and we will contribute to the entire life cycle of

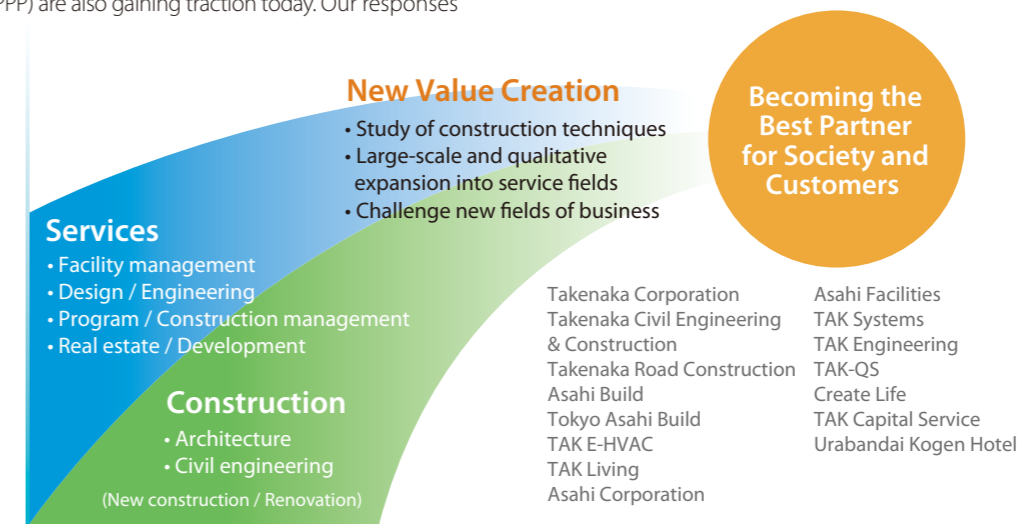
these "cities" from planning and design to construction, maintenance and operation. Our goal is to realize a sustainable society by fulfilling the expectations of society and our customers through close collaboration among all our group companies "throughout every stage of urban creation."



New value creation

Contributing "throughout every stage of urban creation" requires pursuing activities with close collaboration among every company in our group in such peripheral areas as maintenance, upgrades and social infrastructure renewal as well as facility management. New business and ordering models introduced by private sector initiatives under such plans as Private Finance Initiative (PFI) and Public-Private Partnerships (PPP) are also gaining traction today. Our responses

to the issues and needs of society will no longer be limited to creating architectural structures. We intend to establish ourselves as the best partner for society and our customers by providing cities with new value through new solutions realized by a fusion of architectural technologies and services. At the same time, we will watch for new challenges to be overcome in fields where we can apply our special strengths.



Steps toward growth

All our group members will work in unison to provide society and our customers with new value through individual efforts by each of us to improve the quality of our specialized technologies and services one step at a time on the path to growth. During the current three-year period (Step 1), we will seek to improve our revenue base and promote collaboration among our group companies to enhance our production capabilities and take the lead in creating new value for urban creation. In regard to our overseas architectural projects, we will establish and maintain a framework for responsive action aimed at achieving further growth of our business. We intend to establish ourselves as the best partner for society and our customers by 2025.



Review of the past year's activities and preview of activities planned for the coming two years

Fiscal 2015 marks the second year of the three-year plan we launched in 2014 as a basis for improving our earning capabilities and establishing a foundation for the future growth of our business.

We improved productivity further after instituting the plan in 2014 by promoting various labor-saving construction methods, including the use of Building Information Modeling (BIM) and implementation of Smart Work, and increased use of precast concrete (PC) as well as through collaborative projects conducted with cooperating companies. We also promoted cooperation with construction companies in projects related to earthquake disaster recovery and infrastructure as well as in activities aimed at enhancement of our ability to generate solutions in various stages of urban creation, including the facility management, development and project phases. Actions aimed at reinforcing our organization included establishment of the Smart Community Promotion Department and the Group ICT Promotion Department to enhance

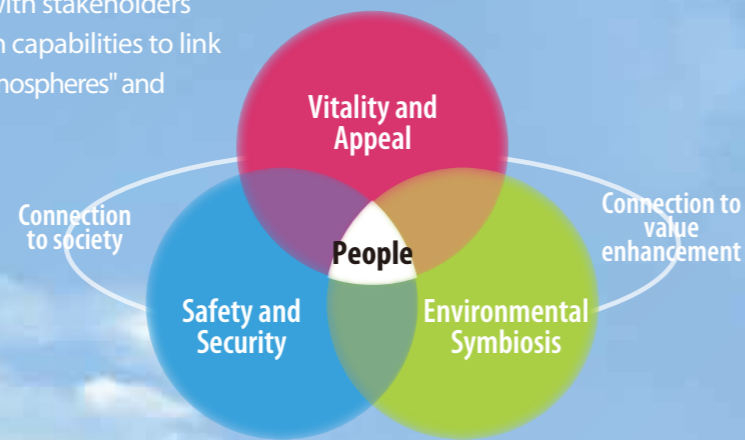
our responsiveness to the issues involved in urban creation and the collaboration among our group companies as well as to promote closer collaboration in fields ranging from earthquake disaster recovery and technology development to personnel training. We sought to reinforce our business foundation with respect to overseas architectural projects as well by such means as securing and training global personnel. Our group's business performance improved as a recovery in the market environment created synergies with our steady efforts to promote these activities.

We will continue to prioritize efforts to prevent occupational hazards and public disasters as well as quality improvement at our work sites. In pursuing further improvements in productivity, we will promote partnerships between our group members and cooperating companies and continue to strengthen our business foundation. At the same time, we will seek challenges in new business fields to assure the achievement of dramatic advances during the three-year period to next fiscal year-end.

TAKENAKA Sustainable Smart Community

The "Sustainable Smart Community" we envision is an urban society in which buildings, local areas, energy, information, services and businesses are linked together with people at the center. This community will leverage versatility, sharing and collaborative creativity to generate sustainable new value that engenders vitality and appeal, environmental symbiosis, and safety and security.

We will pursue these objectives by resolving issues facing each local community through creation of new value by collaborating with stakeholders in leveraging our community design and solution capabilities to link nine key values. Among these are "enlivening the atmospheres" and "reducing environmental loads."



Connected new value

Vitality and Appeal

Prospering community

Enhancing communication

Creating comfort space

Environmental Symbiosis

Environmental load reduction

Energy reduction

Symbiosis with nature

Safety and Security

Human life, asset securement

Improving business continuity

Assuring security

VOICE

Interest in issues concerning transportation, energy provision and other aspects of urban infrastructure is growing today, stimulated by such factors as manifestations of climate change and Great East Japan Earthquake.

Community development must seek solutions to increase proactive use of natural energy and new energy in cities, deploy ICT to enhance the efficiency of various urban activities while increasing their comfort and appeal, and convert cities to more compact forms to make affluent urban lifestyles sustainable, even in an aging society with fewer children. Our role will be to establish smart communities that contribute to realization of a sustainable society by engaging with stakeholders. To achieve our goal, we offer a variety of solutions and developing new technologies from the three perspectives of "vitality and appeal," "environmental symbiosis" and "safety and security".

Executive Director, Takenaka Corporation
Director, Smart Community Promotion Department
Masataka Kodama



Recent projects Activities on Ritsumeikan University's Osaka Ibaraki campus



This new comprehensive campus established by Ritsumeikan University in Ibaraki City, Osaka Prefecture, occupies a large site covering some 10 hectares and facilities with a total floor space of about 110,000 square meters. As many as 8,000 students are expected to study here. Our company was responsible for design (jointly with Yamashita Sekkei) and construction for the project. To assure provision of a campus that would contribute to regional community development, we established a forwardlooking educational environment to enhance learning and implemented various ingenious planning creating diversified connections with the local community.

VOICE

"Gateway to Asia," "Urban Co-creation" and "Regional and Social Collaboration" are among the topical concepts developed on the Osaka Ibaraki campus to promote mutual learning and exchange among students and nurture active education by staging the entire campus as a place of learning. Various devices have been installed in locations throughout and around the campus to trigger "ecoactions" that promote environmental education by stimulating students to take the initiative in a diverse range of activities. Ideas generated through collaboration among Takenaka Corporation personnel led to incorporation of a variety of devices combining high-tech architectural systems, accompanied by establishment of cooperation among industry, government, academia and regional community members, to achieve regional and social collaboration extending beyond the smart community.

Director, General Planning and Policy Office Ritsumeikan University **Naruya Kida**



Vitality and Appeal

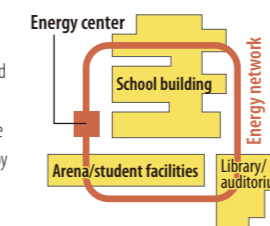
Developing student self-motivation into a driving force contributing to growth in regional appeal

Various architectural devices have been implemented to induce "ecoactions" that stimulate participation by the university's students in self-motivated learning and awareness regarding the environment. Our originally-designed systems including visualization of environmental indices enhance students' voluntary actions to improve comfort of their learning environment, such as relocating seats, optimizing use of outdoor space and opening or closing windows. A collaboration was initiated with the neighborhood Aeon Tochigi Shopping Center to deepen the linkage to the local community by issuing points for energy-saving activities. Participating students became a driving force in developing broad regional and social collaboration networks to improve the region's overall appeal.

Environmental Symbiosis

Energy optimization through collaboration among multiple buildings

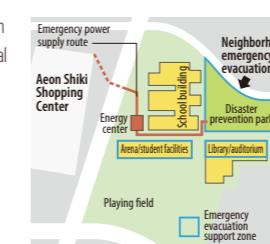
An energy center equipped with an optimal mix of renewable energy, cogeneration, solar cooling system and air-cooled chillers has been introduced to optimize the energy supplies and demands of multiple buildings while controlling "ecoactions", to reduce energy consumption by 34 percent.



Safety and Security

Disaster prevention improvement through cooperative relationships with the local community

Collaborative programs have been established, not only within the campus organizations but also involving major commercial facilities in the neighbor to develop an emergency electric power supply scheme for a local disaster prevention park. Parts of facilities have been designated for use, and aseismic water reservoirs, stockpiling warehouses and disaster sanitary facilities as well as a well water supply have been made available in preparation for receiving neighborhood evacuees. The disaster-prevention capabilities of the town as whole have been improved through this well-coordinated collaboration among preexisting and new facilities.



Activities deploying Takenaka properties Osaka Business Park



Area management for heightened city appeal

Enhancing intellectual productivity and attracting more visitors to the city
Open community space utilizing indoor/outdoor common spaces

CO₂ emissions reduction, Energy cost reduction
Energy conservation employing regional energy management with solar power generation and storage batteries

Improved business continuity plan (BCP) and the district continuity plan (DCP), and disaster prevention with mutual assistance within the community
Use of electric vehicles to secure emergency power supply and manage peak demand control

Nearly 30 years have passed since Osaka Business Park (OBP) was opened in 1986. As Representative Manager of the OBP Development Joint Conference, we have been leading activities for realization of a smart community through renovation of the existing city to achieve rebranding of the city. One of these activities is the "OBP 'Sotocomi' Project", a pilot project for creating low-energy, nature-friendly community space in indoor/outdoor common spaces and promoting use of the spaces by to mutually achieve improvement of intellectual productivity and energy conservation. The other is the "OBP 'V2X' Project", a pilot project for securing emergency electric power sources as well as managing peak demand control by using electric vehicles and plug-in hybrid vehicles. In the future, technologies proven by these projects will be implemented areawide and linked in a cloud-based Energy Management System (EMS) that affords comprehensive management of the three values of vitality and appeal, environmental symbiosis and safety and security in an effort to develop a continuously evolving city.

Pursuit of improved productivity

With recovery from the earthquake disaster still ongoing, preparations for the 2020 Tokyo Olympic and Paralympic Games under way and widespread demand for regional reinforcement and creation, Japan's architectural needs are expected to continue transitioning at high levels. We are pursuing various efforts to deliver buildings and structures that match our customers' needs and provide higher quality and greater consideration for building users. Aimed at achieving safe, efficient construction work that merges information technology, architectural technology and ergonomics, these include the use of three-dimensional data in building construction (see BIM*1 below) and a new style of work employing mobile terminals (Takenaka Smart Work), deploying energy-saving construction methods to reduce labor and shorten the time required for construction (see PC*2 below), reinforcing collaboration with cooperating companies, and reducing physical burdens on skilled workers (Shokunin DARWING support suit).

VOICE

The number of skilled workers in the construction industry, particularly of workers skilled in building frame construction, is decreasing year by year. We have seen many skilled workers leave the industry early due to occupational disorders such as backaches they contracted by working in strenuous environments and on holidays. This led us to the decision to equip our employees, who are working with dedication under these demanding circumstances, with the Shokunin DARWING support suit in hopes of making their work at least a little easier. We hope that wearing this suit will reduce our workers' fatigue and increase their productivity and motivation as well. When I first saw it, I was impressed that the construction industry had advanced so far. We hope the industry will observe the requests of work site personnel and promote further evolution of the Shokunin DARWING, and that it will be adopted industrywide. We further hope that this will contribute to growth in the number of workers in our industry.



Representative Director, Fukuyama Construction Co., Ltd. **Masataka Fukuyama**

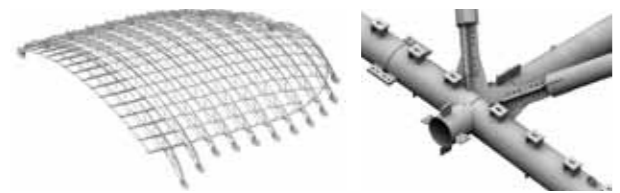
Promotion of building information modeling (BIM)*1

Deployment of 3D modeling for enhanced design and construction consistency

An innovative approach making use of information technology, BIM is one of the computerized technologies drawing the most attention today. We are promoting BIM as a means of improving the productivity of our overall architectural processes. Yawaragi Mori No Stadium has a membrane roof stretched over a curved surface truss steel frame. Our design and production departments and cooperating affiliated companies made consistent use of BIM throughout the project, beginning in the basic design stage in which 3D modeling smoothed the way to reaching consensus with the client. It also contributed to reducing the number of framework members and variety of joints by employing structural analysis to link 3D models as well as to simplifying the process of imaging the completed structure to enable faster, more accurate preparation of the assembly and parts diagrams. BIM's application substantially improved efficiency and assured accuracy in the steel frame fabrication process, thus significantly improving productivity in the project as a whole.



Yawaragi Mori No Stadium (2013)
2014 Special Recognition Award (sponsored by Bentley Systems, Inc.)

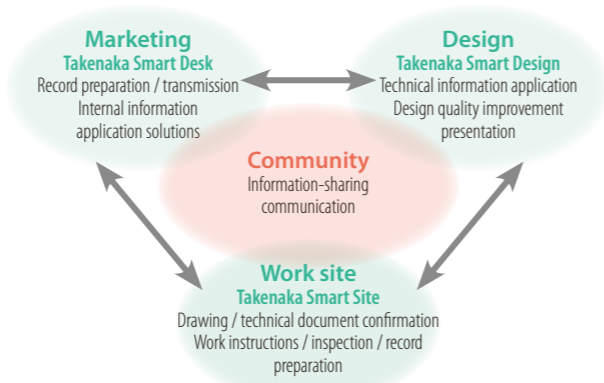


3D model for steel frame construction

Deployment of Takenaka Smart Work

Using mobile terminals effectively

"Takenaka Smart Work" is the generic term for an efficient method we have implemented for conducting work operations with the help of mobile terminals. This method enables us to access requisite information quickly right on the site, helping us to provide customers with easily understandable visual presentations and to improve productivity significantly. We already have over 4,000 terminals in use in the field, primarily by employees at the forefront of our operations. They are making a substantial contribution to quality control by helping us to achieve more effective use of time, improved efficiency in document preparation and enhanced interdepartmental collaboration.



