# OBAYASHI CORPORATE REPORT 2017

Fiscal Year Ended March 31, 2017





## Obayashi Code of Conduct

## **Three Pledges**

### **Obayashi Principles**

- 1 Exercise true craftsmanship and employ superior technologies to make every space as valuable as it can be.
- 2 Show concern for the global environment and offer solutions to social challenges as a good corporate citizen.
- 3 Value everyone we come in contact with in our business.

## **Obayashi Code of Conduct**

- 1. Fulfill our social mission
  - (1) Provide high-quality buildings, infrastructure and services
  - (2) Foster an environmentally responsible society
  - (3) Value every one of our associates
  - (4) Earn trust from suppliers
  - (5) Build good relationships with communities
- 2. Ensure strict adherence to corporate ethics
  - (1) Comply with laws and regulations and proper business conduct
  - (2) Promote fair and free competition
  - (3) Maintain appropriate relationships with stakeholders
  - (4) Avoid all contact with antisocial forces
  - (5) Ensure appropriate information disclosure and transparency of management

### **Obayashi's Three Pledges**

Quality, Efficiency, and Value

#### Purpose of Publication

Statements

The Obayashi Corporate Report is published to enable readers to understand the overall business activities of Obayashi and the Obayashi Group by disclosing its management strategy, financial information, and non-financial information in an integrated format.

**Reporting Period** 

Forward-Looking

Fiscal year ended March 31, 2017 (FY2017.3) and includes some activities in fiscal year ending March 31, 2018 (FY2018.3)

**Caution Regarding** The Obayashi Corporate Report contains predictions and forecasts regarding the future plans, strategies, and performance of Obayashi and the Obayashi Group. These statements are forward-looking statements based on assumptions and opinions made in light of information available to the Company at the time of writing, and are subject to risks and uncertainties related to economic trends, market demand, currency exchange rates, taxation and various other systems. Actual results may therefore differ materially from forecasts.



Obayashi also discloses financial information in its annual and quarterly financial statements.

CSR

Corporate Governance

Corporate Data

## **OUR HISTORY**

## Shaping the Times with Care

Construction companies shape the world like no one else can, creating unique and timeless spaces that bridge the past, the present, and the future.

As Obayashi professionals, we are each determined to bring sincerity, courtesy, mindfulness, and enthusiasm to everything we do.

In every construction process, and in every business practice, we carry a strong sense of responsibility.

1892–1945

Building the Foundations of the Construction Business



1914 Tokyo Central Station (currently Tokyo Station)
1924 Hanshin Koshien Stadium
1931 The Main Tower of Osaka Castle

The predecessor of Obayashi Corporation was founded on January 25, 1892 by Yoshigoro Obayashi as a civil engineering and building construction contractor in Osaka. At that time, directly after the Meiji Restoration, every industry in Japan was beginning to take steps towards modernization.

We were involved in construction of plants and offices for various industries as well as infrastructure construction projects such as ports and railroads. In February 1904, the company name was changed to Obayashi Corporation.

Starting with our successful construction of Tokyo Central Station (currently Tokyo Station) in 1914, we completed a string of iconic buildings for the time, including Hanshin Koshien Stadium and the reconstruction of the Main Tower of Osaka Castle. These achievements consolidated our position as a national-scale construction company.

## 1946–1990 Rapid Development



- 1956 Nukabira Dam Power Generation Development
- 1964 🖪 Yoyogi National Stadium 2nd Gymnasium
- 1965 \_\_\_\_ Musi River Bridge (Indonesia)
- 1970 Japan World Exposition (Theme Pavilion)
  1972 Minato Bridge on Hanshin Expressway Route 5
- Bayshore Line
- 1982 7 San Francisco Sewer (U.S.A.)

During the post-war reconstruction period, we applied our full attention to rebuilding key facilities throughout Japan, such as government offices, schools, and hospitals. We were also involved in several dam construction projects that pioneered electrical power development.

Thereafter, as Japan's car manufacturing, petrochemical, and synthetic fiber industries grew rapidly, the construction industry also advanced with the introduction of new materials and building methods.

In the 1960s, we undertook our first overseas project. We were also involved in numerous major projects in Japan as we developed into one of Japan's leading general contracting companies.

## 1991-1999

## Participation in Major Projects in Japan and Overseas



- 1994 **B** Kansai International Airport: Creation of Airport Island and Passenger Terminal
- 1996 Canal City Hakata
- 1997 \_ Kyoto Station Building
- 1997 🧕 Tokyo Bay Aqua-Line
- 1997 Singapore Airport Building (Singapore)
- 1997 Osaka Dome (currently Kyocera Dome Osaka)
- 1998 10 Shinagawa Intercity
- 1998 Akashi-Kaikyo Bridge
- 1999 III Stadium Australia (Australia)
- 1999 Tomisato Dam

After marking our centenary, we continued to ride a wave of vigorous construction demand and expanded our business operations even further.

We participated in numerous major projects in Japan and overseas, including the Kansai International Airport, the Tokyo Bay Aqua-Line, the Akashi-Kaikyo Bridge, and the main stadium for the Sydney Olympics, as well as being involved in construction of urban landmarks, such as Shinagawa Intercity and Kyocera Dome Osaka.

We began to undertake aggressive overseas development in response to expanding overseas demand, widening the range of our operations.

## 2000-

### Creating Value in a New Era



- 2001 I The Metropolitan Area Outer Discharge Channel-Tunnel (First section tunnel)
- 2002 🖪 Oasis 21
- 2006 Taiwan High Speed Rail (Taiwan)
- 2010 I Hoover Dam Bypass Project: Colorado River Bridge (U.S.A.)
- 2011 Dubai Metro Project (Dubai, U.A.E.)
- 2013 Grand Front Osaka
- 2012 II TOKYO SKYTREE®
- 2014 16 Toranomon Hills
- 2015 Sagamihara Interchange Ramp Bridge, Sagami Longitudinal Expressway
- 2015 San Francisco General Hospital (U.S.A.)
- 2016 Onoyama Viaduct

Entering the 21st century, we have participated in several distinctive projects in Japan, such as the construction of the world's tallest free-standing broadcasting tower, TOKYO SKYTREE®, and Toranomon Hills. We have also worked on urban development projects throughout Japan, including Grand Front Osaka and Oasis 21 in Nagoya.

Overseas construction projects include the Taiwan High Speed Rail, the Colorado River Bridge, and the Dubai Metro.

We will continue to meet diverse construction needs, such as disaster prevention and mitigation and reducing environmental impact.

## **KEY BUSINESS PERFORMANCE**

#### **Consolidated Financial Data**

					(Millions of yen)	(Thousands of U.S. dollars)* <sup>3</sup>
Fiscal years ended March 31	2013	2014	2015	2016	2017	2017
Orders received	¥1,449,567	¥1,653,005	¥1,900,517	¥1,951,943	¥2,145,256	\$19,121,637
Orders received (construction business)	1,372,658	1,580,900	1,797,441	1,862,140	2,052,504	18,294,896
Net sales	1,448,305	1,612,756	1,773,981	1,777,834	1,872,721	16,692,410
Operating income	35,153	31,991	48,388	106,380	133,742	1,192,106
Operating margin (%)	2.4	2.0	2.7	6.0	7.1	-
Ordinary income	44,690	40,135	59,913	111,208	140,106	1,248,832
Profit attributable to owners of parent*1	13,195	21,627	28,695	63,437	94,501	842,337
Profit attributable to owners of parent per share (EPS) (yen / U.S. dollars)	18.37	30.11	39.96	88.36	131.66	1.17
Net assets	414,650	448,108	549,483	561,658	644,076	5,740,947
Total assets	1,656,289	1,818,886	1,996,193	1,951,907	2,015,996	17,969,483
Equity ratio (%)	23.2	22.7	25.4	26.4	29.5	-
Return on equity (ROE) (%)	3.6	5.4	6.2	12.4	17.0	-
Dividends per share (yen / U.S. dollars)	8	8	10	18	28	0.24
Net cash provided by (used in) operating activities*2	31,496	37,962	74,646	124,980	158,892	1,416,280
Net cash provided by (used in) investing activities*2	(29,151)	(47,328)	(7,442)	(48,029)	(37,884)	(337,680)
Net cash provided by (used in) financing activities*2	(28,977)	27,587	(34,523)	(68,967)	(89,165)	(794,773)
Cash and cash equivalents at end of period	99,690	121,177	162,607	164,802	194,195	1,730,953
Interest-bearing debt (except nonrecourse loans)	306,323	351,592	327,802	266,465	200,334	1,785,671
Total amount of interest-bearing debt and nonrecourse loans	388,168	428,444	410,820	346,339	273,359	2,436,576
Debt/equity (D/E) ratio (times)	1.01	1.04	0.81	0.67	0.46	-
Capital expenditure	35,084	69,110	42,308	56,231	31,410	279,973
Research and development	8,742	8,927	9,391	10,081	10,553	94,070
Depreciation	10,916	12,103	14,392	14,476	14,981	133,540

\*1 From FY2016.3, the line item "Net income (loss)" has been changed to "Profit (loss) attributable to owners of parent"

\*2 In the statements of cash flows, figures in () represent the corresponding decrease in cash and cash equivalents

\*3 U.S. dollar amounts are provided solely for the convenience of the reader, translated on the basis of ¥112.19 to US\$1, the prevailing rate of exchange at March 31, 2017

Please refer to the Consolidated Financial Summary on page 65 for further details.

### Non-Financial Data (Environment, Social, Governance)

\* Non-consolidated figures

#### CO<sub>2</sub> Emission Volume



### Waste Emission Volume



### Water Consumption Volume

(10,000 m<sup>3</sup>) 200



About Obayashi Corporation Business Overview

CSR

30.0 100.0 25.0 20.0

(Billions of yen)

Operating Income O Operating Margin

**Employees** 



Male (Non-consolidated) Female (Non-consolidated) O Consolidated employee headcount



Including skilled workers on construction sites



Status of Occupational Accident Occurrence

#### **Outside Directors**



(Accident frequency rate)

0.75



### **Operating Income and Operating Margin**

**Operating Income by Business** 



¥38.7 billion

¥1,872.7

billion

(FY2017.3)

Net Sales and Ratio of Overseas Construction Sales

1,773.9

23 5

2015

Consolidated Net Sales O Ratio of Overseas Construction Sales within Construction Business

Net Sales by Business

Real Estate

**Development Business** 

billion

Overseas

Construction

Business

¥449.7

billion

Domestic Civil

Engineering Business

¥332.3

billion

(Billions of yen)

2.000.0

1.500.0

1,000.0

500.0

0.0

within Construction Business

1,448.3

0-

2013

1,612.7

19.6

2014

Other Businesses

¥31.4

Domestic Building

Construction Business

¥1,020.3

. billion

1,872.7

1,777.8

24.1

2016

(%)

40.0

10.0

0.0

2017 (FY ended March 31)

## A MESSAGE TO OUR STAKEHOLDERS





Representative Director Takeo Obayashi

Representative Director Toru Shiraishi

Since its foundation in 1892 at the dawn of the modern industrial era in Japan, the Obayashi Group has created new value through construction and advanced together with society.

Today, people are turning their attention to companies' proprietary technologies and expertise for solving global social challenges such as natural disasters, climate change, resource depletion, and food shortages. Expectations for such initiatives are growing. We are broadly advancing our business activities for improving national resilience and high-quality infrastructure, developing energy-saving technologies, and generating renewable energy.

We are committed to addressing social challenges with an eye toward realizing a sustainable society and enhancing corporate value. We will fulfill the expectations and maintain the trust of our customers, shareholders, investors, and other stakeholders.

## 2

## Toward the Realization of a Sustainable Society

## For a Safe, Abundant Society

Disaster prevention and mitigation, measures to strengthen and renew aging infrastructure, and initiatives to increase national resilience are getting into full swing to protect people's lives and lifestyles from the growing threat of natural disasters, including repeated severe earthquakes and typhoons. Seismic reinforcements are being made to road and rail bridge piers, dams for flood control are being built, and rivers improved. Concurrently, seismic reinforcement and rebuilding of hospitals, commercial facilities, schools, offices, factories, and other places where people gather is underway.

To support safe and enriched lifestyles, our Group is working extensively to newly construct and extend the lifespans of various types of infrastructure. In particular, we are playing a leading role in fields requiring advanced technologies and managerial skills. For instance, we are undertaking large-scale renovation and maintenance of expressways in use, as well as construction of loop expressway roads using shield tunneling methods deep underground over very long distances.

As for steps to address severe earthquakes, we are further evolving seismic isolation, vibration damping, and seismic reinforcement technologies. We are also providing customers with optimal solutions tailored to an array of conditions, including building scale, structure, and application. Further, we assist companies with formulating business continuity planning (BCP) by analyzing factors such as seismic risks and levels of impact on business. In the event of an earthquake, our proprietary earthquake damage prediction system will assist our customers with all steps from planning and restoration operations through to construction work to get business back to normal as quickly as possible.

Through activities such as disaster preparedness, restoration, and recovery support in the event of disasters, we will fulfill our social responsibility and mission to contribute to a safe, secure society.

## For the Global Environment

On the global environment front, our medium- to long-term environmental vision, Obayashi Green Vision 2050, envisages a society in 2050 that is low-carbon, recycling-oriented, nature-respecting, and safe and secure. We are working on action plans and goals to make that a reality.

To promote a low-carbon society, we propose and design energy-saving buildings and develop and spread low-carbon materials and technologies. In addition, we aim to cut energy use in our core domestic construction operations by 18% in 2020 from 2010 levels. We have been developing and introducing energy-conserving heavy machinery including shield machines capable of reducing electricity use by 30%. We have also been shifting to LED lighting on construction sites, raising energy conservation awareness. These initiatives are steadily bringing us closer to our vision.

We are also focusing on R&D in next-generation energyconserving technologies, which are expected to become mainstream in the near future. At the Obayashi Technical Research Institute, we constructed a smart energy system that we are now operating to verify its energy-conserving effects. Regarding new energy, we are working together with companies in different lines of business on technological development and demonstration trials toward full-fledged use of an energy system using electricity generation equipment fueled by hydrogen. We leveraged the data gained from such work to develop simulation technology to optimize the energy supply and demand balance when energy is being shared among buildings in specified areas. We will also help to shape smart cities planned around Japan by participating in planning, design, construction, and operational support. Through these initiatives, we will bring our activities toward realizing a low-carbon society to the next stage.

## For a Fulfilling Work Environment

We recognize that our corporate activities are supported by each and every employee. We create a work environment where all of our diverse associates can exercise their unique talents.

That means hiring people based chiefly on their character, irrespective of their gender. It also extends to putting the right people in the right jobs, and providing incentives for acquiring certifications and otherwise encouraging employees to build up their skills. We are focusing on planned development of human resources to support global development and business strategy in new businesses. For instance, we have introduced overseas study programs and structured training for employees to gain knowledge required for global business.

The construction industry is promoting the active participation of women to add vitality and appeal to the profession. Our ratio of female managers was 7.5% as of March 31, 2017, the highest level in the domestic construction industry. By 2024, we aim to double the ratio from 5.7% as of March 31, 2015, as well as raise the ratio of female engineers to about 10%. At the same time, we will step up efforts to make the work environment better for women. We will improve facilities at construction sites and enhance measures to support work-life balance, such as a system of shorter working hours for childcare and a childcare leave system.

## Medium-Term Business Plan—from Plan 2015 to Plan 2017

### Review of Medium-Term Business Plan 2015

Under the Obayashi Group Medium-Term Business Plan 2015 launched in the fiscal year ended March 31, 2016, we have been promoting the diversification of our earnings base in order to build a business structure that delivers stable profit in areas aside from the domestic construction business in the future. Specifically, we expanded the overseas construction business through M&As and other means. We have also aggressively invested in areas like the real estate development business with a focus on properties for lease, solar power generation and other renewable energy operations, and technology development.

With the recovery of the domestic construction market and improvements in productivity, our business results have improved markedly and we have made steady progress on improving our financial base. As a result, we have achieved most of the targets in Medium-Term Business Plan 2015 ahead of its final fiscal year.

In the fiscal year ended March 31, 2017, consolidated net sales amounted to ¥1,872.7 billion. This figure is the highest on record, making us the top company in the domestic construction industry for the fourth fiscal year in a row. On the earnings front, due to an increase in gross profit on completed construction contracts in the domestic construction business, we achieved record-high profits at all levels, with operating income of ¥133.7 billion, ordinary income of ¥140.1 billion, and profit attributable to owners of parent of ¥94.5 billion.

#### Obayashi Group's Business Performance (Consolidated)

### New Medium-Term Business Plan: Background and Objectives

Looking at our Group's business environment, the outlook is increasingly uncertain. Although the Japanese economy has been performing steadily, there is increasing uncertainty over the global political and economic situation, reflecting factors such as the U.K. decision to exit the E.U. and the direction of the new U.S. administration, while terrorism has become the norm in regions around the world. Furthermore, with technological innovation accelerating quickly in various fields, we need to evolve and grow constantly beyond the scope of our existing businesses.

In this situation, we will use all of our strength to maintain and increase our current performance of record-high earnings. At the same time, to seize growth opportunities presented by changes in the business environment, we newly formulated Medium-Term Business Plan 2017 one year ahead of schedule to prepare the way for the future and advance our business.

We have established our Vision for the Future for our 150th anniversary year (2042) to realize a sustainable society in line with our Corporate Principles. This plan was drafted as a set of results to be achieved and policies to be implemented in the first five years of our roadmap for realizing this vision.

Obayashi Group's Business Performance	(Consolidated)			(Billions of yer
	FY2015.3	FY2015.3 Medium-Term Business Plan 2015		
	Result	Plan	FY2016.3 Result	FY2017.3 Result
Net sales	1,773.9	Around 1,700.0	1,777.8	1,872.7
Ratio of overseas construction sales within construction business	24%	25%	24%	25%
Operating income	48.3	Around 45.0 (stable)	106.3	133.7
Domestic construction	58%	55%	83%	92%
Other than domestic construction (overseas construction, real estate development, new businesses)	42%	45%	17%	8%
Ordinary income	59.9	Around 50.0	111.2	140.1
Profit attributable to owners of parent	28.6	_	63.4	94.5
Interest-bearing debt	410.8	Around 400.0 (March 31, 2018)	346.3	273.3
D/E ratio (times)	0.81	Around 0.9	0.67	0.46
EBITDA	62.7	59.0 to 63.0	120.8	148.7
ROE	6.2%	Around 8% (over the medium to long term)	12.4%	17.0%
Dividend payout ratio	25.0%	20% to 30%	20.4%	21.3%

#### **Capital Expenditure Plan and Result**

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	FY2016.3–FY2018.3 Plan		FY2016.3	FY2017.3	FY2016.3-FY2017.3
	Cumulative	Average per Year	Result	Result	Result (Cumulative)
Construction machinery and business facilities	25.0	8.3	11.2	10.9	22.1
R&D and ICT	40.0	13.3	13.9	15.0	29.0
Real estate development business*	55.0	18.3	38.3	11.8	50.2
New businesses	60.0	20.0	5.2	7.5	12.8
Total	180.0	60.0	68.8	45.5	114.4

\* New investment in real estate for lease (excluding real estate for sale)

(Billions of ven)

### Vision for the Future

With an eye toward our Group's long-term growth, we set out the following Vision for the Future for our 150th anniversary (2042). We will evolve into a corporate group that can meet the expectations of all our stakeholders, continuing to grow beyond the framework of a general contractor and adapting flexibly to changes in the business environment.

Specifically, we will dramatically improve productivity by building next-generation production systems utilizing the Internet of Things (IoT), artificial intelligence (AI), and robotics. We will also maintain and expand our top-class business scale and profit levels in the domestic construction market. Other steps shall enhance our engineering functions and create sources of earnings utilizing proprietary technologies and expertise to strategically deepen and expand our business domains. At the same time, our four existing pillarsbuilding construction, civil engineering, real estate development, and new businesses—are going to be strengthened. Our actions will bolster our international competitiveness centered on technology and accelerate globalization.

### Vision for the Future

The leader at the forefront of technology and productivity

A corporate group advancing while creating diverse earnings sources

Our Group will evolve into a corporate group that can meet the expectations of all our stakeholders, continuing to grow beyond the framework of a general contractor and adapting flexibly to changes in the business environment.

## Strategy for Realizing Our Vision for the Future

We will deepen and expand our business domains, and accelerate globalization centered on strengthening the four existing pillars with an eye to achieving our Vision for the Future

> Vision for the Future

#### Deepen and expand business domains

Strengthen and enhance engineering functions

- Strengthen and enhance facility management and property management functions Diversify portfolio of properties for lease
- Create sources of earnings utilizing proprietary technologies and expertise Acquire new elemental technologies that facilitate business creation
- Establish new business models through alliances with other industries

### Strengthen the four existing pillars

(building construction, civil engineering, real estate development, new businesses)

- Dramatically improve productivity by building next-generation production systems Concentrated management resources in
- growth markets and areas Provide integrated high-value-added services
- related to construction Expand the office leasing business
- Expand the renewable energy business Develop and acquire new elemental
- technologies

### Globalization

- Initiatives for promising untapped markets
- Expand business in established areas, including through M&As Accelerate localization in established areas
- Globally develop Obayashi-level quality
- and safety management Pursue synergy effects through exchanges of technologies and personnel

## **Overview of Medium-Term Business Plan 2017**

-Promoting ESG Management-

As the first step toward realizing our Vision for the Future, Medium-Term Business Plan 2017's basic policies are building a strong management foundation and preparing the way for the future.

Over the course of the plan, we must maintain and increase current performance levels. In the brisk domestic construction business, we aim to bolster our competitiveness, provide high-value-added services, and improve productivity to propel sales and profits even higher. In the overseas construction business, we will promote further localization to boost our earning capacity and expand operations in regions such as Oceania. In the real estate development business, we will keep actively investing in the office leasing business targeting an even broader scope of operations. In our new businesses, we aim to achieve growth by strengthening PPP\* project initiatives and commercializing renewable energy

operations, including wind power and biomass energy, and our solar power generation facilities, which all started operations in 2017.

As we forge forward with such operations, we will strengthen equity, reduce interest-bearing debt, and build up cash and deposits to build a strong management foundation to prepare for unexpected business risks and strategic, flexible investments directed at expanding our business domains.

Meanwhile, we will prepare the way for the future by strategically investing ¥400 billion over five years. These investments will support development and acquisition of technology, development of human resources, and creation of new business models to deepen and expand business domains and promote globalization.

\* Public-private partnership (PPP): An arrangement where public and private entities work together to provide public services.

> 150th Founding Anniversary

## Realizing Our Vision for the Future

## Building a Strong Management Foundation

By strengthening our four existing business pillars, we will maintain and expand our current performance of record-high earnings, and build a strong management foundation to prepare for growth investments that take advantage of opportunities, as well as unexpected changes in the business environment

## Preparing the Way for the Future



CSR

## Main Management Indicator Targets

We have set the following main management indicator targets with the goal of seizing opportunities for growth investments and building a strong management foundation able to cope with unexpected changes in the business environment.

March 31, 2022 Consolidated Balance Sheet					
Equity	900.0 billion yen Retained earnings 700.0 billion yen	March 31, 2017 Result <b>594.1</b> billion yen 334.9 billion yen	<ul> <li>Further improvement of financial base</li> <li>Strengthen equity to withstand</li> </ul>		
Equity ratio	40%	29.5%	<ul> <li>Strengthen equity to withstand unexpected business risks</li> <li>Strengthen investment capabilities to</li> </ul>		
Net interest- bearing debt	0 yen Interest-bearing debt 250.0 billion yen Cash and deposits 250.0 billion yen	78.7 billion yen 273.3 billion yen 194.5 billion yen	support systematic and flexible growth investment for expanding business fields		
	FY2022.3 Consolidat	ted Income Stat	rement		

FT2022.5 Consolidated income statement							
		FY2017.3 Res	ult				
Net sales	Around <b>2</b> trillion yen	1,872.7 billio	n yen				
Operating income	Around 150.0 billion yen	133.7 billion yen		taining			
Profit attributable to owners of parent	Around 100.0 billion yen	94.5 billio	94.5 billion yen Improve corporate value by maintai and expanding our profit level		naming		
<b>Profit</b> attributable to owners of parent per share (EPS)	Around <b>150</b> yen	131.6	6 yen				
Return on equity (RC	[ROE] ([	Profit attributabl to owners of parent margin	o <sup>le</sup> ] × [ <sup>Asset</sup> turnover ] =	= ROA ) >	× [ <sup>Financial</sup> ]	= ROE	
ROE expected to decline due to a declin leverage caused by strengthening equity		March 31, 2022 March 31, 2017 Result	5.0% 5.0%	0.92	4.6% 4.7%	2.5 3.6	11.5% 17.0%

## Capital Expenditure Plan

We will invest ¥400 billion over five years to prepare the way for continuous growth as follows:

	Medium-Term Business Plan 2017		(Reference) Medium-Ter	m Business Plan 2015	
	Plan for 2017–2021	(Fiscal year average)	Plan for 2015–2017 (	(Fiscal year average)	
Continuous investment to maintain position as "the	e leader at the fo	refront of technol	ogy and productivi	ty" (Billions of yen)	
R&D of construction technologies	100.0	20.0	40.0	13.3	
Construction machinery and business facilities	50.0	10.0	25.0	8.3	
Investment to realize "a corporate group advancir	ng while creating	diverse earnings	sources"		
Real estate leasing business	100.0	20.0	55.0	18.3	
Renewable energy business, and others	100.0	20.0	60.0	20.0	
Growth investments that seize opportunities					
M&As and others	50.0	10.0	—	—	
Total investment amount over five years	400.0	80.0	180.0	60.0	

#### A MESSAGE TO OUR STAKEHOLDERS

#### Management Foundation Strategies and Issues

Over the course of Medium-Term Business Plan 2017, we must resolutely implement the strategies set out for each business domain while constantly evolving and growing the management foundation beyond the scope of our existing businesses.

We will advance our technology strategy to promote technological innovation in all business domains. We will also advance our human resource and organizational strategies to enhance human resources and secure and develop diverse human resources to support global development and business strategies in new businesses. In the process, there are two tasks that we regard as particularly pressing.

The first urgent task is technological innovation utilizing IoT and AI. The fourth industrial revolution is about using these technological innovations to bring about productivity gains and solutions to social challenges, involving both the public and private sector in the creation of new markets. In the construction industry, the Japanese government has rolled out plans to raise construction site productivity by 20% by 2025 through the promotion of i-Construction. We will dramatically improve productivity by organically connecting the data, experience, and expertise accumulated at our production sites with the Group's existing technologies via IoT, AI, and other technologies and integrating them into our business with an eye to creating new construction business models.

The second urgent task is work style reforms. This is a top priority in Japan's Plan for Dynamic Engagement of All Citizens, adopted by the Cabinet in June 2016. Correction of long working hours and realizing equal pay for equal work are among issues being examined in detail by the Japanese government.

In this landscape, we are striving to create a fulfilling work environment and ensure that every employee thrives by promoting work-life balance, including through reducing total working hours, as well as strengthening measures to maintain and enhance health.

Further, the construction industry faces the challenge of solving long working hours and low wages. From the perspective of securing workers for the future and making the construction industry appealing, it is critical that we take the initiative to put these work style reforms into action. Going forward, we will step up wide-ranging measures in cooperation with suppliers, including subcontractors.

### Policy on Shareholder Returns

Our profit allocation policy is to sustain stable dividend payouts to our shareholders over the long term and provide shareholders with returns commensurate with the Group's performance, including purchases of treasury stock, taking into account the need to enhance internal reserves so as to further improve our financial base, develop technologies, and make capital expenditures for the future. In line with our commitment to stable dividend payouts to shareholders, we will endeavor to maintain a dividend payout ratio of 20% to 30%.

For the fiscal year ended March 31, 2017, considering profit attributable to owners of parent per share (¥131.66) and medium-term business performance, we increased the annual dividend by ¥10 per share to ¥28 (consolidated dividend payout ratio: 21.3%).

For the fiscal year ending March 31, 2018, we expect to pay ¥14 per share both for the midterm and year-end dividends, making a total annual dividend of ¥28 per share (consolidated dividend payout ratio of 21.2%).

By continuing to enhance internal reserves and raise our corporate value while providing stable dividends, we look to return profits in a manner that makes sense to shareholders and investors.



## CSR

### Consolidated Dividend Payout Ratio Target: 20% to 30% Range

Profit Attributable to Owners of Parent Per Share (EPS) and Dividends per Share



## **Enhancing Corporate Governance**

Along with building an effective framework for business execution, we believe increasing transparency and sound management are critical to maintaining the trust of society.

We have formulated selection standards for outside directors and Audit & Supervisory Board members, including standards regarding independence. Two of the eleven directors on the Board of Directors and three of the five Audit & Supervisory Board members are appointed from outside the Company. They each contribute from an independent position, offering advice on improving management efficiency, supervising management in general, and checking on management from an objective perspective. In this way, they play a role in the effective functioning of corporate governance.

We conduct analysis and evaluation of the effectiveness of the Board of Directors as a whole based on the assessments and opinions of the directors following the principles of Japan's Corporate Governance Code set out by the Tokyo Stock Exchange with an eye to ensuring the continuous growth of the Group and further increase in corporate value. From the results of these evaluations, we have judged that the effectiveness of the Board of Directors has been ensured, and we will work to further enhance its efficacy going forward by making appropriate improvements to its structure and method of operation. In addition, under the guidance of the Corporate Ethics Committee directly overseen by the president, we established the Corporate Ethics Program and are constantly working to foster and promote a sound corporate culture. We will carefully follow individual measures based on these programs, inspect the status of enforcement and constantly make revisions. Through these measures, we ensure that the entire Group complies with laws and regulations and maintain high observance of corporate ethics.

Additionally, we decided in May 2017 to implement the tender offer for the shares of our subsidiary Obayashi Road Corporation for the purpose of making Obayashi Road a wholly owned subsidiary. Our intention is avoidance of a future conflict of interest between the parent company and minority shareholders that may be caused by the listing of both the parent and the subsidiary, speeding up decisionmaking, increasing the degree of freedom in the Group's management, and reinforcing the Group's governance.

By enhancing corporate governance and realizing transparent, fair, rapid, and resolute decision-making, we aim to win even greater trust from all our stakeholders as a company.

Zu Sinai

Toru Shiraishi Representative Director President

## **BUSINESS HIGHLIGHTS**



JR SHINJUKU MIRAINA TOWER & Shinjuku Expressway Bus Terminal



Onoyama Viaduct



Renovation of California Memorial Stadium (U.S.A.)



Akashi Station South Ward Urban Redevelopment Project

Hyugahichiya Solar Power Station

#### **Domestic Building Construction Business**

We provide all types of buildings such as offices, condominiums, commercial facilities, factories, hospitals and schools that meet diverse needs including reduced environmental load and energy conservation, comfort and convenience as well as seismic resistance and disaster readiness for securing business continuity.

We have completed many historically and culturally symbolic projects, such as Tokyo Central Station (currently Tokyo Station), Japan World Exposition (Theme Pavilion), Roppongi Hills, TOKYO SKYTREE<sup>®</sup>, and Toranomon Hills.

We build infrastructure essential to people's lives, such as tunnels, bridges, dams, riverbanks, railroads, and expressways. In doing so,

we contribute to making an abundant society and ensuring safety

Recently, this business domain has widened to cover mainte-

nance and upgrades, including repairs, and we have been actively involved in extending the life and functionality of existing infrastructure. We have also been leveraging cutting edge ICT such as

3D measurement data and unmanned construction machinery to make steady improvements in construction work quality and

**Domestic Civil Engineering Business** 

and security for everyone.

productivity.

#### Net sales



Operating income ¥82.6 billion (Up 59.8% year on year)

Net sales ¥332.3 billion (Down 6.1% year on year)

Operating income ¥40.0 billion (Up 8.6% year on year)

### **Overseas Construction Business**

We have a proven track record in numerous overseas projects, such as Taiwan High Speed Rail and Colorado River Bridge at Hoover Dam, underscored by our world-renowned technological capabilities such as seismic resistance and shield tunneling construction methods.

We also provide safety, security, and comfort to people's lives in developing nations through construction of infrastructure such as roads, bridges, and schools. We can offer customers optimal buildings and structures with our global network and half-century of experience overseas, especially in North America, Asia and Oceania. Net sales ¥449.7 billion (Up 10.0% year on year)

Operating income ¥1.6 billion (Down 67.9% year on year)

Real Estate Development Business

We develop and own excellent leasing properties in prime locations, primarily in metropolitan areas. We adopt environmentally considerate technologies to enhance energy-saving performance and tenant comfort, providing safe and secure spaces to support tenant companies' business continuity.

