



The whole story to date
about
The New National Stadium Japan

17 March 2016, 17:00~18:30

Compiled by
Prof. Kazuo IWAMURA

Immediate past co-director of the UIA International Competition Commission



NEW NATIONAL STADIUM JAPAN
INTERNATIONAL DESIGN COMPETITION

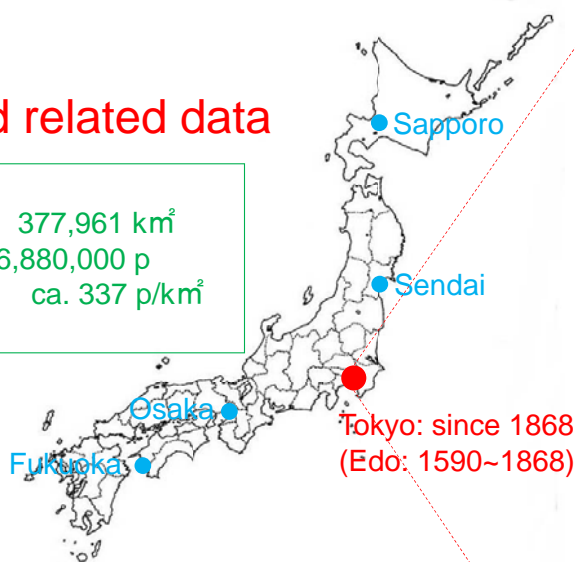
PART-I

03

Location and related data

All Japan:

Area: 377,961 km²
Population: ca.126,880,000 p
Density: ca. 337 p/km²
(as of 2015)



The Tokyo Metropolitan Area:

Area: 2,190 km²
Population: ca.13,512,000 p
Density: ca.6,170 p/km²
(as of 2015)



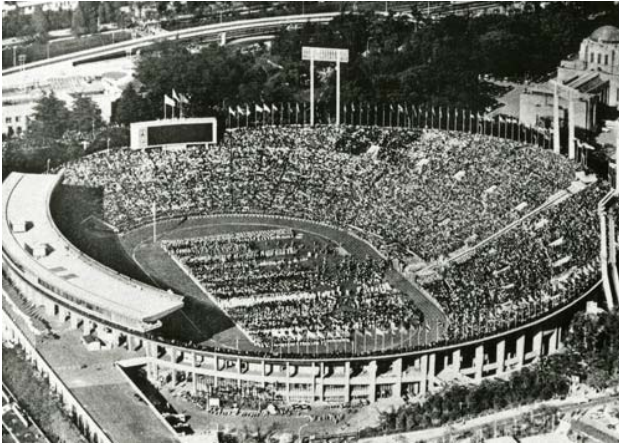
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The Site



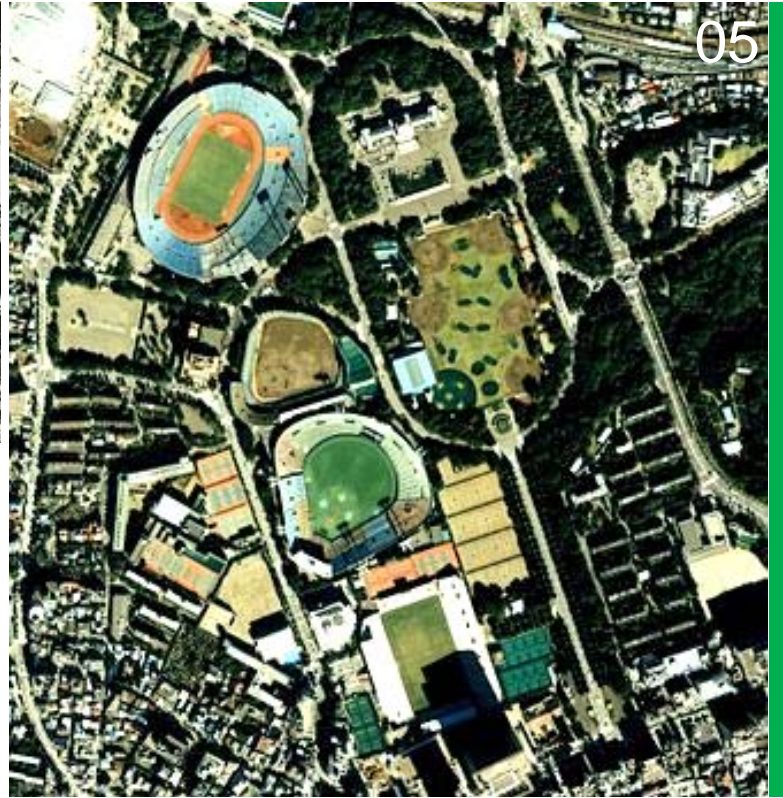
The Site for the New National Stadium





The opening ceremony of the Tokyo Olympic Games on 10 October 1964

The Former National Stadium



Timeline of Submission and Judge of the PART-I

Submission

- 2012.07.20: Issue of the submission brief
- 2012.07.20-09.10: Registration period
- 2012.07.20-08.20: Questions period
- 2012.09.03: Answers to the questions
- 2012.09.10-09.25: Submission period of the proposals/ **46 submitted**

Judge

- 2012.09.26-10.8: Technical examination period
- 2012.10.12: Preliminary judge
- 2012.10.16: The 1st Phase Judge
- 2012.10.30: Announcement of **11 proposals for the 2nd Phase Judge**
- 2012.11.07: The 2nd Phase Judge
- 2012.11.15: Announcement of the Judging Result
- 2013.03.19: Award Ceremony



Jury Members

1. Experts on Architecture :

Chair: Tadao ANDO, Prof. Emeritus, the University of Tokyo

Member: Hiroyuki SUZUKI, Prof., Aoyama University

Member: Takayuki KISHII, Prof., Nihon University

Member: Hiroshi NAITOH, Immediate past Vice-president, the University of Tokyo

Member: Masato YASUOKA, Prof. Emeritus, the University of Tokyo

2. Expert on Sports Usage :

Member: Jyunji OGURA, Chair, Japan Soccer Association

3. Expert on Cultural Usage :

Member: Shunichi TOKURA, Composer, Chair, Japan Music Copyright Association

4. Foreign Architects :

Member: Richard ROGERS, English Architect

Member: Norman FOSTER, English Architect

5. Host :

Member: Ichiro KOHNO, President, Japan Sports Council



2012.10.12: Preliminary judge

Judging Process



2012.10.16:
The 1st Phase Judge



2012.11.07: The 2nd Phase Judge

Foreign Jurors at work



Richard ROGERS at judgement in UK



Sir Norman FOSTER
at judgement in UK



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19 March 2013: Award Ceremony



