San Francisco – Oakland Bay Bridge
SELF-ANCHORED SUSPENSION (SAS) SPAN

American Bridge / FLUOR
A JOINT VENTURE

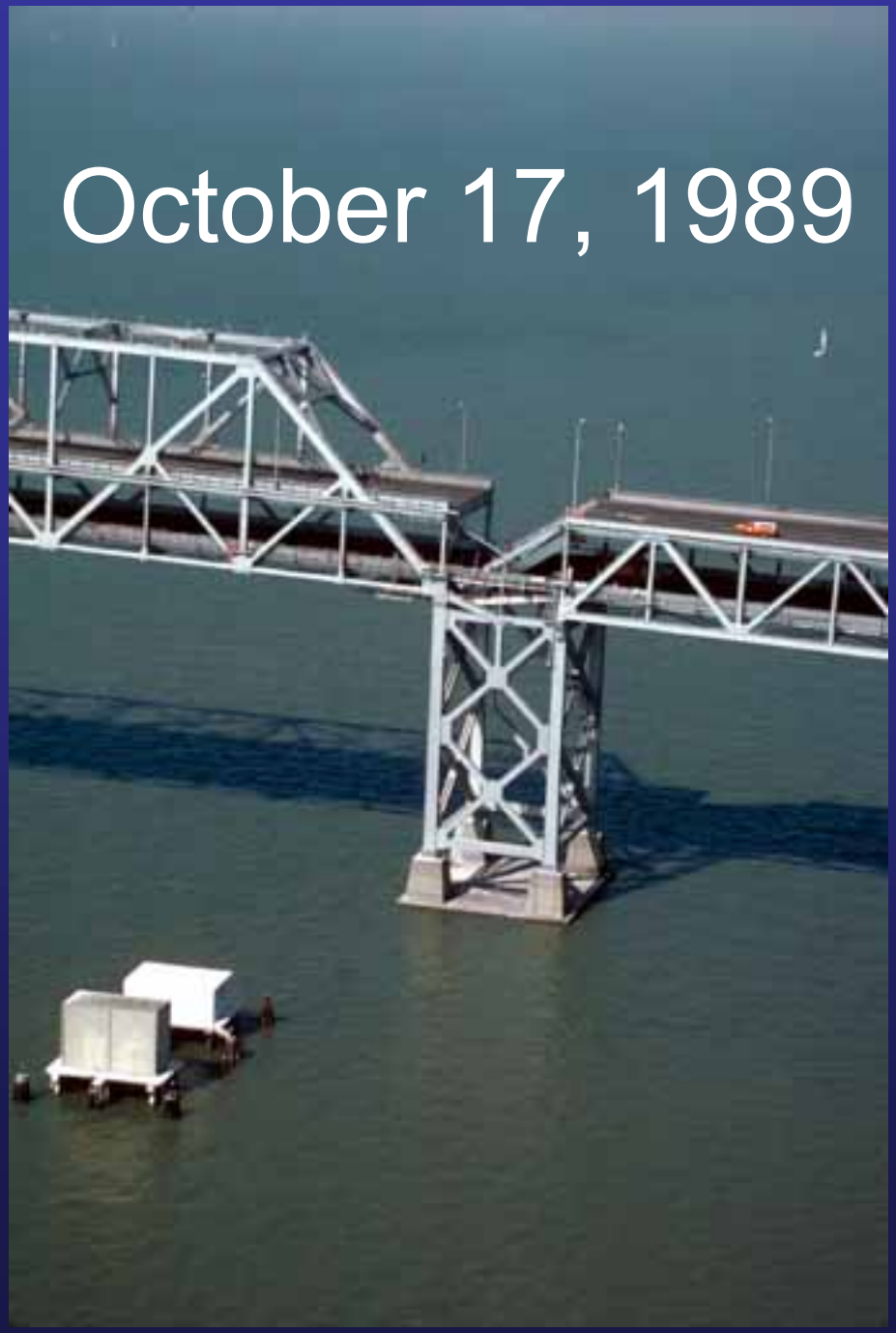
San Francisco – Oakland Bay Bridge
SELF-ANCHORED SUSPENSION (SAS) SPAN

- Project Overview
- Conventional Vs SAS Bridge
- SFOBB SAS Features
- International Fabrication
- Temporary Bridge
- Shear Leg Crane
- Concrete Works
- Quality Program
  - Audits
  - Quality Plans
  - Mock-ups and Pre-qualifications
  - NCR Processing
  - In-process Tests and Inspections
  - Weld Tracking