Using Takenaka Smart Work



Increased use of precast concrete (PC)*2

Activities aimed at switching to PC foundation frameworks

We are promoting conversion to PC and other labor-saving construction methods to achieve substantial reductions in both the labor and time required for construction. Suita City Stadium (tentative name) is a dedicated soccer stadium that can accommodate 40,000 spectators. Design and production professionals cooperated from the early stages of the project in efforts to combat a labor shortage and conduct construction work in an orderly manner through full implementation of various labor-saving construction methods. They promoted conversion to PC for construction of the foundation in a major project requiring a great deal of effort and the first of its kind in Japan. The number of workers on the site was reduced by 85 percent compared with the number required with conventional construction methods, and the construction period was shortened by 40 percent. Productivity and accuracy were substantially improved in construction of the spectator seating by conversion to PC for beams with complex shapes and the majority of the floors.



Suita City Stadium (tentative name, 2015)



PC foundation construction

Stronger collaboration ties with cooperating companies

Working closely with each individual skilled construction worker

Our work sites and cooperating companies initiate their collaboration at an early stage before we enter the construction phase of a design and construction project, thereby promoting activities that reflect considerations of productivity in the design documents. Foremen from our cooperating companies receive training in quality improvement at Practical Technology Training Center Omoi. The participants and the center's instructors, all structural designers, deepen their mutual understanding through a training process in which the designers learn to create designs that make construction easier, and the foremen learn to acquire a proper grasp of the designer's intentions in order to conduct construction work more efficiently and without errors. We have also conducted joint development with Daiya Kogyo Co., Ltd. of the fatigue-reducing Shokunin DARWING support suit that reduces the physical burden on skilled construction workers. We are encouraging as many workers as possible to wear the suit as part of efforts to improve construction work environments and enhance productivity.



Shokunin DARWING support suit

*1: Building Information Modeling (BIM) is a building database comprising 3D models of buildings as well as data on matters such as materials and costs. It also encompasses the operations conducted throughout the building life cycle, from design and construction to maintenance and operation.

*2: Precast concrete (PC) refers to concrete structural members that are cast and hardened in advance at a manufacturing facility. This eliminates the need for many construction site processes involving assembly of structural members, including assembly of steel frames for reinforcement and mold making.

Disseminating the traditions and culture of architecture

We contribute to society through CSR activities aimed at connecting the past, present and future by providing support for the administration of various foundations. Two of these foundations have reached significant milestones and embarked on new journeys.

Connecting people with nature and tradition with innovation Takenaka Carpentry Tools Museum

This museum was established in 1984 in Kobe, Takenaka Corporation's birthplace, for the purpose of passing on the techniques and spirit of carpentry to future generations through research and exhibits. As it celebrates its 30th anniversary this year, the items in its collection number in excess of 30,000. With its building becoming too small to hold the growing collection, the museum was relocated from its original Chuo Ward location on Yamate Avenue to a new site near Shin-Kobe Station in October of 2014. It made a new start in a larger building constructed with the theme of "Connecting people with nature and tradition with innovation."



Conveying tradition to today's generation through the five senses

The new building is operated based on the concept of "exhibits that resonate more intensely with the five senses." The exhibits use authentic models to give visitors a full experience of the world of carpentry tools through their senses of sight, hearing, touch, taste and smell. A pillar and traditional Chinese dougong bracket cluster standing in the atrium are authentic models built by shrine and temple carpenters based on the originals in the Golden Hall of Nara's Toshodaiji Temple. The dougong is one example of the marvelous traditional architectural technologies visitors to the museum can experience that they cannot view closely in actual buildings. Some 1,000 items selected from the articles collected over the years are on display in the exhibition hall. Here, too, devices have been incorporated to deepen visitors' understanding of the "skills, spirit and wisdom" of past masters. These are embodied in carpentry tools by combining the exhibits of models with an "Information Navigator" that gives visitors an intuitive grasp of the mechanisms and uses of the tools on display.

Linking tradition with the future

A new woodworking room was installed in the building. Here the world of carpentry tools is not only told with the "five senses," but there was also the idea of wanting to pass on more "fascination with tools" and "joy in making things" by having visitors actually experience craftsmanship with "their own hands." Programs are available for children who are coming into contact with carpentry tools for the first time as well as for adults who are interested in manual work. Visitors are also given an opportunity to try their hand at wood planing in a regular event, supervised by the museum's resident shrine and temple carpenters, which offers visitors a carpentry experience using woodworking kits and carpentry tools.

The museum also organizes external exhibits such as one presented at Harvard University in 2014. It plans to increase its activities aimed at passing on the techniques and spirit of traditional craftsmanship to present and future generations as well as to introduce the traditional techniques of Japanese craftsmen to more people around the globe. <http://www.dougukan.jp/contents-en/>



Enjoy architecture Gallery A Quad

2015 marks the tenth year since Gallery A⁴ ("A Quad") started at the Takenaka Corporation Tokyo Main Office in 2005. It is based on the concept of "Enjoy architecture" and the aim of disseminating architectural culture more widely and deeply among people. As of the end of 2014, the gallery had conducted a total of 75 projects (exhibits) attracting some 210,000 visitors. The positive reception accorded this decade of activities led to the conferment on Gallery A⁴ of the Grand Mécénat Award at the Japan Mécénat Awards 2014. Sponsored by the Association for Corporate Support of the Arts, the Japan Mécénat Awards honor activities in various sectors aimed at constructing society on a foundation of culture by considering the way we live from different perspectives.



Transmitting architectural culture clearly to present and future generations

Events dealing with everyday topics were conducted at the gallery to stimulate visitors' interest in architecture unobtrusively as they enjoyed playful experiences. Topics with no direct relevance to architecture have also been featured at times. Examples include an exhibit of trash on Mt. Everest by mountaineer Ken Noguchi and an exhibit of polar bear photographs by Lisa Vogt, both of which invited visitors to consider the environment up close.

An exhibition featuring the life and works of Tove Jansson, the popular author of the illustrated Moomin books, provided an in-depth view of the inspirations for her stories and characters. Many visitors undoubtedly realized for the first time that Jansson produced satirical illustrations for magazines, oil paintings and many essays and novels in addition to picture books. It also deepened visitors' knowledge of the history and culture of Finland.

The museum's exhibits also included participatory events such as lectures and workshops as well as a tour of townscapes organized to bring visitors perhaps just a step closer to an understanding of architecture, which may seem a difficult subject to grasp at first. During the 2014 summer holidays we offered an event that enabled children to experience the pleasure of craftsmanship through play by letting them make wooden money boxes and original one-piece crafts. Another summer exhibit was entitled "Three Masters of Picture Books."

"Architecture" is not the realm of just a limited number of specialists. The museum looks forward to continuing to pursue activities as a place where as many members of the public as possible can gather to look, participate and exchange opinions in the decades to come, and to creating a new legacy for the people of future generations.

The Takenaka Group's diversified know-how and resources, including personnel, design, engineering and technical development, are in high demand by the construction, civil engineering, development and other business fields. They are contributing to realization of a sustainable society through the creation of prosperous cities that are safe and secure.

Architecture



Overview	Contents	Page
<p>The requirements for modern architecture extend beyond providing of comfortable, efficient working and living facilities to consideration of local cultures and urban environments. Our role is to design buildings that are in harmony with the surrounding environment as well as to regenerate and create value for buildings, which are important assets for society. We provide customers with assistance in realizing their dreams, which includes contributing to the global environment and society through architecture.</p>	<ul style="list-style-type: none"> ● Sustainable Works® ● Design born of integrated strengths ● Attractive Renewal 	P21

International



<p>Over half a century has passed since we entered the U.S. market in 1960, during which time our network has expanded to encompass over 20 offices in Europe and Asia as well. We handle a wide variety of projects across the range from design and construction to technical guidance, consulting services and materials procurement for airports, high-rise office buildings, hotels, factories, museums and other facilities. We develop our business activities strategically with a view to supporting customers' global initiatives.</p>	<ul style="list-style-type: none"> ● Europe ● Asia / China ● United States 	P25
--	---	-----

Development



<p>We are participating in various large-scale urban redevelopment and other projects for major Japanese cities, handling many aspects of the planning, design and construction of core complexes comprising office buildings, hotels and commercial and entertainment facilities. We also engage proactively in the various stages of city and regional restoration and urban creation, beginning with business planning for private company development, urban area redevelopment, and PPP and PFI projects.</p>	<ul style="list-style-type: none"> ● Urban redevelopment projects ● PPP / PFI projects ● Overseas development projects ● Development projects 	P27
--	---	-----

Engineering



<p>We provide leading-edge engineering solutions to meet the needs of society and our customers. Their scope encompasses rebuilding of manufacturing and logistics facilities and design of leading-edge pharmaceutical and research facilities, provision of earthquake countermeasures and other risk management support, development of next-generation building management systems for realization of smart communities, construction of large-scale fire-resistant wooden timber buildings that contribute to achieving a sustainable society, and development of radiation protection technologies for use in medical facilities, among others.</p>	<ul style="list-style-type: none"> ● Manufacturing / logistics, leading-edge pharmaceutical facilities ● Large-area structures, railway-related construction ● Corporate risk management support ● Next-generation building management systems ● Large-scale fire-resistant construction ● Radiation protection technologies 	P29
---	--	-----

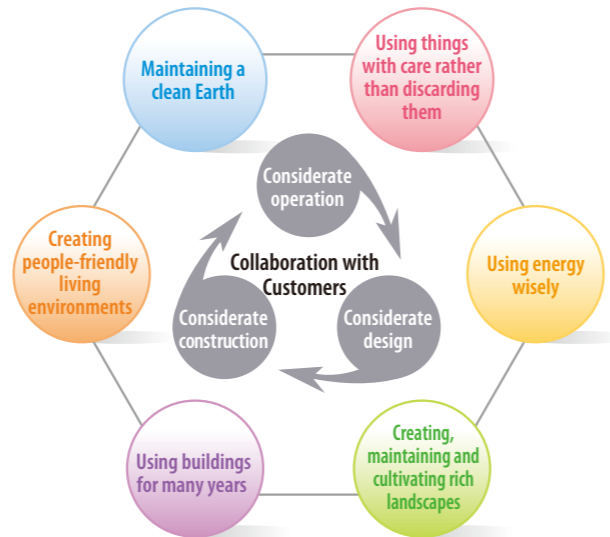


Customer dreams into reality

The functions required of buildings today are becoming increasingly sophisticated and diverse. Consideration of the environment is of course essential but facilities must also provide safety and security as well as durability. We also stress our own perspective of being "people friendly" in taking up the challenge of creating new value for architecture.

Sustainable works

Our advocacy of "sustainable works®" refers to "activities aimed at creating architectural spaces that are in harmony with the environment in collaboration with our customers." We have adopted this approach to architecture in order to pass on a sustainable society to future generations and as a means of helping customers, who desire to contribute to the global environment and society, and realize their dreams into reality. We have devised various methods for "earth-friendly thinking (design)" and earth-friendly creation (construction)" to enable our customers to have "earth-friendly usage (operation)." We assess every aspect of our activities with respect to design, construction and operation from the six perspectives described on the right in close communication with our customers.



Meiji Yasuda Life Insurance New Toyochō Building

— A headquarters facility that functions as a pioneering environmentally friendly model office building —

This integrated office facility combines the home office of a life insurance company with a lodging for trainees. The office space is divided into four large and small sections with floors on staggered levels interconnected around a continuous spiral core at 1.2-meter intervals. A central atrium and light court bring in abundant sunlight and circulating outdoor air, and the movement of people around the atrium enhances the sense of unity pervading the facility as a whole. This project, with its initiatives toward environmental contribution technologies that utilize the atrium, is a model project for CO₂ emissions reduction in residential and other buildings.

2014 Architectural Institute of Japan Award (Architectural Design); 55th BCS Award

Low-rise, large-plane spiral office configuration

A low-rise planar configuration with 100-by-100-meter floors was chosen to enable flexible responses to office reorganizations and increases/decreases in the number of staff as well as changes in department layouts without the hindrance of intervening floors. The office portion of the building is divided into four large and small column-free sections comprising continuous floors arranged in a spiral formation on staggered levels 1.2 meters apart.

A facility merging environmentally conscious architectural and equipment planning

Natural ventilation is provided through outdoor air intakes controlled by dampers on the balconies around the outside perimeter of the building and by windows that can be closed or opened at will. Fresh outdoor air passing through the office spaces is discharged from the center of the upper section of the atrium and a solar chimney. The atrium serves as an environmental facility combining architectural and equipment planning in pursuit of a comprehensive reduction in CO₂ emissions.

Communion with nature and enlivening communication

An atrium measuring 35-by-35 meters in the center of the building with the office floors arranged around it contains a light court measuring 17-by-17 meters in its center that draws in abundant light and outdoor air, creating an environment in which people can communicate with nature as they work. Flying ramps encircling the atrium also connect the four building sections as a means of enlivening communication among employees.



Design and construction: Takenaka Corporation (2011)

Creating people-friendly living environments



Light-flooded offices with a unified feel

The centrally located atrium brings ample natural light into the offices. The office space with its flying ramps realizes dual-purpose use in tandem with the atrium. Sweeping views of the entire facility give building users a clear sense of its unified functionality.

Using buildings for many years



Earthquake-resistant structure

The building's top-grade earthquake-resistant structure employs a base-isolated foundation. The resulting high durability ensures the safety of the structure as a whole for continuous use, even in the event of a powerful earthquake.

Creating, maintaining and cultivating rich landscapes



Contributing abundant greenery to the local environment

Efforts to provide as much greenery as possible extended to planting of vegetation in the outdoor parking area. Intensive greening of the building's rooftop and external walls projects an image of lush vegetation when viewed from the sky. Public open spaces have also been created and made available to neighborhood residents.

Using energy wisely



Installation of high-efficiency radiant panel air-conditioning

Radiant panel air-conditioning generates considerably less draft than conventional air-conditioning systems while also complying with Japan's "Cool Biz" summertime energy-saving practices. Combined use of hybrid air-conditioning has reduced energy consumption for cooling by some 45 percent.

Using things with care rather than discarding them



Thorough promotion of 3R (reduce, reuse and recycle) activities

Steps to reduce industrial waste began with sieving of excavated soil and crushing of concrete debris separated from good soil for reuse on the premises as recycled crushed stone. Other waste-reduction activities included lessening of the volume of construction by-products, separated waste collection in a recycling yard, participation in the Ecocap Movement and workplace greening.

Maintaining a clean Earth



Unitization of architecture and equipment

The equipment, pipes and ducts for installation in the machine room were assembled on the ground to minimize generation of construction debris at the construction site. Other resource-saving measures included the installation of riser pipes connecting equipment inside the base isolation layer and installation of protective curtain walls on the building exterior.