In the urban redevelopment business, we are actively involved in the operation of large-scale projects, having accumulated extensive expertise from our experience in numerous projects as a project partner and specified agent. **¥38.7** billion (Down 17.5% year on year) Operating income

Net sales

**¥7.1** billion (Down 31.3% year on year)

Other Businesses (New Businesses, etc.) We promote renewable energy, PPP and agriculture businesses. In the renewable energy business, we will implement initiatives in

wind power and biomass, as well as solar power generation, with a view to entering businesses on the periphery of power generation. We will continue to focus proactively on the PPP business, lever-

aging our track record of numerous initiatives in PFI projects in Japan, working to expand our earnings in facility maintenance and management, including at Group companies.

We are planning to make a full-scale entry in the agriculture business, harvesting cherry tomatoes and starting plant factories that use artificial light.



(Up 5.5% year on year)



About Obayashi Corporation Business Overview

## DOMESTIC BUILDING CONSTRUCTION **BUSINESS**



We will realize stable earnings by providing new value to society and strengthening our competitive advantage in growing markets and areas, while staying ahead in incorporating IoT, AI, robotics, and other innovations to prepare the way for the future.

## **Business** Poli

	<ul> <li>and providing integrated high-value-added services for buildings, centered on leveraging the Group's total capabilities and global network</li> <li>Improve productivity by building next-generation production systems utilizing IoT, AI, and robotics, transforming business processes by basing them on BIM (Building Information Modeling), developing labor-saving construction methods, etc.</li> <li>Secure production capacity by improving the work environment at construction sites, develop-</li> </ul>
	<ul> <li>ing multi-skilled workers, securing skilled workers, providing educational support, etc.</li> <li>Eradicate major disasters and quality and construction defects by implementing diverse education programs and rigorously applying quality and safety management utilizing ICT</li> </ul>
Business Environment	<ul> <li>Strong core-target private sector non-housing investment due to demand for construction spurred by urban redevelopment and infrastructure enhancement ahead of the Tokyo 2020 Olympic and Paralympic Games despite shrinking government construction investment and private-sector housing investment</li> <li>Concerns about weakening corporate investment sentiment, mainly owing to Chinese economic deceleration and the new U.S. administration's policy trends</li> <li>Need to address new markets stemming from technological innovation such as IoT, AI, robotics, and big data</li> <li>Improving productivity and securing production capacity through production system reforms with an eye to work style reform and securing a workforce for the future</li> </ul>
Business Strategies	We will work to expand orders in growth areas including the tourism, medicine, environment and renewable energy fields, as well as new industrial domains such as aerospace and marine. We will bolster our ability to make proposals and compete in sales, design, construction and maintenance and management according to building life cycles. Our focus will be on winning construction projects likely to deliver higher added value, such as engineering, smart city, and renewal work, as well as buildings requiring technological development capabilities including smart factories and next-generation data centers. To improve productivity, we will promote open innovation, teaming up with venture companies, universities, research institutions, and other entities possessing cutting-edge technology. By organically linking innovative technology with our technologies and production expertise, we will work to develop new technologies that facilitate quality, safety, energy conservation, and efficiency. In addition, we will promote integrated use of BIM from planning and design to construction, maintenance and management throughout the Group, targeting even higher productivity. To secure production capacity, we will improve the work environment including by creating a climate conducive to taking vacations and introducing the health monitor system Envital <sup>TM</sup> (see page 54). At the same time, we will support the development of multi-skilled workers and hold joint company introduction seminars with our suppliers.

Realize stable earnings by enhancing competitive advantages in growth markets and areas

We will remain committed to providing customers with safe, secure buildings incorporating the latest technology, while passing on the expertise we have gained through over 120 years of exercising true craftsmanship to the next generation.



#### Topics

## Kumamoto Castle Restoration Project

#### Supporting the Castle's Guard Turret with a "Steel Arm"

Kumamoto Castle, located in Kumamoto Prefecture, was damaged by the Kumamoto Earthquakes in April 2016. We performed an emergency construction project to prevent its five-story lida Turret (*lidamaru Gokai Yagura*) from collapsing.

Supported only by a few stones in one corner, known as the "miraculous single stone pillar," the turret had fortunately escaped collapse. With the turret still on the brink of collapse, we accomplished the challenging project of positioning a "steel arm" made from bridge beam for temporary installation in the empty space under the turret. We are now working on restoration of the stone walls.

#### Main Tower Restoration Project

We received a restoration project order for the main tower, for which rapid restoration is sought by citizens of Kumamoto City and Kumamoto Prefecture and many other people as a symbol of earthquake recovery.

As we construct it, we are simultaneously designing seismic reinforcement based on careful considerations incorporating the latest technology, which will help to safely and quickly restore the main tower. As the original contractor of the present main tower, we also adhere to traditional construction methods. In this way, we aim to restore the main tower in a safe and quick manner.





Image of the completed project

## **Ongoing Projects**



#### Expo '70 Commemorative Park's Tower of the Sun

We are currently undertaking seismic reinforcement and renewal work on the Tower of the Sun, the symbolic monument of the Japan World Exposition, Osaka 1970. We are trialing the use of point cloud data of the tower's interior created by a 3D scanner, and BIM for the work. These have been helpful when planning the placement of construction scaffolding without interfering with the existing escalator and complex uniquely shaped artwork on display within the tower.

The inner tower will reopen to the public on a regular basis in March 2018, after a long closure.

Client: Osaka Prefecture Architect: Showa Sekkei, Incorporated

#### New Athletics Stadium for Aomori Prefecture Sports Park

Client: Aomori Prefecture Architect: Toyo Ito & Associates, Architects

We are constructing an athletics stadium with a capacity of 20,000 people, which is scheduled as a venue for the 80th National Athletic Meet to be held in Aomori in 2025.

The distinctive elliptical stadium has a curved roof evoking images of trees to blend in with the natural surroundings. We are sharing BIM data with the architect, manufacturers, and suppliers, aiming at effective drafting and inspection work.



Image of the completed project

#### BUSINESS OVERVIEW | DOMESTIC BUILDING CONSTRUCTION BUSINESS

## PROJECT REPORT



A large-scale public restoration housing complex in Yamada Town, Shimohei District, Iwate Prefecture, which was severely damaged by the Great East Japan Earthquake.

To overcome the shortage of materials, equipment, and labor to undertake construction work in the disaster stricken area, we proposed meticulous construction process plans up to a few months in advance. We also made part of the floor and all the stairs precast from the design stage in order to achieve stable construction work quality and labor savings.

Location: Yamada Town, Shimohei District, Iwate Prefecture
 Client: Urban Renaissance Agency
 Architect: Obayashi Corporation



A school building featuring an underground auditorium also used as a multi-purpose hall with a four-layer open space atrium and capacity for 4,000 people.

For construction of the hall, knuckle piles with a small diameter were used, offering enhanced resistance to uplift forces. Further, an inverted construction method allowed simultaneous work on the aboveground and underground portions of the building, shortening the construction period.

For exterior and interior design, we took steps such as creating mockups for the meetings with the client in line with the client's needs.

Location: Ota City, Tokyo
 Client: KATAYANAGI INSTITUTE
 Architect: Kume Sekkei Co., Ltd.





Located in Sumida City, where the well-known Japanese *ukiyo-e* artist Katsushika Hokusai was born, the museum features his works and those of his disciples.

The building's exterior and interior both have extremely complex forms with few perpendicular or parallel lines. We used BIM for building the slanted building frame walls, planning the positioning of large-sized slanted glass panels, and verifying the precision of the construction work. By sharing digital information of 3D coordinates, which is automatically generated from a building frame model in the BIM system, with external panel and window sash suppliers, the

construction of this distinctively designed building went smoothly.

Location: Sumida City, Tokyo Client: Sumida City, Tokyo Architect: KAZUYO SEJIMA & ASSOCIATES



Shima Kanko Hotel was the main forum for the G7 Ise-Shima Summit in May 2016.

The full-scale renewal project reflected the various needs of governmentaffiliated organizations and customers in design and construction, completing extensive work ranging from seismic reinforcement, interior and exterior repairs, facility upgrades, and landscaping in a short period.

Location: Shima City, Mie Prefecture

Client: KINTETSU REAL ESTATE CO., Ltd, Kintetsu Miyako Hotels International, Inc. Architect: Obayashi Corporation, NIHON SEKKEI, INC., ALL NIPPON ENGINEERING CONSULTANTS CO., LTD., KANKO KIKAKU SEKKEISHA



JRJP

Hakata Building



A research and recreation facility was constructed on a site overlooking Lake Hamana.

Since the mountain-top location of the building site did not allow for a temporary roadway, a temporary platform was set up above the valley area to secure a path for delivery vehicles. The project had only 17 months for the entire construction process, including demolishing the existing structure and constructing the new building. Precast concrete was chosen for the exterior walls, which employed aerodynamic curves spanning up to 180 meters, ensuring guality and enhancing work efficiency.

Location: Hamamatsu City, Shizuoka Prefecture Client: DENSO CORPORATION Architect: Nikken Sekkei Ltd



Located in front of JR Hakata Station-the gateway to Kyushu-this building is one of the largest office buildings in Kyushu.

The project had a short construction period in a location with much pedestrian and vehicle traffic. BIM was utilized to thoroughly examine plans to execute construction work, aiming to enhance safety and efficiency. An underground/aboveground dual-level construction method\* was chosen to enable us to start the finishing work on core parts before other work.

\* Excavation work through the lowest underground level is done first, then the base foundation is laid. Next, underground steel frame construction is completed, and then the floor for the first level above ground is built before constructing the underground building frame. After that, construction work progresses on two floors simultaneously, starting with the lowest underground level and the first level above ground working upward

- Location: Fukuoka City, Fukuoka Prefecture
- Client: Kyushu Railway Company, JAPAN Post Co., Ltd.
  - Architect: Nikken Sekkei Ltd, Obavashi Corporation

CSR

## DOMESTIC CIVIL ENGINEERING BUSINESS



We will contribute to the development of safe and secure infrastructure through our business activities, while focusing on projects that require advanced technologies. We aim to reduce labor by using more precast units for construction structures and improve productivity by utilizing ICT to increase the efficiency of production systems.

## Business Policy

- Strategically acquire orders to construct, renew, and extend the life of infrastructure that contributes to the safety and security of the public as well as Japan's economic development
- Work to acquire orders for energy-related projects that respond to social and environmental change
- Expand design-build projects using labor-saving technology and ICT, and further increase productivity and construction safety using IoT and AI
- Diversify earnings base by expanding into upstream and downstream sectors in the civil engineering business
- Secure engineers and skilled workers by improving the work environment on construction sites and secure production capacity by supporting their development and so forth

### Business Environment

- Domestic construction investment to be around ¥50 trillion in the fiscal year ending March 31, 2018, basically on par with the previous fiscal year
- Urgent need for repair and renovation of infrastructure constructed during Japan's high growth period
   Ongoing strong investment related to the Tokyo 2020 Olympic and Paralympic Games and the Chuo Shinkansen Project using the Superconducting Maglev System
- Diversification of the types of orders due to the introduction of an array of bidding contract systems
   Risk of production capacity shortages from a decline in skilled workers due to demographic structure
   Increased social requirements for correction of long working hours

## Business Strategies

We aim to receive orders strategically from projects in our areas of strength, which include advanced technologies such as new infrastructure construction, infrastructure renovation, disaster prevention and mitigation measures, and energy-related fields.

In the currently favorable order environment, we aim to expand orders while ensuring high quality. We will thus work to improve productivity by making greater use of ICT and labor-saving technologies such as precasting. At the same time, we will promote the development of unmanned construction techniques for safer construction sites.

We will also aggressively expand into upstream and downstream sectors in the civil engineering business to help strengthen our sales capabilities and bolster our competitiveness by swiftly grasping and attentively addressing customers' needs, while striving to diversify our earnings base.

As a part of work style reform, we will promote a system of eight vacation days per four weeks at all construction sites. In addition, we will coordinate with suppliers on sharing issues and solutions, targeting higher productivity so that we can shorten total working hours and keep skilled workers' wages at appropriate levels. By taking such initiatives, we will realize a comfortable work environment that will contribute to securing construction industry workers.



#### Topics

### Promoting ICT Use in Addressing Aging Infrastructure

There are about 700,000 bridges in Japan with lengths of two meters or longer, which require a visual inspection once every five years by law. Having engineers visually inspect all of them requires significant human effort and cost.

By using UAVs (unmanned aerial vehicles) with ultrasonic sensors enabling them to maintain set distances from specified objects, we aim to develop a new efficient inspection method that can automate the entire process from screening for cracks through diagnosis.



## **Ongoing Projects**

#### Tokyo Outer Ring Road Tunnel (Northbound from Tomei Expressway) Client: Central Nippon Expressway Company Limited



#### One of Japan's Largest Shield Tunnels

In the construction work in progress on the Tokyo Outer Ring Road between Kan-Etsu Expressway and Tomei Expressway, we are using one of Japan's largest shield tunneling machines with an outer diameter of 16.1 m to construct a tunnel extending 9 km to the north from Tomei Junction. An Energy-saving Shield with Double Cutter is used, Kan-Etsu Expressway Tokyo Outer Ring Road Chuo Junction Chuo Junction Chuo Section Expressway Chuo Junction Chuo Section Ur scope of construction Expressway Tomei Junction Expressway Tomei Junction Expressway Tomei Junction Chuo Section Higashi-Kanto Expressway Tomei Junction Chuo Section Higashi-Kanto Expressway

which separately optimizes the rotational speeds of the inner and outer cutter heads, with the inner head protruding forward past the outer head at the initial point of excavation. It increases excavation speeds by about 25% and reduces electricity consumption by roughly 30% over conventional methods.

#### Renovation of the Section between Itabashi and Kumanocho Junctions Client: Metropolitan Expressway Company Limited

#### Expanding Expressway Lanes on the Dual-Level Pier Structure

The inbound and outbound lanes on both levels of this busy stretch of the expressway are being expanded to ease the chronic congestion from 150,000 vehicles traveling over it each day.

To ensure stability of the structure within the limited installation space, we are using hybrid



Hybrid structural footing framework

structural footing\*, which integrates current footing for transmitting the loads from piers to the foundation pile with newly established footing comprising a grid embedded with strong steel materials.

We are also leveraging various other technologies to help make the expressway pleasant to drive on.

\* Joint development by Metropolitan Expressway Company Limited, NIPPON ENGINEERING CONSULTANTS CO., LTD., and Obayashi Corporation



#### BUSINESS OVERVIEW | DOMESTIC CIVIL ENGINEERING BUSINESS

## **PROJECT REPORT**



Aiming to make traffic in the vicinity smoother and enhance safety, this project aims to build continuous grade separation by elevating the railway connecting a roughly 5.4 km section of the Keikyu-Airport Line and a roughly 2.1 km section of the Keikyu-Main Line. (We constructed 860 m of the section from Keikyu Kamata Station including the Route Kanjo 8 crossing.)

The project involved working in a densely residential area in places close to operating trains and directly above railway tracks, and necessitated an array of constraints including main road constrictions. We completed the 15-year period project with the understanding of the vicinity.

Location: Ota City, Tokyo Client: Keikyu Corporation

Located in the northern area of Nagano City, this gravity dam solely for flood mitigation was built on the Asakawa River, which is part of the Shinano River system. The 53 m high dam has a crest length of 165 m and a volume of 143,000 m<sup>3</sup>. By temporarily retaining water during times of flooding, the dam prevents damage from river flooding in the urban area downstream.

The dam does not hinder soil from moving downstream or fish from traveling upstream under normal conditions because river water flows through its regular spillway, rather than being retained. Further, measures were taken to preserve the ecosystem including setting up a fish pathway in the dam's

regular spillway so that fish can easily travel upstream.

Location: Nagano City, Nagano Prefecture Client: Nagano Prefecture





Corporate Governance

ernance Corporate Data

The Onoyama Viaduct is one of the longest prestressed concrete continuous rigid-frame box-girder bridges in Japan with a maximum span of 154 m. A large-diameter caisson-type deep foundation was used to construct tall bridge columns. Then, the bridge was built using the cantilever erection method to extend the roadway while keeping a balance from the center of the bridge columns.

This roadwork has improved expressway travel between Kyoto, Nara and Wakayama, supporting industry, invigorating tourism, and expediting emergency services in disasters.

- Location: Between Iwade City and Wakayama City, Wakayama Prefecture
- Client: Ministry of Land, Infrastructure, Transport and Tourism

One of the world's largest underground LNG tanks, with storage capacity of 220,000 kL, an inner diameter of 74.5 m, and depth of 50.7 m, has been planned, with an eye to stable energy supply, raw material procurement diversification, and heightened awareness of ensuring a safe and secure infrastructure.

We poured concrete for five straight days and nights to ensure the quality of the tank's bottom slab, which is 6.3 m thick, contains about 31,500 m<sup>3</sup> of concrete, and can withstand underground water pressure and the load from the liquid stored in the tank. In addition, we maximized the height of each round of concrete pouring for the side wall to shorten the construction period.

Location: Chita City, Aichi Prefecture
 Client: TOHO GAS CO., LTD.

Chita-Midorihama

Works No. 3 LNG Tank





This ring road aims to ease traffic congestion in central Osaka. The project entailed constructing a tunnel passing directly underneath the Midosuji subway line.

As the construction site was a mere two meters away from the subway, extreme care was taken. For instance, we made use of constant automatic measurements of subway tunnel behavior during shield excavation work, so as not to disrupt train operations. We also set up a vibration meter and adjusted excavation speed to avoid the

impact on private residences from vibrations.

 Location: Sakai City, Osaka Prefecture
 Client: Osaka City

## OVERSEAS CONSTRUCTION BUSINESS



We aim to broaden and deepen our business domains in various countries and regions, while stepping up localization to bolster growth and earnings capacity.

## Business Policy

- Seek to maximize profits by promoting further localization in areas where Obayashi has expanded, increasing quality and safety management using ICT, and conducting technology and personnel exchanges
- Strengthen the business platform and build the organization to support further global development of the construction business and diversification of the earnings bases at overseas bases
- Overseas Construction—Strengthen earnings capability and expand business domains by collaborating with local partners and developing global human resources
- Overseas Civil Engineering—Stabilize business earnings by promoting business strategies tailored to regional characteristics and strengthening coordination between Japan and overseas

### Business Environment

Increase in business opportunities driven by increase in demand for food, energy, and infrastructure in step with population growth and economic development, primarily in emerging countries
 Strong investment in urban development and infrastructure in the regions where the Obayashi Group has expanded, including Southeast Asia, North America, and Oceania

## Business Strategies

We will keep advancing the overseas construction business and working to raise profitability. Business development strongly rooted in each country and region is key to achieving our targets. From the perspectives of selection and concentration of management resources and risk management, our policy is to focus on developing business in regions where legal systems, business practices, and socio-economic infrastructure have been established to a certain extent and political and security risks are relatively low.

In building construction, we aim to expand orders from local clients in Southeast Asia based on our networks there. Additionally, we will train locally hired staff as candidates for future management positions and promote further localization at local affiliates. In North America and Oceania, we will actively work to win orders through local Group companies and partnerships with local companies and strive for market expansion.

In civil engineering, we are handling numerous large-scale infrastructure projects requiring strong technological skills in the regions where we are implementing business strategies. With our credibility, technological abilities, and large-sale project management capabilities, we are targeting further growth in infrastructure fields through local Group companies and partnerships with local companies in the same way as the building construction business.



### Topics

## Forging an Alliance with Australia's Built Pty Limited

In November 2016, Obayashi entered into a business cooperation agreement related to construction operations in Australia with Built Pty Limited, an Australian firm headquartered in Sydney.

Built Pty Limited is a construction company that builds commercial facilities, office buildings, hotels, stores and other structures in major Australian cities. It has a robust track record in construction execution and expertise in Australia.

The agreement aims to bolster both companies' competitiveness in Australia while expanding their business scale by mutually leveraging Obayashi's technological skills and financial power and Built Pty Limited's experience and knowledge, and so forth.



### **Ongoing Projects**



#### Jewel Changi Airport

Strategically located in the heart of Singapore Changi Airport, Jewel Changi Airport (Jewel) is a mixed-use development comprising a wide range of offerings including gardens and attractions, retail offerings, a hotel and facilities for airport operations. Designed by world-renowned architect Moshe Safdie, Jewel will feature a distinctive dome-shaped facade made of glass and steel, making this an iconic landmark in Changi Airport's landscape.

- Location: Singapore
- Client: Jewel Changi Airport Trustee Pte Ltd

Construction: Joint Venture between Woh Hup (Private) Limited and Obayashi Singapore Private Limited

#### Nam Ngiep 1 Hydropower Project

We are constructing a hydroelectric dam on the Nam Ngiep River, a tributary of the Mekong River, to reliably supply electricity to Laos and Thailand over the long term. The main dam in the two-dam system will be a gravity dam, with a crest height of 167 m, crest length of 530 m and an approximate volume of 2.3 million m<sup>3</sup>. It will be made using the roller compacted concrete (RCC) method,

where zero-slump concrete using a low quantity of cement is spread by bulldozers and compacted by vibratory rollers. The dam will begin impounding around mid-2018, and construction is proceeding with top priority on safety, aiming for operation to start in January 2019.

Location: Laos
 Client: Nam Ngiep 1 Power Co., Ltd.
 Construction: Obayashi Corporation



#### BUSINESS OVERVIEW | OVERSEAS CONSTRUCTION BUSINESS

## PROJECT REPORT



Located in San Francisco, California, San Francisco General Hospital has the highest level of seismic resistance. With 115 base isolators installed under the pillars on the lowest floor, the building has exceptionally high seismic resistance. The site is adjacent to multiple existing hospital facilities. To avoid obstructing their functions when constructing the new section, we gave consideration to separating the traffic line of the existing hospital and the construction area.

We also made use of BIM to carefully examine construction issues including the sequence of installation and connection of new piping to existing services, thereby making construction more efficient.

Location: U.S.A.

Indonesia

**Tanjung Priok** 

**Expressway** 

Client: San Francisco Department of Public Works Architect: Fong & Chan Architects Construction: Webcor, LP

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Tanjung Priok is an international port in the northern part of Jakarta. The new highway will connect the port with the central city and industrial areas. We are constructing the largest section of the project, which connects directly to the port. We have completed an elevated section of the main road stretching 1.9 km with a maximum width of approximately 50 m and a new 2.7 km ramp over the extremely congested arterial road. In addition, the project includes the improvement of the existing road and new overpasses. The use of technically demanding Y-shaped columns enables the

road surface to be made wider, while simultaneously achieving efficient use of the area under the elevated section and realizing a beautiful appearance.

Location: Indonesia

- Client: Ministry of Public Works and Housing, Republic of Indonesia
- Architect: NIPPON KOEI CO., LTD., YACHIYO ENGINEERING CO., LTD.
- Construction: Joint venture between Obayashi Corporation and PT JAYA Konstruksi JV





An extension to the I-25 expressway with elevated ramps was constructed in Douglas County, Colorado. At the pre-construction service stage, we provided engineering proposals for nine bridges. Furthermore, through cooperation with the architect, we provided innovative ideas for minimizing the impact on roads and railways currently in service.

Location: U.S.A.

- Client: Town of Castle Rock, CO Architect: Tsiouvaras Simmons
- Holderness (TSH) Construction: Kraemer North America, LLC



In a central Bangkok redevelopment zone lined with embassies and hotels, a high-rise condominium was constructed with a high-rise tower and a low-rise tower connected by a suspended garden pool 35 m above the ground. As there are different floor plans for many types of lifestyles, we made our first full-fledged introduction of BIM in the construction and facilities to integrate and optimize the plans for design, construction, and facilities.

- Location: Thailand
- Client: Siam Sindhorn Co., Ltd.
- Architect: Plan Architect Co., Ltd.
- Construction: Thai Obayashi Corporation Limited

This project is one of the largest shopping malls in Ho Chi Minh City, constructed within the International High-Tech Healthcare Park, a development located approximately 10 km from the center of the city, with healthcare facilities, schools, and residential areas. Various energysaving technologies are incorporated in the building, such as solar power generation equipment.

 Location: Vietnam
 Client: AEON VIETNAM CO., Ltd.
 Architect: Obayashi Vietnam Corporation
 Construction: Obayashi Vietnam

Construction: Obayashi Vietnam Corporation



## Major Group Companies and Overseas Offices



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## REAL ESTATE DEVELOPMENT BUSINESS



We aim to strengthen our stable earnings base by investing to expand the office leasing business and continuing to diversify its leasing portfolio. We will contribute to the creation of attractive communities by proactively participating in urban redevelopment projects and joint development projects.

Business Policy	<ul> <li>Strengthen stable earnings base through further investment in the office leasing business (focusing on the key area of central Tokyo)</li> <li>Continue to develop business selling detached housing and condominiums located in the Tokyo metropolitan area and major cities in the Kansai region</li> <li>Promote development of new rental housing, logistics facilities, and so forth to drive diversification of the leasing portfolio</li> <li>Contribute to creation of a low-carbon society and sustainable communities by promoting environmentally responsible real estate development projects</li> <li>Promote facility management leveraging innovation such as IoT and AI</li> </ul>
Business Environment	<ul> <li>Urban infrastructure renovation and development projects utilizing government programs such as National Strategic Special Zones and designated urgent urban renewal areas are underway, particularly in the Tokyo metropolitan and Kansai areas</li> <li>Vacancy rates are currently low for A-grade office buildings in central Tokyo, but are expected to turn up around 2017 due to a large volume of new office supply from 2018 onwards</li> <li>Posted prices pursuant to the Land Public Announcement Act in the three main metropolitan areas of Tokyo, Osaka, and Nagoya have risen for four straight years starting in 2014</li> <li>With robust real estate investment needs and monetary policy further fueling real estate investment, conditions are likely to continue to support high real estate prices in the future</li> </ul>
Business Strategies	In the leasing business, we will aggressively expand the office leasing business and diversify our real estate leasing portfolio, generating new leasing business earnings and reinforcing our earnings base. In office leasing, we will proactively invest in revenue-generating properties in areas where we are likely to remain competitive into the future, as well as participate in large-scale redevelopment and joint development projects. We will also expand our business scope and variation by developing facilities for the leasing business other than office buildings, such as logistics facilities and rental housing, by utilizing the Group's property portfolio and participating in land readjustment projects. In the housing business, Group company Obayashi-Shinseiwa Real Estate Corporation will continue to sell detached housing and condominiums located in urban areas of the Tokyo metropolitan area and major cities in the Kansai region. We will provide housing with value meeting diverse needs arising from changing life-styles encouraging the creation of good communities that are safe and secure to live in, and we will work to develop smart cities that contribute to a low-carbon society with the aim of building sustainable communities. Through our development projects and our support for promoting redevelopment projects, we will work to realize environmentally responsible development that fully utilizes our cutting-edge construction technology to reduce energy consumption and CO <sub>2</sub> emissions. Through such initiatives, we will contribute to the creation of attractive communities and enhancement of business continuity, disaster prevention, and

environmental functions in surrounding areas and overall regions.



### Topics

### Akashi Station South Ward Urban Redevelopment Project

As a specified agent for this redevelopment project, we worked to revitalize the entrance to Akashi City and the surrounding areas.

*PAPIOS AKASHI*, houses retail shops, a library, a city hall branch office, parenting support facilities, and more. We hope to create a hub for projecting Akashi City's new culture and lifestyle.

A 34-story condominium, *PROUD TOWER AKASHI*, employs our proprietary vibration-dampening Dual Frame System for skyscrapers. We also constructed public facilities such as the station square and pedestrian deck.





### PLANE-SOCIE Kobe Motomachi

PLANE-SOCIE Kobe Motomachi is an 88-unit rental residence completed on the site of Obayashi's former Kobe Branch, which was built in 1908 as the Dai-ichi Bank's Kobe Branch. A symbolic building was designed by Tatsuno Kingo—a well-known Japanese architect of the Meiji and Taisho eras. Two sides of the exterior wall were restored and preserved when the remainder of the building was demolished after the Great Hanshin-Awaji Earthquake. The preserved portions of the exterior wall were utilized for the condominium, fusing the valuable historic structure with modern architecture.

### **Ongoing Projects**



Image of the completed project

#### NIPPON LIFE HAMAMATSUCHO CREA TOWER

- Location: Hamamatsucho, Minato City, Tokyo
- Uses: Offices, stores, conferences, parking, etc.

Scale/structure: Site area: 7,646 m<sup>2</sup> Floor area: 99,277 m<sup>2</sup>
 Steel frame, steel-reinforced concrete construction, Hybrid vibration control structure (combined use of brake damper and oil damper), 29 floors above ground, 3 floors below ground, 1 penthouse floor

Project owner: Nippon Life Insurance Company, Obayashi Corporation
 Construction to be completed: August 2018 (scheduled)

#### Shinbashi 4-chome Project (tentative name)

- Location: Shinbashi, Minato City, Tokyo
- Uses: Offices, stores, parking
- Scale/structure: Site area: 1,524 m<sup>2</sup> Floor area: 17,449 m<sup>2</sup> Steel frame, partial steel-reinforced concrete construction, 15 floors above ground, 1 floors below ground, 1 penthouse floor
- Project owner: Mori Building Co., Ltd.,
- Obayashi-Shinseiwa Real Estate Corporation
- Construction to be completed: September 2018 (scheduled)



Image of the completed project

## NEW **BUSINESSES**



We aim to diversify our earnings base by making inroads into new business fields where we can leverage our expertise, such as renewable energy, PPP, and agriculture. We are focusing our efforts on the creation of new business models, stable supplies of energy, and measures to address aging infrastructure and public facilities.

## **Business Policy**

**Business** 

- Expand the renewable energy business and develop peripheral businesses Expand earnings by redoubling efforts in PPP\* projects Establish new business models and create earnings sources utilizing proprietary technologies and expertise \* Public-private partnership (PPP): An arrangement where public and private entities work together to provide public services Change in the environment around energy with plans set out for the energy mix for 2030 and the COP **Environment** 21 Paris Agreement establishing greenhouse gas reduction targets for 2020 onward coming into force
  - Expectations for increase in PPP projects due to public-sector financial constraints as infrastructure and public facilities aging
    - Increasing food safety and security needs amid a changing food landscape with a declining population of farmers and impacts from natural disasters

### **Business Strategies**

In the renewable energy field, we have started operations at all the facilities in our solar power generation business that we had decided to commercialize (28 facilities, total 129 MW). We will now advance our initiatives in other types of natural energy power generation businesses, such as wind power and biomass power generation. With the end of electricity sales under the feed-in-tariff (FIT) system, we will examine entry into business selling electricity to corporations using the Group's power stations, as well as entry into peripheral businesses, such as management and maintenance of the growing number of renewable energy generation facilities.

In the PPP field, we will collect information from upstream sources and forge strong alliances in line with customer needs to undertake projects. We will also strive to grow overall Group earnings through PPP business initiatives such as maintenance, management, and operation of facilities including at Group companies.

In agriculture, we will expand the scale of our plant factory that uses sunlight in Chiba Prefecture. Presently, cherry tomatoes are being grown at the approximately one hectare factory. We will also make an attempt to develop business with plant factories that use artificial light.

Further, we will consider entry into hydrogen production and hydrogen power generation utilizing our renewable energy generation and technological capabilities.

## Wind Lift: Leveraging Our Technologies and Expertise

In constructing the Mitanehamada Wind Power Station (Mitane Town, Yamamoto District, Akita Prefecture), we used our newly developed Wind Lift.

As the wind power generation market expands and wind turbines get larger, there are concerns over shortages of ultra-large cranes for assembling wind turbines. Wind Lift uses a lift-up type of assembly instead of ultra-large cranes, enabling execution of construction under a wide range of conditions at low cost and even in small spaces. In addition, this method lowers the risk of delays in the construction period due to the wind.

We have verified its effectiveness in our own wind power station construction work, tying this to orders for the construction of large-scale 3 MW wind turbines, which are set to become mainstream.









Rated output:  $\mathbf{2.827}\ MW$  Operation start: February 2017



Rated output: 24.526 MW Operation start: May 2017

Corporate Data

CSR



Rated output: 0.462 MW Operation start: July 2016

## TECHNOLOGY STRATEGY



We promote technological innovation in line with the needs of our customers and social issues. We also aim to generate profits and diversify our earnings base through technology by strengthening the engineering and nuclear power businesses.