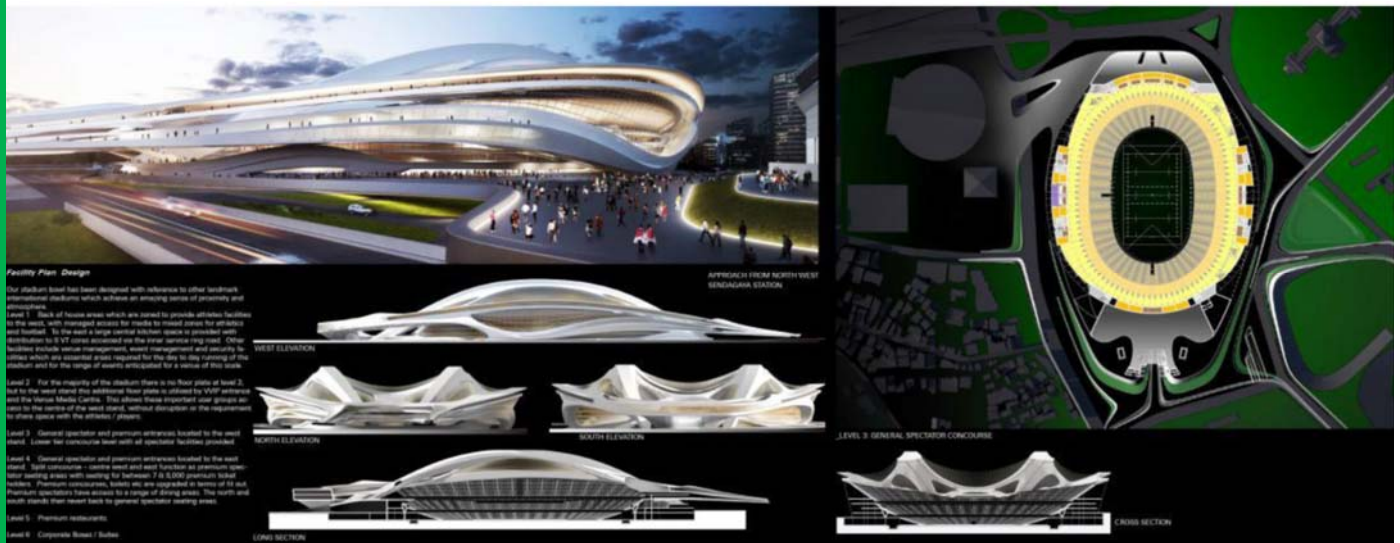
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Grand Prix: Zaha Hadid Architects, UK



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Grand Prix: Zaha Hadid Architects, UK



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Jury's comments on the Grand Prix Proposal (extract)

Zaha Hadid Architects' proposal is an innovative stream-lined design suggestive of the sports' dynamism. Behind this extremely symbolic form, however, there is a fantastic consonance between its structure and the interior spatial expression, as well as a simple and strong idea of connecting it with its urban space around.

This overwhelming shape design supported by this tough logic is the strongest appeal point. And building the symbolic main arch-like structure is a cutting-edge challenge for using the essence of contemporary high construction technology in Japan. Also a variety of advanced environmental technology will surely contribute to the proposal of green and sustainable solutions.

Given those, this proposal fully deserves, we do believe, the Grand Prix among others.



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Prize for Excellence:
Cox
Architecture,
Australia

Philip Cox



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Prizewinner:
SANAA +
Nikken Sekkei,
Japan

SANAA:
NISHIZAWA & SEJIMA

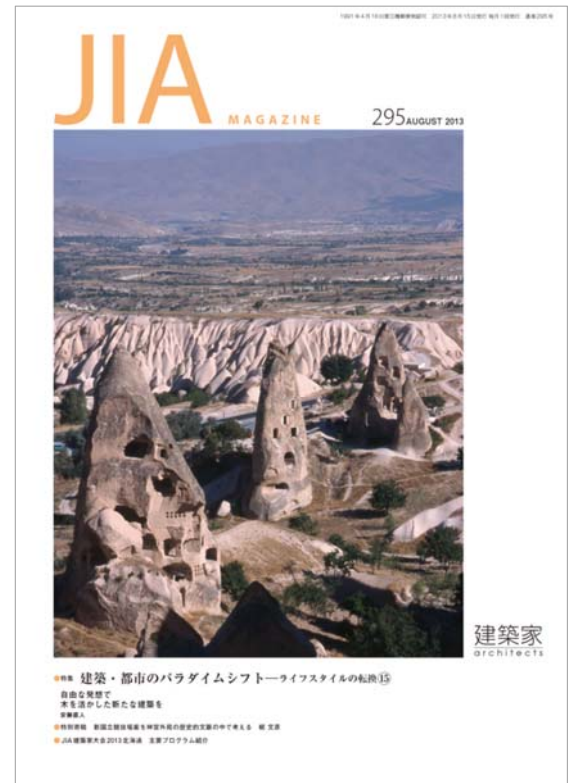




Criticism by Fumihiko MAKI (1928~)

In August 2013, Fumihiko MAKI, Pritzker Prize Winner, published in JIA Magazine his deep and comprehensive thoughts about the urban and architectural context of the site for the New National Stadium under the title of "Thinking about the proposal for the New National Stadium within the historical context of Jingu Gaien (external garden of the Jingu shrine)."

This valid critic has driven nation-wide discussions about the Zaha Hadid's proposal and the judging process, and led consequently to the governmental decision to cancel the first competition result.