Project Overview

Bay Bridge Self-Anchored Suspension Tower Rendering

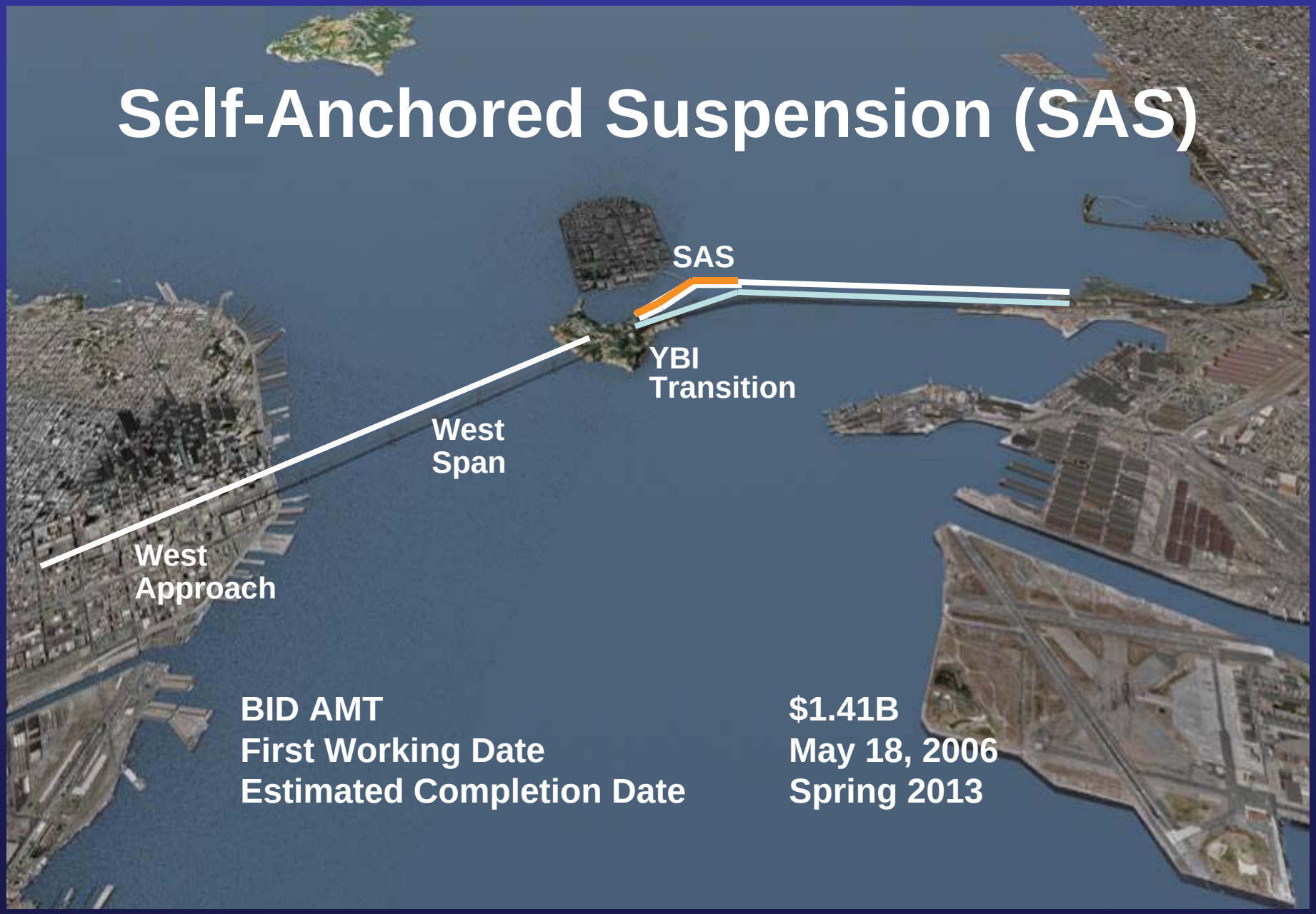
October 17, 1989



Current East Span

Replacement Span

Self-Anchored Suspension (SAS)