Business Policy	Technological Development	<ul> <li>Research and develop technologies that lead to the creation of diverse earnings bases and business growth</li> <li>Develop technologies leveraging IoT and AI (including robotic and sensing technologies)</li> </ul>
	Engineering Business	<ul> <li>Strengthen business platform for growth and expansion of the engineering business</li> <li>Increase earning abilities by strengthening competitive advantage and harnessing powerful synergies with the building construction and civil engineering businesses</li> <li>Expand businesses leveraging advanced, specialized technological capabilities to generate high added value</li> </ul>
	Nuclear Power Business	Promote initiatives for nuclear power construction related to measures to increase the safety of nuclear power installations and environmental restoration following the Fukushima Accident
		Participate in new nuclear power station construction projects in and outside Japan, and in operations of decommissioning reactors and disposing radioactive waste
Environment solve so Engine cal brea ICT inclu		<b>logical Development:</b> Need for new technologies to satisfy diversifying customer needs and to cial issues such as energy, the environment, natural disasters, and aging infrastructure ering Business: Expand business opportunities with new market formation through other techni- kthroughs such as regenerative medicine, further introduction of renewable energy, evolution of uding IoT and AI, and heightened social interest in soil remediation, which are all target fields <b>Power Business:</b> Call for safety enhancements to restart reactors at nuclear power plants, and e establishment of facilities for intermediate storage of contaminated waste from Fukushima
Business Strategies	We will (1) innovation tion to gra technology work envir nologies to realize a su business do	gical Development pursue technologies that will be vital for society in the future and encourage technological to spur demand in a society where IoT and AI will be key; (2) conduct R&D with constant atten- sping customer needs, developing business models and achievements; (3) develop advanced v utilizing IoT and AI, aiming to enhance quality and productivity, reduce costs, and improve the onment, while bolstering competitiveness in the global market; (4) research and develop tech- o contribute to areas such as the environment, energy, safety and security, and renovation to ustainable, resilient society; and (5) research and develop technologies that enable entry into new omains and create diverse earnings sources and contribute to a future society that is good for d the environment.
	We will de food, and biomass, e medical fac ing sites, a	ng Business velop business in four fields: (1) production facilities, such as production lines for pharmaceuticals, electronics; (2) environmental facilities, such as renewable energy generation (solar, wind, tc.) and new energy systems; (3) information fields where we can add value through ICT, such as cilities, offices and other facilities; (4) soil environment, including soil remediation, waste process- nd facilities for intermediate storage of contaminated waste.

Focusing on these four core areas, we are strengthening our organizational structure and increasing our workforce to bolster the engineering business overall—from planning through design, procurement, and



construction. We are also developing business in Southeast Asia through collaboration with local Group companies including in Thailand, Vietnam, and Indonesia.

#### **Nuclear Power Business**

We will (1) strengthen technical marketing and develop technologies to win orders for construction projects to enhance the safety of facilities, (2) strengthen technical marketing and develop technologies to win orders for construction of facilities for intermediate storage of contaminated waste, (3) keep taking steps to participate in new nuclear power plant construction projects in Japan and overseas, (4) aim to participate at an early stage in deliberations on decommissioning reactors at existing plants, and (5) continue taking part in projects to build underground disposal facilities for radioactive waste.

#### Topics

## Using IoT and AI to Deliver New Added Value for Buildings

We will apply IoT and AI to buildings. For example, we can provide environments with greater safety, security, and comfort by gathering real-time data on things like facility users' locations and vital signs, as well as demand data such as levels of comfort or discomfort, and combining them with environmental and big data for AI learning. By adding analyses of operating data from facility equipment, we aim to deliver new added value, such as extra energy savings and functions for conveying preventative maintenance information before actual problems with equipment arise.

Leveraging our strengths as a general contractor in an array of building-related services, we will strive to make buildings better for people and more efficient to manage through centralized management of data from several buildings via the Internet, utilization of IoT and AI, and so forth.



## **Ongoing Projects**



#### Odawara Central Factory, Nippon Shinyaku Co., Ltd. Construction of New Manufacturing Facility for Highly Active Solid Formulations

In recognition of our robust track record in engineering work for pharmaceutical manufacturing facilities and strong technological skills, we have been chosen to design and construct the building and production facilities for this highly active solid formulation manufacturing site.

We design and build about 10 production facilities for pharmaceutical manufacturing sites a year.

- Client: Nippon Shinyaku Co., Ltd.
- Architect: Obayashi Corporation
- Uses: Pharmaceutical manufacturing facility for highly active solid formulations
- Scale/structure: Floor area: 3,696 m<sup>2</sup>
- Steel frame construction, 3 floors above ground

## BUSINESS OVERVIEW | TECHNOLOGY STRATEGY TECHNOLOGY FEATURE



remains highly enriched as it adapts to all sorts of changes in the environment including natural disasters, climate change, energy diversification, and lifestyle diversification. We are also promoting technological innovation to spark new demand in a society where IoT and AI are shared platforms. Namely, we are pursuing technologies that will be critical for society in the future. That includes technologies realizing more efficient and sophisticated operations and maintenance inspections for buildings, advanced disaster prevention and mitigation functions, renewable energy platform building, and innovative production and maintenance management systems.

(Photo) Hydraulic actuator (loading equipment) used with the super active base isolation system "Laputa 2D" on display at the Obayashi Technical Research Institute in Kiyose City, Tokyo. When an earthquake occurs, the actuators rock the building in the opposite direction of the seismic motion to reduce the building vibration magnitude to 1/30th–1/50th of the ground vibration.

#### Information Management System for Operation and Maintenance "BIMWill"

This system realizes more efficient and sophisticated facility management and more appropriate life cycle cost by utilizing attribute data and 3D BIM models used in building design and construction in the maintenance and management of buildings after their completion.

By linking with other systems, BIMWill collects various data and presents various information related to buildings and facilities in a visual format, helping owners and managers to grasp information about the asset promptly and to make accurate judgements. It also helps them to maintain the building in a sound condition over the long term.

We are jointly developing the system with Kumamoto University. We plan to begin trial operations of the system at Obayashi-Shinseiwa Real Estate Corporation's tenant building currently under construction in Chiyoda City, Tokyo, scheduled for completion in August 2017. The trial operation and verification of the system will enable us to build up expertise.



The system shows the position of a detected irregularity on the screen

#### "Pair Mass Damper" Tuned Mass Damper with Inverted Pendulum

The Pair Mass Damper, a tuned mass damper (TMD)\* for rooftop installation, combines a pendulum and an inverted pendulum for a more compact profile. Its large mass weight makes it effective for dampening long-term seismic motion from major earthquakes. Retuning the TMD's resonant frequency after installation, which was difficult using conventional technology, is easily done by shifting the weight between the pendulum and the inverted pendulum. As such, the system can remain highly effective in reducing seismic response even if the building's natural frequency changes in the future.

The Pair Mass Damper also has a fail-safe mechanism that slides crosswise so that the TMD does not become overloaded. This prevents it from being damaged while maintaining its vibration-reducing effects even in the event of an unexpectedly large earthquake.

\* Tuned mass damper (TMD): This technology uses the countermotion of a mass (weight) adjusted to match the building's natural frequency to reduce shaking during an earthquake.


#### "Skirt Suction" Foundation for Offshore Wind Turbine

A cylindrical structure called a "skirt" is set into the seabed like an inverted cup. A pump is then used to remove the water from inside the structure. The resulting difference in water pressure inside and outside of the structure (suction) fixes the skirt to the seabed, establishing a robust foundation that can support large wind turbines up to 120 m in diameter.

This technology does not require large equipment, just a pump for installation, and noise and vibration also present no issues. It is cost effective and easy on the environment as the structure can be completely removed by simply reversing the installation process by injecting water into it. We pioneered the development of skirt suction technology in Japan.





Skirt Suction

#### Underwater Inspection Robot "Diag"

This underwater inspection robot can go underwater for long periods of time using wired remote operation at depths up to 100 m, beyond the range of divers using compressed air, whose maximum depth is roughly 40 m. Its high-vision camera and image analysis technology also enable sharp images to be taken even in murky water.

The robot uses AQUAJUSTER\* technology that curbs impact from water currents, enabling it to remain still in the water and capture images of subjects from directly in front of it. Applications for the robot will likely include inspections of dams and other infrastructure, underwater construction, and investigations in times of disaster.

\* Obayashi's proprietary technology to control the direction of the suspended load underwater by using the gyro effect, wherein rotating a physical object makes its position resistant to disruption.



#### AI for Recognizing Construction Progress from Photos

This AI has been trained using images of building materials through deep learning to automatically recognize progress on construction. The AI does this by estimating the materials being used from photos of construction taken during the execution of work.

It can be used to save labor in verifying progress on work in new housing complex construction, for instance where engineers would otherwise make daily rounds to each unit to confirm progress.

We are currently verifying the accuracy of AI-equipped tablets in recognizing progress on interior construction in housing complexes.



Process recognition screen

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## **CSR-BASED MANAGEMENT**

At Obayashi, we consider CSR initiatives to be the practical embodiment of our corporate principles and the essence of our corporate activities. In all of our activities, we strive to contribute to the realization of a sustainable society by implementing our corporate principles in line with society's expectations and demands.

We will introduce our CSR initiatives in line with the following themes.

## Fulfill Our Social Mission

Provide high-quality buildings, infrastructure and services	Quality		
Foster an environmentally responsible society	Environment		
	Human Resources		
Value every one of our associates	Health and Safety		
Earn trust from suppliers	Suppliers	RIN-YU 大林祖林友会連合会	
Build good relationships with communities	Local Communities		

## **Ensure Strict Adherence to Corporate Ethics**

Comply with laws and regulations and proper business conduct Promote fair and free competition Maintain appropriate relationships with stakeholders Avoid all contact with antisocial forces Ensure appropriate information disclosure and transparency of management

Corporate Ethics



## **CSR** Highlights

### Obayashi Techno Fair 2016 Held

In October 2016, the Obayashi Techno Fair 2016, commemorating the Company's 125th anniversary and the 50th anniversary of the Obayashi Technical Research Institute, was held at three venues, in Tokyo, Osaka and at the Obayashi Technical Research Institute in Kiyose City, Tokyo.

This event used panels, video, mock-ups and other displays to present our envisioned future society, introducing the current state of technological development and our outlook for the future aimed at achieving that vision under the theme of "Creating a Flexible Future." A total of about 3,200 people attended the fair over the nine days it was held.

> Obayashi Techno Fair 2016 special site (Japanese only) http://www.obayashi.co.jp/technofair2016/



he exhibition space



Operating an unmanned survey robot

Urban management system for a future society



Display of a general-purpose remote control device

### Head Director for Overseas Civil Engineering Project Awarded "Woman of the Year"\*

Yoko Onishi, head director of the office for an expressway construction project in Indonesia, was recognized with the "Woman of the Year 2017 Career Development Award" for female engineers.

Having built a career as an engineer in the civil engineering field, where female workers remain few, she was highly commended for balancing her work as the head director for an overseas construction project with raising a child.



Scene from the awards ceremony



Yoko Onishi smiles as she talks about raising her child overseas

\* Sponsored by Nikkei BP's Nikkei WOMAN. The award recognizes outstanding achievements by women in various industries, with the goal of offering role models to working women.

### Osaka Machinery Plant Undergoes Renewal as a Disaster Recovery Site

In June 2016, renovations to the maintenance building and office building at our Machinery Plant in Hirakata City, Osaka were completed.

In addition to expanding the functions of the plant to include construction equipment maintenance and demonstration testing facilities, functions for business continuity planning (BCP) response in the event of a disaster were significantly enhanced. During a disaster, the facility will coordinate with our Tokyo Machinery Plant, taking on the role of a procurement and logistics site in the event of a disruption in energy supplies and when aid and recovery equipment are required.

A mock-up of part of a construction site has also been set up in the maintenance building, and is being used to provide hands-on safety and quality training for employees and suppliers.



Exterior of the Osaka Machinery Plant maintenance building



Hands-on safety training at mock construction site



Expanded BCP functions include emergency power generators, an emergency supply warehouse, etc.



A quality training session

SS



#### Quality Management System

We have implemented a Quality Management System (QMS) conforming to ISO 9001, under which we practice integrated quality management with a commitment to continuous quality improvement, at all stages from planning to design, construction, and after-sales service.

Further, we are constantly sharing information and engaging in an array of training and education for higher quality and technology.



#### **Developing Human Resources**

To provide customers with high-quality buildings and infrastructure, we conduct training programs designed to increase the capabilities of our engineers in managing construction work on-site.

#### Training Programs

At the Fuji Education Training Center\*, training is conducted for new recruits that offers hands-on experience with construction site work. The training is designed to teach the recruits actual procedures and the difficulty of the work, and enhance their skills, by providing hands-on experience with operations such as measuring, assembling rebar and concrete forms, and inspecting materials.

Annual technical training is also conducted for employees through their fourth year, where, primarily through group work, trainees acquire specialized knowledge and learn construction planning techniques.

For mid-career employees, a variety of programs are offered, including live exercise-based technical training designed to foster high-level quality and on-site construction management skills.

\* An education training facility for construction engineers and skilled workers

#### Training Facilities

Thai Obayashi opened a training center in May 2015. At the center, which boasts cutting-edge facilities, experienced engineers offer instruction to a range of people, from younger staff to mid-career employees. Quality improvement training is conducted across our Group.



Training being conducted at the training center

Trainees learning how to install a roof

## Application of ICT

Information and communication technology (ICT), including IoT and AI have become an essential part of the construction process. We utilize cutting-edge technology to provide high-quality services.

Tablets not only allow engineers to carry information including blueprints, BIM and other 3D design models, and electrical equipment specifications with them, but also it enables to constantly share updated data according to the status of construction, through the cloud with construction sites, clients, and architects.

We also use camera-equipped drones to conduct topographical measurements, and work progress is managed using position information from satellites.

These technologies not only enable more precise quality control compared to conventional construction, but also lead to improved productivity and shorter constructing period. Mixed Reality (MR), which integrates 3D design models of buildings and structures with the actual landscape, is also used as a tool to communicate with clients.

We are advancing further R&D in ICT to enable us to consolidate all of the data involved in everything from survey, design and construction through post-delivery maintenance, and ensure an even higher level of quality.



With a head-mounted display, MR allows users to experience a 360° image of a completed building



3D BIM design models make it easy to review complex framing and other construction

## Major Awards from External Organizations

Award Name	Award Sponsor	Award-Winning Object/Party
All Encouragement Prize 2017	Architectural Institute of Japan	Paper: Evaluation of Lateral Resistance of Damaged Pile Based on Full-Scale Lateral Load Test
57th BCS Prize	Japan Federation of Construction Contractors	GRAND FRONT OSAKA* * Joint award with Takenaka Corporation The Ritz Carlton Kyoto Nagareyama Municipal Otakanomori Elementary and Junior High School, Otakanomori Center, Children's Library
JSCE Awards Fiscal 2015: Outstanding Civil Engineering Achievement (OCEA) Award	Japan Society of Civil Engineers	Construction of the world's largest-capacity above-ground LNG storage tank using the slipform method* 2 * Joint award with Osaka Gas Co., Ltd.
15th Rooftop–green Wall Technology Competition	Organization for Landscape and Urban Green Infrastructure	Minister of Land, Infrastructure and Transport Award: Toranomon Hills Nikkei Award: Shin-Daibiru Dojima-no-Mori 3
18th Infrastructure Technology Development Awards 2016: Grand Prize	Japan Institute of Country-ology and Engineering Coastal Development Institute of Technology	SLIM-crete method: Ultra-high-strength fiber reinforced concrete cured at normal temperature, using a special powder material with ultra-high- strength fiber
36th Engineering Commendation Award	Engineering Advancement Association of Japan	Kurashiki and Namikata national LPG stockpile base construction project team* * Joint award with Japan Oil, Gas and Metals National Corporation, Kajima Corporation and 14 other companies
17th Awards of the Japan Society of Seismic Isolation: Best Work Award	Japan Society of Seismic Isolation	Osaka Station Roof 🕘
2nd Japan Wood Design Award	Japan Wood Design Award Secretariat ((ki-Mori Network (NPO); National Land Afforestation Promotion Organization; Universal Design Intelligence, Inc.)	Shinei Kumano Works Factory 🕑
27th Institute of Electrical Installation Engineers of Japan Awards: Technical Division Facilities Incentive Award	The Institute of Electrical Installation Engineers of Japan	Lazona Kawasaki Toshiba Building electrical facilities* * Joint award with Nikken Sekkei Ltd., Toshiba Corporation and three other companies

Details of Awards (Japanese only) http://www.obayashi.co.jp/rd/awards



## **ENVIRONMENT**

We will work to advance the Obayashi Green Vision 2050, a medium- to long-term vision for achieving a sustainable society, as well as environmental protection activities.

## Obayashi Green Vision 2050

#### Our Vision for Society in 2050

In February 2011, we established the Obayashi Green Vision 2050, a medium- to long-term vision for achieving a sustainable society. Our vision for society in 2050 is what we call a "3+1 Society," an approach that integrates the elements of low-carbon, recyclingoriented and respect for the natural world, predicated on safety and security. To achieve that, we have established a concrete action plan and are moving forward with various initiatives.



\* Base year: 2013

About Obayashi Corporation

Business Overview

CSR

Corporate Governance

Corporate Data

Low ◀─► High

Relevance to the "3+1 Society

Action Plan and Main Initiatives in the Fiscal Year Ended March 31, 2017
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			Relevance to the "3+1 Society"			
Business Areas	Action Plan	Main Initiatives in the Fiscal Year Ended March 31, 2017		Recycling- Oriented	Respect for the Natural World	Safe and Secure
	Promote environmentally responsible real estate development projects	Proposed, examined, and carried out Group development projects	0	0	0	0
	Realize smart cities	Participated and verified at the Obayashi Technical Research Institute	$\bigcirc$	0	$\bigtriangleup$	0
Building and urban construction	Promote ZEB*1	Deploy energy-saving and energy-creating methods in construction projects	0	$\bigtriangleup$	—	0
(buildings, urban development, and management)	Promote the soil and groundwater remediation business	Advanced remediation business for soil contaminated with VOC, heavy metals, or other substances	$\bigtriangleup$	0	0	0
	Reduce impact on ecosystems	Utilized technology to assess impact during development when considering projects	—	$\bigtriangleup$	O	0
	Implement initiatives to invigorate communities mainly in the power generation business	Considered business that invigorates communities	O	O	0	0
Infrastructure	Promote the renewable energy business	Renewable energy generated: 97.52 million kWh/year	$\bigcirc$	0	0	0
construction (construction and operation of infrastructure)	Renew and extend the life of infrastructure	Developed technology to extend life in infrastructure rejuvenation, public application and verification	$\bigtriangleup$	0	0	O
Provision of services (other services)	Implement initiatives in hydrogen energy services	Considered hydrogen energy services	0	0	—	0
Initiatives towards reducing CO <sub>2</sub> emissions	Promotion of conserving energy at the construction stage	Reduced the amount of primary energy used in construction by 31.0% vs FY2011.3	0	—		0
	Promote eco-friendly concrete use	Used about 70,000 m <sup>3</sup> of Clean-Crete <sup>*2</sup> in building and civil engineering construction	0	—		0
1 Net Zero Energy Buildings designed to consume net zero energy in operation through energy conservation and the generation of renewable energy Relevance 🛆 🔘						

\*1 Net Zero Energy Buildings designed to consume net zero energy in operation through energy conservation and the generation of renewable energy

\*2 See page 45 for more details.

Initiatives for the 3+1 Society

## Promoting Net Zero Energy Construction (ZEC)

#### ZEC Roadmap to 2020

We are working to achieve net zero energy consumption in building and civil engineering construction in Japan by 2020, using energy-saving methods and creating energy in the renewable energy business.

In the year ended March 31, 2017, energy used in construction met our target for energy savings, and we will continue to advance efforts to achieve our ZEC target.



[GJ/¥ million of completed work] Energy used per ¥1 million of completed work Energy

CSR

## **Realizing Smart Cities**

Tsunashima Sustainable Smart Town, in Yokohama City, Kanagawa Prefecture, is a project that aims to create a sustainable, next-generation urban community. It sets forth numerical targets for the environment, safety, security and other goals. To achieve them, Panasonic Corporation and multiple other businesses are working across industry lines to bring together technology and ideas.

Leveraging the proven expertise gained at our own facilities, we are participating in the Tsunashima SST Council as a technical advisor.

#### **Overall Town Targets**

Environmental Targets (vs FY2006.3)

40% reduction in CO <sub>2</sub> emissions	30% reduction in community water usage	30% or greater use of new energies*1		
Safety Targets Security Targets				
CCD. Three day	*2 Town mor	hitoring: 100%*3		
CCP: Three day	Emergency services	Emergency services response time: 15 minutes*4		

\*1 Includes new technology such as natural gas cogeneration and fuel cells contributing to energy diversification, with advanced utilization of new energies, such as solar power generation and innovative energy

- \*2 Community Continuity Plan (CCP): Securing lifelines for three days in case of emergencies
- \*3 Secure town safety with 100% video coverage of main entrances and exits
  \*4 Time required to reach a location following initial notification. There may be delays due to traffic conditions

#### < Promoting Deployment of Technology at the Core of the Smart Town >

Utilizing our Eco-Navi<sup>\*5</sup> energy optimization simulation software (City version), we will validate environmental targets and assist in formulating and managing plans for achieving those targets.

We will work to build the optimal system for ensuring the flexibility and integration of the electric power, heat and other energy supplied by the Energy Center, thereby enhancing the added value of the town's environmental aspects.

\*5 A tool for evaluating the energy savings, low-carbon effects and electric power selfsufficiency in areas comprising multiple buildings and facilities



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Relevance to the "3+1 Society

## Overview of Tsunashima SST Facilities and Related Companies and Organizations

- 1 Smart commercial facility (UNY)
- 2 Town management center
- **3** Town energy center (Tokyo Gas Group)
- 4 Hydrogen utilization hub (JXTG Energy)
- 5 International student dormitory (Keio University)
- 6 Technology development facility (Apple)
- 7 Smart collective housing (Nomura Real Estate, Kanden Realty & Development, PanaHome)

< Using SCIM, a 3D Urban Development Platform >

Smart City Information Modeling (SCIM) is a system developed by Obayashi that creates a virtual replica of an entire city, allowing for the centralization and visualization of data on energy use and other community information and services.

The goal is to enhance the value of the community by linking SCIM with information on energy use, IoT and other types of data.



A sample SCIM screen. The system provides advanced community services



## Promoting Eco-Friendly Businesses

We are working with Kanagawa Prefecture to reduce environmental impact at Kanagawa University of Human Services, our first major domestic private finance initiative (PFI) completed in 2003.

By employing energy-saving methods in light fixtures, air conditioning, sanitation and other equipment, and by making appropriate adjustments through data analysis using a building energy management system, the project has achieved a high level of energy savings compared to similar buildings. Surveys are also conducted of facility users as part of maintaining comfort and functionality.

The project has been commended for maintaining its efforts to conserve energy through a public-private partnership (PPP) that has continued for more than a decade.

#### Impact of Resource and Energy Conservation

Reduction in primary energy consumption*1	Approx. 40%
Reduction in water consumption*1	Approx. 70%
Reduction in burnable waste <sup>*2</sup>	15%
Reduction in recyclable waste*2	23%
Recycling rate	70%

\*1 When compared with similar types of buildings \*2 Based on figures for FY2011.3

## Large-Scale Urban Greenery

Namba Parks is a multi-use commercial facility opened in 2003 that features one of Japan's largest rooftop gardens. Visitors are free to move between the commercial facility and the garden, creating a space for interacting with nature even while in the city. The green space nurtures 100,000 plants, including approximately 500 varieties of trees and wildflowers, and is an environment maintained by dedicated staff who operate and manage the garden.

To verify the impact that greenery can have on the urban environment, we conduct multi-faceted surveys and measurements of factors such as bird and insect habitats, the amount of CO2 absorbed by trees and their impact on mitigating the heat island effect, as well as nighttime cold air downdrafts among growths of trees.

Stretching over more than 10 years, these efforts were recognized in 2016 with a prize from the Architectural Institute of Japan.

#### Overview of the Architectural Institute of Japan Prize Sponsored by: The Architectural Institute of Japan

sponsored by.	The Alemaetara institute of supari
Project:	Sustainably Managed Commercial Complex and Terraced
	Rooftop Garden Providing Co-Existing Urban/Park
	Environment for Public Gathering and Activities
Awarded to:	Nankai Electric Railway Co., Ltd., Takashimaya Co., Ltd.,
	Obayashi Corporation

Relevance to the "3+1 Society"





Design that integrates energy-saving methods in buildings and equipment

Corporate Governance

About Obayashi Corporation

Business Overview

SS

Relevance to the "3+1 Society"

Assessing the increase in CO<sub>2</sub> absorption by measuring each individual tree





2003 (time of opening)

Confirming temperature decreases, cold air downdrafts and other heat island effect mitigation impacts



Summer, around noon

#### Birds rare to the city also visit



Asian brown flycatcher





Summer, at night



Eastern crowned warbler

## Using Environmental Technology

Distribution Building B at Tokyo Ryutsu Center Inc. is a next-generation urban distribution facility designed and built incorporating our environmentally friendly technologies.

From the planning stages, we proposed a variety of environmentally friendly technologies, including construction methods designed to lower CO<sub>2</sub> emissions and reduce waste, and the use of LED lighting throughout the building to achieve reductions in energy use once the facility was operational.

Co	ons	stru	iction	Ove	ervie	ew
_						

Project:	New construction of Tokyo Ryutsu Center
	Distribution Building B
Location:	Heiwajima, Ota City, Tokyo
Client:	Tokyo Ryutsu Center Inc.
Scale:	Total floor area: approximately 171,300 m <sup>2</sup> 6 floors above ground

#### < Adoption of Clean-Crete >

Clean-Crete is a low-carbon concrete that produces up to 80% fewer  $CO_2$  emissions than normal concrete by replacing a portion of the cement with industrial by-products such as granulated blast furnace slag. Since its development in 2010, we have used over 123,000 m<sup>3</sup>.

In this project, Clean-Crete was used in the mat slab (pressure plates) installed under the building's seismic isolating system, a record pour that covered approximately  $36,500 \text{ m}^3$ . This amounted to a reduction in CO<sub>2</sub> of approximately 6,000 tons.



Clean-Crete used in a building area of approximately 31,000 m<sup>2</sup>

#### Use of Clean-Crete (Cumulative)



Relevance to the "3+1 Society





#### < Utilizing Existing Piles >

This project makes effective use of existing piles in accordance with ground conditions at the site. A quantitative evaluation of the soundness of the existing piles to be used was conducted using technology\* that has obtained a general review certificate from the Building Center of Japan.

In joining the existing piles with the mat slab, we used our proprietary smart pile head construction method, which reduces the load on piles and foundation in the event of an earthquake.

Reusing existing piles reduced the amount of  $CO_2$  and waste generated in the process of pile removal. It also reduced  $CO_2$  emissions from construction of new piles.

\* Results of IT test using rational valuation method. Obayashi proprietary technology



#### Smart Pile Head Construction Method

Exposed concrete is used to join existing pile and mat slab.

The pile head and mat slab are not completely fixed in place, allowing the pile head to rotate freely in the event of an earthquake and reducing the load on the pile and the foundation

#### **Environmental Impact of Our Business Activities**

Material Flow for the Fiscal Year Ended March 31, 2017



\*1 Applicable facilities are the Head Office, Tokyo Main Office, Osaka Main Office, branch offices, machinery plants, material/equipment centers, the Obayashi Technical Research Institute, etc.

\*2 General waste products are excluded

#### CO<sub>2</sub> Emission Volume during Construction

To reduce CO<sub>2</sub> emission volume during construction, we will work harder than ever to lower fuel consumption in construction machinery and vehicle operation, as well as installing LED lighting on construction sites as part of our efforts to realize ZEC.



**Construction Waste Emissions** (Excluding Sludge) We will promote implementation of recycling in demolition projects, which generate a large amount of construction waste. Moreover, we will focus on reducing waste and using resources effectively in new building construction.



# HUMAN RESOURCE

Corporate activities are supported by each and every employee. We create a work environment where all of our associates can exercise their unique talents.

## **Respect for Human Rights**

In June 2011, we established the Obayashi Statement on Human Rights. Based on the Universal Declaration on Human Rights, this statement sets out our commitments. These include respecting fundamental human rights; not discriminating based on race, gender, age, nationality, religion, social origin, disability or other distinction for all employees or businesses with which we are associated; respecting international rules including International Labor Organization (ILO) agreements; prohibiting the use of forced labor or child labor; and complying with all applicable laws and regulations in the nations and regions where we operate. To promote the recognition of human rights in keeping with our statement, a Human Rights Awareness Promotion Committee chaired by the executive officer responsible for human resources meets regularly. All employees need to ensure they do not engage in any form of discrimination and have a correct sense and awareness of human rights. To this end, we will undertake education on issues such as racism, sexual harassment, and international human rights.

Group companies also conduct training tailored to their business activities and regional characteristics, based on the policies determined by the Human Rights Awareness Promotion Committee.

#### Nurturing Human Resources

#### Training System

To pass on to future generations the DNA of true craftsmanship carried on from our founding, we offer in-house training systems, such as a staff instructor system where senior employees guide their younger colleagues, as well as a system where employees can express the position that they wish to work in. We also have level-specific training and specialist training for specific roles, as well as training for each business unit and type of operation.

Employees are also encouraged to acquire national and public qualifications related to their work, and we support their self-development by providing subsidies and incentives.

#### Obayashi's Training System



#### Global Human Resources

In addition to overseas study, dispatch to overseas companies and a language training program, the Global Leadership Training Program fosters understanding of the business customs in various countries and risk management skills to

nurture global human resources.

Around 30 young employees join the program each year. They are now working in a wide range of roles in Japan and overseas.



A foreign instructor provides training

#### Locally Hired Staff

We offer a hands-on training program for locally hired staff at overseas Group companies. This program enables locally hired staff to learn our construction technologies and safety management measures.

In the fiscal year ended March 31, 2017, a total of 23 staff

from Thailand, Indonesia, Vietnam, Taiwan, and the U.S.A. came to Japan for this program. Upon returning to their home countries, they took on key roles in local Group companies.



A construction supervisor providing trainees with instructions at a construction site

### Promoting Opportunities for Female Employees

#### Female Managers (Targets and Results)

Based on the Act on Promotion of Women's Participation and Advancement in the Workplace, we have established a goal of raising the ratio of female managers.

- Target 1: We aim to double the number of female managers in the 10 years between 2014 and 2024, and raise the ratio of female managers to about 8% by 2021.
- Target 2: We aim to raise the ratio of female engineers to<br/>about 10% by 2024, and continue to hire based<br/>on personal qualities regardless of gender.

#### Leveraging "Kensetsu Komachi<sup>\*1</sup>"

In 2003, we were one of the first in the construction industry to eliminate employee classifications, promoting hiring based on personal qualities regardless of gender and placing the right people in the right jobs. Many female employees are now making full use of their individual capabilities, active everywhere from construction sites to head office and branch divisions and the Obayashi Technical Research Institute.



We are working to make the construction site environment more comfortable for female workers. We are also working to change the mindset of male workers, and engineers are building careers without distinctions of gender



A female engineer who has acquired a doctorate as a researcher and now works in cutting-edge technology  $\ensuremath{\mathsf{R}}\xspace{\mathsf{D}}\xspace{\mathsf{R}}\xspace{\mathsf{R}}\xspace{\mathsf{D}}\xspace{\mathsf{R}$ 

**Ratio of Female Managers** 





There are many female managers who supervise and nurture subordinates and manage teams on-site at construction projects, in design and administrative departments, and elsewhere in the Company



In administrative positions, female employees are assigned to a variety of fields, such as accounting and legal affairs, construction site office work, as well as sales, business development and new business fields



"Kensetsu Komachi" is a term established by the Japan Federation of Construction Contractors for women playing active roles in the construction industry SS

# CREATING A VITAL, ATTRACTIVE WORKPLACE

## Toward a Reduction in Overall Working Hours

Reducing working hours has become a major issue for the construction industry. Work volume has increased both at construction sites and in administrative divisions and other permanent departments, and the level of activity remains high.

Companywide, we are coming together to improve the workplace environment and enhance the appeal of the construction industry.

#### Employee Opinion Surveys

We regularly conduct employee opinion surveys. In the fiscal year ended March 31, 2017, one of our survey themes was "Efforts to reduce overall working hours and maintain and improve health."

In general, employees are highly conscious of the issue of reducing overall working hours, and through the survey expressed a variety of opinions about workplace initiatives and the work environment, and we are now engaged in efforts to make improvements.



Survey results presented in Monthly Obayashi, our internal newsletter

#### Promoting "No Overtime Days"

Each of our offices has established a "No Overtime Day." Supervisors communicate with their subordinates to understand where they are with their work, adjusting workloads and offering advice to encourage employees to leave early in

an effort to promote shorter working hours throughout the workplace.