Design born of comprehensive capabilities

The Shiseido Ginza Building, reconstructed to replace the former Shiseido Head Office building on Namiki Avenue in Ginza, was conceived as a "hub for new value creation" that would consolidate the cosmetics maker's creative functions deployed for creating new value and strengthen its brand power into the future. The building was conceived through a design concept stressing "innovation, affluence and originality" and a committed belief in the "virtues of Earth as the source of all things," from which the company's name is itself derived. The result is a facility that achieves a high level of aseismic performance and environmental friendliness arrived at through cutting-edge eco-technologies. It also presents highly original expressions through the use of readily available natural materials throughout, from the exterior to the interior. The underlying design is notable for its use of camellia and arabesque patterns to express the value of "beauty" shared by Shiseido and its design staff. Unusual aluminum shades that cover the building exterior without interruption feature an original "futuristic arabesque" design pattern.

The building as a whole is structured to leverage the appeal of Ginza's special location and culture, while at the same time contributing to development of the district. Going forward, Shiseido will transmit a variety of new creativity from its birthplace aimed at achieving its corporate mission, "creation of a beautiful life culture."



Entrance hall with camellia-shaped vault

Shiseido Ginza Building

— Hub for New Value Creation Clad in "Futuristic Arabesque" —

42nd Japan Federation of Architects and Building Engineers Award; 2014 Good Design Award
Design and construction: Takenaka Corporation (2013)



Exterior design adding elegance to the cityscape



Bookshelf doubling as a partition in the vault

Attractive Renewal

Buildings, which are essentially vessels that protect our lives and possessions, are transformed into social assets over time. Our concept of "attractive renewal" refers not only to recovering the functionality and beauty characterizing architectural structures at the time of their original construction, but it also extends to adding new functions to raise their asset value and improve their business operability. At the same time, another concept, "from scrap and build to stock utilization," which was formulated from the perspective of environmental conservation and sustainability, is becoming increasingly pervasive today. The functions sought in architecture are also diversifying and growing in sophistication. This means going beyond improvement of basic building functions and performance that no longer meet the needs of the times to include preserving buildings of historical significance while employing them efficiently by implementing changes in their functions (conversion) that create new value.



Former Sakuranomiya Public Hall

Built in 1935 as a memorial hall commemorating the emperor Meiji, Old Sakuranomiya Public Hall is a Western-style building owned by Osaka City whose front entrance is designated as an Important Cultural Property. The structure was disused for many years, but a renovation project involving installation of a ceremonial hall built entirely of glass blocks on the second floor has given it new life as a wedding hall. 42nd Japan Federation of Architects and Building Engineers Award; 2014 Good Design Award
Renovation design and renovation construction: Takenaka Corporation (2013)



Restoration of Dendo-in of Nishi Hongwanji Temple

Constructed by Takenaka in 1912, Dendo-in of Nishi Hongwanji Temple was restored for the 750th Great Annual Memorial Service for the Buddhist monk Shinran. Its aseismic performance was enhanced without damaging the external walls, and its character of a century ago was resurrected. The temple was designated an Important Cultural Property in 2014. Recipient: 22nd BELCA Award.
Restoration design and construction: Takenaka Corporation



Kagurazaka campus of Tokyo University of Science

This campus of Tokyo University of Science with deteriorating high-density facilities located in the heart of Tokyo was revitalized as a safe, pleasant 21st-century campus in a project involving building exterior and interior renovation, aseismic reinforcement and facility upgrading to reduce energy consumption as well as tree planting in the surrounding area. 23rd BELCA Award
Renovation design and renovation construction: Takenaka Corporation

Urabandai Kogen Hotel

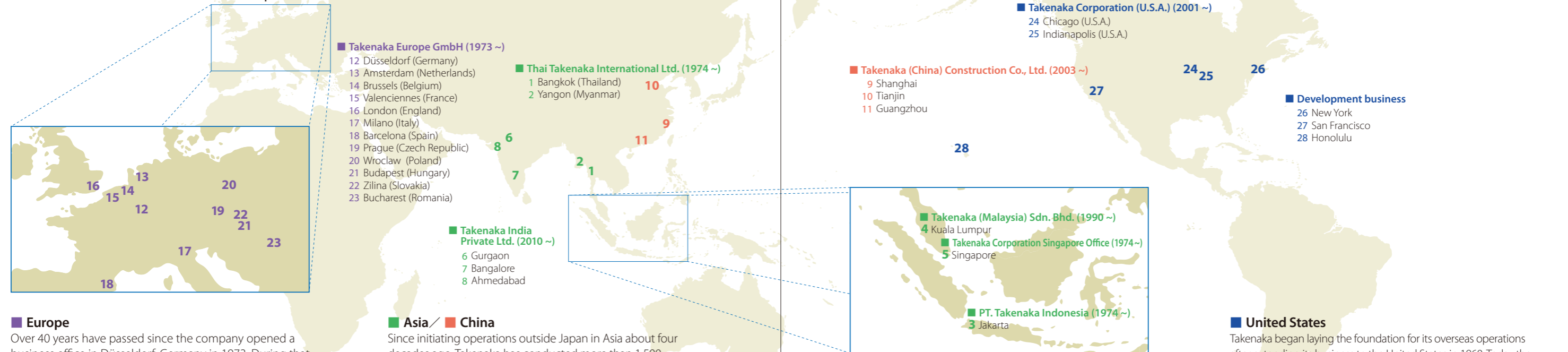
The Urabandai Kogen Hotel, a structure with a gabled roof and wood-shingled external walls that blends gracefully into the surrounding landscape, has been loved by local residents and visitors alike for years. The renovation program retained its appearance, while redeveloping the hotel to include various venues where visitors can enjoy themselves in luxury. 23rd BELCA Award
Renovation design and renovation construction: Takenaka Corporation



Supporting the global expansion of our customers

Our international operations with a long history dating back to the prewar era began in earnest with our entry into the U.S. market in 1960. Our network now spreads around the world. We have participated in a diverse range of projects in support of our customers. This includes Japanese businesses launching overseas operations and public institutions in various countries as well as local business enterprises developing projects across a spectrum from airports to high-rise office buildings, hotels, manufacturing plants and museums. Our activities also span a diverse range comprising not only architectural design and construction works but also technical guidance and consultation services as well as materials procurement.

Locations of main overseas business offices



■ Europe

Over 40 years have passed since the company opened a business office in Düsseldorf, Germany in 1973. During that time, Takenaka Europe has undertaken over 1,500 construction projects. Today about 40 employees dispatched from Japan and some 320 local employees working at operating bases in 12 countries collaborate closely to provide customers who are considering establishing operations in Europe with all the information they need in a timely manner.

■ Asia / ■ China

Since initiating operations outside Japan in Asia about four decades ago, Takenaka has conducted more than 1,500 construction projects in the region. In 2014 it celebrated the 40th anniversary of its entry into Thailand, Singapore and Indonesia. At the current time, 200 employees dispatched to Asian countries including China are working cooperatively with approximately 2,000 local employees. Together they handle construction projects of all sizes and types.

■ United States

Takenaka began laying the foundation for its overseas operations after extending its business to the United States in 1960. Today the company's U.S. business domain is centered in the four states of Illinois, Indiana, Ohio and Kentucky. It provides general building-related services, mainly to Japanese companies, across a spectrum from consultation in site selection—a necessity for companies entering the U.S.—to new building construction, existing building expansion and renovation, and a full complement of follow-up services.



GC Europe Administration Building (Belgium, 2013)



Toyota Motor Engineering & Manufacturing (China) Phase 2 (2014, China)



AXIA South Cikarang Tower 1 (2014, Indonesia)



CapitaGreen (2014, Singapore)



Amada Schaumburg Solution Center (U.S.A., 2008)



Bridgestone Hungary No. 2 Plant (2014, Hungary)



Hyundai Motor Europe Headquarters in Offenbach (2013, Germany)



Amada Bangalore Technical Centre (2014, India)



ALINCO (Thailand) New Factory (2014, Thailand)



AEON Big Alor Setar Shopping Center (2014, Malaysia)



Yakult Surabaya (Mojokerto) Factory (2014, Indonesia)



Changi International Airport Terminal 1 Building (Singapore, 2011)



Hamad International Airport Emiri and VIP Terminal (Qatar, 2013)

Urban and Regional Rebirth

We have participated in planning, design and construction of innumerable urban redevelopment projects, including projects in metropolitan districts such as Marunouchi and Nihonbashi in Tokyo, the Nagoya Station area and Umeda, Nakanoshima and Abeno in Osaka.

We are also proactively pursuing proprietary development projects, and engaging in urban redevelopment, and PPP and PFI projects as well as participating in urban creation organizations. Contributions made through our various urban creation activities also include enhancement of competitive capabilities in international arenas, improvement of safety and security, symbiosis with the environment and solutions for a variety of other problems and needs facing cities today.

Urban redevelopment projects

Meguro Station District Urban Redevelopment Project

We were selected to participate in this joint venture urban redevelopment project encompassing some 180,000 square meters around Tokyo's Meguro Station in 2008 based on our proposal for a complex comprising an office and commercial building, a residential building and a "wooded area" for recreation and relaxation. Administrative staff assigned to the project gained a consensus among the 130 landowners and conducted administrative negotiations leading to our selection in 2012 as specified (joint venture) agent for the design and construction work. Completion is scheduled for 2017.



Basic design: Nihon Sekkei
Construction design: Takenaka Corporation

PPP and PFI projects

Osaka Medical Center for Cancer and Cardiovascular Diseases

This project is being conducted to establish, maintain and operate a specialized hospital to provide highly advanced medical treatment for cancer and circulatory organs. Construction work has been under way since summer 2014, and the hospital is scheduled to open in spring 2017. The group we led in a public tender for the PT project sponsored by the Osaka Prefecture Hospital Organization in 2012 was selected and a contract was signed. As the company responsible for the PFI project, we are not only engaged in the design and construction aspects, but we are also committed to fulfilling the role of SPC management and general coordination throughout the project period of about 20 years.



Rendering of the planned building
Design: Nihon Sekkei / Takenaka Corporation (joint design project)
Construction: Takenaka Corporation

Overseas development projects

Grand Hyatt Kauai Resort and Spa

Takenaka has handled everything from development to construction and operation of the Grand Hyatt Kauai Resort and Spa on Kauai, a Hawaiian island renowned for its prolific natural environment. Since opening in 1991, the Hyatt has ranked among the top ten resorts in Hawaii every year. Built on a 103-hectare site, it features such facilities as restaurants serving various international cuisines, a spa and a PGA golf course. Business activities rooted in the local community over many years have established significant credibility for Takenaka Corporation among Kauai residents.



Design: Wimberly Allison Tong and Goo
Construction: Takenaka Corporation (U.S.A.)



Grand Front Osaka

This large-scale urban development project involves a total floor area of some 570,000 square meters in a district spread over approximately seven hectares that is designated as a special urban regeneration area. Takenaka Corporation is not only participating in planning, design and construction but also acting as a partner in the project. (2013)

Basic design: Nikken Sekkei Ltd., Mitsubishi Jisho Sekkei Inc., NTT Facilities, Inc.;
Construction design: Nikken Sekkei Ltd., Mitsubishi Jisho Sekkei Inc., NTT Facilities, Inc.,
Takenaka Corporation, Obayashi Corporation;
Construction: Takenaka Corporation (joint venture)



Shinjuku Toho Building

The neighborhood surrounding the former Shinjuku Koma Theater will be redeveloped as an integrated facility complex comprising an urban hotel with a symbolic exterior design, a cinema multiplex, and various stores and amusement facilities. The new complex is expected to stimulate rebirth of the Kabukicho entertainment district with the city block having a neighborhood park at its core. (2015)

Design and construction: Takenaka Corporation



Global Gate

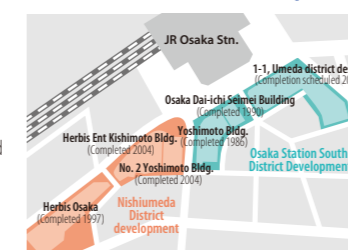
This urban development complex comprising office buildings and commercial facilities as well as a hotel and conference center will form the core of the Sasashima Live 24 district, a center for international exchange located one kilometer south of Nagoya Station. Since winning a competitive bid for the project in 2008, we have engaged in planning, design and construction work with project completion targeting 2017. At the same time, we will support consultation for administrative bodies on establishment of a special urban redevelopment district and conduct an environmental assessment.

Design and construction: Takenaka Corporation



Nishi Umeda and Osaka Station South District Development

Takenaka Corporation is undertaking a diverse range of responsibilities in the Nishi Umeda/Osaka Station South district, the gateway to Osaka. This is in connection with a large-scale housing and lifestyle development project associated with moving a railway underground in order to create new urban infrastructure and functionality. Our responsibilities include renovating existing structures to upgrade their functions and attract tenants as well as planning, designing and constructing new buildings and facilities. This urban creation project will contribute to revitalizing an approximately 1 km² area around the station.



Buildings named on map
Design and construction: Takenaka Corporation (partial joint venture)
(Basic design of 1-1, Umeda district = Nihon Sekkei, Inc.)



Ote Center Building

This in our own development project at a perfect location in Tokyo's Otemachi financial district. Through this major improvement work we are providing significant new value and a comfortable business environment.

Design and construction: Takenaka Corporation



One Fleet Place

The Takenaka Group participated in construction of this London office building in September of 2013 as part of efforts to expand our overseas real estate business. Many global corporations have established their European locations in the same district.

The scales of the photographs and actual buildings differ.

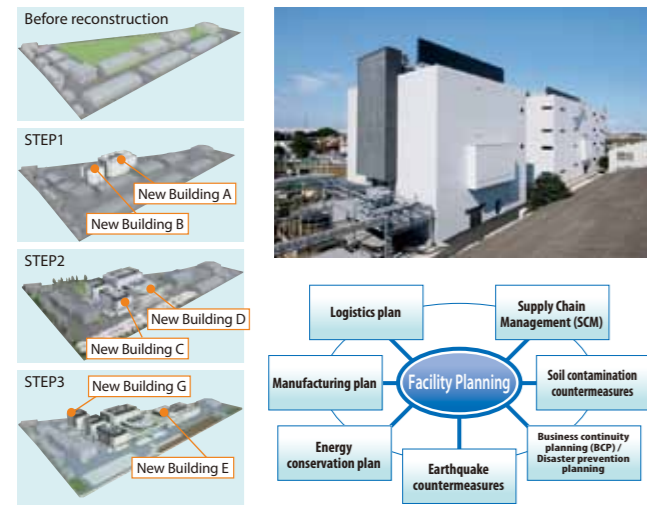
Solutions on the leading edge

Today's consumers require speedy responses that correspond to market changes, advanced building environments, and various safety and security. We are responding to these customer needs with total engineering from project planning stages to building plan development, design, construction and aftercare.

Manufacturing and logistics facilities

We support the continuous progress of customers' business operations in industries ranging from pharmaceuticals to food products not only by constructing various new manufacturing and logistics facilities, but also by formulating plans for restructuring of manufacturing bases to reflect the customer's business plans. This includes measures to enhance production capacity, deal with building aging issues and make effective use of land. We propose comprehensive plans for "no opportunity lost" manufacturing facility restructuring that entail not only new facility construction but also rebuilding, relocating and initiating operation of production facilities.