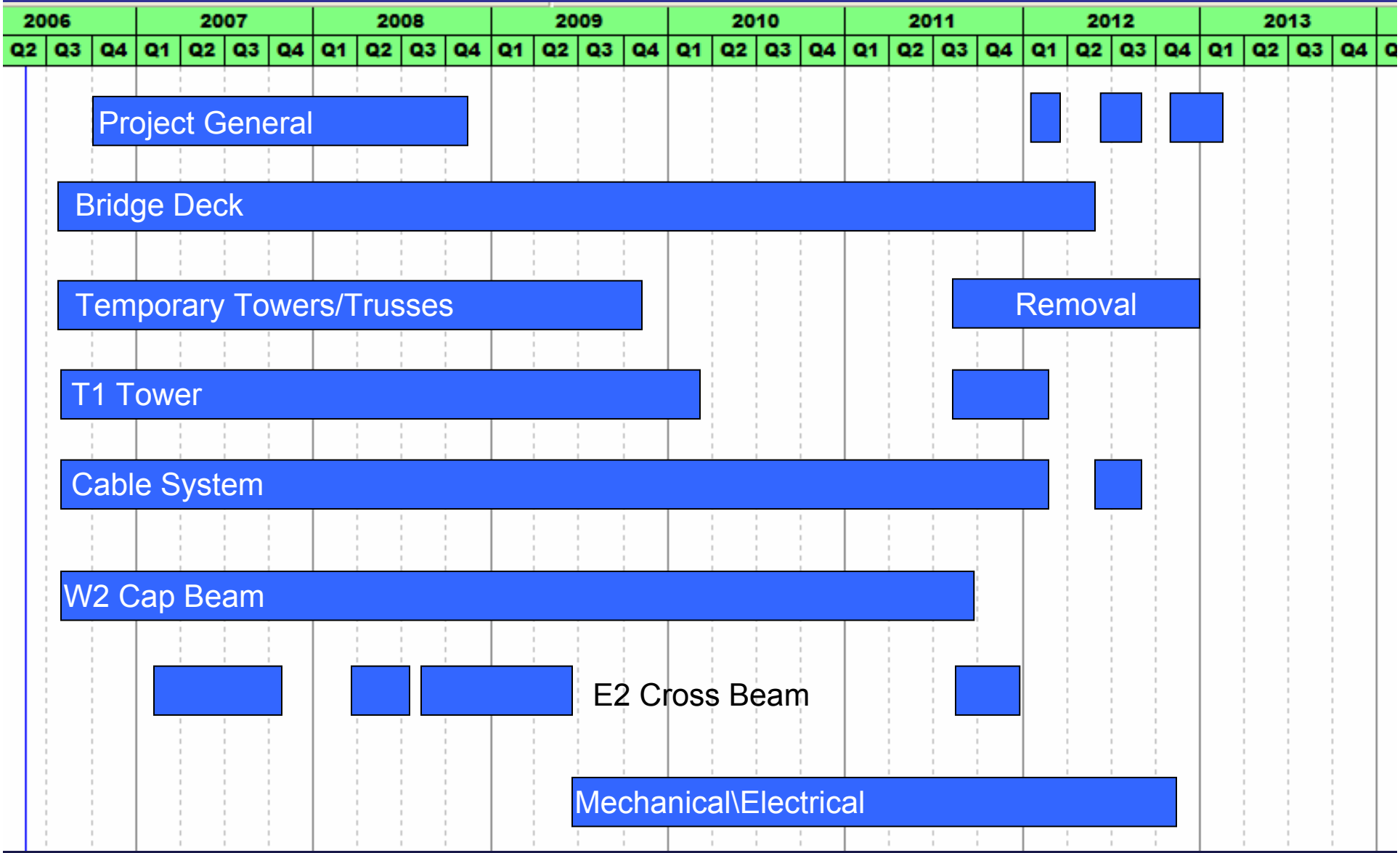
BID AMT	$1.41B
First Working Date	May 18, 2006
Estimated Completion Date	Spring 2013

San Francisco-Oakland Bay Bridge (SFOBB)