Each office puts its own twist on "No Overtime Day," with some reminding

employees to go home via announcements over their public address systems

TOPICS

A Health &

Productivity

Management

Organization

(White 500)



#### Aiming to Achieve "Four Weeks On-Eight Days" Off" On-Site

Even as many construction sites continue to operate on Saturdays, we have designated a number of model sites nationwide to test a five-day work week for its staff.

We are working to advance these efforts further with the goal of implementing them at all construction sites, developing success stories from individual sites, identifying issues, and considering measures to resolve them.

Every construction site also uses a chart showing leave schedules, offering a visual representation of the amount of actual annual leave and compensatory days off that have been taken, and allowing workers to take leave in a systematic fashion.



Meticulous care is taken in transferring duties to ensure work is not hindered when employees take leave



Utilizing leave schedule charts allows workers to take leave in a systematic fashion

Obayashi was certified a 2017 Certified Health & Productivity Management Organization in the large enterprise category (White 500). The recognition program is organized by the Ministry of Economy, Trade and Industry (METI) and the Nippon Kenko Kaigi.

The White 500 is a program that aims, by 2020, to certify and publicly recognize 500 large-scale enterprises that collaborate with their health insurance society members to engage in health and productivity management.

Under our basic philosophy of valuing everyone we come into contact with in our business, we are actively engaged in a number of efforts to ensure our employees are healthy in mind and body.



## SS

## Mental Health Care

Mental health training is conducted for all our employees. Internal and external points of contact have been set up to offer advice to employees when they notice they themselves, colleagues, subordinates or family members are not well. Specialists and clinical psychologists (counselors) provide

detailed support for employee mental health.

The Mental Health Consulting Office set up in the Head Office provides full-time counselors available to offer advice at any time



#### Working with the Employees' Union

Obayashi and its employees' union hold conferences to discuss reducing overall working hours. Union members from each workplace report their opinions, and by discussing effective improvements based on those opinions, the members work to improve workplace and employment conditions.

The union represents employee opinion in submitting requests to the Company



## Building a Work Environment Where All of Our Associates Can Exercise Their Unique Talents

Support for Balancing Work and Family Life

Since the introduction of the childcare leave system in 1992, we have worked to establish and expand programs that assist in balancing work with childcare. These include a system of shortened working hours, a paternity leave program, and a system to provide financial aid when a child is born. We also actively promote use of the program among male employees.

In the fiscal year ended March 31, 2017, we also introduced programs allowing for leave to be taken for fertility treatments, and a system of financial aid for such treatments.

#### Ratio of Female Employees Taking Childcare Leave



#### Rehiring System for Retirees

We have a system to provide ongoing employment opportunities for people after they have reached the mandatory retirement age of 60 (the "Senior Employee" program). Veteran employees pass down to the next generation the experience and expertise they have gained in various fields.

#### **Rehiring Rate of Retirees\***



\* Applicant rehiring rate is 100%

Balancing Work and Home Nursing Care

To ensure our employees have peace of mind in dealing with home nursing care issues, we have established a number of programs for home nursing care leave and financial aid.

In the fiscal year ended March 31, 2017, we introduced systems for shortened and staggered work hours. We are also reviewing and expanding these programs, including by allowing workers to take home nursing care leave in half-day increments. Our goal is to establish a system that is easy to use depending on individual circumstances.



Handbooks for "Childcare Leave" and "Home Nursing Care'

#### Hiring of People with Disabilities

At Oak Friendly Service Corporation, our special subsidiary, 60 employees work providing clerical support for our head office and branches.

By considering the nature of each individual's disability, we work to put employees in charge of jobs that make full use of their capabilities, expanding their occupational range and offering workplace stability.

#### **Employment Rate of People with Disabilities**

FY2015.3	FY2016.3	FY2017.3
2.11%	2.11%	2.15%

## HEALTH AND SAFE

Guided by our Health and Safety Principles, we carry out daily health and safety activities as part of our commitment to preserving the health and safety of workers and providing a comfortable work environment.

#### Occupational Health and Safety Management System

Our Occupational Health and Safety Management System is designed to eliminate the risk of accidents at our workplaces.

With this system, we set policies and targets each year, and work through a Plan, Do, Check, Action (PDCA) cycle to eliminate or reduce the potential risks for workplace accidents. We also share expertise and take measures to foster an organizational culture that prioritizes safety.

A central officer in charge of safety and health is responsible for promoting the system Companywide, while an officer in charge of safety and health (general managers) at the head office and branches and project managers at construction sites are responsible for promoting the system in their respective workplaces.

Occupational Health and Safety Management System

Plan

Policy

Identify and eliminate hazardous and harmful elements

#### Targets (quantitative) implementatior the system is impler maintained properly Health and safety plan audit nspect system Internal Execute the plan and operate the system that and r Confirm Inspect execution status Correct unsafe situations Measures to prevent recurrence Feedback Feedback Revision by president

### Targets and Status of Occupational Accident Occurrence

We made "zero fatal accidents" one of our targets for the fiscal year ended March 31, 2017, carrying out the following priority measures.

安全福元

- 1. Prevent occupational accidents under the leadership of the project manager
- 2. Prevent accidents resulting in falls
- 3. Prevent machinery accidents
- 4. Increase health and safety management capabilities
- 5. Promote creation of healthy work environments
- 6. Prevent damage to third parties due to accidents

#### Status of Occupational Accident Occurrence



Accident frequency rate: The number of accidental labor deaths and injuries recorded for every 1 million labor hours (left)

labor hours (left)
Severity rate: The number of workdays lost to workplace accidents recorded for every 1,000 labor hours (left)

#### **Safety Patrols**

All of our branches conduct regular patrols of our construction sites to verify health and safety management conditions.

Separate from these daily patrols, the central officer in charge of safety and health and others will conduct special patrols four times a year, as well as patrols to verify dust hazard prevention efforts at tunnel construction sites and so forth.



Staff conducting a patrol

### **Prevention of Workplace Accidents**

To prevent faults in safety equipment and unsafe behavior on construction sites, we are rigorously implementing the following measures.

#### Initiative for Enhancing On-Site Inspections

Our employees and supplier supervisors check directly on the implementation of safety measures at worksites. Any faults are corrected on the spot.

#### Initiative to Encourage Calling

Workers who see someone doing something unsafe are required to verbally caution them. We strive to make an environment where people can call out to each other freely.

#### ATKY Initiative

Before starting work, employees and others working on construction sites identify any potential hazards and harmful factors and eliminate or minimize them. We actively employ pointing and calling to ensure safety, inspection, and check (in Japanese, *anzen*, *tenken*, *kakunin* or "ATK") and hazard prediction (*kiken yochi* or "KY"), with these activities being referred to as ATKY. Each skilled worker also engages in individual ATKY to confirm safety in their own workplace.

### Safety Training

We provide training for employees and educational support for suppliers to prevent workplace accidents, raise health and safety awareness and deepen awareness of safety-related laws and regulations.

In the fiscal year ended March 31, 2017, our efforts focused particularly on preventing machinery accidents, working to prevent such accidents by implementing an e-learning program to teach employees accident prevention and precautions required when operating cranes and backhoes. We also cooperated with the Obayashi Accident Prevention Association, which is organized by our suppliers, to create an educational DVD covering how to prevent "sling work" accidents, and accidents involving use of construction machinery. The DVD is being distributed to all construction sites, and is being used in employee and skilled worker safety training.





Educational DVDs (Left) "Are You Doing That Sling Work Correctly?" (Right) "Preventing Machinery Accidents: Understanding Human Error"

Digital e-learning textbook (excerpt)

#### TOPICS

Minister of Health, Labour and Welfare Awards for Safety and Health At the 2016 Labour Minister's Awards for excellent workplaces, organizations and persons who contributed to occupational safety and health, Obayashi was recognized with two awards for excellence, for new construction of the Sakurajosui Gardens (Tokyo) and construction of the Inagi Tunnel on the Shin Tomei Expressway (Aichi Prefecture).

Awards for excellence are given to project offices with exceptional and exemplary health and safety levels, including for initiatives to reduce workplace risk and for periods with no accidents.

Scene from the awards ceremony



### Creating Safer Construction Sites: Automated Construction Technology Using Robotics

By automating work at construction sites and replacing it with work done by robots, we can prevent human accidents and disasters. To create a safer work environment, we are now working to develop automated construction robot technology.

#### Multi-Crawler Automated Survey Robot

Early recovery from landslide disasters requires surveying the deposition and composition of the collapsed soil, information that cannot be understood from aerial surveys.

The multi-crawler automated survey robot<sup>\*1</sup> is equipped with a penetration testing device that can be remotely controlled, allowing for a quick survey of the region without requiring a skilled worker to enter the danger zone. By using realistic 3D video images, and by linking the movements of the robot with those of the upper body of the operator, the system can recognize spaces in the same manner as eyesight. The robot can also traverse steep or uneven grades and soft ground that would be difficult for conventional construction machinery to run on.

Using robots to conduct such surveys can prevent manmade secondary disasters, while also making it possible to quickly draft plans for recovery measures and safe construction optimized for landslides.

\*1 A joint development project with Keio University and Mobile Robot Research Co., Ltd., with development assistance from the New Energy and Industrial Technology Development Organization (NEDO).



(Above) Installation of a relay antenna allows for remote operation up to about 2 km from the operating base

(Right) The robot can traverse steep or uneven grades and soft ground that would be difficult for conventional construction machinery



#### SURROGATE General-Purpose Remote Control Device

SURROGATE<sup>+2</sup> is a simple, detachable remote control device for general-purpose construction machinery. It requires no modification of the machinery itself, and can be installed as an "add-on" on a control lever or elsewhere, offering a high level of versatility at a low cost.

Machinery can be controlled either remotely or, with SURROGATE still installed, directly by an onboard operator, making it suited for situations on-site that require a flexible response.

It is expected to aid in providing rapid response for emergency recovery work following landslides caused by heavy rains or disasters caused by earthquakes and volcanic activity.

\*2 Developed jointly with Taiyu Co., Ltd.



Allows for remote control at dangerous worksites



Can be installed as an "add-on" to control levers

## Watching Over Individual Employee Health

We are also engaged in the development of technology that not only keeps workers safe, but that helps achieve workplaces that are comfortable, safe and healthy for everyone, including skilled workers.

#### Using the HAL<sup>®</sup> Assistive Robot

HAL<sup>®</sup> (Hybrid Assistive Limb<sup>®</sup>) is a wearable robot developed by CYBERDYNE INC. The technology is designed to reduce the load on the back when lifting heavy objects by assisting human movement by detecting the signals emitted by the brain during muscle movement as bioelectric signals, using sensors attached to the skin.

We began introducing HAL<sup>®</sup> at construction sites throughout Japan in the fiscal year ended March 31, 2017, primarily for use in work involving transporting heavy loads, with the goal of lightening the burden on skilled workers and improving the work environment.

Improvements are now underway to make the equipment easier to use, along with development to add waterproof and dust-proof functionality and enable HAL<sup>®</sup> to be used in a half-sitting posture. In the fiscal year ending March 31, 2018, we plan to expand its uses to include rebar assembly and other types of work.

#### HAL<sup>®</sup> in use



Installing a raised floor



Tying down floor rebar

#### TOPICS

Flexible Workplace Awards



Assembling temporary scaffolding

#### Managing Vital Signs

We have begun offering the Envital<sup>™\*1</sup> service, a cloudbased service that utilizes the IoT to collect and consolidate management of information on skilled-worker heart rate, working posture and the work environment and provide notification of risks. The system is designed to help manage workers' physical condition.

Physical strength varies from individual to individual, and physical condition is constantly changing along with the work environment. The ability to respond to individual worker circumstances is necessary.

Safety managers at construction sites use Envital<sup>™</sup> to provide individual workers with guidance on taking breaks, hydration and so on, in an effort to prevent accidents.

\*1 A proprietary system customized by Obayashi using cloud services provided by NTT Communications Corporation



We are using clothing made from hitoe<sup>®+2</sup>, a functional textile that can acquire real-time data on the wearer's heart rate and other vital signs, in combination with a system to ascertain WBGT<sup>+3</sup> (heat index) levels at construction sites to enable unified management

- \*2 hitce® was developed by and is a registered trademark of both NIPPON TELE-GRAPH AND TELEPHONE CORPORATION (NTT) and Toray Industries, Inc. Simply wearing this functional material enables heart rate, electrocardiograph, and other readings to be taken. It offers durability, skin comfort and highly sensitive detection of bio-signals by applying a special coating to a nanofiber knit impregnated with conductive polymers
- \*3 WBGT: Wet bulb globe temperature in Celsius (an index designed to prevent heatstroke)

The Sakuma Urakawa Tunnel project office in Shizuoka Prefecture received the Award for Excellence at the Seventh Flexible Workplace Awards.

The site, which has introduced a five-day work week with two days off, believes that enhancing the appeal of the construction industry relies on enriching both work and private life, and is actively utilizing advanced technology to streamline operations and improve productivity.

We are working to deploy success stories from each workplace across the organization, thereby forming an even more comfortable workplace environment.

\* Held by the Japan Federation of Construction Contractors

A construction meeting. Advanced technology is used to manage construction



## **SUPPLIERS**

## Obayashi Group CSR Procurement Guidelines

relationships of trust that result in mutual growth.

We conduct fair transactions with suppliers and build strong

In 2011, we established the Obayashi Group CSR Procurement Guidelines, part of our efforts to work with our suppliers in achieving a sustainable society.

The guidelines set out nine areas, including compliance with laws and regulations, respect for human rights, ensuring safety and health, and concern for the environment. In addition to seeking improvements among our suppliers and strengthening CSR initiatives, we are working toward the adoption of these guidelines throughout our supply chain.

#### Certification Programs (Excellent Site Supervisor and Excellent Operator)

In recent years in Japan, the construction industry has been confronted with problems related to a shortage of skilled workers. This is due to the aging workforce, a decline in the number of younger recruits and low retention rates.

We introduced the Obayashi Excellent Site Supervisor and Excellent Operator Certification Program aiming to raise the motivation of skilled workers. Under the system, we began certifying, and raising the pay of, exceptional supervisors<sup>\*1</sup> and crane operators.

The system, which began<sup>\*2</sup> in the fiscal year ended March 31, 2012, has expanded over the years to include eligibility for young skilled workers and an increase in the amount of additional pay provided. For the fiscal year ending March 31, 2018, we have certified 363 Excellent Site Supervisors and 26 Excellent Operators.

\*1 A skilled worker who provides instructions to subordinates at construction worksites \*2 The Excellent Operator Certification Program was introduced in 2016



Obayashi Excellent Site Supervisor and Excellent Operator certification ceremony



#### Obayashi Rin-yu-kai Vocational Training School

In April 2014, we opened a vocational training school\* to nurture skilled workers and pass on their expert skills to future generations.

The school offers three courses: scaffolding, ferro-concrete reinforcement, and formwork. Trainees spend two months acquiring critical construction knowledge and technical skills necessary for construction worksites, including safety management and computer-assisted design (CAD).

We have established courses not just for young skilled workers, but also for those in mid-career. As of March 31, 2017, 63 workers have completed the training and put their skills to use at construction sites.



Learning to assemble scaffolding by doing the actual work

In addition to practical skills trainees also learn about safety and health regulations



<sup>\*</sup> A wide-area occupational training organization utilizing the Ministry of Health, Labour and Welfare program. Obayashi Rin-yu-kai Vocational Training School is certified by the Tokyo Metropolitan Government

### **Supporting Recruiting Activities**

Promoting recruitment of skilled workers who will lead future generations and passing on techniques is not an issue solely for suppliers, but a matter in which we can play an important role. We work together with suppliers to convey the appeal of the construction industry.

#### Joint Company Introduction Seminars

Since the fiscal year ended March 31, 2015, we have been holding company introduction seminars for high school career counselors with the Rin-yu-kai, organized by our Group's suppliers.

School career counselors and others from 81 high schools participated in seminars held on 11 occasions in the 6 locations of Sapporo, Tohoku, Nagoya, Osaka, Hiroshima and Kyushu in the fiscal year ended March 31, 2017.

A joint company introduction seminar

### Various Types of Training

We dispatch our employees as instructors for various types of training, such as quality, health and safety and compliance, held by the Rin-yu-kai and Obayashi Accident Prevention Association.

We also hold joint training every year for newly recruited employees from Rin-yu-kai member companies to support training young skilled workers.

#### Hands-On Occupational Construction Site Tours

Hands-on occupational construction site tours are held for high school and vocational school students.

The objective in offering students hands-on experience in multiple areas, including rebar, gas pressure welding, plastering and painting, is to have participants learn the differences between the various kinds of work, get a sense of where their aptitudes lie, and imagine themselves working in construction.

A high school student learning how to use a gas burner

A training session at the Osaka Main Office

#### TOPICS

Minister of Health, Labour and Welfare Awards for Supervisor Safety Excellence

Four supervisors working at our construction sites were honored with an award for excellence at the 2016 Minister of Health, Labour and Welfare Awards for Supervisor Safety Excellence.

This award is presented to outstanding supervisors with excellent technical skills and experience as well as an outstanding record of applying safety guidance with the purpose of further vitalizing safety activities at workplaces and within local communities.

> Accepting the award from Parliamentary Vice-Minister of Health, Labour and Welfare Noriko Horiuchi









We promote social contribution activities as a good corporate citizen.

#### Inspiration for the Next Generation

#### Tours at Construction Sites and Obayashi Technical Research Institute

We hold tours at construction sites and the Obayashi Technical Research Institute in Kiyose City, Tokyo, for students, citizens, and other interested parties. Tours give participants a better understanding of construction by showing cuttingedge construction technology, the state of dynamic construction, and the real joy of building.



Models are used to explain civil engineering structures during a tour held for local junior high school students

#### Accepting Student Trainees

Special subsidiary Oak Friendly Service Corporation, established with the goal of promoting hiring of those with intellectual disabilities, accepts student trainees year-round from special needs schools and other facilities.

In the year ended March 31, 2017, 14 trainees gained hands-on experience in sorting mail, shipping, managing office supplies and other duties.



Student trainees managing office supplies

#### Donating Libraries

Since 2007, Group company Thai Obayashi has been building and donating libraries, along with books, on the grounds of local elementary schools in the hopes of increasing learning opportunities for children.

They have completed 10 libraries since the initiative began, to the great delight of the children who use them.





Local children at one of the donated libraries

#### Obayashi Foundation Scholarship Program

The Obayashi Foundation offers assistance for research and international conferences involved in urban planning, as well as operates an award program for researchers in the field. The foundation also provides scholarships to students studying to become urban planning professionals or researchers.

In the fiscal year ended March 31, 2017, 21 students were selected for scholarships.



The Obayashi Foundation scholarship presentation ceremony for the fiscal year ended March 31, 2017

### **Global Environmental Responsibility**

#### Woodland Activities and Environmental Education

As a member of a local volunteer group, the Aigawa Dam JV construction office in Ibaraki, Osaka Prefecture, is engaged in activities to preserve the woodlands adjacent to the construction site. By cleaning, mowing, and thinning, planting and protecting trees, they work to interact more closely with local residents.

To preserve and utilize the rich natural environment around the construction site, instructors are invited to hold seminars on the environment for nearby residents as part of a proactive environmental education effort.



Working in the woodlands

#### Good Citizenship in Local Communities

#### Matching Gift Program

In the fiscal year ended March 31, 2015, we introduced a Matching Gift Program where we match donations volun-

tarily made by employees. We delivered employee and matching donations to 17 organizations in fields such as the environment and support for disaster reconstruction in the fiscal year ended March 31, 2017.



Donation to the National Land Afforestation Promotion Organization's Green Fund

#### Supporting Special Olympics Nippon

Special Olympics is an international sports organization that aims to improve the quality of life through sports for people with intellectual disabilities.

We support these activities as an official sponsor of Special Olympics Nippon.



#### Volunteer Activities

Every year, Webcor, a Group company based in the U.S.A., volunteers to participate in activities sponsored by Rebuilding Together San Francisco, a local NPO. With the goal of revitalizing the local community, these activities involve repairing, remodeling and cleaning buildings, churches, schools and other facilities in the city. In the fiscal year ended March 31, 2017, over 80 employees and family members participated.



Volunteers working together

#### TOPICS

Supporting Regions Affected by the 2016 Kumamoto Earthquakes The day after the earthquakes struck, the Tashiro No. 2 Tunnel construction office in Kumamoto assisted in installing portable toilets and light fixtures at emergency shelters near the Mashikimachi town hall, an area that suffered the loss of both water and electricity as a result of the earthquakes.

Employees of Obayashi and its suppliers regularly visited the shelters to clean and to supply water for the portable toilets, and were actively involved in supporting the evacuees until lifelines were restored.

Through the efforts of each individual on-site, we continue to offer support for the earliest possible recovery and rebuilding of the affected region.

(Top) Obayashi employees supplying water to portable toilets (Bottom) Cleaning an emergency shelter



## **CORPORATE ETHICS**

We comply with laws and regulations and practice proper business conduct while striving to foster a strong awareness of ethics in each director and employee.

#### Policy

Obayashi's Articles of Incorporation stipulate a strong determination to comply with laws and regulations in order to ensure thorough awareness of compliance issues, including corporate ethics, and create a sound corporate culture. Moreover, the Code of Conduct within the Obayashi Principles stipulates thorough adherence to corporate ethics throughout the Company, led by top management.

#### Obayashi Corporation's Articles of Incorporation, Article 3 (Compliance and Sensible Course of Action)

Each and every director and employee of the Corporation will comply with all laws and regulations, have a high awareness of ethics in corporate activities, and will act in good faith. In particular, in winning orders for construction work, no actions will be taken that hinder the fairness and legitimacy of public tenders, such as tender bids that violate criminal law or the Anti-Monopoly Act (Act on Prohibition of Private Monopolization and Maintenance of Fair Trade).

#### Obayashi Code of Conduct

(Ensure Strict Adherence to Corporate Ethics)

- 1. Comply with laws and regulations and proper business conduct
- 2. Promote fair and free competition
- 3. Maintain appropriate relationships with stakeholders
- 4. Avoid all contact with antisocial forces
- 5. Ensure appropriate information disclosure and transparency of management

## **Corporate Ethics Program**

The Corporate Ethics Program was created to establish corporate ethics and ensure adherence.

In the program, we set out policies and standards, established systems, and introduced specific measures, which we are rigorously implementing. The program incorporates a Plan, Do, Check, Action (PDCA) cycle which includes regularly reviewing the implementation status of each measure.



### **Corporate Ethics Promotion System**

#### Corporate Ethics Committee

The Corporate Ethics Committee, chaired by the president, has been established to deliberate on important issues such as the formulation of basic policies for establishing corporate ethics, and to ensure adherence to corporate ethics. In addition, a Corporate Ethics Promotion Committee, comprised primarily of general managers, has been established to strengthen the framework.

In order to incorporate assessments from independent parties, both of the committees include outside authorities and the head of the employees' union.

#### Corporate Ethics Reporting System

We have established a corporate ethics reporting system for people involved in our operations (including employees, temporary employees, incoming transferred employees, part-time staffers, personnel from suppliers, and so forth).

In addition to an internal contact, a law office is available

as an external point of contact to make the system easier to utilize for whistleblowers. Whistleblowers can be anonymous and are thoroughly protected against prejudicial treatment.

All reports of impropriety are followed promptly by a fact-finding investigation and necessary actions.



A poster promoting the Corporate Ethics Reporting System

### Introduce, Implement, Verify and Improve Specific Measures

#### Rules and Manuals

We have set forth and abide by rules and manuals for individual fields, starting with the Anti-monopoly Act Compliance Program, the Antisocial Forces Exclusion Program, and the Obayashi Group Anti-Bribery Program, and also including the Occupational Health and Safety Manual and the Quality Manual.



Obayashi Group Compliance Guidebook

#### Monitoring

We monitor the implementation of our corporate ethics programs, including the Bid-Rigging Monitoring Program conducted by the Audit Committee and monitoring of internal audits by the Business Administration Department.

We verify that corporate ethics are being instilled throughout the Company and that manuals are being implemented into routines by conducting workplace training in corporate ethics in each division, as well as follow-up e-learning sessions.

#### Corporate Ethics Training

Each year, workplace training in corporate ethics is held for all employees of Obayashi Corporation and main Group companies.

Using a textbook produced by the Corporate Ethics Promotion Committee, the training focuses discussion on specific cases, such as compliance with the Construction Industry Act and exclusion of antisocial forces. Participants also learn about preventing bribery of foreign government officials, as well as information security knowledge, and other issues.

In overseas training, we conduct education and training programs in accordance with the laws, regulations, and regional characteristics of each country.



Corporate Ethics Training Each division decides on a relevant theme, with study conducted in a discussion format. SS

Corporate Governance

## CORPORATE GOVERNANCE



 Deliberate on appointments and remuneration of directors, Audit & Supervisory Board members, and executive officers

## Executive Officers

Delegation of

authority

business execution

Functions

Appoint/Dismiss

(1-year appointment)

 Execute duties based on authorization delegated by the Board of Directors

delegated by the Board of Directors

#### Board of Directors

The Board of Directors is composed of up to 15 directors. Directors are responsible for management decision-making and business execution, as well as supervision of the execution of duties by other directors, executive officers and employees. The tenure for directors is one year, which enables us to respond dynamically to changes in the business environment, while also clarifying management responsibilities for each business term.

The effectiveness of the Board of Directors as a whole was analyzed and assessed under the advice of an external legal office, based on the assessments and opinions of the directors and the Audit & Supervisory Board members. They have judged that the effectiveness of the board has been ensured. The status and operation method of the Board of Directors will be improved as needed based on the opinions of the directors and the Audit & Supervisory Board members.

#### Audit & Supervisory Board

The Audit & Supervisory Board comprises a maximum of five Audit & Supervisory Board members (of whom the majority must be outside Audit & Supervisory Board members). In accordance with the "Obayashi Audit Guidelines for Audit & Supervisory Board members," the Audit & Supervisory Board members, in a position independent from the directors, conduct audits to ensure that the status of business execution by the directors, executive officers, and employees is in compliance with the law and the Articles of Incorporation. At the same time, to ensure the appropriateness of the financial statements, the Audit & Supervisory Board members monitor and verify the work of the independent auditor (accounting firm).

#### Management Meeting

The Management Meeting is composed of members appointed from among the directors and executive officers. It is held to report, discuss, resolve, and instruct on important management matters, in order to ensure precise and swift decision-making.

Functions

and decide on important management

issues (within authorization delegated by the Board of Directors)

Executive Officers' Meeting

Functions

Report on status of execution of duties

Convey management strategies

• Report, deliberate, issue instructions

#### Executive Officers

Executive officers receive authority from the Board of Directors to execute business operations. By concentrating on their executive duties, the executive officers achieve efficient business execution.

#### Executive Officers' Meeting

The Executive Officers' Meeting is comprised of directors and executive officers. The meeting is held to convey management strategies and report on the status of business execution.

#### Recommendation Committee and Remuneration Committee

The Recommendation Committee and Remuneration Committee (both chaired by the president) include outside directors in their composition. The Recommendation Committee deliberates on the selection process for directors, Audit & Supervisory Board members, and executive officers and the Remuneration Committee deliberates on the decision-making process for their remuneration. The results are submitted to the Board of Directors. This is intended to clarify the selection process and remuneration decision process, while ensuring transparency and objectivity.

#### Overview of the Corporate Governance Structure (As of June 29, 2017)

Form of organization		Company with Audit & Supervisory Board
Directors	Number of directors provided in Articles of Incorporation	15
	Number	11
	Of which outside directors	2
	Appointment term	1 year
	Remuneration	Basic remuneration and stock remuneration in line with contribution to performance

Audit &	Number	5
Supervisory Board members	Of which outside Audit & Supervisory Board members	3
Number of independent directors and Audit & Supervisory Board members		5
Executive officer system		Yes
Independent auditor		Ernst & Young ShinNihon LLC
Discretionary committees		Recommendation Committee regarding directors, Audit & Supervisory Board members and executive officers Remuneration Committee regarding executive remuneration

#### Main Recent Initiatives to Enhance Corporate Governance

		2005	2006	2008	2014	2016		
Directors	Number of directors	mber of directors Up to 50 members → Up to 15 members						
	Appointment term		2 years → 1 year					
	Independent outside directors		$0 \rightarrow 1 \text{ person}$ 1					
Separation of supervision and business execution			Introduction of the execu	utive officer system				
Outside A Board mer	udit & Supervisory mbers	2 persons $\rightarrow$ 3 persons						
Executive	remuneration					Introduction of performance- linked stock remuneration system		

#### Outside Directors and Outside Audit & Supervisory Board Members

We have appointed two outside directors and three outside Audit & Supervisory Board members. The outside directors provide advice on improving management efficiency, along with supervision of all aspects of management from an independent position. The outside Audit & Supervisory Board members are responsible for ensuring that corporate governance functions effectively by providing checks from a third-party position independent of management.

Our standards for appointing outside directors and Audit & Supervisory Board members, including standards regarding independence, are as follows:

#### Requirements for selection as an Outside Director/Audit & Supervisory Board Member candidate

- The capabilities, knowledge, experience and character of the Outside Director/Audit & Supervisory Board Member candidate (hereinafter referred to as the "Candidate") are suitable for an Outside Director/ Audit & Supervisory Board Member at the Corporation, and the Candidate is able to provide directions and opinions to the Corporation's management from an independent and impartial standpoint.
- The Candidate is not a former Director/Audit & Supervisory Board Member or employee of the Corporation or any of its associated companies.
- 3. The Candidate does not currently belong, and has not belonged in the past, to an Accounting Auditor, law office or main bank with which the Corporation currently has a contract.
- 4. The Candidate is not a major shareholder with an ownership stake of 10% or more (or a person that currently belongs or has belonged in the past to an entity that is a major shareholder).
- 5. The Candidate does not currently belong, and has not belonged in the past, to an entity that has a business relationship with the Corporation in which the annual amount of transactions has exceeded 2% of the net sales of both the Corporation and such entity during the last three fiscal years.
- 6. The Candidate does not currently work, and has not worked in the past, as an executive at a non-profit organization to which the Corporation has made an annual donation exceeding 20 million yen during the last three fiscal years.
- If the Candidate does not meet the requirements in 3. through 6., at least five years have passed since the candidate left the relevant entity.
   The Candidate meets the requirements for an independent director/
- auditor pursuant to the provisions of the Tokyo Stock Exchange's Securities Listing Regulations.

		Activity	y in FY2017.	3	Details of Concurrent	
Outside Director	Reason for Appointment	Board of Directors Meetings		Attendance Rate	Positions Held	
Shinichi Otake Chief Executive Counselor, NIPPON TELEGRAPH AND TELE- PHONE WEST CORPORATION	To have his ample experience and advanced knowledge from many years of involvement in corporate management reflected in the appropriate decision-making and management supervision of Obayashi's Board of Directors, from an independent standpoint	13 times	13 times	100%	Outside Director, Osaka International Convention Center Corp.	
Shinichi Koizumi Former Executive Vice President and Representative Member of the Board, Toray Industries, Inc.	To have his ample experience and advanced knowledge from many years of involvement in corporate management reflected in the appropriate decision-making and management supervision of Obayashi's Board of Directors, from an independent standpoint	in total	13 times	100%	Outside Director, Japan Bank for International Cooperation Outside Corporate Auditor, DeNA Co., Ltd.	
		Activity	y in FY2017.	3		
Outside Audit & Supervisory Board Member		Board of Directors Meetings Audit & Supervisory Board Meetings		Attendance Rate	Details of Concurrent Positions Held	
Yasutaka Kakiuchi Former Deputy Director-General	To have his ample experience from many years of involvement in the administration of government policy on land, infrastructure		13 times	100%		
Minister's Secretariat of the Ministry of Construction	and transport reflected in Obayashi's audits, from an indepen- dent standpoint	13 times in total	15 times	100%		
Hiroshi Murao	To have his specialized knowledge as a certified public accoun- tant and ample experience in corporate accounting reflected in		13 times	100%	Outside Audit & Supervisory Board	
President, Murao Certified Public Accountant Office	Obayashi's audits, from an independent standpoint		15 times	100%	Member, Mitsui Home Co., Ltd.	
Hiroshi Yokokawa President, Japan Association	To have his ample experience from many years of involvement in the administration of government policy on economy and	15 times in total	12 times	92%	Chairman, Association for the Promotion of Electric Vehicles	
of Athletics Federations	industry as well as corporate management reflected in Obayashi's audits, from an independent standpoint		14 times	93%	Chairman, SOKEIZAI CENTER	

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#### Supporting Structure of Audit & Supervisory Board Members

#### Policies for Determining Remuneration

The Audit & Supervisory Board members and independent auditor each conduct audits from their independent standpoints, with the Audit & Supervisory Board members receiving reports and briefings as required from the independent auditor. The two parties also cooperate to raise the effectiveness of audits by sharing information and opinions. Meanwhile, as Obayashi's internal audit arm, the Business Administration Department is responsible for all audits conducted separately from the Audit & Supervisory Board members and independent auditor. Performed according to Obayashi's Internal Audit Regulations, these audits monitor the effectiveness of internal control and the execution of duties by each department within the Company. The Audit & Supervisory Board members and Business Administration Department cooperate as well to raise the effectiveness of audits by sharing information and opinions.

