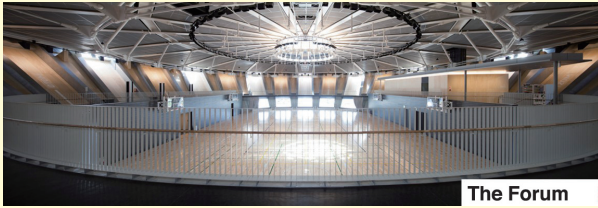


JPCI Award 2013

【JPCI Award for Outstanding Structures】



The Forum



The Nursery

● The Forum and the Nursery at “Haneda Chronogate”

Location : Ōta ward, Tokyo

[The Forum]

Structural Type : precast/prestressed concrete and steel structure

Number of Stories : 2 floors above ground

Building use : gymnasium

Floor Space : 2,504.07m²

Total floor space : 1,876.99m²

[The Nursery]

Structural Type : precast/prestressed concrete and wood structure

Number of Stories : 1 floor above ground

Building use : Nursery

Floor Space : 1,114.26m²

Total floor space : 488.53m²

Design : Nikken Sekkei Ltd.

Construction : Kajima Corporation

● Terasako Choucho Bridge

Location : Miyazaki

Structural Type : 10-span continuous butterfly web bridge

Bridge Length : 712.5m

Span : 58.6m+87.5m+7@73.5m+49.2m

Width : 9.26m (effective width)

Design : Kyushu Branch, West Nippon Expressway Co., Ltd.

Sumitomo Mitsui Construction Co., Ltd.

Construction : Sumitomo Mitsui Construction Co., Ltd.



● Agematsu Bridge

Location : Nagano Pref.

Structural Type : concrete arch bridge, direct foundation

Bridge Length : 199.0m

Span : Arch Span 155m

Girder Span 24.8m+28.0m, 28.5m+29.0m+33.8m

Width : 12.0m (effective width)

Design : Sumitomo Mitsui Construction Co., Ltd.

Construction : Sumitomo Mitsui Construction Co., Ltd.

● Kakamigahara Bridge

Location : Gifu

Structural Type : 10-span continuous fin-back bridge

Bridge Length : 594.0m

Span : 54.9m+8@60.0m+55.9m

Width : 17.1~21.1m (total width)

Design : Nippon Engineering Consultants Co., Ltd.

Bridge & Structure Institute, Inc.

Construction : Shimizu/Maeda Joint Venture

Shimizu/Ichikawa/Daiyuu/Gotou Joint Venture



JPCI Award 2013

[JPCI Award for Outstanding Structures]



● Hyogo Prefectural Awaji Medical Center

Location : Hyogo
Structural Type : PCaPC (Precast Pre-Stressed Concrete Structure)
Number of Stories : 8 stories
Building use : Hospital
Floor Space : 11,165m²
Total floor space : 35,333m²
Design : Hyogo Prefecture Government, Yasui Architects & Engineers, Inc.
Construction : Toda • Muramoto • Maekawa Joint Venture

● Jinzugawa Bridge

Location : Toyama
Structural Type : 4-span continuous prestressed concrete extradosed bridge
Bridge Length : 428m
Span : 86+128+128+86m
Width : 14.5m(main tower section) 13.7m(span section)
Design : Tonichi Engineering Consultants Inc.
Construction : Taisei Corporation Daiho Corporation
 Nihonkaikenko Corporation JV



● Kawashimogawa Bridge

Location : Hyogo
Structural Type : 3-span continuous prestressed concrete box girder bridge
Bridge Length : 300m
Span : 120m+143m+37m
Width : 10.75m×2 (有効幅員)
Design : Kajima Corporation, P.S.Mitsubishi Corporation JV
Construction : Kajima Corporation, P.S.Mitsubishi Corporation JV

● Ege Bridge

Location : Tokushima
Structural Type : 2-span continuous Steel-concrete composite truss structure extradosed bridge
Bridge Length : 130m
Span : 53.0m+75.8m
Width : 5.0m
Design : Echo Construction Consultant
Construction : Oriental Shiraishi , Nakagawa-kaihatsudoboku JV



JPCI Award 2013

【JPCI Award for Outstanding Engineering Innovations】



● New Repair Method for Corroded PC-Tendons in Incomplete Grouting Area Using LiNO₂-Containing Solution – Re-Passive Method –

Outline : The LiNO₂-containing solution is filled up into incomplete grouting. It penetrates into small area between PC-tendons and corrosion products contaminated chloride ions on PC-tendons. So, the corrosion of PC-tendons is stopped.

Development : Professor Hidenori Morikawa (Kobe University)
P.S.Mitsubishi Construction Co., Ltd

Example : Post-Tensioned PC Girder

● PC external cable tension monitoring system for existing PC bridge

Maintenance method for anticipated fracture of inner cable of PC I-girder bridge

Outline of the development : This system detects fracture of inner cable by monitoring tension of external cable, and enables us to strengthen the bridge quickly by additional prestressing

Related structure : Railway Bridge (San-yo Shinkansen)

Location : Hiroshima

Structural type : Prestressed concrete I-girder bridge

Bridge Length : 30.96 m

Design(strengthening) : JR West Japan Consultants Company

Construction(strengthening) : Kosei Corporation



JPCI Award 2013

【JPCI Award for Outstanding Accomplishments of Constructions】



● Sekiguchi Viaduct (North Section)

Location : Kanagawa
Structural Type : 6-span continuous PC slab girder + 6-span continuous PC box girder +13-span continuous PC slab girder bridge
Bridge Length : 843.0m
Span : 25.65+26.50+2@29.00+2@28.00+40.00+4@47.50+43.00+34.00+32.50+3@29.50+7@31.00+30.00m
Width : (Southbound line)10.510~19.628m(Effective width)
(Northbound line)10.510~19.999m(Effective width)
Design : Tokyo Branch, Central Nippon Expressway Co., Ltd.
Sumitomo Mitsui Construction Co., Ltd.
Construction : Sumitomo Mitsui Construction Co., Ltd.

● Repair work of Suzuta Bridge

Location : Nagasaki
Structural Type : 7-span continuous box girder bridge
Bridge Length : 484.8m
Span : 54.3+5@75.0+54.3m
Width : 9.25m×2 (effective width)
Work summary : Main girder part removal , concrete replacement , external cable reinforcement
Design : West Nippon Expressway Company Limited
Japan Bridge & Structure Institute, Inc.
Sumitomo Mitsui Construction Co.,Ltd.
Construction : Sumitomo Mitsui Construction Co.,Ltd.



● Kakegawa tsunami escape facility(Kikuhama Area)

Location : Kakegawa, shizuoka
Structural : PCaPC
Number of Stories : 1stories
Building use : Tsunami escape facility
Institution height : Above ground 10.0m, Above sea level 15.0m
Refuge area : 200.0m²
Design : V-iss Planning & Design
Construction : Ohamanakamuragumi Corporation
PC construction : P.S.Mitsubishi Corporation

● Ichikawa Ohashi Bridge on Bantan Renraku Road

Location : Hyogo
Structural Type : Simple steel composite girder bridge
Slab Type : High Strength Lightweight Precast PC Slab
Bridge Length : (Up line) 40.0m, (Down line) 40.0m
Span : 39.2m
Width : 8.75m (Effective width)
Design : KINDAI-SEKKEI CONSULTANT, INC.
Construction : IHI Construction Service Co., Ltd.