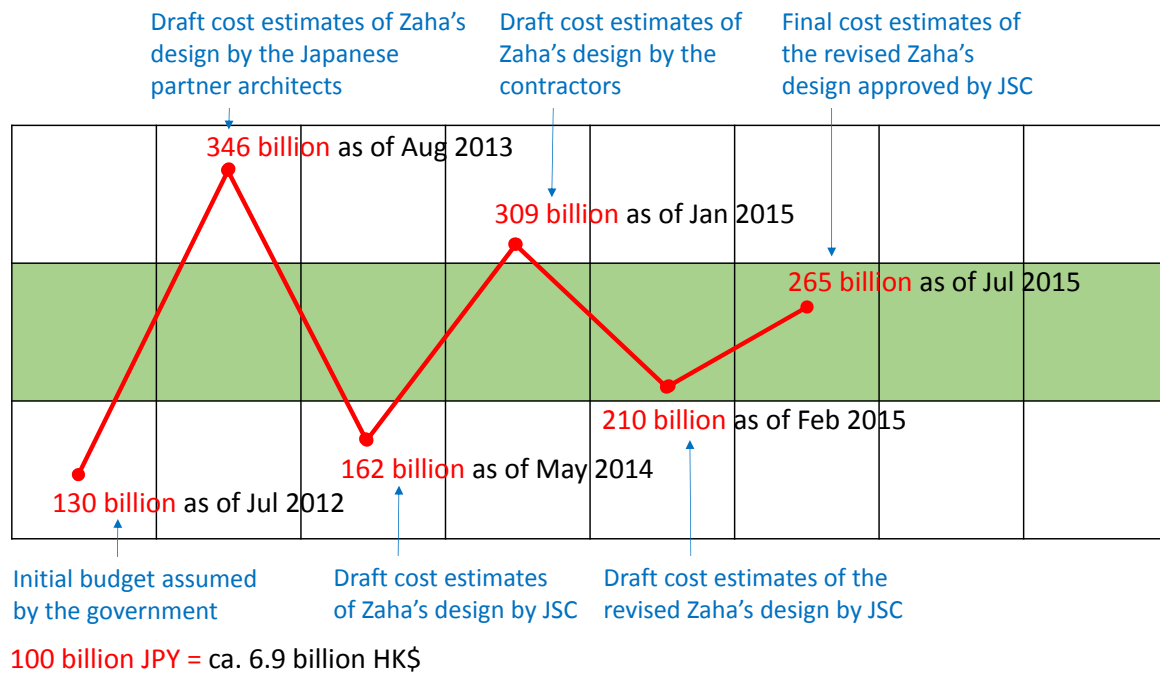
Original Zaha's Proposal
as of November 2012

Revised Zaha's Proposal
(20% squeezed)
as of July 2015



Fluctuation of the construction cost estimates

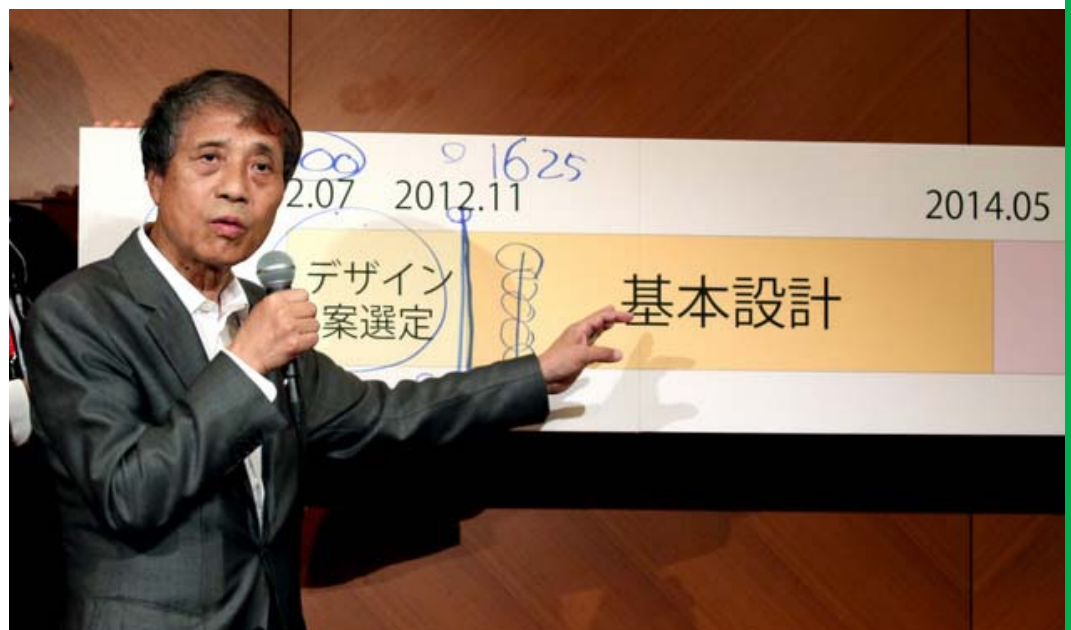
21



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Tadao ANDO at the press conference on 16 July 2015

"I am responsible of having chosen the Zaha Hadid's proposal, but must know why it became so expensive."



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New National Stadium became a serious political Issue.

At the Future Plan Advisory Council of Japan Sport Council (JSC), held on 7 July 2015, the estimated construction cost of the current preliminary design was reported as much as **252 billion JPY (ca. 17.4 billion HK\$)**, which was eventually approved by the Council.

However, according to the public opinion polls conducted by mass media, **ca.75~95% respondents were against** such an extremely high cost and in favor of even reviewing the current design.

Taking this result into consideration, the National Government declared on 17 July **to reject the current design and to review the cost.**

It had been revealed that the JSC had no relevant governance capability of implementing such a monumental project.

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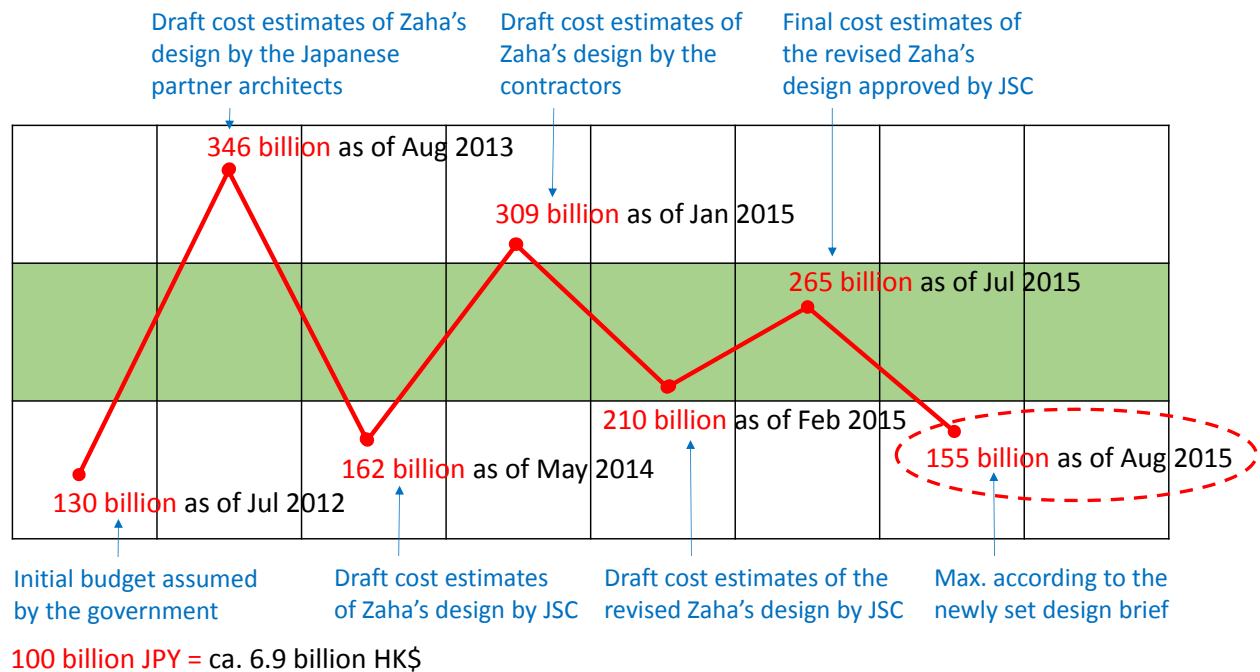
Prime Minister Shinzo ABE

announced to cancel the Zaha Hadid's design mainly due to the extremely excessive cost, and to run another proposal with a limit of the budget of 155billion JPY on 17 July 2015.