The basic policy with regards to director and executive officer remuneration is to determine the amount of basic remuneration and stock remuneration for each director and executive officer in accordance with actual contribution to earnings, in order to secure outstanding human resources and to provide incentive to each director and executive officer to improve earnings and enhance corporate value.

Specifically, for basic remuneration, the Board of Directors has set a remuneration table in accordance with title and earnings contribution ranking, and the Remuneration Committee, which includes outside directors as members, appraises the degree of earnings contribution of individual directors and executive officers to determine the amount of remuneration.

Stock remuneration was introduced from the fiscal year ended March 31, 2016, with the goal of incentivizing contributions to increasing earnings mainly over the medium to long term. The system distributes Obayashi shares to directors and executive officers based on the degree of achievement of earnings targets for each fiscal year. The standard for distributing shares is determined in advance by the Board of Directors after deliberation by the Remuneration Committee.

The basic policy with regard to the remuneration of the Audit & Supervisory Board members is to set an amount required to secure outstanding human resources in order to have corporate governance function effectively. Specifically, remuneration standards are set up in advance according to full-time and part-time status, and

so forth through discussions among Audit & Supervisory Board members, and remuneration for each Audit & Supervisory Board member is determined in line with those standards.

#### Total Amount of Director and Audit & Supervisory Board Member Remuneration (Fiscal Year Ended March 31, 2017)

Position	Total Remuneration and Other Compensation
Directors (12 directors)	¥568 million
Audit & Supervisory Board members (6 members)	¥86 million
Of which outside directors / Audit & Supervisory Board members (5)	¥51 million

Notes: 1. The above includes amounts for one director and one outside Audit & Supervisory Board member who left their posts as of the conclusion of the 112th Ordinary General Meeting of Shareholders held on June 29, 2016.

 The above includes a performance-linked stock remuneration expense of ¥29 million recorded for 9 of the 11 directors (excluding 2 outside directors) who were appointed

at the 112th Ordinary General Meeting of Shareholders held on June 29, 2016.

#### Matters Pertaining to the Independent Auditor (Fiscal Year Ended March 31, 2017)

Category	Compensation Paid for Audit Certification Activities	Compensation Paid for Non-Audit Activities	
Obayashi Corporation	¥97 million	¥0 million	
Consolidated subsidiaries	¥81 million	—	
Total	¥178 million	¥0 million	

Name of the independent auditor: Ernst & Young ShinNihon LLC

#### Establishment and Implementation of Internal Control System

We have established an internal control system in accordance with the Companies Act and Ordinance for Enforcement of the Companies Act. The purpose of the system is to ensure appropriate business operations throughout the Group.

#### Constructive Dialogue with Shareholders

We consider the General Meeting of Shareholders to be an important forum for dialogue with shareholders. At the meetings, we promote constructive dialogue with shareholders through the presentation of business reports and explanations by the president, Q&A sessions with directors, and other activities. We also hold financial results briefings for second-quarter and annual financial results, and conduct results briefings by conference calls for the first- and third-quarter results. Other opportunities include holding construction site tours and participation in securities companies' investment conferences, as well as small meetings and other such activities.

#### **IR** Activities

Activity	Number of Times in the Fiscal Year Ended March 31, 2017	Description
Financial results briefings and telephone conferences for analysts	4	Financial results briefings given by the president and the management team (May, November) and conference calls (August, February)
Individual meetings for institutional investors	84 (meetings with 120 companies in total)	Held individual meetings with institutional investors after financial results announcement
Small meetings	1	Held meetings on specific themes
Investment conferences	6 (meetings with 46 companies in total)	Participated in investment conferences held by securities companies and held meetings with overseas institutional investors
Overseas IR activities	1	The president and assigned directors visited overseas institutional investors to have meetings with them
Construction site tours	1 (Aigawa River Dam joint venture construction site, Osaka Prefecture)	Held construction site tours for institutional investors and securities analysts



Messages from Outside Directors and Outside Audit & Supervisory Board Members

Front row from left: Shinichi Koizumi and Shinichi Otake; back row from left: Hiroshi Yokokawa, Yasutaka Kakiuchi, and Hiroshi Murao

Shinichi Otake (Outside Director)	At Obayashi, in addition to information about the proposals before the Board of Directors, other necessary information from all operations is adequately provided. Moreover, the outside directors and outside Audit & Supervisory Board members freely exchange opinions among themselves on a regular basis. This exchange of information and opinions enables lively discussions at the Board of Directors. The recently announced Obayashi Group Medium-Term Business Plan 2017 is highly commendable as it aims to improve corporate value while maintaining sound and transparent management. To achieve these goals, I intend to proactively advise management on how to diversify earnings sources in particular. Since it is also important to deploy cutting-edge technologies, especially those developed by the Obayashi Technical Research Institute, I will focus my attention on technology development.
Shinichi Koizumi (Outside Director)	For the Company to develop sustainably, it needs to promote strategic and innovative initiatives such as actively incor- porating rapidly evolving ICT, significantly improving productivity and creating construction business models, as well as continuously reviewing its corporate governance structure. I will use my accumulated knowledge and experience from many years in overseas operations and from building alliances with leading companies inside and outside Japan to proactively offer objective advice through dialog with the Board of Directors and top management. I will focus on various important matters for management, such as creating strategic business alliances and aggressively developing business around the world while thoroughly managing risks. I aim to contribute to the improvement of corporate value at Obayashi.
Yasutaka Kakiuchi (Outside Audit & Supervisory Board Member)	I understand that outside Audit & Supervisory Board members rely on the experience and knowledge they have gained in many organizations to perform their oversight duties in corporate management from an outsider's viewpoint. I am particularly interested in oversight of internal control systems, especially risk management systems, as these include other aspects of internal control such as compliance, information storage and management, ensuring efficiency, and appropriate corporate group operations. Corporate value can only be improved over the long term by building and oper- ating proper internal control systems as the foundation of corporate activity. Obayashi's wonderful corporate culture has its roots in integrity in building, with a customer-first approach, and development of people, which arises from that. This corporate culture is a source of pride and confidence, and I hope it will be passed down to the next generation.
Hiroshi Murao (Outside Audit & Supervisory Board Member)	I mainly keep an eye on the financials from the standpoint of a specialist, leveraging my experience monitoring compa- nies from the outside as a Certified Public Accountant. However, I consider that corporate governance is functioning effectively and that businesses are being managed in a balanced and healthy manner. The Board of Directors and the Audit & Supervisory Board have sufficient time to properly examine matters that require attention, and matters are openly discussed. Proposals discussed by the Board of Directors include detailed documentation of key risks and other informa- tion. Meetings of the Board of Directors involve lively exchanges of opinions, as well as questions and answers. I consider the Company's meeting bodies to be effective overall. I believe the securing of adequate profits while monitoring risks and compliance and maintaining the trust of all stakeholders will ultimately lead to improvement in corporate value.
Hiroshi Yokokawa (Outside Audit & Supervisory Board Member)	I sincerely believe Obayashi's corporate governance system is properly, effectively, and autonomously functioning, thanks in large part to the strong awareness of governance among all employees. That said, efforts must be constantly made across the organization to raise sensitivity to risks and compliance. I am constantly explaining the importance of examin- ing matters from all angles and the necessity of multi-faceted thinking. I believe this is the best approach to my role as an outside Audit & Supervisory Board member. The Board of Directors and Audit & Supervisory Board are effectively carrying out their functions and roles through the lively exchange of opinions and sharing of information. I am confident they will fulfill their duties as core organizations to improve Obayashi's corporate value over the medium to long term.

## CONSOLIDATED FINANCIAL SUMMARY

## Obayashi Group: Consolidated Financial Results

Final years and al Marsh 24		2008	2000	2010	
Fiscal years ended March 31 Orders received	2007 ¥1,552,727	<sup>2008</sup> ¥1,513,380	2009 ¥1,494,508	2010 ¥1,282,334	
Orders received (construction business)	1,446,091	1,431,271	1,438,365	1,214,745	
Net sales	1,567,960	1,691,635	1,682,462	1,341,456	
Gross profit	121,436	106,956	106,881	14,569	
Gross profit margin (%)	7.7	6.3	6.4	1.1	
Selling, general and administrative expenses	73,897	78,289	79,518	77,103	
Operating income (loss)	47,538	28,667	27,363	(62,534)	
Operating margin (%)	3.0	1.7	1.6	(4.7)	
Ordinary income (loss)	53,320	32,312	31,829	(59,608)	
Profit (loss) attributable to owners of parent* <sup>1</sup>	40,652	18,595	10,966	(53,354)	
Profit (loss) attributable to owners of parent per share (EPS)	40,052	10,555	10,500	(55,554)	
(yen/U.S. dollars)	56.46	25.83	15.24	(74.21)	
		25.05	13.24	(74.21)	
Net assets	565,456	477,504	395,809	367,618	
Equity (net assets less non-controlling interests)	542,652	449,876	371,069	342,227	
Retained earnings	183,599	198,507	202,941	139,176	
[The ratio of retained earnings to equity]	[33.8%]	[44.1%]	[54.7%]	[40.7%]	
Total assets	2,066,984	1,854,071	1,725,645	1,590,667	
Property, plant and equipment	325,903	341,044	329,415	319,373	
Investment securities	541,518	374,454	238,245	296,589	
[Sales result of investment securities]	[13,797]	[9,477]	[12,645]	[3,056]	
Net assets per share (yen/U.S. dollars)	753.78	625.06	516.06	476.12	
	, , , , , , , , , , , , , , , , , , , ,	025.00	510.00		
Equity ratio (%)	26.3	24.3	21.5	21.5	
Return on equity (ROE) (%)* <sup>2</sup>	7.9	3.7	2.7	_	
Price earning ratio (PER) (times)* <sup>2</sup>	13.5	16.2	31.4	_	
Dividends per share (yen/U.S. dollars)* <sup>3</sup>	12	8	8	8	
Dividend payout ratio (%)* <sup>2</sup>	21.3	31.0	52.5	_	
Net cash provided by (used in) operating activities* <sup>4</sup>	20,565	(47,631)	(39,610)	16,156	
Net cash provided by (used in) investing activities* <sup>4</sup>	53,036	(18,924)	1,699	(12,746)	
Net cash provided by (used in) financing activities* <sup>4</sup>	(38,325)	54,804	62,427	(15,733)	
Cash and cash equivalents at end of period	139,942	128,537	143,821	132,425	
Number of personnel* <sup>5</sup>	13,743	15,088	15,150	14,476	
[Average number of temporary personnel not included in the above]					
Interest-bearing debt (except nonrecourse loans)	183,454	242,448	314,165	309,706	
	74,295	242,448 85,373	84,649		
				81,343	
Total amount of interest-bearing debt and nonrecourse loans	257,750	327,822	398,814	391,050	
Debt/equity (D/E) ratio (times)	0.47	0.73	1.07	1.14	
Financial balance	5,482	5,631	4,384	2,445	
	5,482 13,856	38,959	4,584 16,028	2,445 9,876	
Research and development	6,793	58,959 6,947	7,269	9,878 8,018	
·	6,793 10,340		7,269 10,956		
	10,340	10,462	סכפ,טו	10,534	

\*1. From FY2016.3, the line item "Net income (loss)" has been changed to "Profit (loss) attributable to owners of parent"

\*2. Return on equity (ROE), the price-earnings ratio (PER) and the dividend payout ratio for the fiscal year ended March 31, 2010 were omitted due to net loss posted during that year \*3. Included in the yearly dividend of ¥12 per share for the fiscal year ended March 31, 2007 is a special dividend of ¥4 per share

\*4. In the statements of cash flows, figures in parentheses represent the corresponding decrease in cash and cash equivalents

\*5. Average headcount for each fiscal year is recorded separately in parentheses next to the employee headcount. This is because the importance of temporary employees in the average headcount rose as a result of a revision in the boundary between employees and temporary employees from the fiscal year ended March 31, 2012
 \*6. U.S. dollar amounts are provided solely for the convenience of the reader, translated on the basis of ¥112.19 to US\$1, the prevailing rate of exchange at March 31, 2017

2017 <b>\$19,121,637</b>							
¢10 121 627	2017	2016	2015	2014	2013	2012	2011
\$19,121,037	¥2,145,256	¥1,951,943	¥1,900,517	¥1,653,005	¥1,449,567	¥1,362,702	¥1,180,639
18,294,896	2,052,504	1,862,140	1,797,441	1,580,900	1,372,658	1,289,779	1,108,348
16,692,410	1,872,721	1,777,834	1,773,981	1,612,756	1,448,305	1,245,772	1,131,864
2,004,934	224,933	193,052	131,707	112,059	114,687	110,678	99,716
-	12.0	10.9	7.4	6.9	7.9	8.9	8.8
812,827	91,191	86,671	83,318	80,067	79,534	79,532	76,542
1,192,106	133,742	106,380	48,388	31,991	35,153	31,145	23,174
_	7.1	6.0	2.7	2.0	2.4	2.5	2.0
1,248,832	140,106	111,208	59,913	40,135	44,690	35,241	22,207
842,337	94,501	63,437	28,695	21,627	13,195	5,142	15,423
1.17	131.66	88.36	39.96	30.11	18.37	7.16	21.46
5,740,947	644,076	561,658	549,483	448,108	414,650	365,492	351,287
5,296,019	594,160	516,098	549,485	448,108	384,730	340,463	325,936
2,985,626	334,957	255,750	199,296	178,665	161,666	152,278	151,684
2,903,020	[56.4%]	[49.6%]			[42.0%]	[44.7%]	[46.5%]
 17,969,483		1,951,907	[39.3%]	[43.3%]			
4,096,602	2,015,996 459,597		1,996,193 408,848	1,818,886	1,656,289 376,489	1,618,748	1,505,697
		441,604		415,089	•	358,186	360,209
3,086,245	346,245	342,021	415,541	323,858	317,386	264,365	251,196
[40,071 7.37	[4,495] 827.77	[4,497] 719.01	[4,541] 706.94	[12,089] 574.32	[9,066] 535.67	[14,427] 474.01	[12,358] 453.52
-	29.5	26.4	25.4	22.7	23.2	21.0	21.6
-	17.0	12.4	6.2	5.4	3.6	1.5	4.6
-	7.9	12.6	19.5	19.3	24.5	50.4	17.2
0.24	28	18	10	8	8	8	8
	21.3	20.4	25.0	26.6	43.5	111.7	37.3
1,416,280	158,892	124,980	74,646	37,962	31,496	65,755	1,096
(337,680	(37,884)	(48,029)	(7,442)	(47,328)	(29,151)	(1,919)	(33,134)
(794,773	(89,165)	(68,967)	(34,523)	27,587	(28,977)	(48,949)	10,611
1,730,953	194,195	164,802	162,607	121,177	99,690	121,682	108,999
-	14,094	13,688	13,432	12,856	12,838	12,870	14,639
_	[4,431]	[4,066]	[3,658]	[3,139]	[3,031]	[2,869]	
1,785,671	200,334	266,465	327,802	351,592	306,323	320,798	321,375
650,904	73,024	79,874	83,017	76,851	81,845	84,316	87,885
2,436,576	273,359	346,339	410,820	428,444	388,168	405,115	409,260
_,,	0.46	0.67	0.81	1.04	1.01	1.19	1.26
57,181	6,415	6,497	5,781	5,587	4,463	3,433	2,650
279,973	31,410	56,231	42,308	69,110	35,084	17,017	49,043
94,070	10,553	10,081	42,508 9,391	8,927	8,742	9,093	8,561
133,540	14,981	14,476	9,391 14,392	8,927 12,103	8,742 10,916	9,095 11,954	11,394

## CONSOLIDATED FINANCIAL STATEMENTS

## **Consolidated Balance Sheets**

OBAYASHI CORPORATION At March 31, 2017 and 2016

		Millions of yen	Thousands of	U.S. dollars (Note 2)
	2017	2016	2017	2016
Assets				
Current assets				
Cash and deposits (Notes 6 and 12)	¥ 194,585	¥ 164,829	\$ 1,734,428	\$ 1,469,202
Notes and accounts receivable from completed construction contracts and other (Notes 6 and 12)	720,361	715,023	6,420,906	6,373,329
Electronically recorded monetary claims (Note 12)	21,075	8,866	187,853	79,034
Short-term investment securities (Notes 6, 12 and 13)	2,519	2,606	22,454	23,230
Real estate for sale	16,739	17,151	149,206	152,877
Costs on uncompleted construction contracts (Note 6)	39,881	37,758	355,481	336,559
Costs on real estate business	24,200	24,448	215,706	217,916
Inventories for PFI and other projects (Note 6)	42,406	45,514	377,988	405,687
Other inventories (Note 6)	7,872	6,266	70,168	55,858
Deferred tax assets (Note 16)	17,443	17,599	155,478	156,872
Accounts receivable—other (Note 12)	78,009	71,059	695,335	633,388
Other	16,694	17,800	148,805	158,664
Allowance for doubtful accounts	(142)	(157)	(1,271)	(1,400
Total current assets	1,181,645	1,128,768	10,532,541	10,061,220
Noncurrent assets				
Property, plant and equipment, net				
Buildings and structures (Note 6)	92,587	92,265	825,274	822,403
Machinery, vehicles, tools, furniture and fixtures (Note 6)	29,554	30,985	263,429	276,184
Land (Note 6)	308,241	305,588	2,747,491	2,723,849
Leased assets	228	225	2,032	2,010
Construction in progress	28,986	12,539	258,373	111,769
Total property, plant and equipment, net (Note 6)	459,597	441,604	4,096,602	3,936,217
Intangible assets	6,558	6,404	58,455	57,085
Investments and other assets				
Investment securities (Notes 6, 12 and 13)	346,245	342,021	3,086,245	3,048,595
Long-term loans receivable	2,024	2,170	18,042	19,349
Assets for retirement benefits (Note 15)	68	68	609	607
Deferred tax assets (Note 16)	1,987	2,029	17,716	18,086
Other (Note 6)	18,118	29,107	161,495	259,448
Allowance for doubtful accounts	(249)	(266)	(2,226)	(2,377
Total investments and other assets	368,194	375,130	3,281,884	3,343,709
Total noncurrent assets	834,350	823,139	7,436,941	7,337,012
Deferred assets	-	0	-	
Total assets	¥2,015,996	¥1,951,907	\$17,969,483	\$17,398,234

The accompanying notes to the consolidated financial statements are an integral part of this statement.

Further details Financial Statements http://www.obayashi.co.jp/english/ir/financial\_statements/

		Millions of yen	Thousands of U.S. dollars (Note 2)	
	2017	2016	2017	2016
abilities				
Current liabilities				
Notes and accounts payable for construction contracts		V 406 533		<i>t</i>
and other (Note 12)	¥ 485,408	¥ 486,533	\$ 4,326,666	\$ 4,336,692
Electronically recorded obligations (Note 12)	150,289	122,697	1,339,599	1,093,658
Short-term loans payable (Notes 6, 12 and 23)	89,498	150,465	797,739	1,341,164
Current portion of nonrecourse loans (Notes 6, 12 and 23)	6,832	6,858	60,899	61,129
Current portion of bonds (Notes 12 and 22)	25,000	10,000	222,836	89,134
Lease obligations (Notes 12 and 23)	85	78	760	700
Income taxes payable	30,533	17,856	272,160	159,166
Deferred tax liabilities (Note 16)	402	514	3,589	4,589
Advances received on uncompleted construction contracts	106,541	122,802	949,650	1,094,592
Deposits received (Note 12)	102,707	76,454	915,474	681,469
Provision for warranties for completed construction	3,048	2,491	27,169	22,209
Provision for loss on construction contracts (Note 6)	7,751	12,808	69,091	114,165
Other	70,585	63,639	629,162	567,246
Total current liabilities	1,078,684	1,073,200	9,614,798	9,565,918
Noncurrent liabilities				
Bonds payable (Notes 12 and 22)	30,000	55,000	267,403	490,239
Long-term loans payable (Notes 6, 12 and 23)	55,836	51,000	497,692	454,586
Nonrecourse loans (Notes 6, 12 and 23)	66,192	73,015	590,004	650,824
Lease obligations (Notes 12 and 23)	126	131	1,130	1,170
Deferred tax liabilities (Note 16)	46,956	41,830	418,546	372,849
Deferred tax liabilities for land revaluation (Note 16)	21,091	21,313	187,996	189,975
Provision for stock payments for directors	301	209	2,686	1,870
Provision for loss on real estate business and other	993	993	8,851	8,851
Provision for environmental measures	616	882	5,497	7,868
Liability for retirement benefits (Note 15)	51,029	52,126	454,847	464,626
Other	20,091	20,546	179,080	183,138
Total noncurrent liabilities	293,235	317,049	2,613,738	2,826,002
Total liabilities	1,371,919	1,390,249	12,228,536	12,391,921
et assets Shareholders' equity				
Capital stock	57,752	57,752	514,775	514,775
Capital stock	41,752	41,752	372,158	372,158
Retained earnings	334,957	255,750	2,985,626	2,279,618
	(1,964)	(1,958)	(17,512)	(17,456
Treasury stock	432,497	353,297	3,855,047	3,149,096
Total shareholders' equity	452,497	555,297	5,055,047	5,149,090
Accumulated other comprehensive income	440.246	1 40 220	4 350 000	1 250 010
Valuation difference on available-for-sale securities	140,246	140,328	1,250,080	1,250,810
Deferred gains (losses) on hedges	(283)	(47)	(2,524)	(427
Revaluation reserve for land (Note 6)	20,435	20,937	182,147	186,627
Foreign currency translation adjustments	(365)	822	(3,257)	7,335
Retirement benefit asset and liability adjustments	1,629	760	14,526	6,777
Total accumulated other comprehensive income	161,662	162,801	1,440,971	1,451,122
Non-controlling interests	49,916	45,559	444,927	406,094
Total net assets	644,076	561,658	5,740,947	5,006,313
Total liabilities and net assets	¥2,015,996	¥1,951,907	\$17,969,483	\$17,398,234

The accompanying notes to the consolidated financial statements are an integral part of this statement.

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## Consolidated Statements of Income

OBAYASHI CORPORATION For the years ended March 31, 2017 and 2016

	Millions of yen Thousands of U.S. dollars (N				
	2017	2016	2017	2016	
Net sales:					
Construction contracts (Note 7)	¥1,802,525	¥1,695,752	\$16,066,725	\$15,115,009	
Real estate business and other	70,195	82,081	625,685	731,627	
Total net sales	1,872,721	1,777,834	16,692,410	15,846,637	
Cost of sales:					
Construction contracts (Note 7)	1,596,705	1,524,582	14,232,155	13,589,289	
Real estate business and other	51,082	60,199	455,320	536,587	
Total cost of sales	1,647,787	1,584,782	14,687,475	14,125,876	
Gross profit:					
Construction contracts	205,820	171,170	1,834,569	1,525,719	
Real estate business and other	19,113	21,881	170,364	195,040	
Total gross profit	224,933	193,052	2,004,934	1,720,760	
Selling, general and administrative expenses (Note 7)	91,191	86,671	812,827	772,543	
Operating income	133,742	106,380	1,192,106	948,217	
Other income/(expenses):					
Interest and dividend income	8,857	9,211	78,950	82,107	
Foreign exchange gains (losses), net	(462)	(2,291)	(4,119)	(20,422)	
Interest expense	(2,442)	(2,674)	(21,770)	(23,838)	
Gain on sales of investment securities	3,081	2,961	27,466	26,393	
Gain on sales of noncurrent assets (Note 7)	516	1,520	4,601	13,555	
Loss on sales and disposal of noncurrent assets (Note 7)	(436)	(1,157)	(3,892)	(10,319)	
Impairment loss	(562)	(2,826)	(5,015)	(25,194)	
Compensation for damage	-	(3,500)	-	(31,197)	
Other, net	696	(369)	6,208	(3,289)	
Total other income	9,247	874	82,429	7,795	
Profit before income taxes	142,990	107,255	1,274,536	956,012	
Income taxes (Note 16)					
Income taxes—current	37,692	20,875	335,967	186,069	
Income taxes—deferred	4,782	16,622	42,631	148,159	
Total income taxes	42,475	37,497	378,599	334,229	
Profit	100,515	69,757	895,937	621,782	
Profit attributable to non-controlling interests	6,013	6,320	53,599	56,338	
Profit attributable to owners of parent	¥ 94,501	¥ 63,437	\$ 842,337	\$ 565,444	

The accompanying notes to the consolidated financial statements are an integral part of this statement.

## Consolidated Statements of Comprehensive Income

OBAYASHI CORPORATION For the years ended March 31, 2017 and 2016

		Millions of yen	Thousands of U	I.S. dollars (Note 2)
	2017	2016	2017	2016
Profit	¥100,515	¥ 69,757	\$895,937	\$ 621,782
Other comprehensive income				
Valuation difference on available-for-sale securities	(25)	(43,861)	(227)	(390,956)
Deferred gains (losses) on hedges	(235)	(247)	(2,096)	(2,203)
Revaluation reserve for land	-	1,131	-	10,087
Foreign currency translation adjustments	(1,783)	(3,472)	(15,894)	(30,950)
Retirement benefit asset and liability adjustments	840	(2,004)	7,492	(17,864)
Share of other comprehensive income of affiliates accounted				
for by the equity method	(4)	6	(41)	56
Total other comprehensive income (Note 8)	(1,208)	(48,446)	(10,768)	(431,829)
Comprehensive income	¥ 99,307	¥ 21,310	\$885,168	\$ 189,952
Comprehensive income attributable to:				
Owners of parent	¥ 93,865	¥ 16,675	\$836,667	\$ 148,637
Non-controlling interests	5,441	4,635	48,501	41,315

The accompanying notes to the consolidated financial statements are an integral part of this statement.

## Consolidated Statements of Changes in Net Assets

OBAYASHI CORPORATION

#### For the year ended March 31, 2017

For the year ended March 31, 2017					Millions of yen
				Share	holders' equity
	Capital stock	Capital surplus	Retained earnings	Treasury stock	Total shareholders' equity
Balance at the beginning of current period	¥57,752	¥41,752	¥255,750	¥(1,958)	¥353,297
Changes of items during period					
Dividends from surplus			(15,797)		(15,797)
Profit attributable to owners of parent			94,501		94,501
Reversal of revaluation reserve for land			502		502
Purchase of treasury stock				(6)	(6)
Share changes in parent's ownership interests associated with transaction with non-controlling interests		(0)			(0)
Net changes in items other than those in shareholders' equity					
Total changes of items during period	-	(0)	79,206	(6)	79,200
Balance at the end of current period	¥57,752	¥41,752	¥334,957	¥(1,964)	¥432,497

								Millions of yen
				Accumulated	d other compre	hensive income		
	Valuation difference on available-for- sale securities	Deferred gains (losses) on hedges	Revaluation reserve for land	Foreign currency translation adjustments	Retirement benefit asset and liability adjustments	Total accumulated other comprehensive income	Non- controlling interests	Total net assets
Balance at the beginning of current period	¥140,328	¥ (47)	¥20,937	¥ 822	¥ 760	¥162,801	¥45,559	¥561,658
Changes of items during period								
Dividends from surplus								(15,797)
Profit attributable to owners of parent								94,501
Reversal of revaluation reserve for land								502
Purchase of treasury stock								(6)
Share changes in parent's ownership interests associated with transaction with non-controlling interests								(0)
Net changes in items other than those in shareholders' equity	(81)	(235)	(502)	(1,188)	869	(1,138)	4,356	3,217
Total changes of items during period	(81)	(235)	(502)	(1,188)	869	(1,138)	4,356	82,418
Balance at the end of current period	¥140,246	¥(283)	¥20,435	¥ (365)	¥1,629	¥161,662	¥49,916	¥644,076

Thousands of U.S. dollars (Note 2)	
------------------------------------	--

				Share	holders' equity
	Capital stock	Capital surplus	Retained earnings	Treasury stock	Total shareholders' equity
Balance at the beginning of current period	\$514,775	\$372,158	\$2,279,618	\$(17,456)	\$3,149,096
Changes of items during period					
Dividends from surplus			(140,810)		(140,810)
Profit attributable to owners of parent			842,337		842,337
Reversal of revaluation reserve for land			4,480		4,480
Purchase of treasury stock				(55)	(55)
Share changes in parent's ownership interests associated with transaction with non-controlling interests		(0)			(0)
Net changes in items other than those in shareholders' equity					
Total changes of items during period	-	(0)	706,007	(55)	705,951
Balance at the end of current period	\$514,775	\$372,158	\$2,985,626	\$(17,512)	\$3,855,047

Thousands of U.S. dollars (Note								
				Accumulated	d other compre	hensive income		
	Valuation difference on available-for- sale securities	Deferred gains (losses) on hedges	Revaluation reserve for land	Foreign currency translation adjustments	Retirement benefit asset and liability adjustments	Total accumulated other comprehensive income	Non- controlling interests	Total net assets
Balance at the beginning of current period	\$1,250,810	\$ (427)	\$186,627	\$ 7,335	\$ 6,777	\$1,451,122	\$406,094	\$5,006,313
Changes of items during period								
Dividends from surplus								(140,810)
Profit attributable to owners of parent								842,337
Reversal of revaluation reserve for land								4,480
Purchase of treasury stock								(55)
Share changes in parent's ownership interests associated with transaction with non-controlling interests								(0)
Net changes in items other than those in shareholders' equity $\ldots$	(730)	(2,096)	(4,480)	(10,592)	7,749	(10,150)	38,832	28,681
Total changes of items during period	(730)	(2,096)	(4,480)	(10,592)	7,749	(10,150)	38,832	734,633
Balance at the end of current period	\$1,250,080	\$(2,524)	\$182,147	\$ (3,257)	\$14,526	\$1,440,971	\$444,927	\$5,740,947

The accompanying notes to the consolidated financial statements are an integral part of this statement.

