Golden Ears Bridge Project Vancouver / Canada
Procurement of structural steel

Michael Heerdt, Dillingen, December 03, 2009
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General Project Information

- PPP Project

- Construction Period:
  Feb 2006 – June 2009

- Operation Period:
  32 years

- Construction Joint Venture:
  Bilfinger Berger Civil (JV leader)
  CH2M HILL

- Main Designers
  Buckland & Taylor
  Bilfinger Berger Civil
  CH2M HILL
Project location

Greater Vancouver Area

70 km
Scope of work

9 km  Construction of new roads
11 km  Rehabilitation of existing roads
4,5 km  Overpasses / Approach bridges
1 km  Stay cable bridge
      (242m main span, 4 pylons)
Relocation of public utilities
Procurement of structural steel

- Main players
- Grade of steel / quantity
- Major challenges
Main Players – Procurement of structural steel

- Management & Coordination - Bilfinger Berger

- Supply of steel plates - Dillinger Huette

- Transport of steel plates & transport of fabricated segments - Kuehne & Nagel

- Fabrication of steel segments - ZPMC
Grade of steel / quantity

- CAN/CSA G40.20/G40.21-M Grade 350AT Category 3, equivalent to european standard : S355J2W+N
- Quantity: 7,000 tonnes
Major Challenges

- World steel market 2007
- Logistic
- Quality Management
Major Challenges

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- Overheated market conditions – high prices
- Special requirement on type of structural steel
- Potential mills were quite busy
Major Challenges

- World steel market 2007
- Logistic
- Quality Management

- Rolling of steel plates in Germany (Dillinger Huette)
- Transport of steel plates from Germany to Shanghai – 8 shipments / just in time
- Fabrication of bridge & pylon sections
- Transport of bridge & pylon sections from Shanghai to Vancouver / Canada
Major Challenges

- World steel market 2007
- Logistic
- Quality Management

- Certification of 6 workshops
  200 welder
  40 supervisors
  in accordance with Canadian welding standards
- Meet Bilfinger Berger’s quality standards
- Testing by independent consultants
Impressions
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Thank you for your kind attention