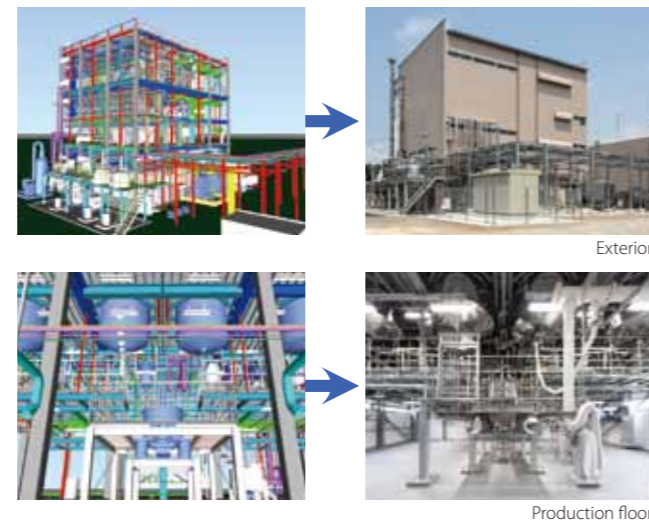
ISHIFUKU Metal Industry Company Limited Soka Factory



Leading-edge pharmaceuticals manufacturing and research facilities

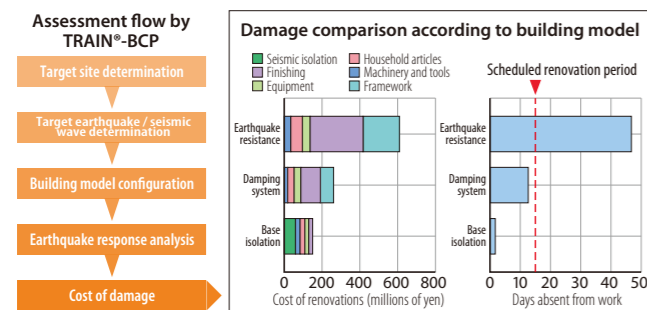
Manufacturing and research facilities for leading-edge pharmaceutical products, including high-potency active pharmaceuticals, PIC/S, GMP products and biohazards, require increasingly sophisticated technologies. We are promoting development of these technologies, proposing optimal production systems and implementing plans for general facilities to respond appropriately to the needs of these customers. 3D modeling is an effective means of optimizing decision making concerning production facilities, construction and building equipment by verifying even the minutest details with customers during the production facility construction process itself.

A bulk drug manufacturing facility (Shiono Finesse, Ltd. Fukui plant) constructed using 3D modeling



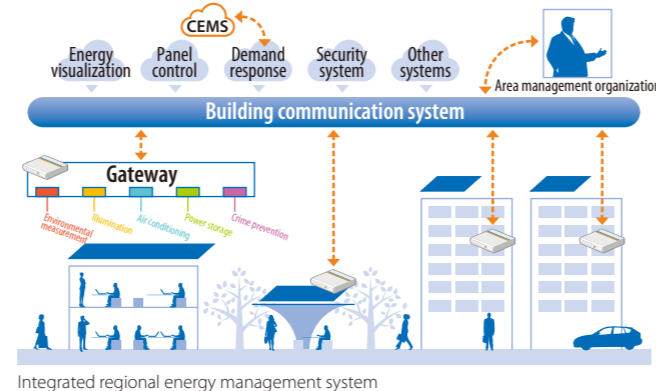
Support for corporate risk management

We identify, analyze and evaluate the various facility-related risks that may affect our customers' business activities in order to support them at every step, from formulating to implementing strategies. Based on the results of analyses and evaluations conducted by applying our proprietary TRAIN®-BCP earthquake damage estimation system and tsunami simulations, we respond appropriately by implementing seismic base isolation and modifications to control vibrations as well as liquefaction countermeasure technologies such as our TOFT® construction method.



Next-generation building management system

Among activities conducted to achieve a Smart Community, we developed the Building Communication System as a platform for connecting air-conditioning, lighting, crime prevention and various other sensing systems in a network as well as for integrating and analyzing information exchanged in a cloud environment. We have also established collaborative relationships with ICT businesses that have optimal technologies and know-how for conducting building management and energy planning.



Large-space architecture

Our experience with constructing large-scale multipurpose stadiums includes Tokyo Dome, Japan's first stadium with a pneumatic structure, along with numerous other sports and event facilities. It is essential that the architectural technologies employed in these facilities function efficiently with close mutual coordination among the respective technologies in such relevant areas as design, structures, facilities, disaster prevention and construction. We continue to offer optimal solutions to today's challenges as well as proposals that reflect the need to incorporate seeds for future facilities.



Suita City Stadium (tentative name 2015)

Large-scale fire-resistant timber construction

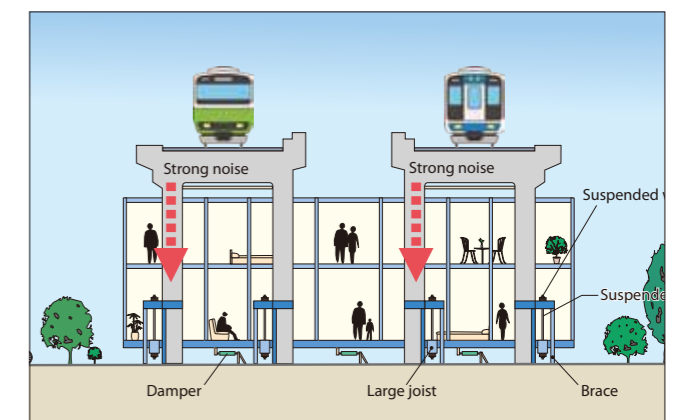
Timber construction can help achieve a sustainable society in which humans and forests coexist while reducing CO₂ emissions. Our fire-resistant Moen-Wood laminated wood material for use in large urban timber structures has obtained one-hour fire-resistance certification from Japan's Ministry of Land, Infrastructure, Transport and Tourism. This qualifies it for use in structures up to four stories high or in portions of structures comprising four stories counting from the highest floor down, regardless of the building's site, purpose or area. This timber construction material has been adopted in the Osaka Timber Association Building (Osaka Prefecture), the Southwood commercial center (Kanagawa Prefecture) and various other projects.



Osaka Timber Association Building

Railway-related architecture

New construction and renovation of station buildings, station area redevelopment, new railway line installation and construction of various other station- and railway-related facilities are being conducted to increase convenience in urban areas and enhance the appeal of cities. We are implementing such technologies as the suspended vibration-proofing construction method to eliminate vibrations from areas under elevated railroad tracks and our originally developed traveling construction method to build structures above railway lines. The purposes of their use range from erecting structures along railway lines and station building-related activities to urban redevelopment and urban creation.



Technology for overhead structure sound reduction/vibration resistance/base isolation (suspended vibration-proofing construction method)

Radiation protection technologies

PET laboratories, which have proven effective in the early detection of cancer, require highly reliable technologies for protection from radiation. Our design and construction of these facilities enjoy a proud top ranking in our home market. We are leveraging our extensive track record with high-energy accelerator facilities to realize heavy particle and proton therapy facilities that provide cutting-edge cancer radiotherapy. We collaborated with equipment manufacturers to realize patient-friendly open treatment rooms at the Heavy Ion Medical Accelerator, which is installed at the National Institute of Radiological Sciences in Chiba prefecture. This will serve as a model for future facilities.



Heavy particle radiotherapy room



HIMAC Research Center of Charged Particle Therapy

Principal domestic Takenaka Group companies

Companies in the corporate group headed by Takenaka Corporation respond to the varied needs of customers through every stage of a building's life cycle.

■ Takenaka Civil Engineering and Construction Co., Ltd.

Crafting civil works in consideration of people and the environment

Takenaka Civil Engineering and Construction is the Takenaka Group member company responsible for civil engineering works. Its role is to promote social progress and affluent lives for people by establishing social infrastructure in accordance with the group's management philosophy, "Contribute to society by passing on the best works to future generations." It also engages in corporate activities with a focus on being "people friendly" aimed at responding accurately to such needs as environmental protection, energy conservation and urban renewal based on an environmental policy of "Striving to build social infrastructure that coexists harmoniously with the environment and contributes to the sustainable development of society." The environmental message defining the company's mission, "Bridge between people and the earth" guides all its employees as they walk alongside their customers in an effort to create agreeable future living environments.



Wagachubu Chouseiike irrigation reservoir

■ Asahi Corporation

Providing high-quality building materials and construction services, and making environmental greening proposals

Asahi Corporation contributes to safe, smooth operation of construction sites by providing construction materials and related products of dependable good quality sourced through its domestic and international procurement networks, and it performs construction work employing its proprietary specialized technologies. It has also participated in many greening construction projects in which greening technologies and architectural technologies are combined with the aim of creating environments with abundant greenery, both outdoors on rooftops and on exterior building wall surfaces, and indoors in atriums. Its integrated services in the fields of landscaping and gardening cover the range from planning and construction to maintenance and operation.



Mido Building rooftop greening

■ Tokyo Asahi Build Corporation

Fusing accomplished skills with innovative technologies

A company specializing in architectural building frames, rebar, formwork and PC construction operations, Tokyo Asahi Build operates as a group of building frame professionals drawing on a wealth of experience in the construction business according to its motto, "Placing Quality First, Polishing Skills with Wisdom and Sweat, Providing Services with Kindness and Safety." It also operates a PC manufacturing plant in Konohana Ward, Osaka, concerned primarily with compact PC members for use in such building components as stairs, eaves and balconies. The company also responds dynamically to design changes and to filling highly diversified customer demands. In recent years it has implemented a bar arrangement and processing control system employing RCS software that makes full use of 3D technologies. Thus, skills of expert workers are merged with innovative technologies to improve productivity and achieve the highest quality frame construction work.



PC manufacturing plant in Konohana Ward, Osaka

■ Asahi Facilities Inc.

Preserving the value and safety of customers' buildings

Since its establishment in 1969, Asahi Facilities has handled building operation and maintenance for the Takenaka Group during the operational stage of buildings' life cycles. The longer a building's operating lifetime is extended, the higher its value as an asset. Asahi Facilities seeks to establish itself as its customers' best partner by helping them derive greater value from their buildings, and offering superior, more attentive services designed to protect their property values. These include operation and maintenance services, security services and building management services that optimize care for buildings in conducting cleaning and other tasks as well as insurance agency services that cover risk management.



A training session at a Takenaka Technical Training Center

Technological development by the Takenaka Corporate Group

The Takenaka Research and Development Institute is the Group's principle supplier of leading-edge technologies that society requires in the areas of environmental preservation, safety and security as well as of production innovations and research and development of innovative proprietary seed technologies. It is contributing to achievement of a sustainable society by providing the world with industry-leading technologies and solutions in every aspect of urban creation.

Takenaka Research and Development Institute

Since its establishment in 1953, the Takenaka Research and Development Institute has continuously provided value, which satisfies customers by creating and assessing new technologies that respond to the needs of the future. Specialists in a varied range of fields related to construction gather here to perform research at the world's highest level in collaboration with other research institutions in Japan and overseas. An exhibition hall in which visitors experience cutting-edge technologies firsthand offers customers hints for discovering solutions and creating new businesses, and plays a role in disseminating information that can uncover potential needs. The institute develops technologies for future urban creation in the four domains of technology, which are contributing to the global environment, technology supporting safety, security and comfort, technology creating leading-edge architectural environments and technology enabling advanced construction.



Exterior view of the Takenaka Research and Development Institute

www.takenaka.co.jp/takenaka_e/services/research/

Safe, secure and practical fire prevention technologies

Among its proactive efforts to improve fire prevention technologies in terms of both expertise and equipment, the company established Japan's largest fire-resistance laboratory on the premises of its Research and Development Institute in 2009. Able to handle up to 30 MN (meganewtons) of load and heating for eight hours, the facility conducts full-scale experiments to collect detailed data on fire disasters. Takenaka leads the way in incorporating performance design, serving the needs for safety and economy simultaneously while facilitating rapid responses to customer needs. Fire-resistant coverings are incorporated in fire-resistance designs, for example, after verifying their safety in fire disaster simulations. Safe evacuation in the event of fire can also be verified accurately by indicating the evacuation and smoke descent times with high-precision simulation technologies. In addition, an advanced examination technology developed in 2007 has significantly shortened the time required to convert tenant buildings to different uses which formerly took considerable time.



New steel alloy system swinging damper



High-attenuation oil damper

Long-cycle seismic activity countermeasure technologies

Takenaka's recent successes in the development of technologies for withstanding long-cycle seismic activity include a new steel alloy vibration damper with ten times the durability of conventional dampers and an ability to maintain optimal performance after enduring several major earthquakes. Another is a high attenuation oil damper that provides the world's most powerful damping force for effective reduction of building vibrations.



Behavioral simulation technology

Human behavior simulation technologies can evaluate communication and productivity by grasping the behavioral and physiological status of people subjected to a given set of factors in an office or indoor environment. They provide valuable insights for designing comfortable office and hospital environments.

Introductory remarks
Informal communication
 ● Within team ● Between teams
Formal communication
 ● Within team ● Between teams

Volume of office-affairs-related interdepartmental communication



Fire-resistant laboratory

We will contribute to the realization of a sustainable society in the future by enhancing dialog with stakeholders including the global environment, local communities, customers, employees and cooperating companies, and by striving to ascertain and solve social issues through our business activities.

Page

Global Environment

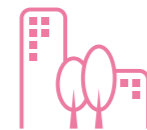
Leaving a beautiful Earth to future generations



p35

Local Communities

Contributing to the sustained progress of local communities



p37

Customers

Contributing to the business growth of customers



p39

Employees and Cooperating Companies

Growing together with employees and cooperating companies



p41

Management

p43

Group Companies

p45

Dialog with Stakeholders

p47

External Perspective

p48

Main activities planned for 2014-2016 and achievements in 2014

Areas of Activity with Stakeholders	Main Activities Planned for 2014-2016	Main Activities Conducted in 2014 / Examples of Achievements
Global Environment	<ul style="list-style-type: none"> Ensure of a wide range of choices through component technology development and realization of smart communities through coordinated group efforts Realization of zero emission buildings through energy conservation planning and efforts to adopt renewable energy combined with component technology development Reinforcement of a basis for sustainable operation through proactive efforts toward reduction of regional and global environmental loads 	<ul style="list-style-type: none"> Internal structure maintenance for smart community promotion (WEB) and technical verification experiments on decentralized model community spaces, guidance systems for space performance and other factors (Special Feature 1) ZEB planning for low-rise buildings centered on energy-saving planning and use of renewable energy Continuation of 3R activities at work sites and efforts toward emissions reduction Hosting of environmental symposiums, conducting month-long Environment Month activities and others
Local Communities	<ul style="list-style-type: none"> Dissemination and development of knowledge and technology Local community interaction Passing on the traditions and culture of architecture 	<ul style="list-style-type: none"> Expansion of and support for regional social contribution activities by every business entity on the axes of "dissemination and development of knowledge and technology" and "passing on the traditions and culture of architecture" Continued support for activities of aid organizations and strengthened coordination with company activities Promotion of understanding and resolving urban social issues of "cities" and "towns" with the aim of achieving sustainable urban creation
Customers	<ul style="list-style-type: none"> Quality improvement Practice of craftsmanship Adding value to buildings Safety, security and prosperity 	<ul style="list-style-type: none"> Accurate realization of customer needs through the application of virtual reality Pursuit of high quality and safe, efficient construction through various initiatives to improve productivity implemented in conjunction with cooperating companies (Special Feature 2) Provision of wide-ranging life cycle support for customers' buildings Further development of safe, secure technologies for conducting earthquake-resistance reinforcement construction without interrupting building operation and earthquake emergency simulations
Employees and Cooperating Companies	<ul style="list-style-type: none"> Nurturing personnel to become tomorrow's leaders Work-life balance Widely diversified human resources Health and safety 	<ul style="list-style-type: none"> Continued promotion of employee career formation and skills development Completion of Takenaka "Meister" superior foreman system and promotion of activities for increased hiring Implementation of initiatives toward maintaining a work-life balance, including a working hour reduction campaign and an employee awareness survey Implementation of diversity promotion measures, such as creation of environments in which active participation by female construction employees and female technicians is systematically promoted Implementation of health and safety measures to prevent falling accidents and heatstroke and safety training making use of facilities such as training centers
Management	<ul style="list-style-type: none"> Organizational governance Crisis management Fair business practices 	<ul style="list-style-type: none"> Continued strengthening of internal controls Groupwide extension of "Takenaka CSR and Compliance Month" observances Implementation of e-learning to raise information awareness among group member companies and overseas subsidiaries Conducting disaster preparedness training by individual regional organizations groupwide and implementation of training assuming earthquakes occurring directly under metropolitan areas outside of business hours Continued activities to disseminate legal compliance, social insurance guidance for nonparticipating companies, and procurement policy / behavioral guidance throughout the construction industry
Group companies	<ul style="list-style-type: none"> Strengthening business cooperation for the purpose of providing additional value to society by means of a group synergistic effect Promotion of employee development, creation of environments conducive to energetic work activities and improvement of employees' work-life balance 	<ul style="list-style-type: none"> Strengthening of basis for cooperation among businesses through establishment of Group ICT Promotion Department (WEB) Establishment of the Thai Takenaka Training Field TAKSA for local employees
Collaboration with Stakeholders	<ul style="list-style-type: none"> Deepening of understanding of social issues through dialog with stakeholders, and promotion of business activities for their solutions 	<ul style="list-style-type: none"> Promotion of solutions through understanding social issues and business activities by means of dialog with stakeholders

Leaving a beautiful earth to future generations

We base our efforts aimed at achieving symbiosis with nature, a low-carbon society and resource recycling on our environmental policy, our biological diversity activity guidelines and our environmental concept as well as on awareness-building activities that form the foundation for environmental considerations.