View Driving West to San Francisco

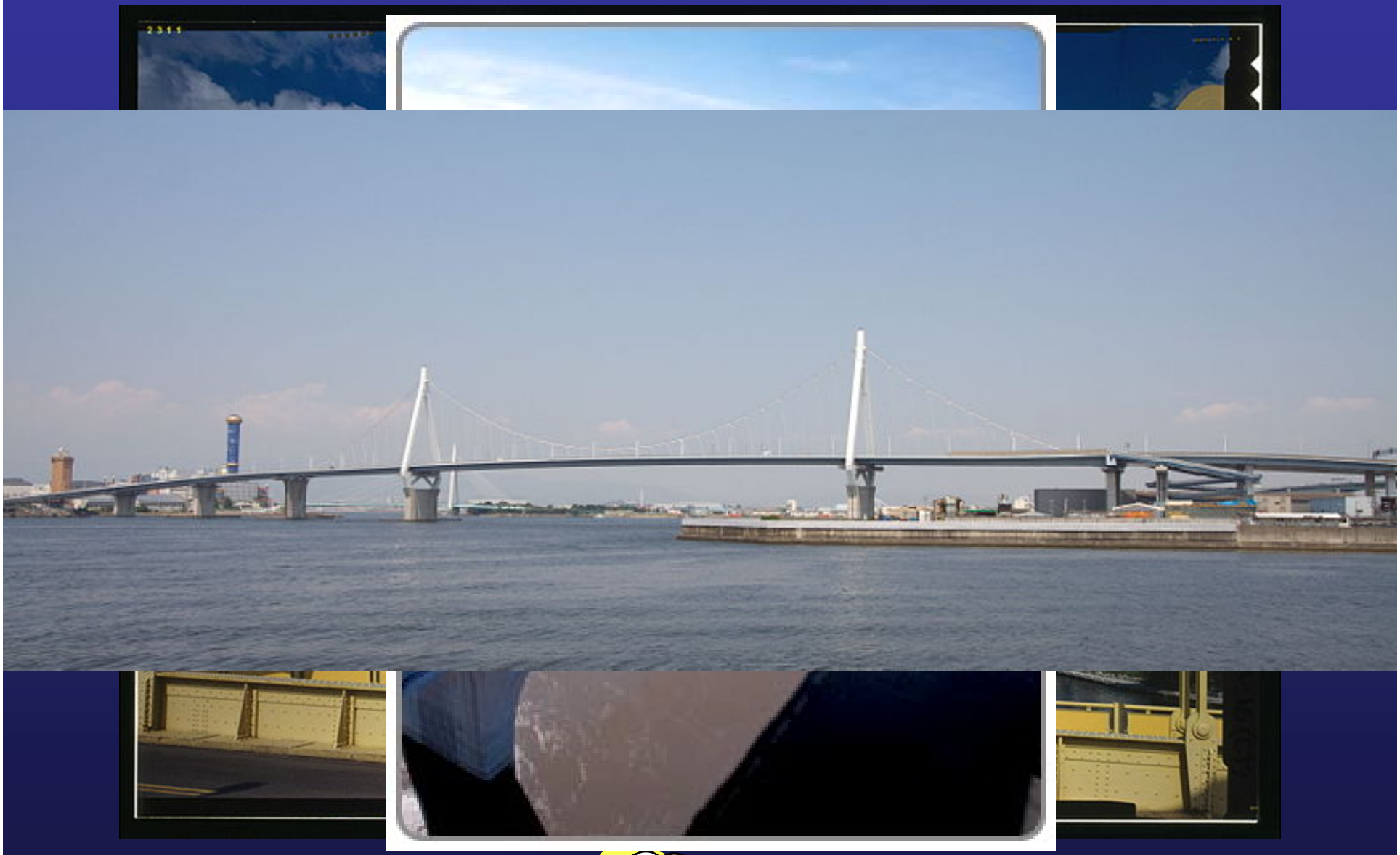
Bicycle/Pedestrian Facility

Summary Project Schedule