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#### For the year ended March 31, 2016

For the year ended March 31, 2016					Millions of yen					
ance at the beginning of current period	Shareholders' equ									
	Capital stock	Capital surplus	Retained earnings	Treasury stock	Total shareholders' equity					
Balance at the beginning of current period	¥57,752	¥41,750	¥199,296	¥(1,608)	¥297,191					
Changes of items during period										
Dividends from surplus			(7,899)		(7,899)					
Profit attributable to owners of parent			63,437		63,437					
Reversal of revaluation reserve for land			916		916					
Purchase of treasury stock				(349)	(349)					
Share changes in parent's ownership interests associated with transaction with non-controlling interests		1			1					
Net changes in items other than those in shareholders' equity										
Total changes of items during period	-	1	56,453	(349)	56,105					
Balance at the end of current period	¥57,752	¥41,752	¥255,750	¥(1,958)	¥353,297					

								Millions of yen
				Accumulated	d other compre	hensive income		
	Valuation difference on available-for- sale securities	Deferred gains (losses) on hedges	Revaluation reserve for land	Foreign currency translation adjustments	Retirement benefit asset and liability adjustments	Total accumulated other comprehensive income	Non- controlling interests	Total net assets
Balance at the beginning of current period	¥184,171	¥ 190	¥20,770	¥ 2,640	¥ 2,705	¥210,479	¥41,812	¥549,483
Changes of items during period								
Dividends from surplus								(7,899)
Profit attributable to owners of parent								63,437
Reversal of revaluation reserve for land								916
Purchase of treasury stock								(349)
Share changes in parent's ownership interests associated with transaction with non-controlling interests								1
Net changes in items other than those in shareholders' equity	(43,842)	(238)	166	(1,817)	(1,945)	(47,677)	3,747	(43,930)
Total changes of items during period	(43,842)	(238)	166	(1,817)	(1,945)	(47,677)	3,747	12,175
Balance at the end of current period	¥140,328	¥ (47)	¥20,937	¥ 822	¥ 760	¥162,801	¥45,559	¥561,658

			Thou	isands of U.S.	dollars (Note 2)
				Share	holders' equity
	Capital stock	Capital surplus	Retained earnings	Treasury stock	Total shareholders' equity
Balance at the beginning of current period	\$514,775	\$372,142	\$1,776,419	\$(14,338)	\$2,648,998
Changes of items during period					
Dividends from surplus			(70,409)		(70,409)
Profit attributable to owners of parent			565,444		565,444
Reversal of revaluation reserve for land			8,165		8,165
Purchase of treasury stock				(3,118)	(3,118)
Share changes in parent's ownership interests associated with transaction with non-controlling interests		16			16
Net changes in items other than those in shareholders' equity					
Total changes of items during period	-	16	503,199	(3,118)	500,097
Balance at the end of current period	\$514,775	\$372,158	\$2,279,618	\$(17,456)	\$3,149,096

						Thou	usands of U.S.	dollars (Note 2)
				Accumulated	d other compre	hensive income		
	Valuation difference on available-for- sale securities	Deferred gains (losses) on hedges	Revaluation reserve for land	Foreign currency translation adjustments	Retirement benefit asset and liability adjustments	Total accumulated other comprehensive income	Non- controlling interests	Total net assets
Balance at the beginning of current period	\$1,641,599	\$1,697	\$185,139	\$ 23,539	\$ 24,119	\$1,876,095	\$372,695	\$4,897,790
Changes of items during period								
Dividends from surplus								(70,409)
Profit attributable to owners of parent								565,444
Reversal of revaluation reserve for land								8,165
Purchase of treasury stock								(3,118)
Share changes in parent's ownership interests associated with transaction with non-controlling interests								16
Net changes in items other than those in shareholders' equity	(390,789)	(2,124)	1,487	(16,204)	(17,342)	(424,972)	33,399	(391,573)
Total changes of items during period	(390,789)	(2,124)	1,487	(16,204)	(17,342)	(424,972)	33,399	108,523
Balance at the end of current period	\$1,250,810	\$ (427)	\$186,627	\$ 7,335	\$ 6,777	\$1,451,122	\$406,094	\$5,006,313

The accompanying notes to the consolidated financial statements are an integral part of this statement.
# Consolidated Statements of Cash Flows

OBAYASHI CORPORATION For the years ended March 31, 2017 and 2016

		Millions of yen	Thousands of U.S	. dollars (Note 2)
	2017	2016	2017	2016
Net cash provided by (used in) operating activities				
Profit before income taxes	¥142,990	¥107,255	\$1,274,536	\$ 956,012
Depreciation and amortization	14,981	14,476	133,540	129,038
Impairment loss	562	2,826	5,015	25,194
Increase (decrease) in allowance for doubtful accounts	(30)	(25)	(270)	(227
Increase (decrease) in provision for loss on construction contracts	(5,005)	87	(44,618)	775
Increase (decrease) in liability for retirement benefits	160	(2,020)	1,426	(18,005
Interest and dividend income	(8,857)	(9,211)	(78,950)	(82,107
Interest expense	2,442	2,674	21,770	23,838
Loss (gain) on sales of noncurrent assets	(346)	(888)	(3,092)	(7,921
Loss (gain) on sales of short-term and long-term investment securities	(3,080)	(2,941)	(27,458)	(26,221
Decrease (increase) in notes and accounts receivable—trade	(20,740)	(29,365)	(184,869)	(261,745
Decrease (increase) in costs on uncompleted construction contracts	(1,539)	1,979	(13,723)	17,644
Decrease (increase) in inventories	(995)	(10,034)	(8,876)	(89,437
Decrease (increase) in inventories for PFI and other projects	3,107	5,998	27,698	53,466
Decrease (increase) in other assets	4,432	35,091	39,504	312,790
Increase (decrease) in notes and accounts payable—trade	29,433	(15,900)	262,353	(141,732
Increase (decrease) in advances received on uncompleted construction contracts	(14,029)	25,555	(125,055)	227,784
Increase (decrease) in other liabilities	34,696	516	309,264	4,600
Other, net	180	1,441	1,609	12,849
Subtotal	178,360	127,514	1,589,803	1,136,595
Interest and dividend received	9,041	9,447	80,591	84,213
Interest paid	(2,530)	(2,608)	(22,551)	(23,252
Income taxes (paid) refunded	(25,978)	(9,373)	(231,562)	(83,550
Net cash provided by (used in) operating activities	158,892	124,980	1,416,280	1,114,005
Proceeds from sales of property, plant and equipment and intangible assets Purchase of short-term and long-term investment securities Proceeds from sales and redemption of short-term and long-term	3,044 (6,253)	3,904 (6,568)	27,132 (55,736)	34,804 (58,543
investment securities	5,425	13,659	48,360	121,750
Payments of loans receivable	(362)	(227)	(3,226)	(2,024
Collection of loans receivable	379	169	3,382	1,508
Purchase of shares of subsidiaries resulting in change in scope of consolidation	-	(62)	_	(556
Other, net	(362)	242	(3,234)	2,165
Net cash provided by (used in) investing activities	(37,884)	(48,029)	(337,680)	(428,110
Net cash provided by (used in) financing activities           Net increase (decrease) in short-term loans payable	(23,512)	2,614	(209,577)	23,302
Net increase (decrease) in commercial papers	(23,312)	(18,000)	(205,577)	(160,442
Repayments of lease obligations	(93)	(10,000)	(833)	(100,442)
Proceeds from long-term loans payable	21,700	9,747	193,421	86,881
Repayment of long-term loans payable	(53,417)	(25,843)	(476,137)	(230,356
Proceeds from nonrecourse loans payable	(55,417)	5,366	(470,137) 80	47,829
Payment of nonrecourse loans payable	(6,858)	(8,509)	(61,129)	(75,847
Redemption of bonds	(10,000)	(25,000)	(89,134)	(222,836
Cash dividends paid	(15,797)	(7,899)	(140,810)	(70,409
Cash dividends paid to non-controlling interests	(1,188)	(7,899)	(140,810)	(70,403)
	(1,188)	(353)	(10,390)	(3,152
Other, net	(89,165)	(68,967)	(794,773)	(614,736
······································	(-3,3)	(,20,7)	(	( , , 50
ffect of exchange rate changes on cash and cash equivalents	(2,449)	(5,788)	(21,834)	(51,592
Natingrand (degrands) in each and each any ivelants	29,392	2,195	261,991	19,566
Net increase (decrease) in cash and cash equivalents         Cash and cash equivalents at beginning of period         Cash and cash equivalents at end of period (Note 10)	164,802 ¥194,195	162,607 ¥164,802	1,468,962 \$1,730,953	1,449,395 \$1,468,962

The accompanying notes to the consolidated financial statements are an integral part of this statement.

About Obayashi Corporation Business Overview

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# Notes to Consolidated Financial Statements

OBAYASHI CORPORATION For the years ended March 31, 2017 and 2016

## **1. Basis of Presenting Consolidated Financial Statements**

The accompanying consolidated financial statements were prepared based on the accounts maintained by OBAYASHI CORPORATION (the "Company") and its subsidiaries (collectively, the "Companies") in accordance with accounting principles generally accepted in Japan, which are different in certain respects as to the application and disclosure requirements of International Financial Reporting Standards, and are compiled from the consolidated financial statements prepared by the Company as required by the Financial Instruments and Exchange Law of Japan. Certain amounts in the prior year's financial statements were reclassified to conform to the changes made for the latest fiscal year.

## 2. U.S. Dollar Amounts

The accounts of the consolidated financial statements presented herein are expressed in Japanese yen by rounding down to the nearest million. The U.S. dollar amounts shown in the accompanying consolidated financial statements and notes thereto were translated from the original Japanese yen into U.S. dollars on the basis of ¥112.19 to US\$1, the rate of exchange prevailing at March 31, 2017, and were then rounded down to the nearest thousand. These U.S. dollar amounts are not intended to imply that the Japanese yen amounts have been or could be converted, realized or settled in U.S. dollars at this or any other rate.

## 3. Summary of Significant Accounting Policies

(1) Scope of consolidation and application of the equity method
The Company had 88 subsidiaries at March 31, 2017. The consolidated financial statements as of and for the years ended March 31, 2017 and 2016 included the accounts of the Company and all subsidiaries.
All significant intercompany accounts and transactions are eliminated. Investments in all affiliates (26 companies for 2017) are accounted for by the equity method.

#### (2) Business year for consolidated subsidiaries

Certain foreign consolidated subsidiaries (33 companies) have a fiscal year that ends on December 31. The consolidated financial statements were prepared based on the financial statements as of the same date. Necessary adjustments for consolidation were made on significant transactions that took place during the period between the fiscal year-end of the subsidiaries and that of the Company. Consolidated subsidiaries other than those referred to above have the same business year as the Company, which ends on March 31.

#### (3) Goodwill

Goodwill is amortized by the straight-line method over a period of 5 years. However, goodwill that is not material is charged to income in the year of acquisition.

Differences between the cost and underlying net equity of investments in affiliates accounted for by the equity method are immaterial and charged or credited to income as they occur.

#### (4) Foreign currency translation

Receivables and payables denominated in foreign currencies are translated into Japanese yen at the rate of exchange in effect at the balance sheet date.

The resulting exchange gains and losses from translation are recognized in the consolidated statements of income. The balance sheet accounts of the foreign consolidated subsidiaries are translated into Japanese yen at the rates of exchange in effect at the balance sheet date, except for the components of net assets excluding non-controlling interests which are translated at their historical exchange rates. Revenue and expense accounts are translated at the rates of exchange in effect at the balance sheet date. Differences arising from the translation are presented as foreign currency translation adjustments and non-controlling interests in the consolidated financial statements.

#### (5) Cash equivalents

All highly liquid investments, generally with a maturity of three months or less when purchased, which are readily convertible into known amounts of cash and are so near maturity that they represent only an insignificant risk of any change in value are considered cash equivalents.

## (6) Short-term investment securities and investment securities

Securities are classified into two categories: held-to-maturity and other securities. Held-to-maturity securities are carried at amortized cost. Marketable securities classified as other securities are carried at fair value with changes in unrealized holding gain or loss, net of the applicable income taxes, included directly in net assets. Non-marketable securities classified as other securities sold is determined by the moving average method.

#### (7) Inventories

Real estate held for sale, costs on uncompleted construction contracts, costs on real estate business, inventories for PFI and other projects and costs on other business are all stated at cost determined by the specific identification method. Raw materials and supplies are stated at cost determined by the first-in first-out method.

The net book value of inventories in the balance sheet is written down if the net realizable value declines.

#### (8) Property, plant and equipment

The Company and its domestic consolidated subsidiaries mainly calculate depreciation by the declining-balance method, while straight-line method is applied to the buildings excluding building fixtures, acquired on or after April 1, 1998 and facilities attached to buildings and other non-building structures acquired on or after April 1, 2016. Foreign consolidated subsidiaries mainly apply the straight-line method.

The useful lives and residual values of depreciable assets are estimated mainly in accordance with the Corporate Tax Law.

#### (9) Intangible assets

Intangible fixed assets are amortized by the straight-line method. Computer software for internal use is amortized by the straight-line method over the estimated useful life of 5 years.

#### (10) Leased assets

Depreciation of leased assets under finance leases that do not transfer ownership of the leased assets to the lessee is calculated by the straight-line method over the lease period with a residual value of zero.

#### (11) Allowance for doubtful accounts

The allowance for doubtful accounts is provided based on the historical experience with respect to write-offs for the Company and its domestic subsidiaries and based on an estimate of the amount for specific uncollectible accounts for the Companies.

#### (12) Provision for warranties for completed construction

The provision for warranties for completed construction is provided to cover expenses for defects claimed concerning completed work, based on the estimated amount of compensation to be paid in the future for the work completed during the fiscal year.

#### (13) Provision for loss on construction contracts

The provision for loss on construction contracts is provided at the estimated amount for the future losses on contract backlog at the balance sheet date which will probably be incurred and which can be reasonably estimated.

#### (14) Provision for stock payments for directors

The provision for stock payments for directors is provided for stock award debt based on predetermined regulations for awarding stock, which is prepared for future awards of the Company shares to its directors and executive officers.

#### (15) Provision for loss on real estate business and other

The provision for loss on real estate business and other is provided for the estimated losses to be incurred in liquidating real estate and restructuring the real estate related business.

#### (16) Provision for environmental measures

The provision for environmental measures is provided based on an estimate of costs for disposal of Polychlorinated Biphenyl (PCB) waste, which the Company and its domestic subsidiaries are obliged to dispose of by the Act on Special Measures Concerning Promotion of Proper Treatment of PCB Waste.

#### (17) Retirement benefits

In calculating retirement benefits obligations, the benefit formula method is used to allocate expected retirement benefit payments in the period until the end of the current fiscal year.

Actuarial differences are amortized commencing in the following year after the differences is recognized primarily by the straight-line method over periods (5 years to 10 years) which are shorter than the average remaining years of service of the employees.

Prior service cost (PSC) is amortized by the straight-line method over a period of 10 years which is shorter than the average remaining years of service of the employees, while PSC of certain subsidiaries is expensed as incurred.

#### (18) Derivatives and hedge accounting

## (a) Method of hedge accounting

Hedging instruments are valued at fair value and accounted for using the deferral method of accounting. The monetary assets and liabilities denominated in foreign currencies, for which foreign exchange forward contracts are used to hedge the foreign currency fluctuations, are translated at the contracted rate if the foreign exchange forward contracts qualify for hedge accounting.

The interest rate swaps, which qualify for hedge accounting and meet specific matching criteria, are not remeasured at market value, but the differential paid or received under the swap agreements is charged to income (short-cut method).

#### (b) Hedging instruments and hedged items

To hedge foreign exchange risks related to the monetary assets and liabilities denominated in foreign currencies and projected future foreign currency transactions, foreign exchange forward contracts and non-deliverable foreign exchange forward contracts are employed as hedging instruments. To hedge the interest-rate risks related to loans payable, interest rate swaps are employed as hedging instruments.

#### (c) Hedging policy

The Companies utilize derivative financial instruments only for the purpose of hedging future risks of fluctuation of foreign currency exchange rates or interest rates in accordance with internal rules.

#### (d) Assessment of hedge effectiveness

Hedge effectiveness is not assessed when substantial terms and conditions of the hedging instruments and the hedged transactions are the same.

The evaluation of hedge effectiveness is omitted for interest rate swaps as they meet certain criteria under the shortcut method.

#### (19) Recognizing revenues and costs of construction contracts

Revenues and costs of construction contracts of which the percentage of completion can be reliably estimated are recognized by the percentage-of-completion method. The percentage of completion is calculated at the cost incurred as a percentage of the estimated total cost. The completed-contract method continues to be applied for contracts for which the percentage of completion cannot be reliably estimated.

Revenues from construction contracts and the related costs of the overseas subsidiaries are mainly recorded on the percentage-of-completion method.

(20) Revenues and expenses associated with finance lease transactions Sales and cost of sales are recognized upon receipt of lease payment.

#### (21) Consumption taxes

Consumption tax and local consumption tax are accounted for under the tax-exclusive method.

#### (22) Income taxes

The Companies apply deferred tax accounting for income taxes which requires recognition of income taxes by the asset/liability method.

Under the asset/liability method, deferred tax assets and liabilities are determined based on the difference between financial reporting basis and the tax basis of the assets and liabilities and are measured using the enacted tax rates and laws which will be in effect when the differences are expected to reverse.

(23) Consolidated taxation system

The Companies adopted the consolidated taxation system.

## 4. Change in Accounting Policies

The Company and its domestic subsidiaries adopted "Practical Solution on a change in depreciation method due to Tax Reform 2016" (ASBJ PITF No. 32, June 17, 2016) as result of revisions to the Corporate Tax Act of Japan. Accordingly, the depreciation method for both facilities attached to buildings and other non-building structures acquired on or after April 1, 2016 was changed from the declining-balance method to the straight-line method. The revised accounting policy above has minor effect on the consolidated financial statements as of and for the year ended March 31, 2017.

## 5. Additional Information

(1) Performance-linked stock compensation plan for directors and executive officers

(a) Transaction summary

The Company introduced a performance-linked stock compensation plan as an incentive plan for its directors and executive officers (the "Directors") from the fiscal year ended March 31, 2016. The plan is highly transparent and objective and closely linked with the Company's performance for the Directors, with the goal of increasing awareness of the importance of contributing to further enhancing the corporate value and performance over the medium-to-long-term.

The Company's shares are acquired through the Board Incentive Plan Trust ("BIP Trust") and awarded to the Directors in accordance with performance targets achieved.

(b) The Company's own stock in the Trust

The Company's own stock in the Trust is recorded in treasury stock under net assets based on the book value in the Trust (excluding ancillary expenses). The book value and the number of these treasury stocks in the Trust as of March 31 were ¥294 million (\$2,620 thousand) and 281,000 shares both in 2017 and 2016.

(2) Adoption of the revised implementation guidance on recoverability of deferred tax assets The Companies adopted "Revised Implementation Guidance on Recoverability of Deferred Tax Assets" (ASBJ Guidance No. 26 of Mach 28, 2016) from this fiscal year.

## 6. Notes to Consolidated Balance Sheets

## (1) The breakdown of "Inventories for PFI and other projects"

		Millions of yen	Thousands of U.S. dollars		
At March 31	2017	2016	2017	2016	
Costs on PFI business	¥42,406	¥45,514	\$377,988	\$405,687	

## (2) The breakdown of "Other inventories"

	Millions of yen		Thousands of U.S. dollars		
At March 31	2017	2016	2017	2016	
Costs on other business	¥3,083	¥1,655	\$27,485	\$14,756	
Raw materials and supplies	4,788	4,611	42,682	41,101	
Total	¥7,872	¥6,266	\$70,168	\$55,858	

## (3) Accumulated depreciation of property, plant and equipment

	Millions of yen		Thousands of U.S. dollars		
At March 31	2017	2016	2017	2016	
	¥160,027	¥153,993	\$1,426,399	\$1,372,614	

## (4) Investments in affiliates

		Millions of yen	Thousands of U.S. dollars		
At March 31	2017	2016	2017	2016	
	¥6,781	¥3,659	\$60,442	\$32,615	

#### (5) Revaluation reserve for land

Pursuant to the "Law Concerning the Revaluation of Land," land used for business operations was revalued on March 31, 2000. The excess of the revalued carrying amount over the book value before revaluation is included in net assets as revaluation reserve for land, net of applicable income taxes.

The revaluation of the land was determined based on the official standard notice prices in accordance with Article 2, Paragraph 1 of the "Enforcement Ordinance Concerning Land Revaluation" and the appraisal value made by the certified real estate appraisers in accordance with Article 2, Paragraph 5 of the same ordinance with certain necessary adjustments.

#### (6) Pledged assets

Assets pledged as collateral for long-term loans payable and others were as follows:

	Millions of yen		Thousands of U.S. dollars	
At March 31	2017	2016	2017	2016
Assets pledged as collateral:				
Cash and deposits	¥ 814	¥ –	\$ 7,260	\$ –
Buildings and structures	4,863	5,072	43,354	45,217
Machinery, vehicles, tools, furniture and fixtures	53	60	479	538
Land	10,981	10,981	97,883	97,883
Investment securities	-	391	-	3,487
Total	¥16,713	¥16,506	\$148,978	\$147,126
Liabilities secured thereby:				
Short-term loans payable	¥ 300	¥ 300	\$ 2,674	\$ 2,674
Long-term loans payable	1,500	1,800	13,370	16,044
Total	¥ 1,800	¥ 2,100	\$ 16,044	\$ 18,718

#### (7) Deposited assets

Assets deposited under the "Law for Execution of Warranty against Housing Defects" and the others were as follows:

		Millions of yen	Thousands of U.S. dollar	
At March 31	2017	2016	2017	2016
Investment securities	¥717	¥743	\$6,392	\$6,624
Investments and other assets—other	126	65	1,127	586
Total	¥843	¥809	\$7,519	\$7,211

#### (8) Contingent liabilities

The Companies were contingently liable for the following:

		Millions of yen	Thousands of U.S. doll		
At March 31	2017	2016	2017	2016	
Guarantees of long-term debt of customers,					
affiliates and employees	¥321	¥231	\$2,861	\$2,060	

## (9) Estimated loss on uncompleted construction contracts

An estimated loss on uncompleted construction was recognized but was not offset against costs on uncompleted construction contracts on the balance sheet. It was recorded as provision for loss on construction contracts.

	Millions of yen		Thousands of U.S. dollars		
At March 31	2017	2016	2017	2016	
	¥42	¥53	\$381	\$480	

Advanced depreciation for tax purposes was charged directly to the following non-current assets:

		Millions of yen		Thousands of U.S. dollars	
At March 31	2017	2016	2017	2016	
Buildings and structures	¥ 49	¥ —	\$ 444	\$ -	
Machinery, vehicles, tools, furniture and fixtures	500	15	4,465	140	
Total	¥550	¥15	\$4,909	\$140	

## (11) Nonrecourse loans

Nonrecourse loans are non-recourse loans payable to financial institutions, which are issued to the Company's consolidated special purpose company and are backed by the related PFI business, the real estate business or the renewable energy business as collateral.

Assets as collateral for the nonrecourse loans were as follows:

		Millions of yen	Thousands of U.S. dollars	
At March 31	2017	2016	2017	2016
Cash and deposits	¥13,031	¥12,575	\$116,154	\$112,087
Notes and accounts receivable from completed				
construction contracts and other	9,885	10,115	88,110	90,160
Inventories for PFI and other projects	42,406	45,514	377,988	405,687
Buildings and structures	4,429	4,651	39,484	41,464
Machinery, vehicles, tools, furniture and fixtures	12,608	14,357	112,382	127,976
Total	¥82,361	¥87,213	\$734,120	\$777,377

#### (12) Commitment lines

The Company has a commitment line agreement with syndicated financial institutions to ensure timely access to funds in case of emergency. At March 31, 2017 and 2016, there were no outstanding balances under the agreement. This commitment line agreement includes financial covenants on net assets, ordinary income (loss) and the credit rating of the Company.

The total commitment lines available were as follows:

	Millions of yen		Thousands of U.S. dolla	
At March 31	2017	2016	2017	2016
Contract amount	¥50,000	¥50,000	\$445,672	\$445,672
Outstanding borrowings	-	-	-	_
Available amount	¥50,000	¥50,000	\$445,672	\$445,672

## 7. Notes to Consolidated Statements of Income

## (1) Revenues from construction contracts recognized by the percentage-of-completion method

	Millions of yen			Thousands of U.S. dollars			
For the years ended March 31	2017	2016	2017	2016			
	¥1,633,096	¥1,528,785	\$14,556,526	\$13,626,754			

## (2) Provision for loss on construction contracts included in cost of sales of construction contracts

		Millions of yen	Thousands of U.S. dollars		
For the years ended March 31	2017	2016	2017	2016	
	¥898	¥8,095	\$8,008	\$72,162	

#### (3) The major components of "Selling, general and administrative expenses"

		Millions of yen	Thousands of U.S. dollars		
For the years ended March 31	2017	2016	2017	2016	
Employees' salaries and allowances	¥36,827	¥35,246	\$328,261	\$314,170	
Retirement benefit expenses	1,487	1,153	13,255	10,277	
Research study expenses	10,553	10,081	94,070	89,860	

## (4) Research and development costs included in "Selling, general and administrative expenses"

		Millions of yen	Thousands of U.S. dollars		
For the years ended March 31	e years ended March 31 2017		2017	2016	
	¥10,553	¥10,081	\$94,070	\$89,860	

## (5) The breakdown of "Gain on sales of noncurrent assets"

		Millions of yen	Thousands of U.S. dollars		
For the years ended March 31	2017	2016	2017	2016	
Buildings and structures	¥204	¥ 325	\$1,818	\$ 2,901	
Land	250	1,171	2,228	10,440	
Others	62	23	554	213	
Total	¥516	¥1,520	\$4,601	\$13,555	

## (6) The breakdown of "Loss on sales and disposal of noncurrent assets"

		Millions of yen	Thousands of U.S. dollars		
For the years ended March 31	2017	2016	2017	2016	
Buildings and structures	¥138	¥ 177	\$1,238	\$ 1,579	
Land	141	544	1,262	4,857	
Demolition and removal costs	105	397	942	3,544	
Others	50	37	448	338	
Total	¥436	¥1,157	\$3,892	\$10,319	

## 8. Notes to Consolidated Statements of Comprehensive Income

The following table presents reclassification adjustments as amounts reclassified to profit for the years ended March 31, 2017 and 2016 which were recognized in other comprehensive income for the years ended on or before March 31, 2017 and 2016 and tax effect allocated to each component of other comprehensive income for the years ended March 31, 2017 and 2016.

		Millions of yen	Thousands of U.S. dollars		
For the years ended March 31	2017	2016	2017	2016	
Valuation difference on available-for-sale securities					
Occurred during the year	¥ 2,812	¥(66,617)	\$ 25,065	\$(593,788)	
Reclassification adjustments	(2,845)	(2,758)	(25,362)	(24,588)	
Valuation difference on available-for-sale securities					
before tax effect	(33)	(69,375)	(297)	(618,376)	
Tax effect	7	25,514	69	227,420	
Valuation difference on available-for-sale securities	(25)	(43,861)	(227)	(390,956)	
Deferred gains (losses) on hedges					
Occurred during the year	(335)	(170)	(2,990)	(1,519)	
Reclassification adjustments	89	(179)	800	(1,604)	
Deferred gains (losses) on hedges before tax effect	(245)	(350)	(2,190)	(3,123)	
Tax effect	10	103	93	920	
Deferred gains (losses) on hedges	(235)	(247)	(2,096)	(2,203)	
Revaluation reserve for land					
Occurred during the year	-	-	-	-	
Tax effect	-	1,131	-	10,087	
Revaluation reserve for land	-	1,131	-	10,087	
Foreign currency translation adjustments					
Occurred during the year	(1,784)	(3,472)	(15,901)	(30,950)	
Reclassification adjustments	0	_	7	-	
Foreign currency translation adjustments	(1,783)	(3,472)	(15,894)	(30,950)	
Retirement benefit asset and liability adjustments					
Occurred during the year	755	(2,672)	6,738	(23,817)	
Reclassification adjustments	455	(344)	4,058	(3,075)	
Retirement benefit asset and liability adjustments					
before tax effect	1,211	(3,017)	10,796	(26,892)	
Tax effect	(370)	1,012	(3,303)	9,028	
Retirement benefit asset and liability adjustments	840	(2,004)	7,492	(17,864)	
Share of other comprehensive income of affiliates					
accounted for by the equity method					
Occurred during the year	(4)	6	(41)	56	
Reclassification adjustments	-	-	-		
Share of other comprehensive income of affiliates					
accounted for by the equity method	(4)	6	(41)	56	
Total other comprehensive income	¥(1,208)	¥(48,446)	\$(10,768)	\$(431,829)	

## 9. Notes to Consolidated Statements of Changes in Net Assets

## (1) Type and number of outstanding shares

## For the year ended March 31, 2017

				Number of shares
Type of shares	Balance at beginning of year	Increase in shares during the year	Decrease in shares during the year	Balance at end of year
Issued stock:				
Common stock	721,509,646	-	-	721,509,646
Treasury stock:				
Common stock	3,718,698	5,811	-	3,724,509

Notes: 1. Stocks owned by BIP Trust are included in Treasury stock at beginning and end of year (included amount: 281,000 shares). 2. Treasury stock increased by 5,811 shares due to the repurchase of shares less than one unit. For the year ended March 31, 2016

				Number of shares
Type of shares	Balance at beginning of year	Increase in shares during the year	Decrease in shares during the year	Balance at end of year
Issued stock:				
Common stock	721,509,646	-	-	721,509,646
Treasury stock:				
Common stock	3,383,894	334,804	-	3,718,698
Notes: 1. Treasury stock increased by 334,804 shares due to the acquisit	ion of shares by BIP	Trust (increased amo	ount: 281,000 shares	s) and the

repurchase of shares less than one unit (increased amount: 53,804 shares).

2. Stocks owned by BIP Trust are included in Treasury stock at end of year (included amount: 281,000 shares).

#### (2) Dividends

(a) Dividends paid to shareholders

For the year ended March 31, 2017

			Amount Amount p				
Resolution approved by	Type of shares	Millions of yen	Thousands of U.S. dollars	Yen	U.S. dollars	Shareholders' cut-off date	Effective date
Annual General Meeting of Shareholders (June 29, 2016)	Common stock	¥9,334	\$83,206	¥13	\$0.11	March 31, 2016	June 30, 2016
Board of Directors (November 8, 2016)	Common stock	6,462	57,604	9	0.08	September 30, 2016	December 2, 2016

Notes: 1. Dividends for shares in BIP Trust are included in dividends in accordance with the resolution at the Annual General Meeting of Shareholders on June 29, 2016 (included amount: ¥3 million (\$32 thousand)).

2. Dividends for shares in BIP Trust are included in dividends in accordance with the resolution at the Board of Directors on November 8, 2016 (included amount: ¥2 million (\$22 thousand)).

For the year ended March 31, 2016

			Amount	Amoun	t per share		
Resolution approved by	Type of shares	Millions of yen	Thousands of U.S. dollars	Yen	U.S. dollars	Shareholders' cut-off date	Effective date
Annual General Meeting of Shareholders (June 26, 2015)	Common stock	¥4,308	\$38,405	¥6	\$0.05	March 31, 2015	June 29, 2015
Board of Directors (November 10, 2015)	Common stock	3,590	32,003	5	0.04	September 30, 2015	December 2, 2015

Note: Dividends for shares in BIP Trust are included in dividends in accordance with the resolution at the Board of Directors on November 10, 2015 (included amount: ¥1 million (\$12 thousand)).

(b) Dividends with a shareholders' cut-off date during the fiscal year but an effective date subsequent to the fiscal year **For the year ended March 31, 2017** 

			Amount		Amount	per share		
Resolution approved by	Type of shares	Millions of yen	Thousands of U.S. dollars	Paid from	Yen	U.S. dollars	Shareholders' cut-off date	Effective date
Annual General Meeting of Shareholders June 29, 2017)	Common stock	¥13,643	\$121,608	Retained earnings	¥19	\$0.16	March 31, 2017	June 30, 2017

Note: Dividends for shares in BIP Trust are included in dividends in accordance with the resolution at the Annual General Meeting of Shareholders on June 29, 2017 (included amount: ¥5 million (\$47 thousand)).

#### For the year ended March 31, 2016

			Amount		Amount	per share		
Resolution approved by	Type of shares	Millions of yen	Thousands of U.S. dollars	Paid from	Yen	U.S. dollars	Shareholders' cut-off date	Effective date
Annual General Meeting of Shareholders (June 29, 2016)	Common stock	¥9,334	\$83,206	Retained earnings	¥13	\$0.11	March 31, 2016	June 30, 2016

Note: Dividends for shares in BIP Trust are included in dividends in accordance with the resolution at the Annual General Meeting of Shareholders on June 29, 2016 (included amount: ¥3 million (\$32 thousand)).

## (3) Shareholders' equity

The Corporation Law of Japan provides that an amount equal to 10% of the amount to be disbursed as distributions of capital surplus (other than legal capital surplus) and retained earnings (other than legal reserve) be transferred to legal capital surplus or legal reserve, until the sum of legal capital surplus and legal reserve equals 25% of the capital stock account. Such distributions can be made at any time by resolution of the shareholders, or by the Board of Directors if certain conditions are met.

## **10. Notes to Consolidated Statements of Cash Flows**

The reconciliation between cash and cash equivalents reported in the consolidated statements of cash flows and amounts reported in the consolidated balance sheets is as follows:

		Millions of yen	Thousands of U.S. dollars	
At March 31	2017	2016	2017	2016
Cash and deposits	¥194,585	¥164,829	\$1,734,428	\$1,469,202
Time deposits with a maturity of more than three months	(389)	(27)	(3,474)	(240)
Cash and cash equivalents at end of period	¥194,195	¥164,802	\$1,730,953	\$1,468,962

#### **11. Lease Transactions**

#### **Operating leases**

#### (a) Lessee's accounting

Future minimum payments under non-cancelable lease contracts at March 31, 2017 and 2016 were as follows:

	Millions of yen	Thousands of U.S. dollars		
2017	2016	2017	2016	
¥ 3,334	¥ 3,049	\$ 29,718	\$ 27,183	
9,870	10,679	87,984	95,190	
¥13,205	¥13,729	\$117,702	\$122,374	
	¥ 3,334 9,870	2017         2016           ¥ 3,334         ¥ 3,049           9,870         10,679	2017         2016         2017           ¥ 3,334         ¥ 3,049         \$ 29,718           9,870         10,679         87,984	

#### (b) Lessor's accounting

Future minimum receivables under non-cancelable lease contracts at March 31, 2017 and 2016 were as follows:

		Millions of yen	Thous	ands of U.S. dollars
At March 31	2017	2016	2017	2016
Within 1 year	¥ 4,020	¥ 4,151	\$ 35,832	\$ 37,001
Over 1 year	46,705	13,459	416,304	119,966
Total	¥50,725	¥17,610	\$452,136	\$156,968

## **12. Financial Instruments**

#### (1) Overview

(a) Policy for financial instruments

The Companies raise funds by borrowing from banks and issuing commercial paper or corporate bonds. Also, the Companies restrict temporary excess fund management to highly secure assets, time deposits and other short-term investments. The Companies use derivatives in order to avoid the risks, fluctuations of particular assets and liabilities, and fluctuations of interest rates. The Companies do not use derivative transactions to gain short-term profits or for speculative purposes.