We engage in ongoing activities to respond to the expectations of society while promoting environmental awareness through communication efforts such as dialog with stakeholders conducted since 2004 and environmental symposiums.

Low-carbon society

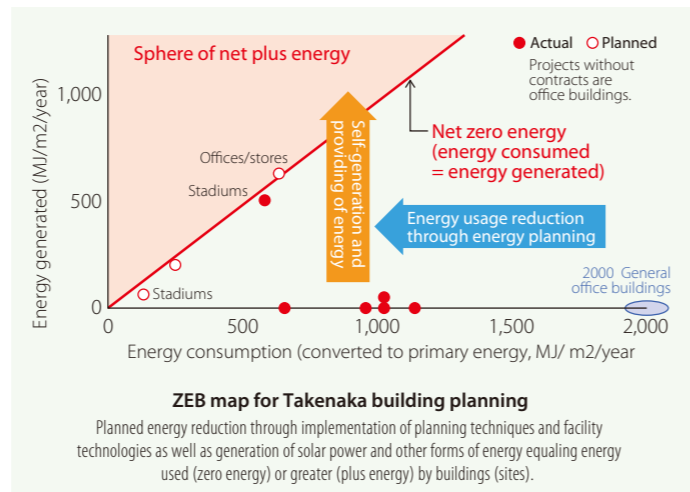
Activities targeting ZEB

A project conducted by the Japan Business Initiative for Biodiversity (JBIB) under the direction of researchers from the company led to development of a tool for assessing the status of land use from the perspective of biodiversity by investigating the distribution of plants and animals. The tool is currently being deployed in planning and designing buildings as well as in evaluating corporate lands. It was used in planning the reconstruction of the Shiseido Building in Ginza, for example, for which we conducted a survey of animals living in the surrounding area. Wishing to attract wildlife to the rooftop garden from ponds and woods of various sizes in such natural habitats in the building's vicinity such as Hibiya Park, we determined which creatures we wished to attract and selected trees and foliage for the garden accordingly. Shiseido, our customer for this project, cultivates plants as raw ingredients for cosmetic products, one of its major lines of business. Thus, the rooftop garden inspires employees with its changes through the four seasons, but it also serves as a place of learning, where employees gain awareness through emotional experience that their business is founded on a blessing of the earth.

Notes: CASBEE and LEED are environmental performance certification programs for architecture developed and applied in Japan and the United States.

CO₂ emissions reduction by materials

Development of ECM cement: The volume of CO₂ emitted during the manufacture of cement, a primary material used in architectural and other structures, accounts for slightly more than three percent of Japan's total emissions. We joined forces with other companies in developing ECM (energy CO₂ minimum) cement, which emits at least 60 percent less CO₂ during its production as compared with conventional Portland cement. Large amounts of energy are employed in the production of clinker, the principal ingredient of cement, which involves combustion at high temperatures, and large volumes of CO₂ are also generated by limestone, a cement raw material. ECM cement employs blast furnace slag, an industrial by-product, as a substitute to reduce the clinker component by some 60 to 70 percent. The quality issues concerning cement containing blast furnace slag were resolved through such efforts as optimization of the cement composition and development of a special additive. ECM cement is currently employed for pilings and foundations of underground structures. We are pursuing further improvement of its performance aimed at expanding its applications in the future.



Use of renewable energy

Takenaka conducted a capital injection in the Kagoshima Nanatsujima Mega-Solar Power Plant, with 70 MW output the largest of its kind at the time, which initiated sales of electric power in November 2013. We followed this in September 2014 with the establishment of KMT Solar Limited in a joint venture with two other companies that marked our full-scale entry into the solar electric power business. We have introduced an initiative to expand our energy production operations through proposals to utilize idle corporate and municipal lands and had four projects under way as of December 2014. Group member company Takenaka Civil Engineering & Construction is also planning to leverage its real estate to establish a solar power plant with operation scheduled to begin in 2015.

Environmental Message, Concept and Long-Term Targets

We are pursuing ongoing efforts to create architectural spaces that are in harmony with the environment in accordance with our environmental message and concept formulated in 2010 and our long-term targets for the years to 2050 determined the same year.

• Environmental Message

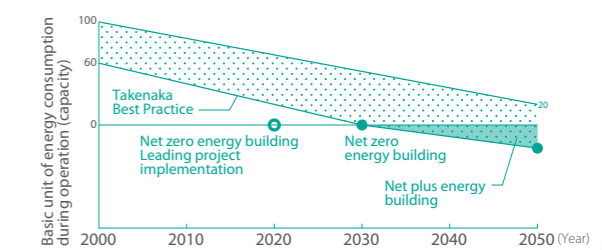
Connecting people with nature

• Environmental Concept

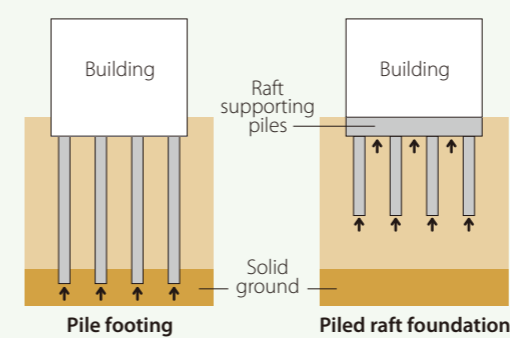
We aim to realize carbon-neutral cities through net zero energy buildings that optimize the power of nature to encourage greater human sensitivity and creativity.

• Long-Term Targets

Realization of net zero energy buildings by 2020 and their steady establishment by 2030 on the way to realizing net plus energy buildings.



Details concerning our environmental concept book are available on the corporate Web site.



Piled raft construction method
This foundation construction method is designed to distribute a building's load by integrating a flat supporting foundation with piles under the structure, making it possible to shorten the lengths of the piles. Derived from "piled" and "raft," the name suggests a raft with piles driven through it in reference to the image of the structure.



Resource recycling

Emissions reduction activities

—Tower Wing (ABENO HARUKAS) of Akenobashi Terminal Building—
The construction of the superskyscraper Abeno Harukas, at 300 meters the tallest building in Japan, required delivery of an enormous volume of materials to the site. This made it essential to perform environmentally conscious construction work by suppressing the generation of surplus excavated soil and waste materials as well as restricting the number of construction vehicles used. Examples of efforts to reduce large-scale waste removal included reuse of surplus soil excavated through application of the continuous wallwork (TSW) construction method in underground sections on the outer periphery, which cut the volume of excavated soil removed from the site by about 50 percent, as well as adoption of the piled raft construction method to keep excavation for piles shallow, which reduced generation of construction sludge by about 30 percent. Ferro decks were adopted as frameworks for concrete flooring, and precast concrete (PC) was also employed for portions of the floors and walls, substantially decreasing the use of tropical wood formworks. These and other efforts reduced the number of construction vehicles employed (by the equivalent of about 2,000 10-ton dump truck pickups) and suppressed CO₂ emissions. These efforts earned widespread recognition, which was capped off by an award for Promotion of 3R Activities received at the Ministry of Land, Infrastructure, Transportation and Tourism Awards 2014.

Foundation for environmentally conscious activities

Takenaka Environmental Symposium

— The Takenaka Environmental Symposium 2014: "Exploding Asia — Its Environment, Architecture and Cities" was convened at the Tokyo Main Office in October as a forum for considering social issues relevant to the global environment and seeking their resolution through the business operations of the Takenaka Group. Live feed links were established with six branches, and the symposium was conducted with the participation of over 200 employees from all our locations and approximately 20 invited guests from outside our group. Following presentation of the keynote address on the architecture and urban environments of Asia, the conference theme, by prominent architect Kazuhiro Kojima, experts from inside and outside our group participated in a panel discussion. The many suggestions they offered included dissemination of environmental quality and lifestyle awareness, the importance of maintaining a global perspective and sustained exchange among the people of Asia.

WEB WEB publication contents
www.takenaka.co.jp/enviro/vision/ex

Environmental Policy/Biodiversity Activity Guidelines

Case studies

- Symbiosis with nature
- Resource recycling
- Foundation for environmentally conscious activities (educational activities, others)
- Low-carbon society

Contributing to the sustained progress of local communities

We engage in dialog concerning the "spirit, knowledge and skills of craftsmanship" with stakeholders such as regional municipalities, schools and nonprofit organizations; contribute directly to academic and educational institutions; promote dissemination of knowledge and technology by opening up our internal educational facilities to the public; and promote communication with local communities in our various business locations. We also pass on the traditions and culture of architecture through activities conducted by corporate foundations and through articles in quarterly publications to contribute to nurturing next-generation human resources and the progress of regional communities.

Dissemination and development of knowledge and technology

Cooperation by Naniwa Demae Juku in Architectural Institute of Japan events

In 2014 employees of our Osaka Branch participated in volunteer activities conducted by Naniwa Demae Juku in connection with two events sponsored by the Architectural Institute of Japan's Architectural Committee on Support for Education of Children. In June representatives of Naniwa Demae Juku presented a report on case examples from on-site classrooms focusing on architectural structures conducted at an event in Tokyo entitled "Considering a Platform Structure for Supporting Children's Education." The report included an explanation of the background behind the activity: a desire to stimulate interest in architecture and related occupations among elementary and junior high school students for whom no architecture classes are available. In September members of Naniwa Demae Juku as well as a number of volunteers from among the residents of our company dormitory participated in a "Fukae Paradise" architectural workshop held on the dormitory premises in Fukaekitamachi, Kobe, for the benefit of elementary and junior high school students. The children used corrugated boards and wooden materials to build secret hideouts and other structures while our personnel supervised their activities. A symposium was also convened at the event. Naniwa Demae Juku will continue to work with volunteers from our company to nurture the next generation.



A demonstration at Naniwa Demae Juku



Observation of a conceptual mock-up

Cooperation in educational programs for students

— Seminars for university students conducted at Takenaka — Our Practical Technology Training Center Omoi (Hyogo prefecture) emphasizes experiential training in a curriculum established for students of architecture, and it offers seminars that communicate the pleasure of craftsmanship and that nurture young engineers. Seminars were held at Kyoto University and Kobe Shoin Women's University in 2014 in addition to Osaka University, Kobe University and Mukogawa Women's University, where they had been held through 2013. These seminars provide descriptions of the status of activities conducted to nurture engineers in our company as well as on the flow of architectural construction work. The experiential sessions on structural details were conducted using a mock-up model of a steel-reinforced concrete building under construction. Feedback from students included such comments as, "I acquired an understanding of work site conditions" and "I learned how a working person should perform." A professor evaluated the seminars as a "program reflecting the seminars' purpose, coupled with an emphasis on management policies and personnel training methods."

Takenaka Ikueikai Public Foundation:

— Nurturing personnel to sustain the society of tomorrow — Since its establishment in 1961, the Takenaka Ikueikai foundation has maintained a program of nurturing and educating young people based on the philosophy of its founder and first president, Toemon Takenaka, "Take the path of truth, keep good faith and be steadfast; Be industrious and fulfill your responsibilities; Devote yourself to your work with discipline; Act in harmony with the organization; and Pursue prosperity for all of society." The scholarship program at the core of these activities grants scholarships to some 180 students each year as well as providing financial assistance for overseas studies. The organization also continues to offer assistance to architectural researchers with promising futures in addition to contributing to culture and the arts.

VOICE

Global Leadership Seminar I, a collaborative subject offered by the School of Engineering of Kyoto University, is an investigative research course that teaches how leading global companies formulate plans and resolve issues. Takenaka Corporation cooperated in 2014 by providing students with an opportunity to "observe, touch and experience" a development work site for cutting-edge science and technology. Students benefited from specific explanations of the ways in which a corporation with a history spanning over 400 years has passed down its spirit and technologies. They were also provided with firsthand experience of the meaning of the corporate philosophy, "Choose to be best rather than the biggest," through discussions and an observation tour of the company's Omoi Training Center.



Lecturer, Kyoto University Graduate School of Engineering
Aiko Takatori

Local community interaction

Cooperation in the third session of the Kodomo no Machi Ishinomaki

Takenaka Corporation has been commissioned by the Japan Committee for UNICEF to implement a regional restoration curriculum entitled Kodomo to Kizuku Fukko Machizukuri ("urban creation with children") in cooperation with Yamagata University to support the development of children in the earthquake and tsunami disaster area. We conducted our Kodomo no Machi Ishinomaki ("Ishinomaki, City of Children") program for the third time in October 2014 in collaboration with the local government and volunteers. We leased a shopping district in Ishinomaki City, Miyagi Prefecture, and we organized it to simulate the mechanisms of a local economy in which children sought employment, performed jobs and purchased goods with their pay. In December we repeated our Future Urban Creation of Nanago program for the third time as well as Nanasato Elementary School in Sendai, Miyagi Prefecture, in cooperation with teachers and student volunteers. We intend to continue to pursue activities that support restoration of disaster-stricken areas with a primary focus on the children who hold the future in their hands.



Children experience working at Kodomo no Machi Ishinomaki.



A master carpenter gives an enthralling display of wood-planing.

Passing on the traditions and culture of architecture

Experiential "Let's Carve Wood" class for children

In October 2014 an experiential class for children was conducted at Takenaka Corporation's Tokyo Main Office with about 60 participants, including guardians. Master builder Akinori Abo, who holds a Japanese record for thin slicing with a plane, lectured the class. This was held in collaboration with a touring exhibition entitled "Skills and Hearts of Master Builders in Japan, China and Korea," which was organized by the Takenaka Carpentry Tools Museum at Gallery A Quad on the first floor of the building. After a demonstration of the techniques of plane carving by Mr. Abo, the children were given the unusual opportunity to use a plane themselves to carve wood and a carpenter's India ink marking tool to experience carpentry. We intend to continue passing on traditional skills and disseminating information on architectural culture in collaboration with foundations such as the Takenaka Carpentry Tools Museum and Gallery A Quad.