155 billion JPY = ca. 10.7 billion HK\$



Fluctuation of the construction cost estimates



The Japan Institute of Architects (JIA), since 24 July 2015, has submitted several times to the Government and the JSC “Letter of Recommendation” regarding how to improve the proposal design, construction and the whole process. Those included the followings for example;

1. The revision of design brief to:
 - 1) Review the “multipurpose use” of the facility,
 - 2) Simplify the stadium functions, as well as
 - 3) Significantly reduce the underground and lower part of building that are very expensive to build.
2. Curtailing the period of redesign and construction
3. Accountability of professional and responsible decision making
4. Transparent information disclosure of the contents and the process

NEW NATIONAL STADIUM JAPAN INTERNATIONAL DESIGN COMPETITION



PART-II

Open to Public Invitational Proposal
<Design Negotiation and Build Type>

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Open to public invitational proposal: Design Negotiation and Build Type

1. 28 Aug. 2015: Call for technical proposal (Construction deadlines and the maximum cost are given at this moment)
2. 22 Dec. 2015: Selection of the priority negotiator (according to the consultation of the jury committee)
3. Currently: Negotiation about design and cost estimates
4. Mutual agreement of Construction Contract
5. Construction

Timeline of Submission and Judge of the PART-II

Submission

- 2015.08.28: Issue of submission brief
- 2015.09.18: Deadlines of registration > Two teams registered
- 2015.11.16: Deadlines of submission > **Two teams submitted**

Judge

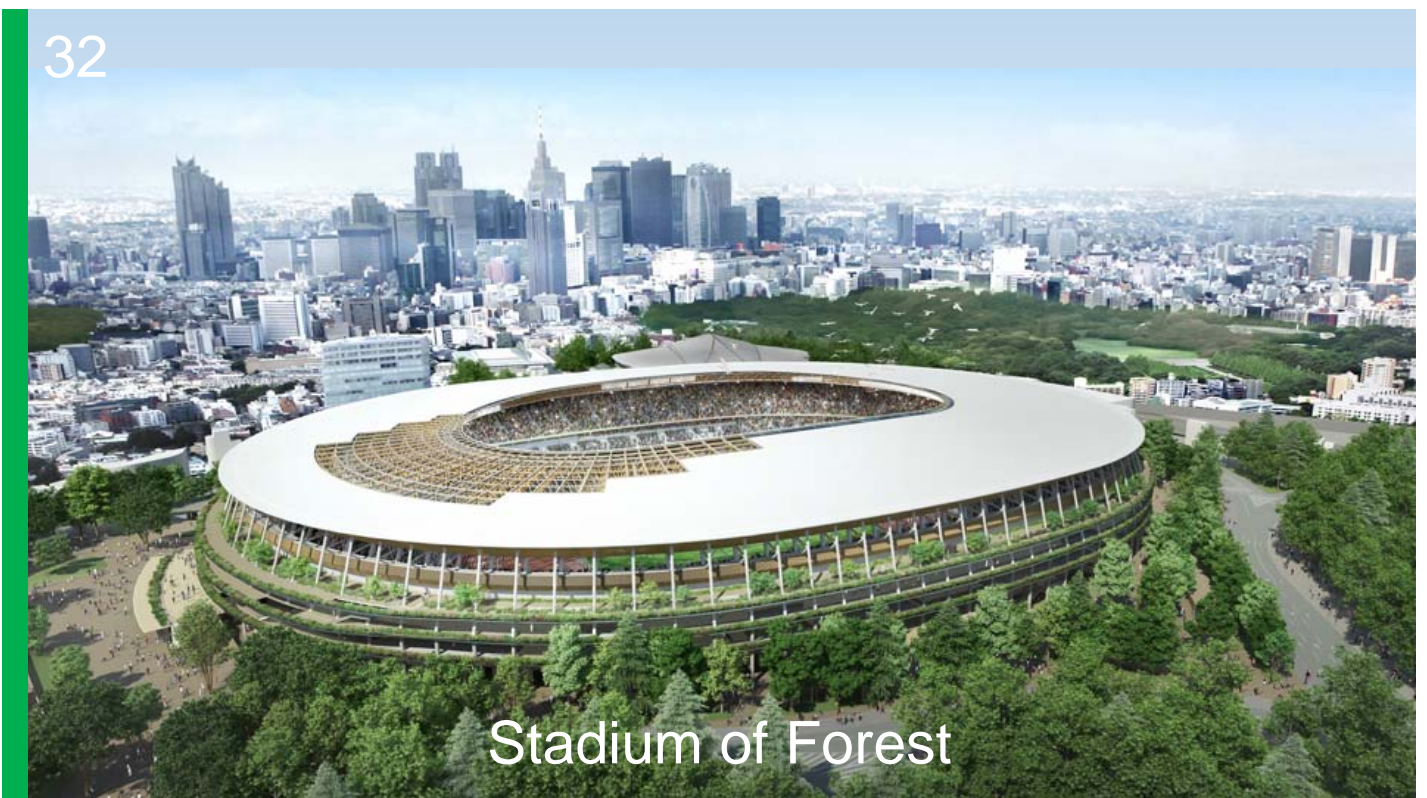
- 2015.08.17-12.19: 8 jury meetings were held.
- 2015.12.14: Public exposure of the two proposals on the JSC website
<http://www.jpnsport.go.jp/newstadium/>
- 2015.12.22: Announcement of the Judging Result