Conventional Vs SAS

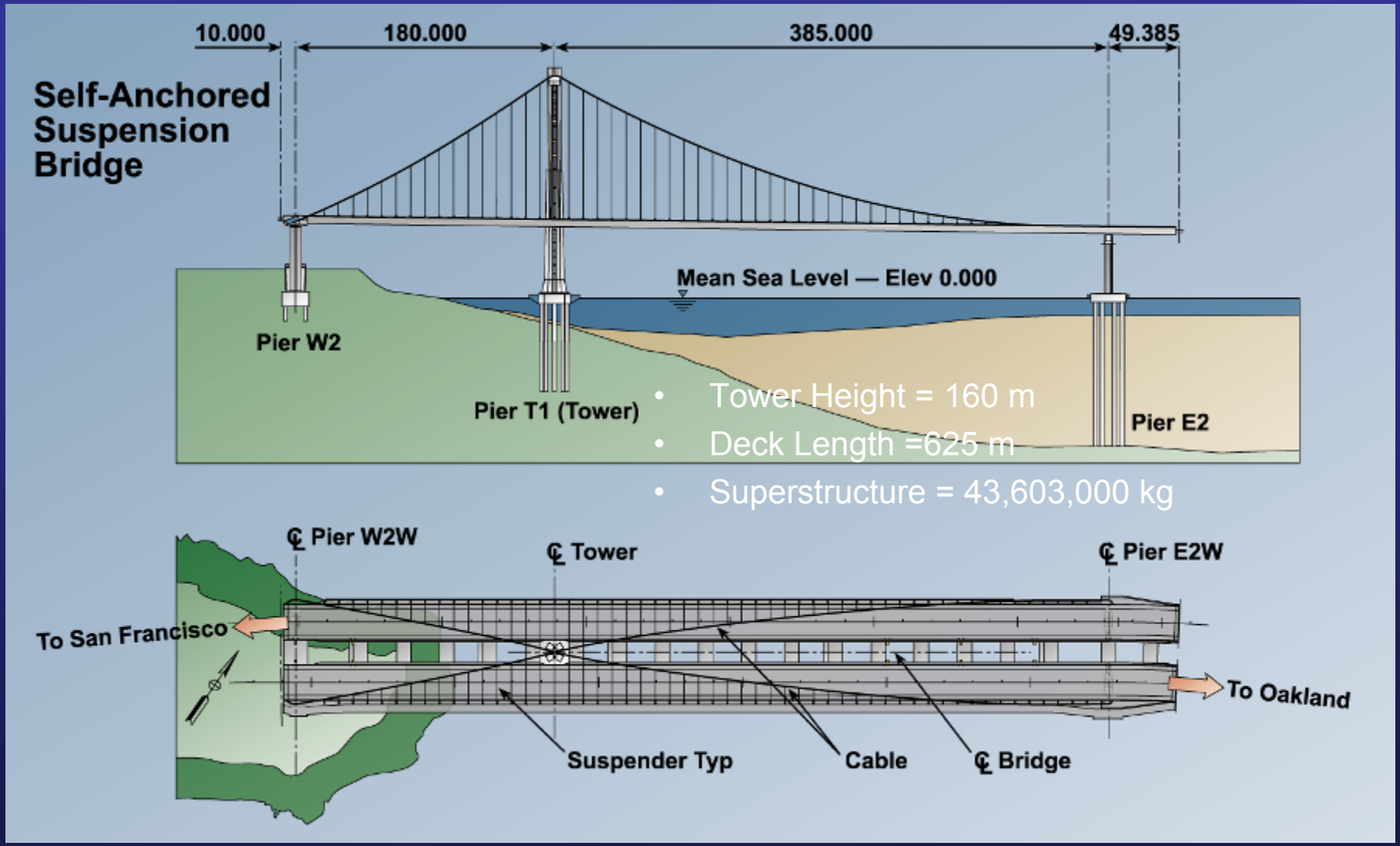
Bay Bridge Self-Anchored Suspension Tower Rendering