WEB publication contents

www.takenaka.co.jp/enviro/vision/ex

Dissemination and development of knowledge and technology

- Hands-on experience classroom for elementary school students

Local community interaction

- Regional exchange regarding work sites
- Regional contribution through environmental consideration

Passing on the traditions and culture of architecture

- Publication of "approach" quarterly magazine, others

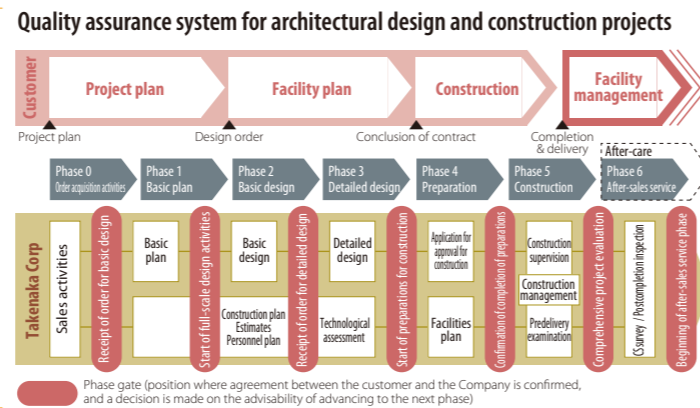
Contributing to the business growth of our customers

We create "safe, secure and attractive architectural works of art," and we build in quality at the design and construction stages based on a "quality assurance system," thereby satisfying our customers and earning society's trust. We also act to sustain and improve the value of buildings as customers' social assets by making full use of virtual reality (VR) in the design stage to present customers with easily understood explanations and by engaging in dialog with customers throughout the life cycle of their buildings.

Quality improvement

Activities based on a quality assurance system

We incorporate quality in our work during the design and construction stages in accordance with the Takenaka Quality Assurance System, which provides a set of standardized work flows for the quality assurance process followed in projects based on total quality management (TQM). We also implement further improvements based on customer feedback acquired through such tools as customer satisfaction surveys in an effort to realize diversified customer expectations and to achieve superior quality.



Practice of craftsmanship

Craftsmanship that utilizes virtual reality

Because buildings are produced as individual products, and because their large scale prohibits rebuilding, verifying and experiencing the building in advance with a high degree of reality can be extremely effective in communicating an understanding to the customer of the kind of building to expect. We employ VR technologies (VRuno and visiMax) that offer both excellent operability and highly accurate imagery and spatial expanse awareness. A means of communication that was previously unavailable, VR has received extremely positive evaluations from our customers.



VRuno® provides a set of virtual reality contents that present a building before construction with high-quality image data that makes it appear as if it already exists. Customers can use a PC or tablet to explore sections they wish to verify in close detail from their own perspective in virtual architectural space.

VRuno enables us to show customers what an architectural space looks like after completing many hours of discussion concerning the building creation through the application of high-quality images that become available for verification prior to completion of the building construction work. Customers can also use this tool to achieve easy mutual understanding of a project with stakeholders (end users as well as their colleagues and superiors).

Our recently developed visiMax® Mobile architectural presentation system, meanwhile, gives customers easy access to a 3D dome virtual reality experience right in their own offices. Full-scale 3D imagery presented using an air dome screen, a fish-eye projector and 3D glasses enables them to move around freely in the building, experiencing its material

quality as well as the small details and spatial expanses. As many as ten or so people can participate in the experience simultaneously. We have received extremely positive feedback from customers, who describe a "sensation of actually entering a building" and an "ability to understand the intentions of the use of space that were not clear from the drawings." These attributes give customers a deeper understanding of their needs and immediate awareness of the remaining issues, thus providing us with a quicker, more sophisticated means of reaching agreement.

This innovative undertaking earned Takenaka an Engineering Commendation Award from the Engineering Advancement Association of Japan.

VOICE

Comprehensive safety and security activities are conducted as a basis for large numbers of visitors to enjoy Tokyo Tower every day. Takenaka Corporation provides a full range of integrated construction services, enabling our employees and others who love the tower to pursue their jobs on the premises with a sense of security. In the recent earthquake resistance reinforcement project, Takenaka's workers once more overcame demanding conditions high in the sky to complete their work without incident. We will continue to draw on the strengths of other companies to ensure that visitors can look forward to another century and more of Tokyo Tower's delightful presence in the heart of Tokyo.



Director, Nippon Television City Corporation
Tsugio Yoshinari



Adding value to buildings

Solutions for renewing the appeal of facilities that cannot be closed

Takenaka's district FM centers located throughout Japan enable customers to use their valuable buildings comfortably for as long as possible by providing renovation and upgrading work with suitable timing to improve performance and regenerate the buildings' appeal. These offerings are supplemented by a broad range of other support services.

Tokyo Tower, a radio transmission tower completed in 1958, still stands tall. Its location in the center of Tokyo makes consideration of environmental issues and scenery essential. Takenaka has conducted painting of the tower every five years — a total of ten times since its completion. We also continue to contribute to regeneration of the tower's appeal as a symbol of Japanese creativity. This is exemplified by the aseismic reinforcement construction work performed to reinforce it against earthquakes, the "diamond veil" lighting installed to give the tower a beautiful nighttime appearance and the development of the Foot Town entertainment area at its base as well as renovation work conducted on the observation platform.

Safety, security and prosperity

ESTONE Block®

Construction methods involving the installation of RC walls and steel braces were implemented for seismic reinforcement in the past, but these methods had such drawbacks as excessive noise, vibrations and dust generated in the construction process as well as restrictions on construction time due to the need to bring in large structural members and fulfill curing requirements. The ESTONE Block earthquake-resistant wall construction method introduced to solve these issues involves combining blocks that are molded in a butterfly shape to interlock with each other, eliminating the need to install horizontal steel bars, which were essential when using rectangular blocks. Reinforcing walls by this method involves simply delivering compact precast blocks that are small enough for one adult to carry to the site, assembling them there and then applying grout. Delivery of the materials exerts little impact on the surrounding environment, and the space required to perform the construction work is minimized. Existing buildings can be strengthened safely, securely and economically with minimal impact from the construction work while the customer continues to use the building. Structure ratings received from the Japan ERI Co., Ltd., qualify our method for use in responding to demand from hotels and hospitals that urgently require aseismic modifications to conform with the Building Retrofitting Promotion Act as well as to the needs of offices, manufacturing plants and commercial facilities.

WEB publication contents

www.takenaka.co.jp/enviro/vision/ex

Quality improvement / Practice of craftsmanship

- Enhanced convenience medical facility construction system

Adding value to buildings

- Regeneration through seismic isolation [Tohoko University Graduate School of Medicine, No. 3 Building]
- Antiswaying • Earthquake-resistant ceiling system [OTO-LESS ceiling]

Safety, security and prosperity

- TAFT® earthquake-generated building interior shaking simulation system

Growing together with employees and cooperating companies

In accordance with the tenants of our Company Policy, "Devote yourself to your work with discipline," "Act in harmony with the organization," and "Pursue prosperity for all of society," Takenaka's employees and cooperating companies will promote the creation of safe, friendly work environments where people have career foresight and aspirations, and where diversity and individuality are respected. To this end, we seek to share and resolve various issues through dialog with our employees and representatives of our subcontractors, conduct patrols with the aim of deepening ties with our cooperating companies and implement such activities as deployment of the Nadeshiko Construction Team made up of female employees and skilled female workers to take charge of construction projects.

Nurturing personnel to become tomorrow's leaders

One-year new employee training

We conduct training for new recruits for the first year after they join the company to ensure that they are properly trained to achieve growth as honest employees endowed with ample knowledge and Takenaka's traditional spirit. They reside throughout this period in our training dormitory in Kobe, the company's original hometown. Here they participate in informal gatherings with members of management and receive instructions from personnel responsible for instruction in various departments, acquiring insight through one-on-one instruction and on-the-job training (OJT) into such matters as our management philosophy and our serious attitude toward craftsmanship. The training activities are augmented and increased in substance and flexibility through such programs as New Recruit Cross-Cultural Experience Training, in which selected employees are dispatched to overseas affiliates to learn to respond to different social environments, management strategies and training needs. Takenaka received the KAIKA Award from the Japan Management Association for activities in the area of new recruit training.



New employee dormitory residents' meeting

Work site experience field trips for students

The shortage of skilled construction workers is a serious issue for our industry. In response, we collaborated with the youth section of the Kyushu Chikuseikai, an organization comprising members of cooperating companies in Kyushu, in conducting work site experience field trips to give students who were preparing to start seeking employment an opportunity to experience the jobs conducted by skilled construction workers. A total of 43 participating teachers and students from vocational schools and high schools in Fukuoka and Saga prefectures observed a building that was still under construction and heard stories told by supervisors about their experiences at work sites, after which they were given hands-on experience in performing such jobs as plastering, painting, steel bar arrangement and scaffold assembly under direct supervision of veteran workers. We intend to join our cooperating companies in greater efforts to respond to young people who are entering the trade, and to nurture personnel to lead the construction industry into the future.



Personal workplace experience study tour

Personal plastering experience



Union conference

Work-life balance

Various activities are being pursued through exchange of opinions with the employees' union to ensure our employees' ability to find mental and physical fulfillment in their work. The Working Hour Shortening Promotion Week Campaign conducted each year since 2012 was extended to a full month in 2014. We also conducted an Employee Awareness Survey of all employees aimed at gaining greater understanding of our employees with respect to the company and their work and at applying the acquired insights to future measures.

VOICE

Continued development of the Takenaka Superior Supervisor Program

We administer the Takenaka Superior Supervisor Program for the purpose of securing safety and quality at our work sites, nurturing young skilled workers and passing on our traditions. We initiated the program in 2012, and in 2014 we certified 191 workers from 14 trades as "Meister" (masters) of their trade. Among these, 21 workers who made significant contributions were certified as "Senior Meister." The Meister and Senior Meister certifications are accompanied by cash awards as well as by special stickers designating those who earn them as role models at the work site.

VOICE

Parenting as an opportunity for further growth

The birth of a child reinforced my commitment to and pride in urban creation, but my role as a mother soon began to take up more and more of my time, making it difficult to allocate time for everything I needed to do in a 24-hour day. I remain aware at all times of the need to strike a "proper balance." I must ensure that my work assignments and household chores are completed efficiently. At the same time, I need to remind myself to be grateful to my family members, friends and work colleagues who understand my situation and support me in order to live a rewarding life. These things provide me with positive "input." I had been observing time schedules to complete my work in the past, but I believe that raising a child has given me an opportunity to achieve further growth since it requires me to consider the way I work and my attitude toward work.



Takenaka Corporation
Mizue Kotani



Dialog with stakeholders



Morning health exam employing a balance beam

Widely diversified human resources

Efforts to promote active participation by women

It requires a wide variety of people, all performing at their best, to construct buildings that respond appropriately to social issues and to highly diversified values. We promote diversity management to realize workplace environments in which everyone can work comfortably, irrespective of gender, nationality, age or the presence of disabilities. Positive initiatives to expand opportunities for women are a particularly high priority, to which we have responded by developing activities such as Female Leader Nurturing Seminars and establishing companywide promotional organizations (the Diversity Female Activities Promotion Group at the Head Office and the Female Activities Promotional Personnel Council organized through collaboration among seven main branches throughout Japan). We also held dialogs with stakeholders at seven main branches during the past year on the theme of "A perspective on female employees' activities" with the aim of working to improve opportunities for women in the workplace as well as to reform the workplace culture and enhance awareness. As of 2014 year-end, five teams were registered with the Nadeshiko Construction Team. Moreover, a registration program was established by the Japan Federation of Construction Contractors to support employment by women at construction sites as part of efforts to promote positive work site environments.

Health and safety

We consider prevention of "falling" accidents, which occur with high frequency among industrial accidents in the construction industry, and prevention of heatstroke as priorities among our health and safety management activities.

Factors contributing to "falling" accidents include unsafe actions resulting from inexperience and inattention as well as human errors arising from mistakes and misconceptions. Thus, we are implementing practical training on the proper use of safety belts to educate our workers about the proper use of protective gear and safety equipment as well as training in climbing up and down platform ladders. We are also investigating the health condition of our employees by having them walk on a balance beam to verify their balance during morning roll calls as we believe that the health condition of a worker on a given day affects the potential for accidents or heatstroke. As a result, we are starting to see reductions in the number of accidents involving falls from platform ladders and incidences of heatstroke as a result. We will continue our steady efforts to improve safety through such activities.

WEB publication contents
www.takenaka.co.jp/enviro/vision/ex

Nurturing personnel to become tomorrow's leaders

■ Training systems

Work-life balance

■ Assorted support systems

Widely diversified human resources

■ Current status of diversity promotion, female technician symposium

Health and safety

■ Health-care systems, labor accident prevention countermeasures, conceptual training instruction

Based on our corporate philosophy, we practice "Total Quality Management" in order to obtain the satisfaction of our customers and earn the trust of society. Together with raising our value to society as a corporation, we will fulfill our social responsibilities. To achieve these objectives, we will conduct business fairly and efficiently, communicate with a broad range of stakeholders and implement a framework for periodic assessments to improve the status of our activities.

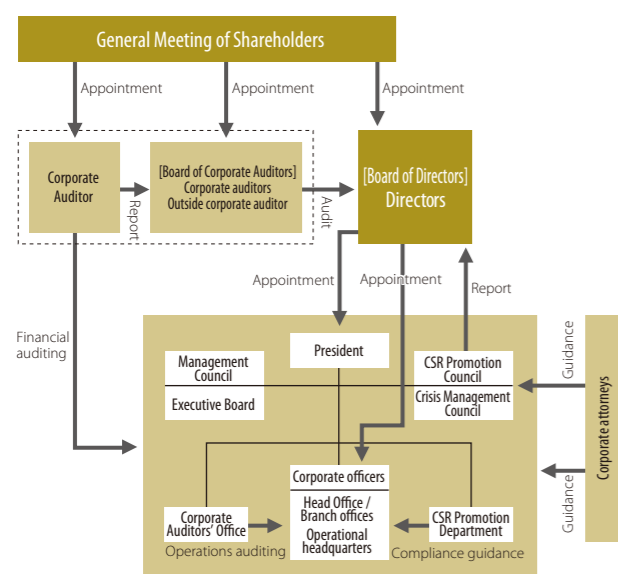
Organizational governance

Improvement of management quality and confirmation of governance for rapid, accurate decision making

The board of directors meets once a month or more often as needed in its capacity as a supervisory body for making decisions concerning corporate management and business administration. The corporate officer system was also adopted in 2010 to accelerate the management decision-making process and enhance business administration and supervisory functions. In addition, the board is subject to fair, unbiased auditing by an accounting and auditing firm acting as an independent auditor. We have also established the Audit Office as an internal auditing organization to verify the accuracy and legitimacy of the company's operational, accounting and financial conditions.

As for corporate governance, we have developed a corporate organizational framework and implemented awareness-building activities and training such as promotion of CSR activities including compliance, introduced disaster prevention and reduction activities to respond appropriately when matters involving risk arise, and promoted crisis management activities to be conducted under ordinary circumstances. In regard to our group companies as well, each formulates a corporate code of conduct that complies with our own to ensure optimal maintenance of the management organization.