(b) Types of financial instruments related risks and risk management

"Notes receivable, accounts receivable from completed construction contracts and other," "Electronically recorded monetary claims" and "Accounts receivable—other," which are operating receivables, are exposed to the credit risk of customers. In order to mitigate the risk when orders are received, the Companies conduct a strict screening and determine project plans so that potential risks are minimized.

Short-term investment securities and investment securities mainly consist of stocks. While short-term investment securities and investment securities are exposed to market risk, the Companies monitor market prices of these securities. "Notes payable, accounts payable for construction contracts and other," "Electronically recorded obligations" and "Deposits received," which are operating liabilities, are due within one year.

"Short-term loans payable," "Long-term loans payable," "Commercial paper" and "Bonds payable" are used for operations or capital investment. "Nonrecourse loans" are used for enterprise funds related to particular PFI projects and other. The floating rate loans are exposed to fluctuation in interest rates. In order to hedge against the interest rate risks and fix the payment of interest, the Companies utilize derivative transactions (interest rate swaps) for each contract of certain long-term loans payable. Regarding the evaluation of hedge effectiveness, it is omitted by the judgement of the short-cut method because the interest rate swaps meet the certain criteria under the short-cut method.

The transactions of derivative financial instruments are carried out in accordance with the Companies' internal rules, and the status of the transactions is reported regularly to the Board of Directors. The Companies trade derivative transactions with major financial institutions and therefore consider there is no credit risk underlying those transactions. While operating debt and borrowings are exposed to liquidity risk, the Companies manage the risk mainly by preparing quarterly and monthly cash management plans.

#### (c) Supplementary explanation of fair values of financial instruments

Notional amounts of derivative transactions, disclosed in "(2) Fair value of financial instruments," do not indicate market risk in derivative transactions.

#### (2) Fair value of financial instruments

The following table shows the carrying values and fair values of financial instruments as of March 31, and any differences. Certain financial instruments for which it is extremely difficult to determine the fair value are not included (see Note 2 below).

		M	illions of yen		Thousands o	of U.S. dollars
At March 31, 2017	Carrying value	Fair value	Difference	Carrying value	Fair value	Difference
Assets						
Cash and deposits	¥ 194,585	¥ 194,585	¥ –	\$ 1,734,428	\$ 1,734,428	\$ -
Notes and accounts receivable from completed construction contracts and other	720,361	720,463	102	6,420,906	6,421,819	912
Electronically recorded						
monetary claims	21,075	21,075	-	187,853	187,853	-
Short-term investment securities and investment securities	328,464	328,491	27	2,927,750	2,927,992	241
Accounts receivable—other	78,009	78,009	-	695,335	695,335	-
Subtotal	¥1,342,496	¥1,342,625	¥ 129	\$11,966,273	\$11,967,428	\$ 1,154
Liabilities						
Notes and accounts payable for construction contracts and other	¥ 485,408	¥ 485,408	¥ –	\$ 4,326,666	\$ 4,326,666	<b>s</b> –
Electronically recorded obligations	150,289	150,289	-	1,339,599	1,339,599	-
Short-term loans payable	89,498	89,498	-	797,739	797,739	-
Current portion of nonrecourse loans	6,832	6,832	-	60,899	60,899	-
Current portion of bonds	25,000	25,000	-	222,836	222,836	-
Deposits received	102,707	102,707	-	915,474	915,474	-
Bonds payable	30,000	30,783	783	267,403	274,388	6,984
Long-term loans payable	55,836	55,919	83	497,692	498,433	740
Nonrecourse loans	66,192	70,416	4,224	590,004	627,657	37,652
Subtotal	¥1,011,764	¥1,016,855	¥5,090	\$ 9,018,316	\$ 9,063,694	\$45,378
Derivative transactions*	¥ (281)	¥ (281)	¥ –	\$ (2,508)	\$ (2,508)	\$ -

\* Assets and liabilities arising from derivative transactions are shown at net value, with the amount in parentheses representing net liability position.

		M	illions of yen		Thousands o	of U.S. dollars
At March 31, 2016	Carrying value	Fair value	Difference	Carrying value	Fair value	Difference
Assets						
Cash and deposits	¥ 164,829	¥ 164,829	¥ –	\$ 1,469,202	\$ 1,469,202	\$ -
Notes and accounts receivable from completed construction contracts and other	715,023	715,306	282	6,373,329	6,375,849	2,520
Electronically recorded monetary claims	8,866	8,866	_	79,034	79,034	_
Short-term investment securities and investment securities	328,363	328,400	36	2,926,852	2,927,181	329
Accounts receivable—other	71,059	71,059		633,388	633,388	_
Subtotal	¥1,288,143	¥1,288,463	¥ 319	\$11,481,807	\$11,484,656	\$ 2,849
Liabilities						
Notes and accounts payable for construction contracts and other	¥ 486,533	¥ 486,533	¥ –	\$ 4,336,692	\$ 4,336,692	\$ –
Electronically recorded obligations	122,697	122,697	-	1,093,658	1,093,658	-
Short-term loans payable	150,465	150,465	-	1,341,164	1,341,164	-
Current portion of nonrecourse loans	6,858	6,858	-	61,129	61,129	-
Current portion of bonds	10,000	10,000	-	89,134	89,134	_
Deposits received	76,454	76,454	-	681,469	681,469	_
Bonds payable	55,000	56,331	1,331	490,239	502,108	11,868
Long-term loans payable	51,000	51,397	397	454,586	458,128	3,541
Nonrecourse loans	73,015	78,832	5,816	650,824	702,670	51,846
Subtotal	¥1,032,024	¥1,039,569	¥7,545	\$ 9,198,899	\$9 ,266,155	\$67,256
Derivative transactions*	¥ (33)	¥ (33)	¥ –	\$ (295)	\$ (295)	\$ -

\* Assets and liabilities arising from derivative transactions are shown at net value, with the amount in parentheses representing net liability position.

Note 1. Method to determine the fair values of financial instruments, and other information related to marketable securities and derivatives

Assets

Cash and deposits

Since deposits are settled in a short period of time, the carrying value approximates fair value. The carrying value is the same as fair value.

Notes and accounts receivable from completed construction contracts and other and Electronically recorded monetary claims

The carrying value of the items that will be settled within a year approximates fair value. The carrying value is the same as fair value.

The items that will be settled later than a year are determined based on the present value of carrying value, grouped by term of settlement, discounted at an interest rate determined taking into account the remaining period of those and credit risk.

Short-term investment securities and investment securities

The fair value of stocks is determined based on quoted market price and the fair value of debt securities is determined based on either quoted market price or prices provided by financial institutions making markets in these securities.

Information on securities classified by holding purpose is disclosed in Note 13 "Securities."

#### Accounts receivable-other

Since "Accounts receivable—other" is settled in a short period of time, the carrying value approximates fair value. The carrying value is the same as fair value.

Liabilities

Notes and accounts payable for construction contracts and other, Electronically recorded obligations, Short-term loans payable, Current portion of nonrecourse loans, Current portion of bonds and Deposits received

Since these accounts are settled in a short period of time, the carrying value approximates fair value. The carrying value is the same as fair value.

#### Bonds payable

The fair value of bonds issued by the Company is based on the present value of the total principal and interest discounted by an interest rate determined taking into account the remaining period of bond and current credit risk.

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Long-term loans payable and Nonrecourse loans

For fixed rate loans, the fair value is based on the present value of the total principal and interest discounted by an interest rate to be applied if similar new loans were entered into. For floating rate loans, since the market interest rate is reflected in the interest rate set within a short period of time, the carrying value is the same as the fair value.

The fair value of loans qualifying for special hedge accounting treatment of interest rate swaps is based on the present value of the total principal and interest hedged by interest rate swaps, which is discounted by an interest rate to be applied if similar new loans were entered into.

#### Derivatives

See Note 14 "Derivative Transactions."

Note 2. Financial instruments for which it is extremely difficult to determine the fair value

	Millions of yen	Thousands of U.S. dollars		
		Carrying value		Carrying value
At March 31	2017	2016	2017	2016
Non-listed stocks and other	¥13,519	¥12,605	\$120,508	\$112,357
Stocks of affiliates	4,178	3,658	37,240	32,607
Investments in capital of affiliates	2,603	0	23,201	7
Total	¥20,300	¥16,264	\$180,950	\$144,972

It is extremely difficult to determine the fair values for these securities, since they have no quoted market prices available. Thus, they are not included in "Short-term investment securities and investment securities" above.

Millions of ven

Note 3. Redemption schedule for monetary claims and securities with maturities at March 3	Note 3. Redemp	tion schedule f	for monetary	/ claims and	securities with	maturities at March 31
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				Willions of yerr
At March 31, 2017	Due in 1 year or less	Due after 1 year through 5 years	Due after 5 years through 10 years	Due after 10 years
Cash and deposits				
Deposits	¥194,162	¥ –	¥ –	¥ –
Notes and accounts receivable from completed construction contracts and other	662,164	54,116	1,846	2,233
Electronically recorded monetary claims	21,075	-	-	-
Short-term investment securities and investment securities				
Held-to-maturity securities				
Government bonds and municipal bonds	-	426	291	-
Corporate bonds	36	10	-	180
Accounts receivable—other	78,009	-	-	-
Total	¥955,447	¥54,553	¥2,138	¥2,413

			Thousa	ands of U.S. dollars
At March 31, 2017	Due in 1 year or less	Due after 1 year through 5 years	Due after 5 years through 10 years	Due after 10 years
Cash and deposits				
Deposits	\$1,730,658	S –	\$ -	\$ -
Notes and accounts receivable from completed construction contracts and other	5,902,168	482,368	16,463	19,906
Electronically recorded monetary claims	187,853	-	-	-
Short-term investment securities and investment securities				
Held-to-maturity securities				
Government bonds and municipal bonds	-	3,802	2,597	-
Corporate bonds	323	89	-	1,604
Accounts receivable—other	695,335	-	-	-
Total	\$8,516,338	\$486,260	\$19,060	\$21,510

				Millions of yen
At March 31, 2016	Due in 1 year or less	Due after 1 year through 5 years	Due after 5 years through 10 years	Due after 10 years
Cash and deposits				
Deposits	¥164,671	¥ –	¥ –	¥ –
Notes and accounts receivable from completed construction contracts and other	665,253	45,312	1,846	2,610
Electronically recorded monetary claims	8,866	-	_	_
Short-term investment securities and investment securities				
Held-to-maturity securities				
Government bonds and municipal bonds	29	367	347	-
Corporate bonds	6	46	-	180
Accounts receivable—other	71,059	-	_	_
	¥909,888	¥45,725	¥2,194	¥2,790

			Thousan	ds of U.S. dollars
At March 31, 2016	Due in 1 year or less	Due after 1 year through 5 years	Due after 5 years through 10 years	Due after 10 years
Cash and deposits				
Deposits	\$1,467,794	\$ –	\$ –	\$ –
Notes and accounts receivable from completed construction contracts and other	5,929,704 79,034	403,890 _	16,463 _	23,272
Short-term investment securities and investment securities Held-to-maturity securities				
Government bonds and municipal bonds	266	3,272	3,095	-
Corporate bonds	55	412	-	1,604
Accounts receivable—other	633,388	_	-	-
	\$8,110,243	\$407,574	\$19,558	\$24,876

# Note 4. Redemption schedule for bonds, long-term loans payable, lease obligations and other interest bearing debts subsequent to March 31

						Millions of yen
At March 31, 2017	Due in 1 year or less	Due after 1 year through 2 years	Due after 2 years through 3 years	Due after 3 years through 4 years	Due after 4 years through 5 years	Due after 5 years
Short-term loans payable	¥ 72,789	¥ –	¥ –	¥ –	¥ –	¥ –
Bonds payable	25,000	10,000	10,000	-	-	10,000
Long-term loans payable	16,708	17,672	11,970	8,870	2,760	14,562
Nonrecourse loans	6,832	6,043	6,092	6,252	6,082	41,722
Lease obligations	85	59	38	22	5	0
Total	¥121,416	¥33,775	¥28,102	¥15,145	¥8,848	¥66,284

					Thousar	nds of U.S. dollars
At March 31, 2017	Due in 1 year or less	Due after 1 year through 2 years	Due after 2 years through 3 years	Due after 3 years through 4 years	Due after 4 years through 5 years	Due after 5 years
Short-term loans payable	\$ 648,807	\$ -	\$ -	\$ –	\$ -	\$ -
Bonds payable	222,836	89,134	89,134	-	-	89,134
Long-term loans payable	148,931	157,525	106,697	79,065	24,604	129,800
Nonrecourse loans	60,899	53,865	54,308	55,728	54,213	371,888
Lease obligations	760	531	345	200	50	2
Total	\$1,082,235	\$301,056	\$250,485	\$134,994	\$78,868	\$590,825

CSR

Millions of yen

At March 31, 2016	Due in 1 year or less	Due after 1 year through 2 years	Due after 2 years through 3 years	Due after 3 years through 4 years	Due after 4 years through 5 years	Due after 5 years
Short-term loans payable	¥ 97,130	¥ –	¥ –	¥ –	¥ –	¥ –
Bonds payable	10,000	25,000	10,000	10,000	-	10,000
Long-term loans payable	53,334	15,392	15,826	11,313	4,034	4,433
Nonrecourse loans	6,858	6,823	6,043	6,092	6,252	47,804
Lease obligations	78	64	39	20	6	0
Total	¥167,401	¥47,280	¥31,909	¥27,426	¥10,292	¥62,238

					Thousan	ds of U.S. dollars
At March 31, 2016	Due in 1 year or less	Due after 1 year through 2 years	Due after 2 years through 3 years	Due after 3 years through 4 years	Due after 4 years through 5 years	Due after 5 years
Short-term loans payable	\$ 865,765	\$ –	\$ -	\$ –	\$ -	\$ -
Bonds payable	89,134	222,836	89,134	89,134	-	89,134
Long-term loans payable	475,398	137,198	141,071	100,843	35,956	39,516
Nonrecourse loans	61,129	60,819	53,865	54,308	55,728	426,102
Lease obligations	700	577	348	181	60	3
Total	\$1,492,128	\$421,431	\$284,420	\$244,468	\$91,745	\$554,755

## **13. Securities**

<sup>(</sup>a) Held-to-maturity debt securities

			Millions of yen		Thousands of U.S. dollars		
At March 31, 2017	Carrying value	Estimated fair value	Unrealized gain/(loss)	Carrying value	Estimated fair value	Unrealized gain/(loss)	
Securities whose fair values exceed their carrying values:							
Government bonds and municipal bonds	¥718	¥745	¥27	\$6,400	\$6,642	\$241	
Securities whose carrying values exceed their fair values:							
Government bonds and municipal bonds	_	_	_	_	_	_	
Corporate bonds	226	226	-	2,016	2,016	-	
Subtotal	226	226	-	2,016	2,016	-	
Total	¥944	¥971	¥27	\$8,417	\$8,659	\$241	

			Millions of yen	Thousands of U.S. dollars		
At March 31, 2016	Carrying value	Estimated fair value	Unrealized gain/(loss)	Carrying value	Estimated fair value	Unrealized gain/(loss)
Securities whose fair values exceed their carrying values:						
Government bonds and municipal bonds	¥744	¥ 781	¥36	\$6,634	\$6,963	\$329
Securities whose carrying values exceed their fair values:						
Government bonds and municipal bonds	-	_	_	_	_	_
Corporate bonds	232	232	-	2,072	2,072	-
Subtotal	232	232	_	2,072	2,072	_
Total	¥976	¥1,013	¥36	\$8,706	\$9,035	\$329

#### (b) Other securities

	Millions of yen Thousands o					
At March 31, 2017	Carrying value	Acquisition cost	Unrealized gain/(loss)	Carrying value	Acquisition cost	Unrealized gain/(loss)
Securities whose carrying values exceed their acquisition costs:						
Stock	¥310,668	¥107,187	¥203,480	\$2,769,125	\$ 955,414	\$1,813,710
Other	214	212	2	1,914	1,892	22
Subtotal	310,882	107,400	203,482	2,771,040	957,307	1,813,732
Securities whose acquisition costs exceed their carrying values:						
Stock	14,368	15,785	(1,417)	128,075	140,705	(12,630)
Other	2,268	2,268	-	20,217	20,217	-
Subtotal	16,636	18,053	(1,417)	148,292	160,923	(12,630)
Total	¥327,519	¥125,454	¥202,065	\$2,919,332	\$1,118,230	\$1,801,102

It is extremely difficult to determine the fair values for non-listed stocks and other (carrying value ¥13,519 million (US\$120,508 thousand)), since they have no quoted market prices available. Thus, they are not included in "Other securities" above.

			Millions of yen	Thousands of U.S. do			
At March 31, 2016	Carrying value	Acquisition cost	Unrealized gain/(loss)	Carrying value	Acquisition cost	Unrealized gain/(loss)	
Securities whose carrying values exceed their acquisition costs:							
Stock	¥312,089	¥107,166	¥204,922	\$2,781,793	\$ 955,223	\$1,826,569	
Other	81	79	2	729	710	19	
Subtotal	312,171	107,246	204,925	2,782,522	955,933	1,826,589	
Securities whose acquisition costs exceed their carrying values:							
Stock	12,725	15,560	(2,834)	113,430	138,696	(25,265)	
Other	2,489	2,489	-	22,192	22,192	-	
Subtotal	15,215	18,050	(2,834)	135,622	160,888	(25,265)	
Total	¥327,386	¥125,296	¥202,090	\$2,918,145	\$1,116,822	\$1,801,323	

It is extremely difficult to determine the fair values for non-listed stocks (carrying value ¥12,605 million (US\$112,357 thousand)), since they have no quoted market prices available. Thus, they are not included in "Other securities" above.

(c) Sales of securities classified as other securities

			Thousands of U.S. dollars			
For the year ended March 31, 2017	Sales proceeds	Aggregate gain	Aggregate loss	Sales proceeds	Aggregate gain	Aggregate loss
Stock	¥4,495	¥3,047	¥0	\$40,072	\$27,159	\$8
Other	940	34	-	8,385	307	-
Total	¥5,436	¥3,081	¥0	\$48,458	\$27,467	\$8

Non-listed stocks, for which fair values were extremely difficult to determine, are included in "Stock" above. (Sales proceeds: ¥271 million (US\$2,421 thousand), aggregate gain: 200 million (US\$1,788 thousand))

			Thousands of U.S. dollars			
For the year ended March 31, 2016	Sales proceeds	Aggregate gain	Aggregate loss	Sales proceeds	Aggregate gain	Aggregate loss
Stock	¥4,497	¥2,919	¥–	\$40,084	\$26,025	\$ -
Other	1,010	41	5	9,005	368	49
Total	¥5,507	¥2,961	¥5	\$49,090	\$26,394	\$49

Non-listed stocks, for which fair values were extremely difficult to determine, are included in "Stock" above. (Sales proceeds: ¥201 million (US\$1,793 thousand), aggregate gain: 161 million (US\$1,437 thousand))

#### (d) Write down of securities

		Millions of yen	Thousands of U.S. dollars		
For the years ended March 31	2017	2016	2017	2016	
"Stock" of other securities	¥11	¥2	\$103	\$22	
Non-listed stocks included in "'Stock' of other securities" above	11	2	103	22	
"Other" of other securities	-	9	-	80	

Non-listed stocks were extremely difficult to determine the fair values.

## 14. Derivative Transactions

# (1) Derivative transactions to which the hedge accounting method is not applied

Currency-related transactions

Currency-related transactions

At March 31, 2017

None.

			M	illions of yen	Thousands of U.S. dollars			
At March 31, 2016	Contract amount	Contract amount of more than 1 year	Estimated fair value	Unrealized profit or loss	Contract amount	Contract amount of more than 1 year	Estimated fair value	Unrealized profit or loss
Foreign exchange forward contract								
Sell								
EURO	¥152	¥–	¥17	¥ 17	\$1,355	\$-	\$154	\$154
AUS\$	4	-	0	0	36	-	0	0
Buy								
EURO	100	-	(8)	(8)	895	-	(76)	(76)
US\$	39	-	0	0	348	-	5	5
AUS\$	9	-	0	0	80	-	1	1
JPY	2	-	(0)	(0)	20	-	(8)	(8)
Total	¥307	¥–	¥ 8	¥ 8	\$2,737	\$-	\$78	\$ 78

Note: Estimated fair value was provided by the correspondent financial institution.

#### (2) Derivative transactions to which the hedge accounting method is applied

		M	illions of yen		Thousands o	f U.S. dollars	
			Contract amount of			Contract amount of	
		Contract	more than	Estimated	Contract	more than	Estimated
At March 31, 2017	Hedged item	amount	1 year	fair value	amount	1 year	fair value
Deferral method:							
Foreign exchange forward contract (Buy US\$)	Imports of materials (Forecasted transaction)	¥1,236	¥206	¥ 72	\$11,025	\$1,838	\$ 648
Foreign exchange forward contract (Buy EURO)	Imports of materials (Forecasted transaction)	698	177	(55)	6,222	1,583	(497)
Translated at the contra	acted rate:						
Foreign exchange forward contract (Sell S\$)	Accounts receivable from completed construction contracts	22	_	[*1]	196	_	[*1]
		¥1,957	¥383	¥ 17	\$17,444	\$3,422	\$ 151

			M	illions of yen		Thousands o	f U.S. dollars
At March 31, 2016	Hedged item	Contract amount	Contract amount of more than 1 year	Estimated fair value	Contract amount	Contract amount of more than 1 year	Estimated fair value
Deferral method:							
Foreign exchange forward contract (Buy US\$)	Imports of materials (Forecasted transaction)	¥3,569	¥ –	¥101	\$31,812	\$ -	\$ 908
Foreign exchange forward contract (Buy EURO)	Imports of materials (Forecasted transaction)	799	143	(70)	7,125	1,278	(632)
Foreign exchange forward contract (Buy AUS\$)	Imports of materials (Forecasted transaction)	0	_	(0)	6	-	(0)
Total		¥4,369	¥143	¥ 30	\$38,943	\$1,278	\$ 275

Note: Estimated fair value was provided by the correspondent financial institution.

[\*1] Since the foreign exchange forward contract, which is translated at the contract amount, is treated with accounts receivable from completed construction contracts, the fair value of the contract is included in the fair value of accounts receivable from completed construction contracts presented in Note 12 "Financial Instruments (2) Fair value of financial instruments."

#### Interest-related transactions

		Millions of yen			Thousands of U.S. dollars		
At March 31, 2017	Hedged item	Contract amount	Contract amount of more than 1 year	Estimated fair value	Contract amount	Contract amount of more than 1 year	Estimated fair value
Deferral method:							
Interest rate swaps: Payment fixed/ Receive floating	Nonrecourse loans (Forecasted transaction)	¥11,561	¥11,561	¥(298)	\$103,048	\$103,048	\$(2,660)
Short-cut method:							
Interest rate swaps: Payment fixed/	Long-term loans payable	3,000	2,607	[*2]	26,740	23,244	[*2]
Receive floating	Nonrecourse loans	23,431	21,313	[*2]	208,859	189,980	[*2]
Total		¥37,992	¥35,482	¥(298)	\$338,647	\$316,274	\$(2,660)

			M	illions of yen		Thousands o	f U.S. dollars
At March 31, 2016 Deferral method:	Hedged item	Contract amount	Contract amount of more than 1 year	Estimated fair value	Contract amount	Contract amount of more than 1 year	Estimated fair value
Interest rate swaps: Payment fixed/ Receive floating	Nonrecourse loans (Forecasted transaction)	¥ 3,800	¥ 3,800	¥(72)	\$ 33,871	\$ 33,871	\$(649)
Short-cut method:							
Interest rate swaps: Payment fixed/	Long-term loans payable	11,480	1,800	[*2]	102,329	16,044	[*2]
Receive floating	Nonrecourse loans	25,615	23,431	[*2]	228,319	208,859	[*2]
Total		¥40,895	¥29,031	¥(72)	\$364,520	\$258,774	\$(649)

Note: Estimated fair value was provided by the correspondent financial institution.

[\*2] Since these interest rate swaps, which are not remeasured at market value but the differential paid or received under the swap agreements is charged to income, are treated with long-term loans payable or nonrecourse loans, the fair values of the contracts are included in the fair value of long-term loans payable or nonrecourse loans presented in Note 12 "Financial Instruments (2) Fair value of financial instruments."

## **15. Retirement Benefit Plans**

The Company and its subsidiaries have defined benefit pension plans (cash balance plan in the Company and its certain subsidiaries), in addition to lump-sum payments covering the remainder. The Company and certain subsidiaries have defined contribution pension plans.

The following tables show the funded and the amounts recognized in the consolidated balance sheets at March 31, 2017 and 2016 of the Company and its subsidiaries.

#### (1) Defined benefit pension plans

The changes in the projected benefit obligation for the years ended March 31, 2017 and 2016 are as follows:

		Millions of yen	Thousands of U.S. dollars		
For the years ended March 31	2017	2016	2017	2016	
At the beginning of current period	¥107,816	¥112,755	\$961,018	\$1,005,038	
Service cost	4,841	4,696	43,155	41,861	
Interest cost	650	679	5,800	6,054	
Actuarial gain	216	307	1,932	2,738	
Retirement benefit paid	(8,450)	(10,563)	(75,319)	(94,157)	
Other	(17)	(57)	(155)	(516)	
At the end of current period	¥105,058	¥107,816	\$936,432	\$ 961,018	

Certain consolidated subsidiaries adopted a simplified method to compute their projected benefit obligations.

		Millions of yen	Thousands of U.S. dolla		
For the years ended March 31	2017	2016	2017	2016	
At the beginning of current period	¥55,758	¥61,644	\$496,999	\$549,467	
Expected return on plan assets	1,353	1,497	12,063	13,345	
Actuarial gain (loss)	972	(2,378)	8,668	(21,204)	
Contributions by the Companies	1,651	1,503	14,718	13,404	
Retirement benefits paid	(5,637)	(6,508)	(50,253)	(58,013)	
At the end of current period	¥54,097	¥55,758	\$482,194	\$496,999	

The changes in plan assets for the years ended March 31, 2017 and 2016 are as follows:

Certain consolidated subsidiaries adopted a simplified method.

The following table sets forth the funded status of the plans and the amounts recognized in the consolidated balance sheets as of March 31, 2017 and 2016 for the Company's and the consolidated subsidiaries' defined benefit plans:

	Millions of yen		Thousands of U.S.	
At March 31	2017	2016	2017	2016
Retirement benefit obligation under the funded plans	¥ 55,519	¥ 59,126	\$ 494,871	\$ 527,023
Plan assets at fair value	(54,097)	(55,758)	(482,194)	(496,999)
	1,422	3,368	12,677	30,024
Retirement benefit obligation under the unfunded plans	49,538	48,689	441,560	433,995
Net liability for retirement benefits in the balance sheet	50,960	52,058	454,237	464,019
Liability for retirement benefits	51,029	52,126	454,847	464,626
Asset for retirement benefits	(68)	(68)	(609)	(607)
Net liability for retirement benefits in the balance sheet	¥ 50,960	¥ 52,058	\$ 454,237	\$ 464,019

The components of retirement benefit expense for the years ended March 31, 2017 and 2016 are as follows:

	Millions of yen	Thousa	nds of U.S. dollars	
For the years ended March 31	2017	2016	2017	2016
Service cost	¥ 4,841	¥ 4,696	\$ 43,155	\$ 41,861
Interest cost	650	679	5,800	6,054
Expected return on plan assets	(1,353)	(1,497)	(12,063)	(13,345)
Amortization of actuarial loss	455	(453)	4,057	(4,038)
Amortization of prior service cost	0	90	0	811
Retirement benefit expense	¥ 4,594	¥ 3,516	\$ 40,950	\$ 31,343

Certain consolidated subsidiaries adopted a simplified method.

Prior service cost and actuarial loss included in other comprehensive income (before tax effect) for the years ended March 31, 2017 and 2016 are as follows:

		Millions of yen	Thousands of U.S. do		
For the years ended March 31	2017	2016	2017	2016	
Prior service cost	¥ (0)	¥ (102)	\$ (1)	\$ (909)	
Actuarial gain (loss)	(1,211)	3,119	(10,794)	27,802	
Total	¥(1,211)	¥3,017	\$(10,796)	\$26,892	

Unrecognized prior service cost and unrecognized actuarial loss included in other comprehensive income (before tax effect) as of March 31, 2017 and 2016 are as follows:

		Millions of yen	Thousands of U.S. doll		
At March 31	2017	2016	2017	2016	
Unrecognized prior service cost	¥ 21	¥ 21	\$ 191	\$ 192	
Unrecognized actuarial loss	(2,495)	(1,284)	(22,245)	(11,451)	
Total	¥(2,474)	¥(1,263)	\$(22,054)	\$(11,258)	

At March 31	2017	2016
General accounts	27.3%	27.8%
Stocks	23.4	28.8
Bonds	26.0	20.4
Cash on hand and in banks	10.0	8.9
Other	13.3	14.1
Total	100.0%	100.0%

The fair value of plan assets, by major category, as a percentage of total plan assets as of March 31, 2017 and 2016 are as follows:

The expected return on plan assets has been estimated based on the present and anticipated allocation to each asset class and the expected long-term returns on asset held in each category.

The assumptions used in accounting for the above plans were as follows:

For the years ended March 31	2017	2016
Discount rates	0.6% or 0.8%	0.6% or 0.8%
Expected rates of return on plan assets	1.8% or 2.5%	1.8% or 2.5%

## (2) Defined contribution pension plans

For the years ended March 31, 2017 and 2016, pension expenses for defined contribution plans by the Company and consolidated subsidiaries were ¥4,163 million (US\$37,111 thousand) and ¥3,337 million (US\$29,746 thousand), respectively, including the expense for small and medium enterprises retirement benefit mutual aid schemes and multi-employer pension plans of foreign subsidiaries.

## **16. Deferred Tax Accounting**

The major components of deferred tax assets and liabilities at March 31, 2017 and 2016 are summarized as follows:

		Millions of yen	Thousands of U.S. dollars		
At March 31	2017	2016	2017	2016	
Deferred tax assets:					
Liability for retirement benefits	¥ 15,677	¥ 16,034	\$ 139,738	\$ 142,918	
Impairment loss	11,140	17,900	99,299	159,558	
Costs on uncompleted construction contracts	5,004	3,769	44,609	33,603	
Accrued expenses (bonus)	3,968	3,737	35,368	33,316	
Unrealized gain on noncurrent assets	2,433	301	21,691	2,690	
Provision for loss on construction contracts	2,037	3,464	18,161	30,883	
Assets traded within the group	1,734	2,080	15,461	18,544	
Accrued enterprise tax	1,664	1,153	14,832	10,284	
Other	9,340	9,871	83,252	87,991	
	53,000	58,315	472,414	519,791	
Valuation allowance	(16,613)	(16,303)	(148,082)	(145,323)	
Total deferred tax assets	36,386	42,011	324,331	374,468	
Deferred tax liabilities:					
Valuation difference on available-for-sale securities	(61,612)	(61,620)	(549,180)	(549,254)	
Reserve for advanced depreciation of noncurrent assets	(1,328)	(1,367)	(11,842)	(12,190)	
Other	(1,374)	(1,739)	(12,248)	(15,503)	
Total deferred tax liabilities	(64,315)	(64,727)	(573,272)	(576,948)	
Net deferred tax assets	¥(27,928)	¥(22,716)	\$(248,940)	\$(202,480)	

The net deferred tax assets are included in the following items on the consolidated balance sheets:

		Millions of yen	Thousands of U.S. d		
At March 31	2017	2016	2017	2016	
Current assets—Deferred tax assets	¥ 17,443	¥ 17,599	\$ 155,478	\$ 156,872	
Noncurrent assets—Deferred tax assets	1,987	2,029	17,716	18,086	
Current liabilities—Deferred tax liabilities	(402)	(514)	(3,589)	(4,589)	
Noncurrent liabilities—Deferred tax liabilities	(46,956)	(41,830)	(418,546)	(372,849)	

In addition to the above, the Companies recognized deferred tax liabilities related to reserve for land revaluation on the consolidated balance sheets:

		Millions of yen	Thousa	nds of U.S. dollars
At March 31	2017	2016	2017	2016
	¥(21,091)	¥(21,313)	\$(187,996)	\$(189,975)

A reconciliation between the statutory tax rate and the effective tax rate for the year ended March 31, 2017 is not disclosed, because the difference is not more than 5% of the statutory tax rate. Information for the year ended March 31, 2016 is as follows:

For the years ended March 31	2016
Statutory tax rates	32.9%
Reconciliation:	
Permanent non-deductible items	0.9
Permanent non-taxable items	(0.5)
Tax loss carryforwards	(0.7)
Change in valuation allowance	0.5
Difference of statutory tax rates between the Company and foreign subsidiaries	(0.6)
Change in tax rate	1.8
Tax credit for research and development expenses	(0.6)
Other	1.3
Effective tax rates	35.0%

## **17. Asset Retirement Obligations**

Asset retirement obligations recognized by the Companies are mainly obligations to restore rental properties for business use under real estate lease contracts at the time the lease agreement is terminated. Instead of recording asset retirement obligations, the Companies have estimated total unrefundable deposits on lease contracts and expensed the current portion.