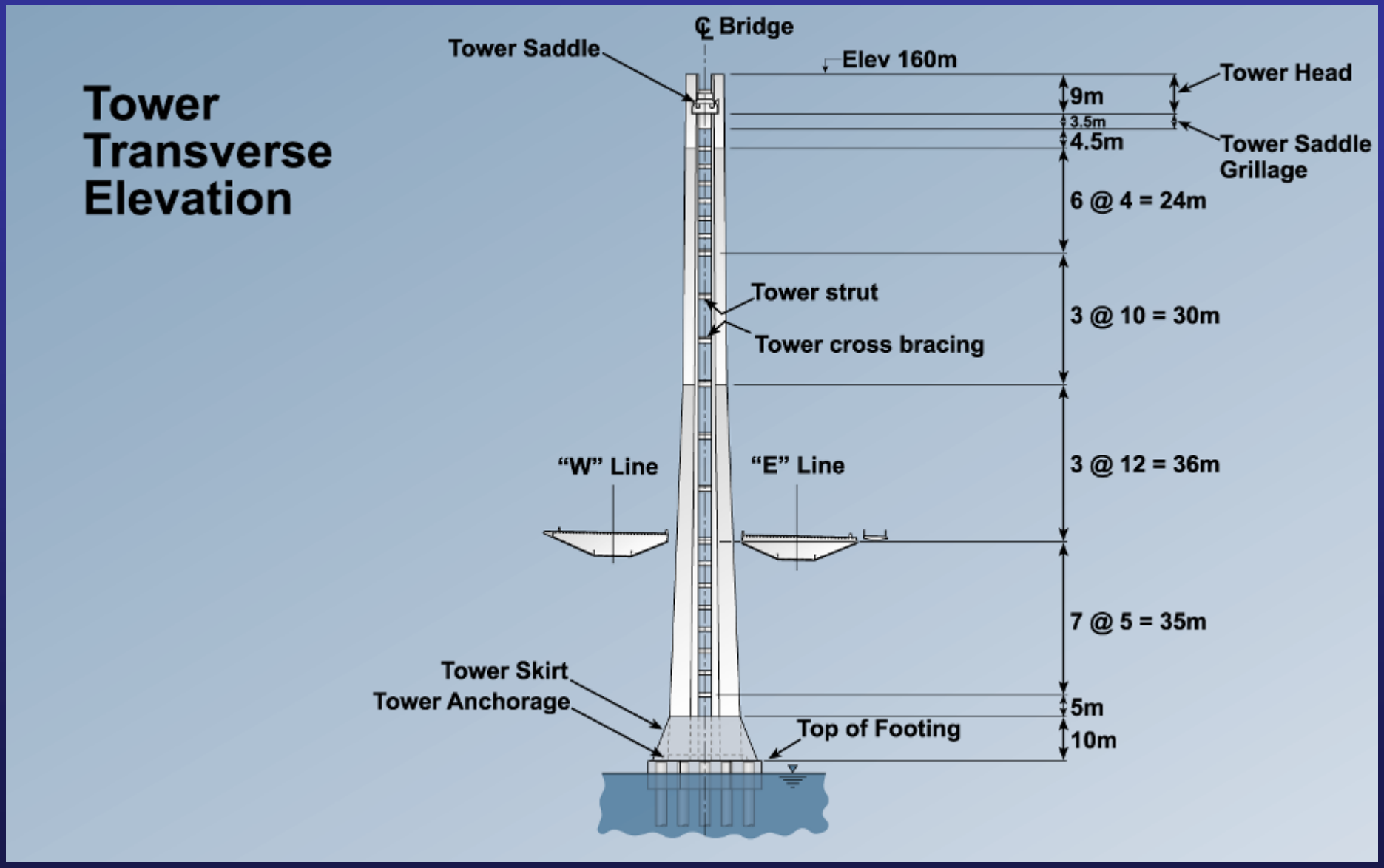
SAS Features

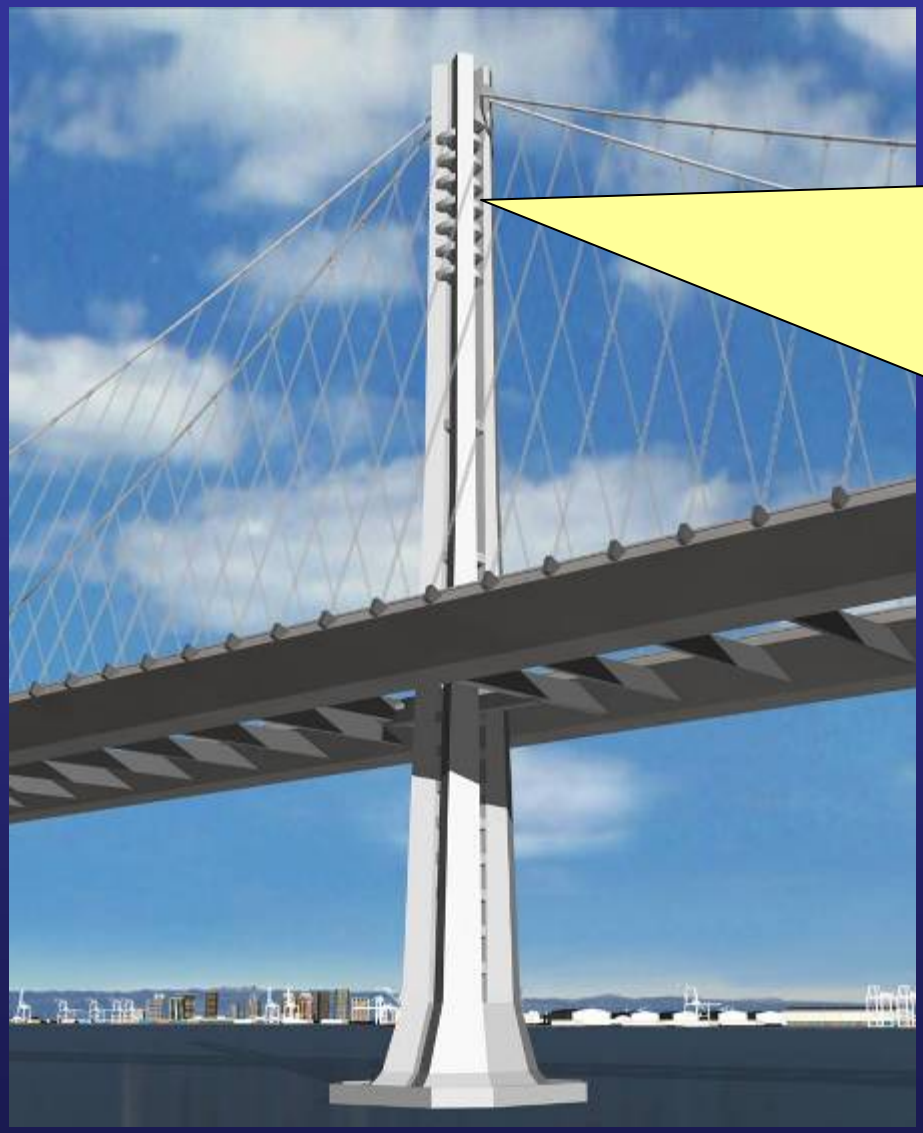
Bay Bridge Self-Anchored Suspension Tower Rendering