Corporate Governance Organization



Establishment of framework for CSR and compliance, and introduction of awareness-development activities

We established the CSR Promotion Council headed by an executive officer responsible for CSR promotion. We then organized a Central CSR Promotion Committee headed by the executive officer in charge of compliance to serve as a subordinate organization, and we established a CSR Compliance Committee at each branch to serve as a framework for sustaining and improving CSR and compliance. The CSR Promotion Department was established at the Head Office, and a CSR and compliance leader was appointed at each business location to promote training and awareness development. Additional means of improving CSR awareness and of sustaining and reinforcing our mechanisms for thoroughly implementing compliance include establishing multiple consultation and reporting contacts for people in the company as well as in our group companies and cooperating companies. Specific training and awareness development activities concerning CSR and compliance include the "CSR and Compliance News," a publication dealing with CSR and compliance issues inside and outside the company. It has been issued roughly once a month since 2009 and distributed to all employees.

"CSR and Compliance Month", the name formerly associated with November, was renamed "Takenaka Group CSR and Compliance Month" in 2014. Observed under its new name, the month featured a concentrated and varied schedule of events, including circulation of a message from the president. Other notable activities included a CSR Executive Seminar monitored by an outside lecturer, implementation of a self-monitoring program through an "e-quiz" that featured 50 questions concerning compliance, "e-learning" education on the subject of sexual harassment, production of dramatic sketches, and organization of a CSR and Compliance meeting as well as various consultation and reporting programs extending outside the group.

Activities of this kind will be repeated and implemented by companies in our corporate group and throughout our network of cooperating companies to deepen knowledge and awareness of CSR, including compliance while extending the activities' reach.



Copies of "CSR and Compliance News" Conducting an executive CSR seminar

Crisis management

Sustained promotion of information security measures

The scope of the program, implemented to raise employee awareness of information security, was extended in FY2014 to include other companies in the group as well as our overseas offices. We are continuing our investigation of the security measures employed indoors and at work sites as well as of the group training and security patrols conducted to raise awareness of the issues involved among employees of our group companies and business partners. We will continue to promote and enhance these activities in the future.



Ongoing BCP-based activities for minimizing damage by natural disasters

An emergency headquarters established at each branch implements business continuity planning (BCP) to verify employee and family member safety, determine disaster damage, and conduct restoration activities at work sites, company facilities and buildings we have constructed for customers in the event of a disaster. Takenaka organizations in Eastern, Central and Western Japan conducted separate training exercises with their various regional characteristics taken into consideration in 2014 to enhance employee awareness of disaster preparedness (personnel safety verification, responding to tsunami disasters, returning home on foot, disaster damage assessment and restoration of company facilities and customer buildings).

A companywide earthquake disaster training exercise assuming the occurrence on a holiday of an earthquake with its epicenter directly below Tokyo was also held on November 15 to confirm coordinated cooperation among company members and to enable emergency headquarters members to observe initial responses to large-scale disasters. Conducted in four sessions with the participation of approximately 11,000 personnel, including all Takenaka Corporation employees and the staff of 16 group companies, the exercise provided an opportunity to deploy the concerted efforts of the full group. We expect the new BCP to create an upward spiral of improvement in emergency preparedness.



A disaster training session (October 2014)



Joint earthquake disaster training (November 2014)

Fair business practices

Communicating full awareness of the details of changes to relevant laws and ordinances while continuing to conduct activities to support observation of the Construction Contractors Law

We pursue ongoing efforts to assure employee awareness of changes and administration trends concerning the various relevant laws and ordinances to ensure that corporate activities are conducted properly and legally. We continued our activities aimed at raising awareness among cooperating companies and others of the issue of failure to enroll in social insurance programs in 2014, and we provided guidance on enrollment in the programs for companies that were not yet enrolled based on guidelines received from the Ministry of Land, Infrastructure, Transport and Tourism and the Japan Federation of Construction Contractors. In association with "Fair Construction Transaction Promotion Month" (November) designated by the Japanese government, we confirmed that the Construction Contractors Law is observed at our work sites and that proper regularly scheduled follow-up is conducted concerning confirmation of contractors' social insurance enrollment status and other matters. We have disseminated awareness of proper handling of these issues throughout the company.

Activities to achieve fair procurement and effective countermeasures to antisocial forces

To achieve our CSR, we will work with our business partners to promote procurement that responds to the needs of society and our customers. We will also explain our "procurement policy" and "activity guidelines" to cooperating companies, and we will continue to develop activities based on clear policies in the area of procurement. With regard to antisocial forces, in addition to maintaining countermeasure councils at our business locations, we sign memoranda on provisions for exclusion of criminal syndicates, not only with business partners involved in construction work but also with other cost- and expense-related business parties. We also participate in horizontal dissemination of information by sharing information with a broad range of parties as a further barrier against relationships with antisocial forces.



Explaining procurement policy and activity guidelines at a general meeting of the Chikuwakai (February 2014)

Takenaka Group companies in Japan and overseas are pursuing ongoing efforts to promote CSR based on the corporate code of conduct formulated to realize the Takenaka Group CSR Vision. The overseas affiliate companies promote activities with the culture and customs of the countries and regions in which they operate taken fully into account.

Domestic group company activities

Takenaka Civil Engineering & Construction Co., Ltd

Global environment

Customers

● Flexible responsiveness to customer needs

The town of Kiyosato, Hokkaido, is located in the heart of one of Japan's largest potato-growing regions. Not only are potatoes grown for the table, but they are also grown in large quantities for starch extraction purposes. Controlling the odor of the highly concentrated organic effluent generated during the extraction process has long posed a challenge. We responded with a technical proposal for addressing the odor issue by applying an ultradeep aeration method employing a civil engineering technology and installed the equipment at the JA Kiyosato starch plant, dramatically reducing the odor. This accomplishment also made it possible to recycle the highly concentrated organic effluent as fertilizer by spraying it on wheat fields after the summer harvest when odors would ordinarily be a matter of concern. Since the equipment's installation, the plant's capacity has expanded five fold, suggesting that our technical expertise has made a significant contribution to environmental improvement.



Odor-reduction measures implemented at a starch plant

Urabandai Kogen Hotel

Local communities

● Exchange with local communities

The Urabandai Kogen Hotel holds various events throughout the year to deepen exchange with local communities. In May 2014, it held an exhibition on the works of Yasuhiro Endo entitled "The Power of Picture Books." Both hotel guests and local residents enjoyed the event, which included a talk by Mr. Endo himself and a piano performance. Beginning in September of the same year it also hosted an exhibition entitled "The Life and Traditions of Aizu." This showcased the beautifully crafted tools, which are used in daily life and have been passed down through four centuries in the Aizu basin surrounding the hotel. Some of the time-honored crafts that perpetuate local traditions available for sale. Another event was a photo competition, "Moving Scenery of Urabandai Kogen," with entry open to anyone. Photographer Ikuo Nakamura served as judge, selecting the Grand Prix winner and about 50 photos for Work of Excellence prizes. The award-winning photos were exhibited in the hotel, attracting large numbers of local community residents and providing an excellent opportunity to promote exchange.



"The Power of Picture Books" gallery show displaying works by Yasuhiro Endo

Tokyo Asahi Build Corporation

Local communities

Employees

● Communicating the construction industry's appeal to high school students

Amid concern about a possible serious labor shortage, Tokyo Asahi Build employees under the age of 30 engage in activities aimed at broadening the human resources base to carry the construction business into the future. To acquaint students with the appeal and joy of construction through personal experience in craftsmanship, we offer internship programs for high school students as well as organizing a traveling workshop that visits technical high schools. In 2014, the workshop visited Saitama Prefectural Omiya Technical High School, where it demonstrated expert skills in rebar layout and reinforcement assembly and coached students on the actual practice. The participants, who made such remarks as, "That's so cool!" and asked questions such as, "How could I become as good at it as you," appeared to thoroughly appreciate the pleasure of craftsmanship.



The traveling workshop visits a technical high school

Asahi Facilities Inc.

Local communities

Customers

● First aid skill acquisition for emergency preparedness

Asahi Facilities seeks to provide the people who use buildings and facilities with safety and security in accordance with the slogan "Heart-warming engineering." In its efforts to be prepared for various situations that may arise in properties it manages for customers, for example, it conducts a variety of training to assure its staff's ability to provide security by responding calmly during the early stages of first aid administration. The training teaches the use of AEDs and other first aid knowledge and skills to ensure that not only security personnel, who require emergency training as a job qualification, but also other employees can take the initiative in performing life-saving activities. The company also conducts drills in which customers and facility users participate. These training activities have already led its employees to respond appropriately and administer first aid in a number of actual emergency situations.



A first aid drill employing an AED

Overseas group company activities

Thailand

Employees

Global environment

● New practical technology training center in operation by Thai Takenaka

Thai Takenaka opened TAKSA, a new hands-on training facility for local employees in a suburb of Bangkok at the end of 2013. Derived from the Thai word for "technique," the facility's name TAKSA combines the first three letters of Takenaka with "SA," an acronym for "sustainable ability." It is housed in a simple structure — a container house covered by a gable roof — characterized by low cost, a short construction period and future expandability. It is also energy efficient, making use of natural ventilation and natural lighting. The curriculum currently comprises a beginners' course targeting young staff of local construction-related businesses. In the future, it plans to offer training for mid- and high-level employees, back-office staff and cooperating companies. Further upgrading will eventually turn it into a facility that will be available for use by cooperating companies in neighboring countries.



Thai Takenaka's TAKSA practical technology training center

Myanmar

Local communities

● Seminars on aseismic building technologies in Myanmar

In 2014 Thai Takenaka's Myanmar branch office held a series of seminars on technologies for aseismic buildings targeting local students and engineers. Because both Yangon and Mandalay — Myanmar's two major cities where the seminars were held — lie near an active fault that runs through the center of the country, risk of a large-scale earthquake is considered to be extremely high. The company's aseismic technologies, especially its base isolation and damping technologies, are attracting considerable interest. Held four times, the seminars drew a combined total of nearly 300 participants. Each included a presentation of the company's base isolation and damping technologies followed by an active Q&A session, which drew a response evidencing the strong interest in earthquakes among the people of Myanmar. The company intends to contribute to upgrading of disaster prevention infrastructure through technical assistance while continuing to engage in activities such as these seminars in the future.



A seminar on seismic-resistance technologies

Germany

Local communities

● Special lecture at Cologne University of Applied Sciences

In 2014 a Takenaka employee presented a special lecture as part of a lecture series on Japanese architecture hosted by the Faculty of Architecture of Cologne University of Applied Sciences. The series is a popular program, whose other lecturers included such internationally active architects as Shigeru Ban, Sosuke Fujimoto and Hitoshi Abe. Addressing an audience of about 70 faculty members, assistants and graduate students of the Faculty of Architecture, the Takenaka employee presented several of the company's achievements in building construction, citing such recent projects as ABENO HARUKAS, and described the organization of the design department that has continued in an unbroken line from the early days of the business's establishment to the present. The audience exhibited considerable interest in Takenaka's design and technical organizations and workshop operations, which differ from those of construction companies in Europe and the United States. Takenaka Europe will continue to engage in endeavors such as this to inform more people about the company's accomplishments in design and construction.



Presenting a special lecture at Cologne University of Applied Sciences



U.S.A.

Local communities

● Regional contribution activities of Hotel Nikko San Francisco

Hotel Nikko San Francisco, owned and managed by Takenaka Corporation, engages in many local and social contribution activities aimed at promoting local development. In 2014 the hotel participated in a homeless children's relief project in which homeless children were given a special tote bag filled with a blanket, a cuddly toy and a book, and children with an interest in the hotel business were offered a tour of the hotel. The project was among the support activities conducted by the Make-A-Wish Foundation, which grants wishes to children with life-threatening illnesses. The hotel also participated in a fundraising drive for the National Breast Cancer Foundation, undertaking an awareness-building campaign by displaying the foundation's pink ribbon symbol with lighted windows on the façade of the hotel and making a donation of approximately \$10,000 collected from employees and hotel guests. Takenaka Group members continue to engage in social contribution activities that meet local needs in this area that embraces diversity.



An illuminated pink ribbon on the hotel wall

We conduct dialogs with various stakeholders to promote activities for realizing a sustainable society. Social issues of significant relevance to our business activities are selected as topics, and experts who are active in the respective fields related to these topics are invited to participate in discussions seeking resolutions to these issues. The contents of the discussions are later discussed by the CSR Promotion Committee and reflected in our business operations.

Theme **Companywide dialog combined with experts Diversity** — from the perspective of empowering female employees
January 29, 2014, Venue: Tokyo Main Office.

The 2014 dialog centered on empowering female employees, an issue in the area of diversity initiatives. Professor Hiroshi Kitani of the Reitaku University Faculty of Economics and Business Administration and Ms. Noriko Hidaka, Manager of the Diversity Initiatives Promotion Office of Teijin Limited's Finance Department, were invited to participate along with six female and one male employee of the company in an exchange of opinions with Takenaka stakeholders. The exchange dealt with such issues as "clarification of the intended outcome and appropriate target of empowering women," "appeals to management and changes in awareness among managers" and "changes in awareness among employees (both female and male)."



Professor Kitani Ms. Hidaka

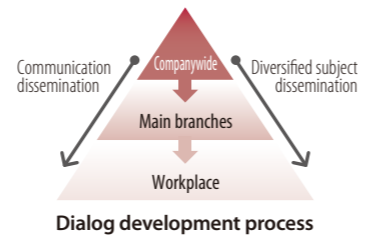


Companywide dialog

Theme **Dialog at Main Office Diversity** — from the perspective of empowering female employees
January 29, 2014, Venue: Tokyo Main Office.

The Personnel Department and CSR Promotion Department took the lead in conducting dialogs at seven branches in response to the dialog reported above for the purpose of generating communication among as many female employees and department heads as possible. The participants shared their views on various issues arising from the diversity initiatives and directed efforts to encouraging people to "take ownership" of activities for empowering women. The dialogs at each branch were held in two sessions, one for female employees and the other for department heads, making a total of 14 sessions at the branches. Issues related to the types of participation individual female employees experience in the course of their daily work routines and ideas for resolving these issues were discussed in the dialog sessions involving female employees. The opinions elicited from these dialogs were shared with the department heads, and discussions taking these opinions into consideration were conducted at workshops involving various groups to determine the department heads' assessment of the issues and the obstacles involved, followed by suggestions for their resolution.

The issues and suggested resolutions derived from these dialogs were categorized as companywide, branch level or department level, and their consideration as well as implementation of practical solutions and action plans have already begun. We also intend to strengthen our "workplace dialog" activities for developing awareness of empowering women and determining the issues faced at individual workplaces in the future.



Dialog with female employees



Dialog with department heads

I have been asked to provide a third-party opinion of the *Takenaka Corporate Report* again this year.

Last year the Takenaka Group established the Takenaka Group Message, "Dreams into reality for a sustainable future," as well as the Takenaka Group CSR Vision expressing the group's aspiration to "enhance dialog with stakeholders, turn those dreams into reality through urban creation, and connect a sustainable society to the future." The key to realizing this corporate philosophy with its aim of connecting with tangible results is finding ways first to create, and then to use and maintain, the tangible structures it envisions. This requires builders to communicate their dreams fully to stakeholders, including the users of buildings and structures and local residents, as well as to gain a full grasp of the stakeholders' dreams through dialog. I hope this corporate report will be put to good use as a tool for achieving these objectives.