Jury Members

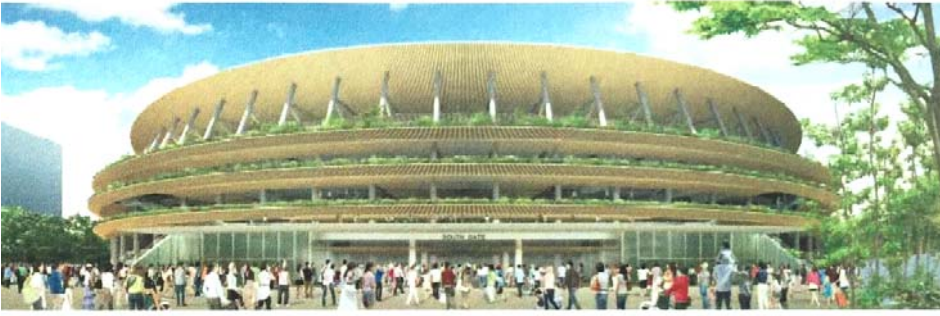
1. **Chair: Shuzo MURAKAMI**, Prof. Emeritus, the University of Tokyo
2. Member: Tetsuichi AKIYAMA, Prof., Toyo University
3. Member: Kazumi KUDO, Architect, Prof., Toyo University
4. Member: Tetsuo KUBO, Prof. Emeritus, the University of Tokyo
5. Member: Toshio KOYAMA, Architect, Prof. Emeritus, the University of Tokyo
6. Member: Seiichi FUKAO, Prof. Emeritus, the Metropolitan University of Tokyo
7. Member: Shiro WAKUI, Prof., Tokyo City University

Proposal A: The Winner

Kengo Kuma and Associates
Azusa Sekkei Inc.
Taisei Corporation



Stadium of Forest



Southern façade



Stadium interior

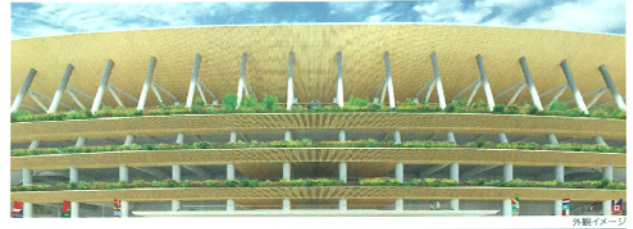
Concept: Four major themes

1. A stadium of woods and green, widely open to the public
2. A stadium for all, including athletes and spectators
3. Environmentally symbiotic stadium with a sustainable forest
4. Simple and rational building method, for curtailing construction cost and period

A stadium of woods and green, widely open to the public

- 1) Building height less than 50m
- 2) Emphasized horizontal lines
- 3) Hybrid roof structure of wood and steel
- 4) Networking the neighboring parks and greeneries integrated into the stadium

周辺環境を読み解き、先人の知恵を深化させた、日本らしいスタジアムを世界に向けて発信します。



1 連続した軒庇の水平ラインと周辺の緑の深い陰影により、周辺と調和した外観とします

■ 外観の環境と調和し、観客を迎え入れる軒庇

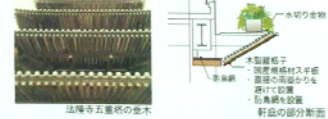
- 日本の伝統的な建築を想起させる、連続する軒庇の水平ラインと深い陰影によって、周辺の木々と調和した、外観とします。
- 屋根の庇や軒庇の仕上げは全面を連続した縦格子で仕上げます。外壁を「面」ではなく「線」で構成することにより、「和」を想起させる繊細な陰影が周辺の木々に溶け込み、畏れ入る壁面による圧迫感を軽減させます。



外観の木々と調和した「和のスタジアム」

■ 「和」を想起させる、縦格子の「繰り返しのデザイン」

- 軒庇の連続した縦格子により、日本建築の要素である垂木を想起させる外観を形成します。水平方向にも高き方向にも展開した「繰り返しの」構成により、日本らしさをより強調します。
- 木の縦格子には国産のスギの規格材を採用します。設置箇所は軒裏などの雨がかりの少ない部分とし、さらに加圧注入処理(K3仕様)とし、耐久性を高め美観を維持します。



木製縦格子・国産規格材スギ板・垂直方向にも高き方向にも展開した「繰り返しの」構成により、日本らしさをより強調します。

■ 梁と柱と開口で構成された「日本らしい」外観

- 外周の低層部は水平に伸びる軒庇と鉛直柱の構成とし、軸組によって生まれた、陰影のある印象的な日本らしい外観とします。
- 外周に壁がないことで、日本の気候風土を活かした風通しの良い空間を創出します。形の深い軒下は、「木漏れ日」のような陰と緑を望める縁側状の空間を創出します。
- 各軒庇上部にはプランターを配置し、日本の野草など四季を感じることが可能な計画とします。



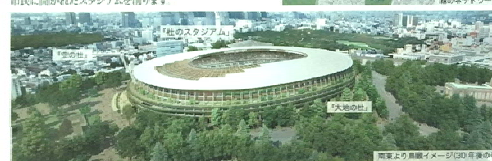
梁と柱の軸組で構成された外観

「縁側空間」イメージ

Environmentally symbiotic stadium with a sustainable forest

9 町域計画 ■ 明治神宮外苑の歴史と伝統ある環境や価値等に調和するための具体的な方策

雄大なスケールの緑に包まれ、周辺の自然と調和し、市民に開かれた新しい「和のスタジアム」を創出します



町域計画 ■ 明治神宮外苑の歴史と伝統ある環境や価値等に調和するための具体的な方策

1 周辺の景観と調和し、人々が日常的に集いにぎわう新たな拠点をつくり出す

- 周辺の公園空間からつながる「大地の杜」とスタジアム最上層(5階)の「空の杜」により、人と緑が連続的に連続する緑の歩行空間を創出します。
- 周辺の緑と調和するよう外周の連続した軒庇を設計し、施設全体が一体となった環境空間とします。
- 「大地の杜」とつながる「前コンコース」や競技フィールド、「空の杜」となる5階を開放し、誰もが気軽に散策やスポーツを楽しむ健康増進の場を提供することで、地域に開かれたスポーツグランドの拠点となる「和のスタジアム」を創出します。

2 50m以下に最高高さを抑え、周辺からの圧迫感を軽減

- 8万人の観客をコンパクトに配置し、フラットな屋根架構により建物高さを50m以下に抑え、周辺の景観と調和する計画とします。
- 競技場からの景観に配慮し、最外周の最上層を内側に傾斜させて、周辺への圧迫感を軽減する計画とします。



競技場からの景観イメージ

2 雄大な外苑の緑と一体となり、自然や水辺に親しめる人々の広場を創出します

■ 豊かな土と星の風景を築く「大地の杜」

- 計画地は外苑の「土」と市街地の「星」が接する場所に位置しており、「大地の杜」も3つのゾーンに区分します。
- (A) 東・北側ゾーン - 空の杜の星

- (B) 南側ゾーン - 大地の星
- (C) 西側ゾーン - 水辺の星

- すべての緑地を敷地内で活用し、3つのゾーンの緑を「空の杜」や「水辺の星」に連続させることで、自然や水辺に親しめる人々の広場を創出します。
- 「大地の杜」と自由に寄り添う「空の杜」は、気候に配慮し、外苑の森や都心の眺望を楽しむ開かれた空間とします。
- スキや釣りがある芝生、花木を連続させ、計画地の景観美のおおさを引き出すための広場をつくり出す。