Estimated total unrefundable deposits and periods of use of the rental properties are as follows:

#### (1) Estimated total unrefundable deposits

		Millions of yen	Thousands of U.S. dollars		
At March 31	2017	2016	2017	2016	
	¥4,394	¥4,389	\$39,166	\$39,124	

## (2) Estimated period of use

At March 31	2017	2016
	15–38 years from the initial day of the contract	15–38 years from the initial day of the contract

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## **18. Investment and Rental Properties**

The Company and certain of its subsidiaries hold office buildings (including land), lands for redevelopment projects, etc., mainly in Tokyo and Osaka.

Profit and impairment loss from these real estate properties for the year ended March 31, 2017 were ¥10,008 million (US\$89,206 thousand) and ¥19 million (US\$170 thousand), respectively. Profit and impairment loss from these real estate properties for the year ended March 31, 2016 were ¥9,566 million (US\$85,271 thousand) and ¥2,128 million (US\$18,975 thousand), respectively. Sales and costs on real estate are recorded as "Net sales on real estate business and other" and "Cost of sales on real estate business and other," respectively. Impairment loss is included in "Other income/(expenses)."

Carrying value in the consolidated balance sheet and fair value of those real estate properties are as follows:

	Millions of yen				
At March 31	2017	2016	2017	2016	
Carrying value					
At the beginning of current period	¥286,794	¥251,697	\$2,556,325	\$2,243,495	
Increase (decrease)—net	2,591	35,096	23,098	312,830	
At the end of current period	289,385	286,794	2,579,424	2,556,325	
Fair value at the end of current period	407,789	386,817	3,634,815	3,447,876	

1. The carrying value represents the acquisition cost less the accumulated depreciation.

2. "Increase (decrease)—net" for the year ended March 31, 2017 mainly consists of: increase in purchase of office buildings for lease (including land) and other in the amount of ¥6,538 million (US\$58,278 thousand) and decrease in depreciation cost in the amount of ¥2,873 million (US\$25,615 thousand)

"Increase (decrease)—net" for the year ended March 31, 2016 mainly consists of: increase in purchase of office buildings for lease (including land) and other in the amount of ¥34,524 million (US\$307,729 thousand) and depreciation cost in the amount of ¥2,854 million (US\$25,447 thousand) and impairment loss in the amount of ¥2,128 million (US\$18,975 thousand)

3. Fair value at March 31, 2017 and 2016 was estimated in accordance with the "Real estate evaluation standards," and was adjusted using official indices.

## **19. Segment Information**

## (1) Segment information

(a) Overview of reportable segments

The reportable segments of the Companies are components for which discrete financial information is available and whose operating results are regularly reviewed by the Executive Committee to make decisions about resource allocation and to assess performance.

The Building Construction, Civil Engineering and Real Estate Development divisions at the Company are responsible for strategic planning and business development of the building construction, civil engineering and real estate development businesses, respectively. Business operations of the building construction and civil engineering divisions are classified geographically with headquarters and each branch as separate operating units and evaluated individually. The Company's subsidiaries are also evaluated on an individual basis. The building construction and civil engineering businesses are segmented based on domestic and overseas areas.

The Companies therefore have five reportable segments: "domestic building construction," "overseas building construction," "domestic civil engineering," "overseas civil engineering" and "real estate."

The overview of each reportable segment is as follows:

Domestic building construction:	Execution of building construction contracts and related businesses within Japan
Overseas building construction:	Execution of building construction contracts and related businesses outside Japan
Domestic civil engineering:	Execution of civil engineering construction contracts and related businesses
	within Japan
Overseas civil engineering:	Execution of civil engineering construction contracts and related businesses
	outside Japan
Real estate:	Purchase, sale and rent of real estate properties, development of land parcels and
	related businesses

(b) Accounting treatment for net sales, income (loss), assets, liabilities and others by each segment The accounting methods of the segment are substantially the same as those described in "3. Summary of Significant Accounting Policies." Segment performance is evaluated based on operating income or loss. Intersegment sales are recorded at the same prices used in transactions with third parties.

Millions of w

(c) Reportable segment information (net sales and income (loss))

								Millions of yen
					I	Reporting segment		
For the year ended March 31, 2017	Domestic building construction	Overseas building construction	Domestic civil engineering	Overseas civil engineering	Real estate	Subtotal	Others (Note 1)	Total
Net sales:								
Sales to third parties	¥1,020,378	¥367,980	¥332,374	¥81,792	¥38,795	¥1,841,321	¥31,400	¥1,872,721
Inter-segment sales and transfers	39,709	47	21,309	-	1,156	62,222	7,443	69,665
Segment sales	1,060,088	368,027	353,683	81,792	39,951	1,903,543	38,843	1,942,387
Operating income :								
Operating income from sales to third parties (Note 2)	82,633	4,880	40,033	(3,182)	7,180	131,546	2,196	133,742
Inter-segment operating income and transfers	792	(23)	859	(3)	(0)	1,623	(89)	1,533
Segment income	¥ 83,425	¥ 4,856	¥ 40,893	¥ (3,185)	¥ 7,179	¥ 133,169	¥ 2,106	¥ 135,276

							Thousands	of U.S. dollars
						Reporting segment		
For the year ended March 31, 2017	Domestic building construction	Overseas building construction	Domestic civil engineering	Overseas civil engineering	Real estate	Subtotal	Others (Note 1)	Total
Net sales:								
Sales to third parties	\$9,095,095	\$3,279,972	\$2,962,602	\$729,053	\$345,801	\$16,412,526	\$279,884	\$16,692,410
Inter-segment sales and transfers	353,949	422	189,938	-	10,306	554,616	66,344	620,961
Segment sales	9,449,044	3,280,395	3,152,540	729,053	356,108	16,967,143	346,228	17,313,371
Operating income:								
Operating income from sales to third parties (Note 2)	736,549	43,502	356,840	(28,367)	64,004	1,172,530	19,576	1,192,106
Inter-segment operating income and transfers	7,062	(213)	7,663	(31)	(8)	14,472	(800)	13,671
Segment income	\$ 743,611	\$ 43,289	\$ 364,503	\$ (28,398)	\$ 63,996	\$ 1,187,002	\$ 18,776	\$ 1,205,778

Notes: 1. Businesses that cannot be classified into the reportable segments are shown as "Others." This includes PFI (Private Finance Initiative), renewable energy, finance, operation of golf courses and other businesses.

2. "Operating income from sales to third parties" was computed by subtracting "Inter-segment operating income and transfers" from "Segment income." The total "Operating income from sales to third parties" equals to "Operating income" as shown in the consolidated statements of income.

3. The amounts of the assets are not shown since the assets are not divided by the segments.

								Millions of yen
					ł	Reporting segment		
For the year ended March 31, 2016	Domestic building construction	Overseas building construction	Domestic civil engineering	Overseas civil engineering	Real estate	Subtotal	Others (Note 1)	Total
Net sales:								
Sales to third parties	¥932,997	¥337,956	¥353,909	¥70,889	¥47,020	¥1,742,773	¥35,061	¥1,777,834
Inter-segment sales and transfers	31,970	57	23,345	-	1,152	56,525	7,442	63,967
Segment sales	964,968	338,013	377,254	70,889	48,172	1,799,298	42,503	1,841,801
Operating income:								
Operating income from sales to third parties (Note 2)	51,697	2,624	36,860	2,664	10,452	104,299	2,081	106,380
Inter-segment operating income and transfers	(30)	(23)	110	(2)	(0)	53	(100)	(47)
Segment income	¥ 51,666	¥ 2,600	¥ 36,971	¥ 2,662	¥10,451	¥ 104,352	¥ 1,980	¥ 106,333

							Thousands	of U.S. dollars
						Reporting segment		
For the year ended March 31, 2016	Domestic building construction	Overseas building construction	Domestic civil engineering	Overseas civil engineering	Real estate	Subtotal	Others (Note 1)	Total
Net sales:								
Sales to third parties	\$8,316,228	\$3,012,357	\$3,154,551	\$631,872	\$419,112	\$15,534,121	\$312,515	\$15,846,637
Inter-segment sales and transfers	284,967	513	208,085	-	10,273	503,838	66,334	570,173
Segment sales	8,601,195	3,012,870	3,362,636	631,872	429,385	16,037,960	378,850	16,416,810
Operating income:								
Operating income from sales to third parties (Note 2)	460,800	23,392	328,557	23,751	93,165	929,666	18,550	948,217
Inter-segment operating income and transfers	(271)	(209)	982	(20)	(8)	473	(895)	(421)
Segment income	\$ 460,528	\$ 23,183	\$ 329,539	\$ 23,731	\$ 93,156	\$ 930,139	\$ 17,655	\$ 947,795

 Notes: 1. Businesses that cannot be classified into the reportable segments are shown as "Others." This includes PFI (Private Finance Initiative), renewable energy, finance, operation of golf courses and other businesses.
 "Operating income from sales to third parties" was computed by subtracting "Inter-segment operating income and transfers" from "Segment income." The total "Operating income from sales to third parties to third parties" equals to "Operating income" as shown in the consolidated of the parties of the statements of income.

3. The amounts of the assets are not shown since the assets are not divided by the segments.

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(d) Reconciliation of difference between total reportable segment income and operating income as shown in the consolidated statement of income

For the year ended March 31, 2017	Millions of yen	Thousands of U.S. dollars
Net sales:		
Total reportable segment	¥1,903,543	\$16,967,143
Sales from "Others"	38,843	346,228
Elimination of inter-segment transactions	(69,665)	(620,961)
Sales in the statements of income	¥1,872,721	\$16,692,410
Operating income:		
Total reportable segment	¥ 133,169	\$ 1,187,002
Income from "Others"	2,106	18,776
Elimination of inter-segment transactions	(1,533)	(13,671)
Operating income in the statements of income	¥ 133,742	\$ 1,192,106
For the year ended March 31, 2016	Millions of yen	Thousands of U.S. dollars
Net sales:	Willions of yerr	0.5. doilar5
Total reportable segment	¥1,799,298	\$16,037,960
Sales from "Others"	42,503	378,850
Elimination of inter-segment transactions	(63,967)	(570,173)
Sales in the statements of income	¥1,777,834	\$15,846,637
Operating income:		
Total reportable segment	¥ 104,352	\$ 930,139
Income from "Others"	1,980	17,655
Elimination of inter-segment transactions	47	421
Operating income in the statements of income	¥ 106,380	\$ 948,217

## (2) Related information

(a) Information by product or service

As the same information is disclosed in "(1) Segment information," this information has not been presented.

(b) Information by region

Net sales by region

For the year ended March 31, 2017

			1	Millions of yen				Thousands	s of U.S. dollars
	North					North			
Japan	America	Asia	Others	Total	Japan	America	Asia	Others	Total
¥1,420,571	¥297,387	¥148,446	¥6,316	¥1,872,721	\$12,662,191	\$2,650,748	\$1,323,168	\$56,302	\$16,692,410

For the year ended March 31, 2016

			Ν	/lillions of yen				Thousands	s of U.S. dollars
Japan	North America	Asia	Others	Total	Japan	North America	Asia	Others	Total
¥1,365,799	¥270,953	¥133,669	¥7,411	¥1,777,834	\$12,173,985	\$2,415,134	\$1,191,459	\$66,057	\$15,846,637

Tangible assets by region

As Japan-based tangible assets account for over 90% of total tangible assets at March 31, 2017 and 2016, this information has not been presented.

(c) Information by major customers

Of sales to external customers, sales to a specific customer account for less than 10% of net sales in the consolidated financial statements, and therefore this information has not been presented for the years ended March 31, 2017 and 2016.

## (3) Impairment loss on noncurrent assets by reportable segment

	\$-	\$-	\$243	\$-	\$24,950	\$-	\$25,194
For the year ended March 31, 2016	construction	construction	engineering	engineering	Real estate	Others	Tota
	Domestic building	Overseas building	Domestic civil	Overseas civil			
						Thousands	of U.S. dollars
	¥–	¥–	¥27	¥–	¥2,799	¥–	¥2,826
For the year ended March 31, 2016	Domestic building construction	Overseas building construction	Domestic civil engineering	Overseas civil engineering	Real estate	Others	Tota
							Villions of yer
	\$-	\$-	\$3,627	\$1,230	\$156	\$-	\$5,015
For the year ended March 31, 2017	Domestic building construction	Overseas building construction	Domestic civil engineering	Overseas civil engineering	Real estate	Others	Tota
						Thousands	of U.S. dollar
	¥–	¥–	¥406	¥138	¥17	¥–	¥562
For the year ended March 31, 2017	Domestic building construction	Overseas building construction	Domestic civil engineering	Overseas civil engineering	Real estate	Others	Tota
							Millions of yer

## (4) Amortization and balance of goodwill by reportable segment

							Millions of yen
For the year ended March 31, 2017	Domestic building construction	Overseas building construction	Domestic civil engineering	Overseas civil engineering	Real estate	Others	Total
Amortization amount	¥–	¥–	¥–	¥157	¥–	¥ 62	¥219
Balance	-	-	-	392	-	188	581
						Thousands	of U.S. dollars

For the year ended March 31, 2017	Domestic building construction	Overseas building construction	Domestic civil engineering	Overseas civil engineering	Real estate	Others	Total
Amortization amount	<b>\$</b>	\$-	\$-	\$1,399	\$-	\$ 561	\$1,960
Balance	-	-	-	3,499	-	1,683	5,182

							Millions of yen
For the year ended March 31, 2016	Domestic building construction	Overseas building construction	Domestic civil engineering	Overseas civil engineering	Real estate	Others	Total
Amortization amount	¥–	¥203	¥–	¥463	¥–	¥ 62	¥730
Balance	-	_	-	569	-	251	820

						Thousands (	of U.S. dollars
For the year ended March 31, 2016	Domestic building construction	Overseas building construction	Domestic civil engineering	Overseas civil engineering	Real estate	Others	Total
Amortization amount	\$-	\$1,812	\$-	\$4,133	\$-	\$ 561	\$6,507
Balance	-	-	-	5,072	-	2,244	7,316

(5) Amount of gain on negative goodwill by reportable segment

None.

# **20. Related Party Transactions**

None.

## 21. Amounts per Share

Basic profit attributable to owners of parent per share was computed based on the weighted average number of shares of common stock outstanding during the year.

Net assets per share was computed based on the number of shares of common stock outstanding at the balance sheet date.

Net assets and profit per share for the years ended March 31, 2017 and 2016 were as follows:

		ren		U.S. dollars
For the years ended March 31	2017	2016	2017	2016
Net assets per share	¥827.77	¥719.01	\$7.37	\$6.40
Basic profit attributable to owners of parent per share	131.66	88.36	1.17	0.78

(1) Diluted profit attributable to owners of parent was not presented for the years ended March 31, 2017 and 2016 because the Company had no potentially dilutive shares outstanding as of these balance sheet dates.

#### (2) Net assets per share

		Millions of yen	Thousands of U.S. dollars			
At March 31	2017	2016	2017	2016		
Net assets	¥644,076	¥561,658	\$5,740,947	\$5,006,313		
Amounts deducted from net assets (Non-controlling interests)	49,916	45,559	444,927	406,094		
Net assets applicable to shareholders of common stock	594,160	516,098	5,296,019	4,600,219		
Number of shares of common stock at the year end						
(Thousands of shares)	717,785	717,790	717,785	717,790		

Shares in BIP Trust are included in treasury stocks from which are deducted in calculating net assets per share. The numbers of the treasury stocks at March 31, 2017 and 2016 were 3,724 thousand and 3,718 thousand, respectively, including 281 thousand of shares in BIP Trust both in 2017 and 2016.

#### (3) Basic profit attributable to owners of parent per share

		Millions of yen	Thou	sands of U.S. dollars	
For the years ended March 31	2017	2016	2017	2016	
Basic profit attributable to owners of parent	¥ 94,501	¥ 63,437	\$842,337	\$565,444	
Profit attributable to owners of parent not attributable to shareholders of common stock	_	_	-	-	
Profit attributable to owners of parent attributable to shareholders of common stock	94,501	63,437	842,337	565,444	
Average number of shares issued and outstanding during the period (Thousands of shares)	717,788	717,925	717,788	717,925	

Shares in BIP Trust are included in treasury stocks from which are deducted in calculating basic profit attributable to owners of parent per share. The average number of shares issued and outstanding during the years ended March 31, 2017 and 2016 were 3,721 thousand and 3,584 thousand, including 281 thousand and 172 thousand of shares in BIP Trust, respectively.

## 22. Corporate Bonds

At March 31				/lillions of yen	Thousands	of U.S. dollars	Interest		
Issued by	Issue type	Issue date	2017	2016	2017	2016	rate (%)	Collateral	Maturity
Obayashi Corp.	16th unsecured straight bond	Oct. 26, 2010	¥ 15,000 (15,000)	¥ 15,000	\$ 133,701 (133,701)	\$133,701	0.96	None	Oct. 26, 2017
Obayashi Corp.	17th unsecured straight bond	Sep. 13, 2011	-	10,000 (10,000)	-	89,134 (89,134)	0.624	None	Sep. 13, 2016
Obayashi Corp.	18th unsecured straight bond	May 9, 2012	10,000 (10,000)	10,000	89,134 (89,134)	89,134	0.588	None	May 9, 2017
Obayashi Corp.	19th unsecured straight bond	May 9, 2013	10,000	10,000	89,134	89,134	0.440	None	May 9, 2018
Obayashi Corp.	20th unsecured straight bond	May 9, 2013	10,000	10,000	89,134	89,134	0.970	None	May 9, 2023
Obayashi Corp.	21st unsecured straight bond	May 7, 2014	10,000	10,000	89,134	89,134	0.344	None	May 7, 2019
Total			¥ 55,000 (25,000)	¥ 65,000 (10,000)	\$ 490,239 (222,836)	\$579,374 (89,134)			

1. The figures in parentheses at March 31, 2017 indicate the amount as "Current portion of bonds" in the consolidated balance sheet because they will be redeemed within a year.

2. The annual redemption schedule of corporate bonds subsequent to March 31, 2017 is as follows:

	Millions of yen	Thousands of U.S. dollars
Less than 1 year	¥25,000	\$222,836
Over 1 year less than 2 years	10,000	89,134
Over 2 years less than 3 years	10,000	89,134
Over 3 years less than 4 years	-	-
Over 4 years less than 5 years	-	-

## 23. Loans

		Millions of yen	Thousa	ands of U.S. dollars	Average	
At March 31	2017	2016	2017	2016	interest rate (%)	Maturity
Short-term loans payable	¥ 72,789	¥ 97,130	\$ 648,807	\$ 865,765	0.75	_
Current portion of long-term loans payable	16,708	53,334	148,931	475,398	0.43	_
Current portion of nonrecourse loans	6,832	6,858	60,899	61,129	2.07	_
Current portion of lease obligations	85	78	760	700	-	_
Long-term loans payable (excluding current portion)	55,836	51,000	497,692	454,586	0.43	2019–2026
Nonrecourse loans (excluding current portion)	66,192	73,015	590,004	650,824	2.02	2018–2038
Lease obligations (excluding current portion)	126	131	1,130	1,170	-	2019–2023
Total	¥218,571	¥281,549	\$1,948,227	\$2,509,575		

1. The "Average interest rate" is the weighted average interest rate for the average balance of loans during the given fiscal year.

2. The annual repayment schedule of long-term loans payable, nonrecourse loans and lease obligations subsequent to March 31, 2017 is as follows:

	M dillion and some	Thousands of
	Millions of yen	U.S. dollars
Long-term loans payable		
Over 1 year less than 2 years	¥17,672	\$157,525
Over 2 years less than 3 years	11,970	106,697
Over 3 years less than 4 years	8,870	79,065
Over 4 years less than 5 years	2,760	24,604
Nonrecourse loans		
Over 1 year less than 2 years	¥ 6,043	\$ 53,865
Over 2 years less than 3 years	6,092	54,308
Over 3 years less than 4 years	6,252	55,728
Over 4 years less than 5 years	6,082	54,213
Lease obligations		
Over 1 year less than 2 years	¥ 59	\$ 531
Over 2 years less than 3 years	38	345
Over 3 years less than 4 years	22	200
Over 4 years less than 5 years	5	50

3. The "Average interest rate" columns for the "Current portion of lease obligations" and the "Lease obligations (excluding current portion)" are left blank, as the lease obligations stated on the consolidated balance sheet include the interest portion of the lease payments.

## 24. Subsequent Event

#### Tender Offer for Shares of Obayashi Road Corporation

The Company resolved at its board of directors' meeting held on May 10, 2017 to acquire the common shares ("Common Shares") of its consolidated subsidiary, Obayashi Road Corporation ("Target Company") (listed on the First Section of Tokyo Stock Exchange, Inc. ("TSE") under the Securities Code Number of 1896) through a tender offer ("Tender Offer") with respect to all of the issued shares of the Target Company (excluding the Common Shares already owned by the Company and treasury shares owned by the Target Company; hereinafter the same) for the purpose of making the Target Company a wholly-owned subsidiary of the Company.

#### (1) Purposes of the Tender Offer

The Company concluded that the Company's making the Target Company its wholly-owned subsidiary will enable the Company's group to "prepare the way for the future." This is because it is considered that doing so will contribute to an increase in the degree of freedom in management of the Company's group through factors including: avoiding a future conflict of interests among the parent company and minority shareholders that may be caused by listing of both the parent and the subsidiary; speeding up the decision-making for the group's management strategy; and enabling the further enhancement of compliance at the Target Company through measures including the development and operation of a more effective compliance system under the initiative of the Company. Also, it is considered that the Company's making the Target Company its wholly-owned subsidiary will be extremely beneficial for increasing the Target Company's corporate value through enhancement of the management base of the group and improving business efficiency of the entire group. This will enable the Company to share know-how, promote technological development, increase production capacity, increase competitiveness through the centralization of sales-related information, and effectively allocate human, financial and management resources within the Company's group, among others.

# CSR

Obayashi Road Corporation
8-8, Sarugakucho 2-chome, Chiyoda-ku, Tokyo
Hitoshi Hasegawa, Representative Director
Conducting paving work, civil engineering work, building
construction and other relevant work under contract as well as
business relating to these and others
6,293 million yen (56,099 thousand U.S. dollars)
August 26, 1933

## (3) Overview of the Tender Offer

The Company owns 18,746,521 shares (holding ratio: 41.67%, the value is rounded to the second decimal place by rounding up the digit that is five or greater) of the Common Shares, which are listed on the First Section of TSE, and pursuant to the substantial control criteria, the Target Company is a consolidated subsidiary of the Company. In the Tender Offer, no maximum or minimum number of shares to be purchased has been set. Therefore, all of the shares offered for sale in response to the Tender Offer will be purchased. Further, because the Company's purpose is to make the Target Company its wholly-owned subsidiary, if all of the issued shares of the Target Company cannot be acquired through the Tender Offer, the Company plans to carry out a series of procedures (demand for sale of shares or share consolidation) to make the Company the sole shareholder of the Target Company in order to acquire all of the issued shares of the Target Company.

(-)	N I	- £		± -	I		
(a)	invurnber	υT	snares	ιΟ	be	purchased	

(d) Number of shares to be parenased	
Number of shares to be purchased:	26,243,052 shares
Minimum number of shares to be purchased:	— shares
Maximum number of shares to be purchased:	— shares
total number of issued shares as at March 31, 2017	number of shares (i.e., 26,243,052 shares) that is calculated by the Target Company's (i.e., 46,818,807 shares) less the number of treasury shares held by the Target Company number of the Common Shares held by the Company (i.e., 18,746,521 shares).
(b) Tender Offer period	From May 11, 2017 through June 21, 2017 (30 business days)
(c) Tender Offer price	940 yen (8 U.S. dollars) per one common share
(d) Purchase price	24,668,468,880 yen (219,881,173 U.S. dollars)
(Note) The "Purchase price" is an amount calculated by mu Offer price per share (940 yen).	ultiplying the number of shares to be purchased (i.e., 26,243,052 shares) by the Tender
(e) Commencement date of settlement	June 28, 2017
(f) Financing method	The Company's own fund

As of May 10, 2017, the Common Shares are listed on the First Section of TSE. Because the Company has not set a maximum number of shares to be purchased through the Tender Offer, the Common Shares may be delisted pursuant to the criteria for delisting provided by TSE, depending on the result of the Tender Offer, after following prescribed procedures. Even if such criteria is not met at the time of the completion of the Tender Offer, if it is decided that a series of procedures to make the Company the sole shareholder of the Target Company will be conducted after the completion of the Tender Offer, the Common Shares will fall under the criteria for delisting and will be delisted after following prescribed procedures. After delisting, the Common Shares may no longer be traded at TSE.

Until the expiration of the Tender Offer period on June 21, 2017, the Company has purchased 21,693,435 shares of the Common Shares. As a result, the Company owns 40,439,956 shares (holding ratio: 89.89%) of the Common Shares.

## Independent Auditor's Report

Ernst & Young ShioNihon LLC Hibiya Kokusal Bidg. 2-2-3 Uchisaiwai-cho, Chiyoda-ku Tokyo 100-0011, Japan Tel:+81 3 3503 1100 Fax:+81 3 3503 1197 www.shimihon.or.jp Building a better Independent Auditor's Report The Board of Directors OBAYASHI CORPORATION We have audited the accompanying consolidated financial statements of OBAYASHI CORPORATION and its consolidated subsidiaries, which comprise the consolidated balance sheet as at March 31, 2017, and the consolidated statements of income, comprehensive income, changes in net assets, and cash flows for the year then ended and a summary of significant accounting policies and other explanatory information, all expressed in Japanese yen. Management's Responsibility for the Consolidated Financial Statements Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in Japan, and for designing and operating such internal control as management determines is necessary to enable the preparation and fair presentation of the consolidated financial statements that are free from material misstatement, whether due to fraud or error. Auditor's Responsibility Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in Japan. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement. An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. The purpose of an audit of the consolidated financial statements is not to express an opinion on the effectiveness of the entity's internal control, but in making these risk assessments the auditor considers internal controls relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion. Opinion In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of OBAYASHI CORPORATION and its consolidated subsidiaries as at March 31, 2017, and their consolidated financial performance and cash flows for the year then ended in conformity with accounting principles generally accepted in Japan. Convenience Translation We have reviewed the translation of these consolidated financial statements into U.S. dollars, presented for the convenience of readers, and, in our opinion, the accompanying consolidated financial statements have been properly translated on the basis described in Note 2. Ernst & young Shinnihon LLC June 30, 2017 Tokyo, Japan A minimum from of Ermit & Young Collar Fimiliero

# OFFICERS



As of June 29, 2017

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# **CORPORATE INFORMATION / STOCK INFORMATION**

## **Corporate Profile**

Company Name	:	OBAYASHI CORPORATION			
Founded	:	January 1892			
Established	:	December 1936			
President	:	Toru Shiraishi			
Head Office	:	Shinagawa Intercity Tower B, 2-15-2, Konan, Minato-ku, Tokyo, Japan			
Capital	:	57,752 million yen			
Employees	:	8,524 (as of March 31, 2017)			
Construction Business Permission	:	Government Permit (Toku/Han-26) 3000			
Real Estate Business License	:	Government License (13) 791			
Business Activities	:	Construction work in and outside Japan, regional development, urban development, and other construction-related businesses, including contracted engineering, management, consulting services, real estate development, etc.			

## **Major Business Offices**

Head Office: 2-15-2, Konan, Minato-ku, Tokyo Sapporo Branch, Tohoku Branch (Sendai City), Tokyo Main Office, Yokohama Branch, Hokuriku Branch (Niigata City), Nagoya Branch, Kyoto Branch, Osaka Main Office, Kobe Branch, Hiroshima Branch, Shikoku Branch (Takamatsu City), Kyushu Branch (Fukuoka City), Overseas Business Division (Tokyo)

## **Research Institute**

Technical Research Institute (Tokyo)

## **Overseas Offices**

London, San Francisco, Auckland, Sydney, Guam, Taipei, Jakarta, Hanoi, Singapore, Kuala Lumpur, Bangkok, Yangon, Dubai

	tion (As of March 31, 2017) : 1,224,335,000 shares (No change from the end of the previous fiscal year)
Total Number of Shares Issued and Outstanding	: 721,509,646 shares (No change from the end of the previous fiscal year)
Number of Shareholders	: 47,266
Transfer Agent	: Mitsubishi UFJ Trust and Banking Corporation 1-4-5, Marunouchi, Chiyoda-ku, Tokyo, Japan
Ordinary General Meeting of Shareholders	: June
Stock Listings	: Tokyo and Fukuoka

Major Shareholders (As of March 31, 2017)	Shareholdings		
•	Shares Held (Thousands)	Shareholding Ratio (%)	
Japan Trustee Services Bank, Ltd. (Trust Account)	56,846	7.92	
The Master Trust Bank of Japan, Ltd. (Trust Account)	46,360	6.46	
Nippon Life Insurance Company	20,905	2.91	
Takeo Obayashi	16,944	2.36	
Japan Trustee Services Bank, Ltd. (Trust Account 5)	12,346	1.72	
STATE STREET BANK WEST CLIENT-TREATY 505234	11,203	1.56	
Japan Trustee Services Bank, Ltd. (Trust Account 9)	10,605	1.48	
NORTHERN TRUST CO. (AVFC) RE U.S. TAX EXEMPTED PENSION FUNDS	10,088	1.40	
Obayashi Employee Shareholding Association	9,752	1.36	
Japan Trustee Services Bank, Ltd. (Trust Account 7)	9,332	1.30	

Note: Shareholding ratios exclude treasury stock (3,443,509 shares).

# **Major Group Companies**

Domestic Building Construction Business	Naigai Technos Corporation Interior construction, building construction, and sales of materials and equipment for building construction	Overall property man	ilities Corporation agement, building and and contracted operations	Oak Setsubi Corporation Air conditioning and ventilation facility construction, design and construction of drainage and hygiene facilities, and electrical facility construction			
Domestic Civil Engineering Business	Obayashi Road Corporation Paving construction and civil engineering construction	Paving construction and civil engineering					
Overseas Building Construction Business	Thai Obayashi Corporation Limit Obayashi Singapore Private Lim	E.W. Howell Co., LLC (NY, U.S.A.) James E. Roberts-Obayashi Corporation (CA, U.S.A.) Thai Obayashi Corporation Limited (Bangkok, Thailand) Obayashi Singapore Private Limited (Singapore) * E.W. Howell Co., LLC, Webcor, LP, and James E. Roberts-Obayashi Corporation are consolidated subsidiaries of Obayashi USA, LLC.					
Overseas Civil Engineering Business	Kenaidan Group Ltd. (Ontario, Canada)       Kraemer North America, LLC (Wisconsin, U.S.A.)         * Kenaidan Group Ltd. and Kraemer North America, LLC are consolidated subsidiaries of Obayashi Canada Holdings Ltd. and Obayashi USA, LLC, respectively.						
Real Estate Development Business	Obayashi-Shinseiwa Real Estate	Corporation					
Other	Obayashi Clean Energy Corporation Renewable power generation business	eneration business Development and sales of computer software ar sales and lease of electronic equipment		OC Finance Corporation Finance-related services			
	Ibaraki Green Co., Ltd. Old Orchard Golf Club, Daystar Golf Club						

# **OBAYASHI CORPORATION**

Shinagawa Intercity Tower B, 2-15-2, Konan, Minato-ku, Tokyo 108-8502, Japan TEL +81-3-5769-1324 (Corporate Social Responsibility Dept.)

http://www.obayashi.co.jp/english/

Shaping the Times with Care



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