The *Takenaka Corporate Report* serves as a showcase for various measures implemented to realize the Takenaka Group CSR Vision. Reports of this type have a tendency to present similar efforts year after year with the result that the contents become stagnant. In this *Takenaka Corporate Report*, however, the descriptions of the group's efforts have been renewed almost completely, although many of the initiatives covered are similar to those in the previous year's report. I was especially impressed to note that Takenaka is implementing a wide variety of measures while undertaking many construction projects at many different sites.

Another strength of the *Takenaka Corporate Report* is its disclosure of year-on-year changes in nonfinancial data as well in financial data (pages 49-50). The nonfinancial data show that, except for a slight increase in the basic unit of CO₂ emissions from construction, all the indices have improved to their best level in the past five years. The indices include the number of women in positions of responsibility, the number of work-related accidents resulting in four or more days absence from work per million man-hours worked, the ratio of final disposal of construction waste and the ratio of projects receiving S and A ratings under CASBEE (Comprehensive Assessment System for Building Environmental Efficiency). These achievements provide evidence of steady efforts exerted groupwide, rather than in only selected prominent model cases.

Appreciation of the external perspective

I would like to express my deepest gratitude to Professor Kurasaka for providing us with his evaluation and valuable advice on our efforts to realize a sustainable society again this year. Since establishing the Takenaka Group CSR Vision, we have engaged in activities aimed at solving social issues through enhanced dialog with stakeholders. This report has a strong focus on our endeavors emphasizing this dialog. We will continue to pursue these dialog-based efforts into the future. We will strive to improve the report to increase its credibility

Mr. Hidefumi Kurasaka
Professor, Graduate School of Humanities and Social Sciences, Chiba University. Professor Kurasaka was born in 1964 in Iga City, Mie Prefecture. After graduation from the University of Tokyo Department of Economics, he served from 1987 to 1998 in Japan's Environmental Agency. He returned to Chiba University in 1998 and has held his current position, teaching and researching environmental economics and policy since 2011. Professor Kurasaka is the author of several books on these and related subjects.



In last year's "External Perspective," I suggested that it would help readers to grasp the content more easily if the achievement status of short- and medium-range objectives, including failures to make progress, were presented both in the report and on relevant Web pages. This means presenting the status of actual progress, rather than the status of achievement of objectives, since three-year objectives are stated rather than annual objectives. At present, the descriptions of progress are simply qualitative (page 34). It would enhance reader understanding if quantifiable progress were presented quantitatively wherever possible. One example of how this could be done would be entering the numbers of recently initiated projects on the ZEB map (page 35) to indicate their gradual progress toward the net zero plus energy zone. Progress is sometimes also reported in different sections of the report and the Web site. Moreover, I would suggest devising a way to enable site visitors to jump from the chart on page 34 to concrete descriptions of progress on other pages.

Long-term management of roads, bridges, public facilities and other infrastructure is raising challenges nationwide. In coming years, the construction industry will play an important role in maintaining existing buildings and structures in addition to erecting new ones. This year, 2015, is a landmark year in which an international framework for global warming countermeasures after 2020 will be established. In this connection, energy efficiency extending throughout the life cycles of buildings is largely determined by efforts implemented during the design stage. The construction industry will play a vital role in preventing construction of buildings and infrastructure with insufficient energy efficiency. I anticipate that the Takenaka Group will continue to deploy its capabilities to the fullest extent, and to lead the construction industry in the new era.

Tsuneo Sato, General Manager
CSR Promotion Department

Income Statement and Balance Sheet (Consolidated)

(Millions of yen)

	73rd term 2010	74th term 2011	75th term 2012	76th term 2013	77th term 2014
Orders received	825,084	929,542	1,004,492	1,214,335	1,418,103
Revenues	1,055,498	976,612	998,381	1,020,956	1,150,663
Operating income	21,884	11,106	Δ1,369	11,525	27,741
Operating margin (%)	2.1	1.1	Δ0.1	1.1	2.4
Ordinary income	22,632	10,962	12,595	21,709	38,367
Net income	5,354	2,273	6,122	7,162	23,545
Net assets	328,092	308,135	350,884	438,468	471,436
Total assets	939,712	899,718	977,735	1,105,029	1,240,256

Other Financial Data (Consolidated)

(Millions of yen)

	73rd term 2010	74th term 2011	75th term 2012	76th term 2013	77th term 2014
Cash flow from operating activities	87,968	55,933	Δ10,610	Δ929	14,674
Cash flow from investing activities	Δ11,733	Δ14,082	Δ9,275	Δ18,646	Δ5,207
Cash flow from financing activities	Δ62,873	Δ7,262	Δ5,792	8,294	12,984
Research and development expenses	7,341	7,131	6,472	5,502	5,700
Capital investment	9,600	5,500	9,900	26,300	27,200
Return on equity (ROE) (%)	1.6	0.7	1.9	1.8	5.2

Revenues by Business (Consolidated)

(Millions of yen)

	73rd term 2010	74th term 2011	75th term 2012	76th term 2013	77th term 2014
Construction business	992,097	910,646	921,188	939,100	1,063,666
Development business	31,701	32,627	42,206	45,929	48,287
Others	31,700	33,338	34,986	35,926	38,709

Revenues by Region (Consolidated)

(Millions of yen)

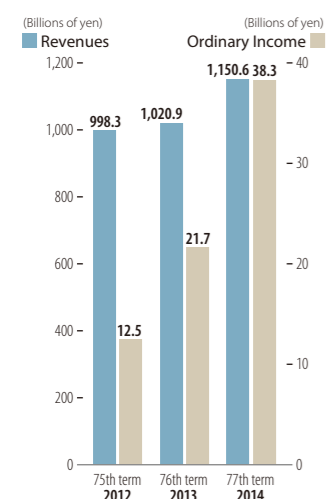
	73rd term 2010	74th term 2011	75th term 2012	76th term 2013	77th term 2014
Japan	974,940	856,868	861,700	872,155	960,443
Asia	41,652	63,462	91,575	90,399	129,903
Europe	20,363	14,662	17,274	25,260	33,308
North America	10,213	11,995	17,493	23,289	25,921
Others	8,328	29,623	10,337	9,851	1,086

Nonfinancial Data (Nonconsolidated)

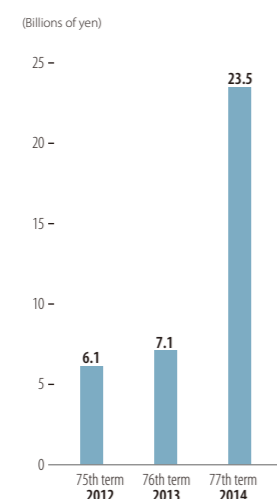
	73rd term 2010	74th term 2011	75th term 2012	76th term 2013	77th term 2014
Number of employees (Consolidated)	7,829 (12,176)	7,623 (12,016)	7,443 (11,854)	7,365 (11,941)	7,436 (12,187)
Average age of employees	44.7	44.6	44.6	44.5	44.7
Average length of continuous employment (years)	20.6	20.5	20.4	19.5	20.5
Number of women in managerial positions	25	36	49	53	68
Accident frequency rate (Accidents followed by absence of four days or more from work)*1	0.83	0.75	0.62	0.75	0.55
CO ₂ emissions intensity during construction work (t/100 million yen)*2	10.9	10.0	10.4	10.3	10.8
Rate of final disposal of construction waste (Wt. %)*3	9.1	3.4	4.2	3.9	3.2
Rate of number of CASBEE S- and A-rank projects*4	64.3	56.0	60.9	69.0	78.5

*1 Percentage of the number of occupational injuries caused by industrial accidents accompanied by an absence of four days or more from work for every million man hours of labor
 *2 Per value of completed work
 *3 Does not include construction sludge and specially controlled industrial waste.
 *4 Total number of S-rank and A-rank projects among the company's design projects.

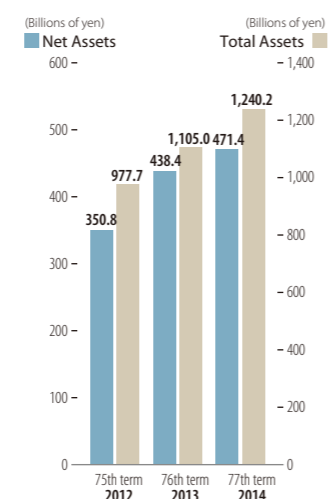
Revenues/Ordinary Income (Consolidated)



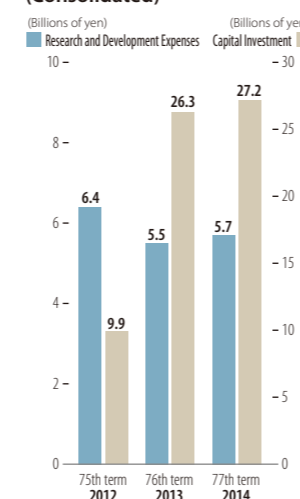
Net Income (Consolidated)



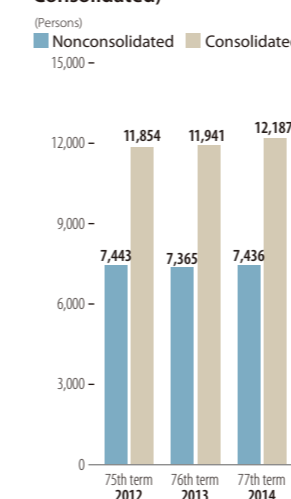
Net Assets/Total Assets (Consolidated)



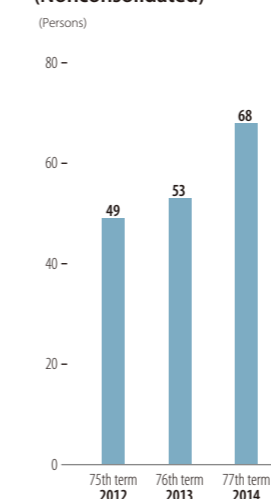
Research and Development Expenses/Capital Investment (Consolidated)



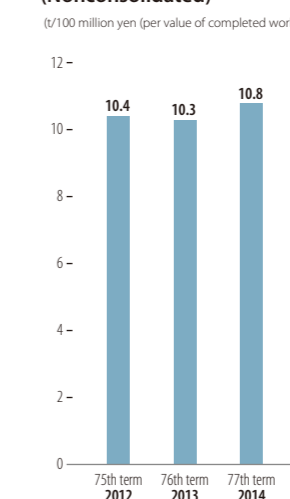
Number of Employees (Nonconsolidated and Consolidated)



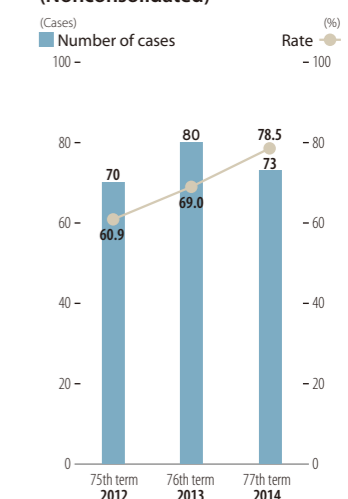
Number of Women in Managerial Positions (Nonconsolidated)



CO₂ Emissions Intensity During Construction Work (Nonconsolidated)



Number of CASBEE S- and A-Rank Projects/Rate (Nonconsolidated)



Dreams into Reality for a Sustainable Future



TAKENAKA CORPORATION

HEAD OFFICE

OSAKA
1-13, 4-chome, Hommachi, Chuo-ku, Osaka 541-0053, Japan
Tel: 06-6252-1201 Fax: 06-6271-0398

MAIN OFFICES

TOKYO
1-1, 1-chome, Shinsuna, Koto-ku, Tokyo 136-0075, Japan
Tel: 03-6810-5000 Fax: 03-6660-6012

OSAKA
1-13, 4-chome, Hommachi, Chuo-ku, Osaka 541-0053, Japan
Tel: 06-6252-1201 Fax: 06-6266-0012

BRANCH OFFICE LOCATIONS

Sapporo, Sendai, Yokohama, Chiba, Saitama, Nagoya,
Kyoto, Kobe, Takamatsu, Hiroshima and Fukuoka

TAKENAKA RESEARCH & DEVELOPMENT INSTITUTE

5-1, 1-chome, Otsuka, Inzai-shi, Chiba 270-1395, Japan
Tel: 0476-47-1700 Fax: 0476-47-3050

OVERSEAS OFFICES AND SUBSIDIARIES

THAI TAKENAKA INTERNATIONAL LTD.

BANGKOK
Silom Complex, 26th Floor, 191 Silom Road, Bangrak,
Bangkok 10500, Thailand
Tel: 66-2-266-2800 Fax: 66-2-266-2808

THAI TAKENAKA INTERNATIONAL LTD.

MYANMAR BRANCH

YANGON
No.45 (W) Tay Nu Yin Road, 7th Miles,
Mayangone Township, Yangon, Myanmar
Tel: 95-1-662-188

PT. TAKENAKA INDONESIA

JAKARTA
MidPlaza 1, 18th Floor, Jl. Jend.
Sudirman Kav. 10-11, Jakarta 10220, Indonesia
Tel: 62-21-573-5660 Fax: 62-21-570-7305

www.takenaka.co.jp

TAKENAKA (MALAYSIA) SDN. BHD.

KUALA LUMPUR
Lot 2.01, Level 2, Menara Manulife, No.6, Jalan Gelenggang,
Damansara Heights, 50490 Kuala Lumpur, Malaysia
Tel: 60-3-2095-1000 Fax: 60-3-2095-2000

TAKENAKA CORPORATION SINGAPORE OFFICE

SINGAPORE
167 Jalan Bukit Merah #16-10 Tower 5, Singapore 150167
Tel: 65-6899-8989 Fax: 65-6276-7333

TAKENAKA INDIA PRIVATE LTD.

GURGAON
805, 8th Floor, Vatika City point, Mehrauli Gurgaon Road,
Gurgaon, Haryana 122-002, India
Tel: 91-124-483-5900 Fax: 91-124-483-5999

TAKENAKA (CHINA) CONSTRUCTION CO., LTD.

SHANGHAI
Room 601-602, 6F Taiping Finance Tower, 488 Yin Cheng
Zhong Lu, Pudong New Area, Shanghai 200120 P.R.C
Tel: 86-21-6859-1201 Fax: 86-21-6859-1203

TAKENAKA EUROPE GmbH (European Headquarters)

DÜSSELDORF
Oststrasse 10, D-40211 Düsseldorf, Germany
Tel: 49-211-167940 Fax: 49-211-1679444

TAKENAKA CORPORATION (U.S.A.)

CHICAGO
555 Pierce Road, Suite #190, Itasca, IL 60143, U.S.A.
Tel: 1-630-250-3400 Fax: 1-630-250-3433

TAK DEVELOPMENT, INC.

NEW YORK
70 East, 55th Street, 4th Floor, New York, NY 10022, U.S.A.
Tel: 1-212-489-6001 Fax: 1-212-489-6002

SAN FRANCISCO
222 Mason Street, 5th Floor, San Francisco, CA 94102, U.S.A.
Tel: 1-415-398-0232 Fax: 1-415-398-0322

TAK HAWAII, INC.

HONOLULU
Topa Financial Center-Fort Street Tower, 745 Fort Street, Suite
1608, Honolulu, HI 96813, U.S.A.
Tel: 1-808-523-5899 Fax: 1-808-523-9082



This publication uses paper certified by the FSC™ and vegetable oil ink as well as environmentally friendly waterless printing.

Cat.No.010001e 301505CA