2 環境と対話し、周辺の景色を望む「空の杜」

- 「大地の杜」と自由に寄り添う「空の杜」は、気候に配慮し、外苑の森や都心の眺望を楽しむ開かれた空間とします。
- スキや釣りがある芝生、花木を連続させ、計画地の景観美のおおさを引き出すための広場をつくり出す。

3 人が集い、生き物がすむ、豊かな水辺、流石の再現

- かつて谷川が流れていた谷間に「せせらぎ」を再現し、生活の一部であった水辺を再現します。その「せせらぎ」は、雨水排水機能を生かし、一部は地中に浸透するなど、水循環の回復に寄与する水辺です。

4 上・下・中・下の4つの「せせらぎ」により谷川を再現

- 上・下・中・下の4つの「せせらぎ」により谷川を再現します。その「せせらぎ」は、雨水排水機能を生かし、一部は地中に浸透するなど、水循環の回復に寄与する水辺です。

5 市民参加型コミュニティの活用

- 軒庇上部の緑地は、プランターユニットになっておりスタジアムの建設時に緑地の植わっていない緑のユニットを建築作業所内に設置することで、作業所を来訪した様々な人々が集まりたい草木を育て、市民参加型の活動により開かれた「和のスタジアム」とします。

「大地の杜」の「空の杜」・「水辺の星」・「大地の杜」



「大地の杜」の「空の杜」・「水辺の星」・「大地の杜」

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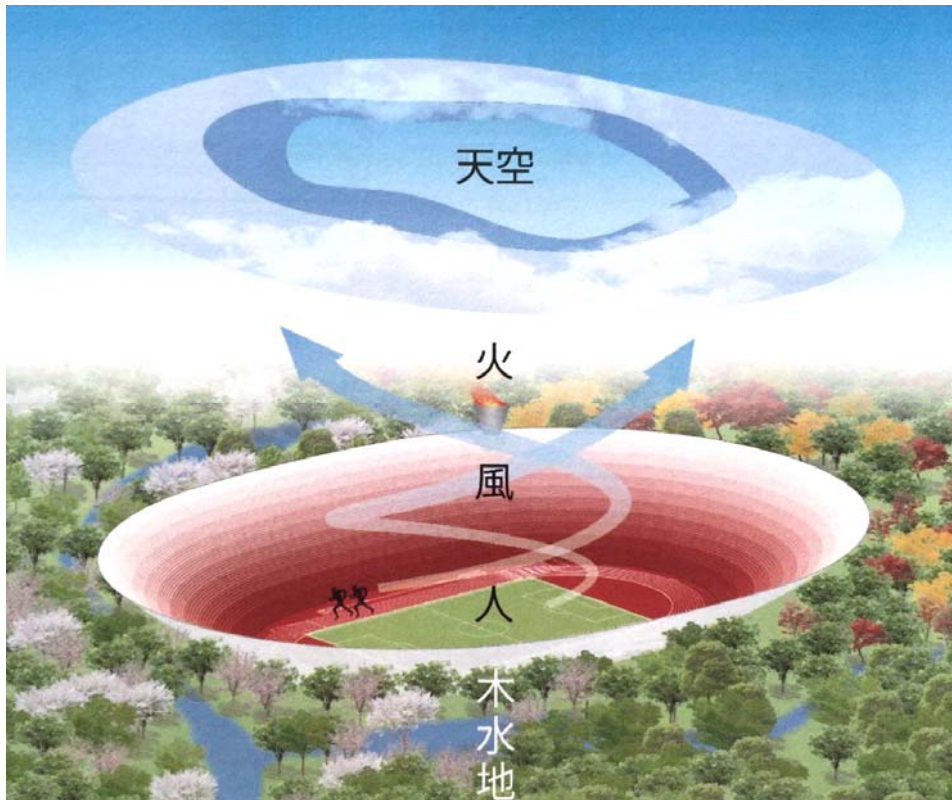
「大地の杜」の「空の杜」・「水辺の星」・「大地の杜」

Proposal B:

Toyo Ito & Associates, Architects
Takenaka Corporation
Shimizu Corporation
Obayashi Corporation



杜のスタジアム
Stadium in Forest



Conceptual image

Sky

Fire

Wind

Men

Tree

Water

Earth

41

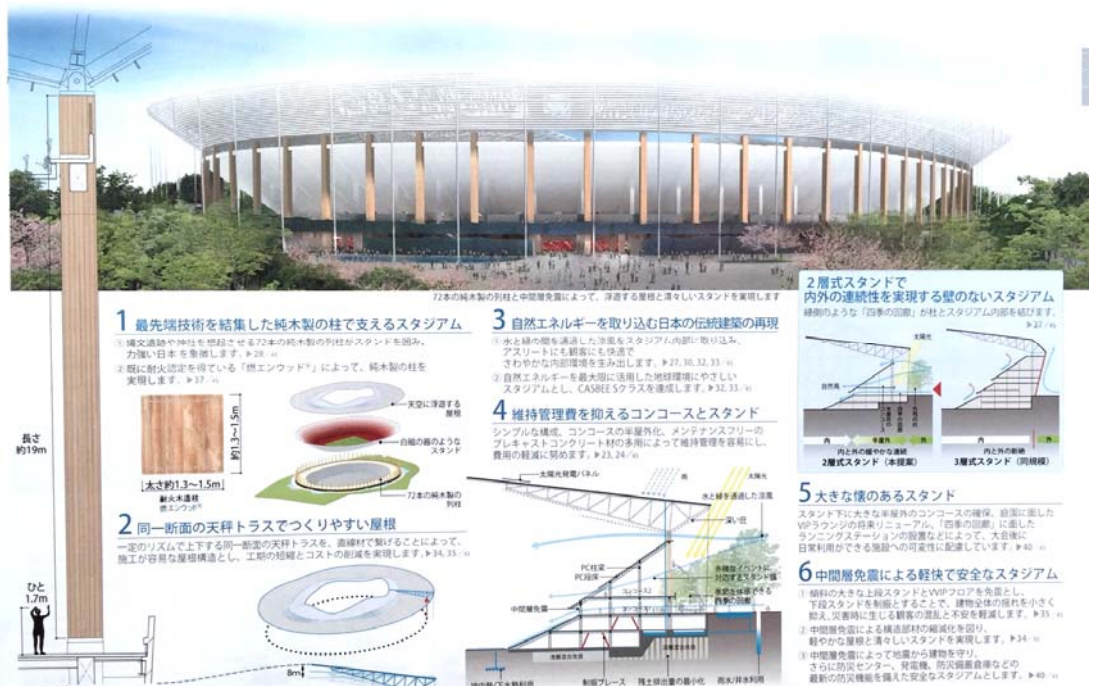
Stadium floating on the gentle forest of biodiversity

42



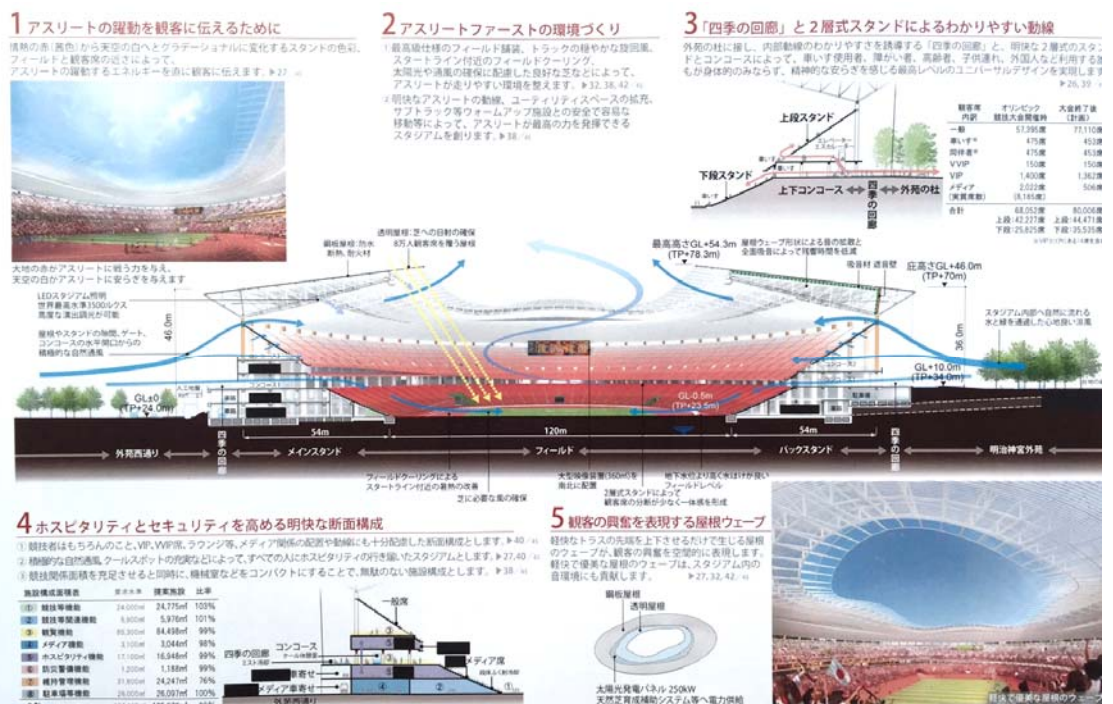
生物多様性を育む明るく柔らかな杜の上にスタジアムが軽やかに浮かびます

The state of the art wooden pillars supporting the stadium



43

Passive design for all



44

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Hearing from both proposal teams
on 19 December 2016,
 by the experts committee of jury,
 chaired by Prof. Shuzo MURAKAMI



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Comparison between Proposal A and B

A



B

"Giant Tree of Life" connecting the historical greeneries of Jingu	Concept	"New Tradition" of the 21st Century, intergrading the history of Jingu and contemporary technology
49.2 m	Height	54.3 m
Expressing the traditional "Japanese" through the hybrid roof of wood and Steel	Major character	Symbolizing strong Japan through 72 columns of indigenous larch, supporting the stadium
149.0 billion JPY	Construction cost (Inc. Tax)	149.7 billion JPY
36 months	Construction period	34 months
	Capacity	
Ca. 68,000 seats	During the Olympic	Ca. 68,000 seats
Ca. 80,000 seats	After the Olympic	Ca. 80,000 seats

150 billion JPY = ca. 10.2 billion HK\$

Judging Result

Item (Score per a juror)		Total Score of 7 jurors	
		Project A	Project B
Project Implementation Policy (20)		112/140	104/140
Construction Cost & Period	Project Cost Curtailment (30)	31/210	28/210
	Construction Period Curtailment (30)	177/210	150/210
	Maintenance Cost Curtailment (10)	44/70	50/70
Facility Design	Universal Design (10)	48/70	53/70
	Japanese Identity (10)	50/70	52/70
	Environmental Design (10)	54/70	50/70
	Structural Design (10)	52/70	55/70
	Architectural Design (10)	42/70	60/70
Grand Total (140x7=980)		610/980	602/980

Comment of jurors on the proposals (extract)

Proposal A was relatively higher evaluated in terms of;

- 1) Project implementation policies,
- 2) Construction period curtailment, and
- 3) Environmental design.

Whereas Proposal B was highly acknowledged by;

- 1) Architectural design,
- 2) Maintenance cost curtailment, and
- 3) Universal design.

Both teams should be highly appreciated for their tremendous efforts and passion of having conducted such architectural and landscaping design of comprehensive quality within a very limited time.

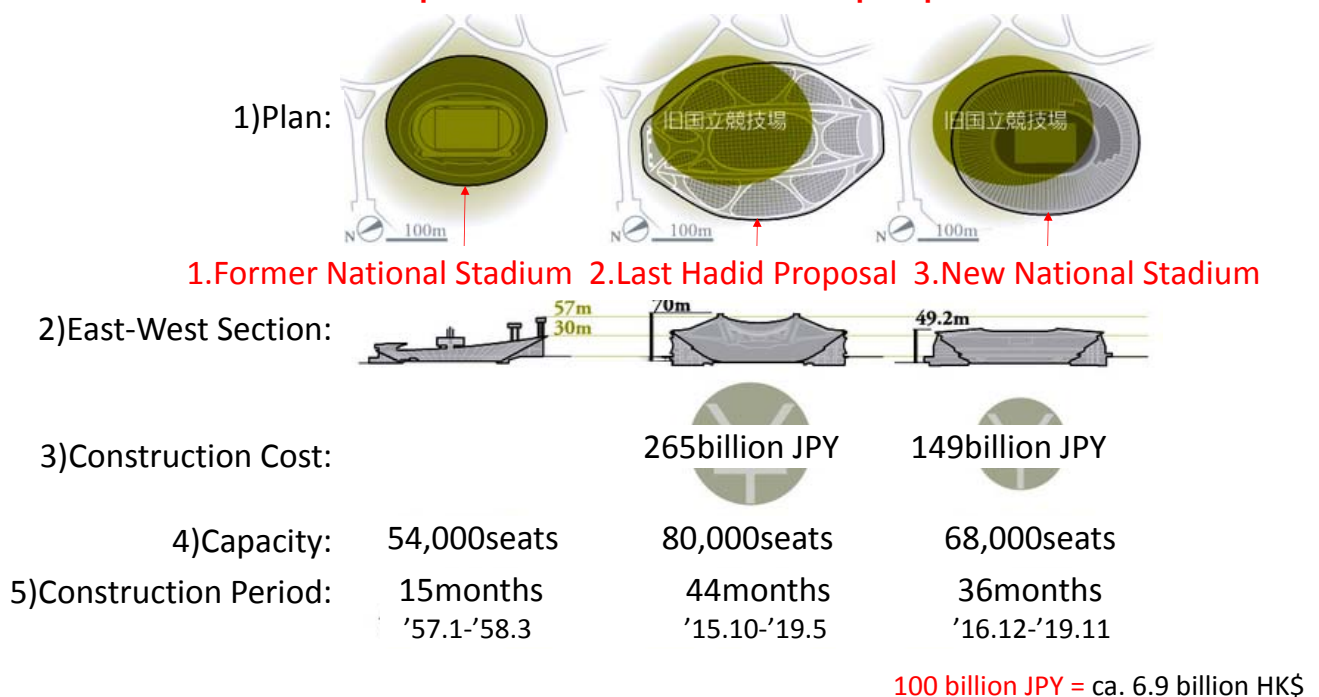
Appendix:

Zaha Hadid expressed her strong willingness to participate into the second run, together with NIKKEN Sekkei Inc.

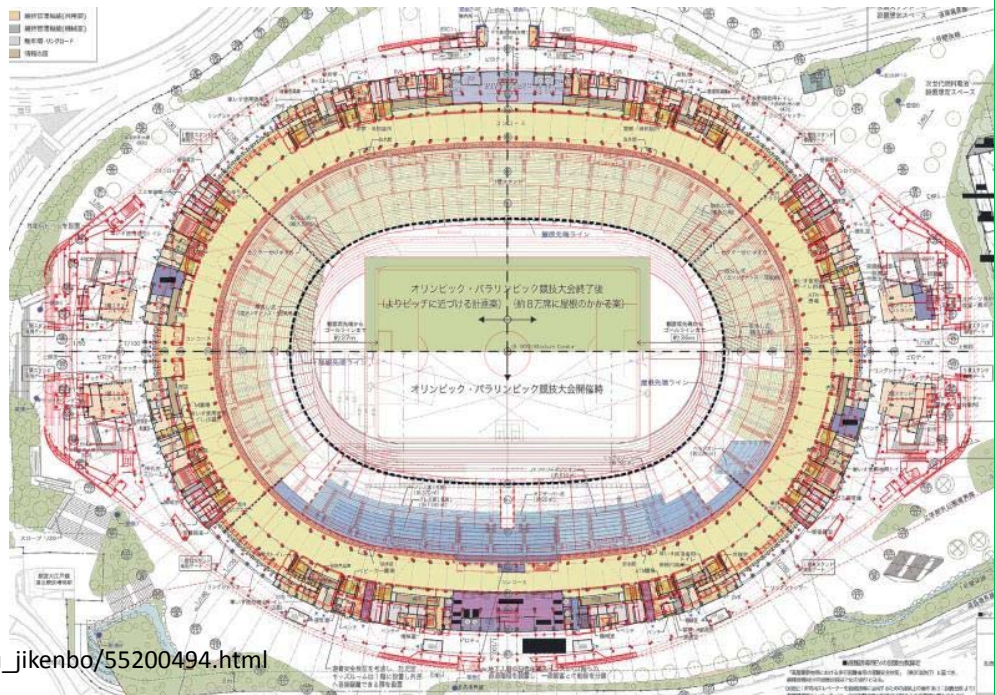
However, she could not find any contractor as a partner, which was the compulsory eligibility of taking part in the "Design Negotiation and Build Proposal."

She was, therefore, obliged to give it up before the registration deadlines. After the winner was selected, she has been pointing out the similarity between her last proposal and the new winning proposal (see Slide 49 & 50), which was also publicly mentioned by Toyo ITO.

Comparison between the proposals



Similarities of the layout & plan
between
Zaha's Proposal
(red lines)
and
Kuma's Proposal
(blue lines)



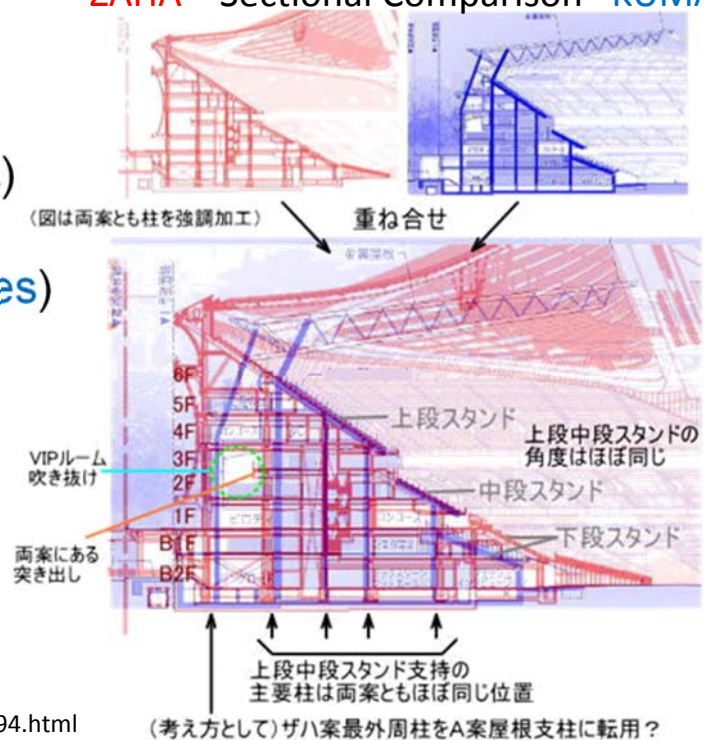
http://blogs.yahoo.co.jp/kensyou_jikenbo/55200494.html

ZAHA Sectional Comparison KUMA

Similarities of the section
between
Zaha's Proposal (red lines)
and
Kuma's Proposal (blue lines)

In terms of;

- 1) Section of the stands
- 2) Inclination of the stands
- 3) Position of the pillars
- 4) Void space for VIP room



http://blogs.yahoo.co.jp/kensyou_jikenbo/55200494.html



Thanks for your attention.



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Source: <http://www.jpnsport.go.jp/newstadium/>
<http://www.yomiuri.co.jp/matome/20150605-OYT8T50063.html>
<http://www.asahi.com/special/timeline/nationalstadium/>