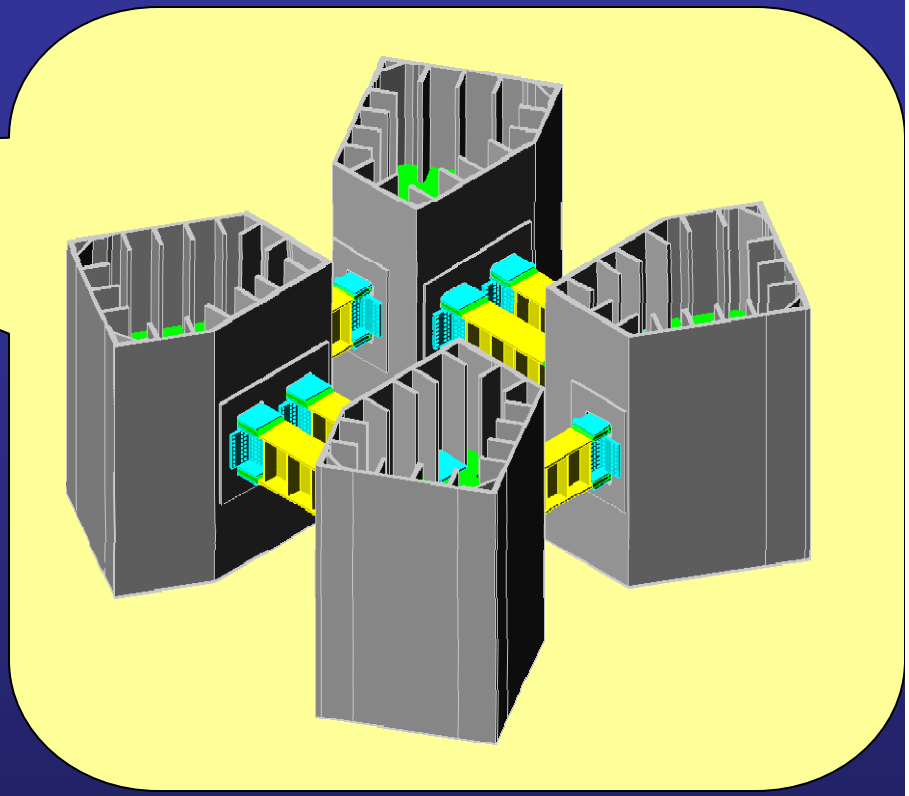
SFOBB SAS


10.000
180.000
385.000
49.385
Self-Anchored Suspension Bridge
Mean Sea Level — Elev 0.000
Pier W2
Pier T1 (Tower)
Pier E2
• Tower Height = 160 m
• Deck Length =625 m
• Superstructure = 43,603,000 kg
℄ Pier W2W
℄ Tower
℄ Pier E2W
To San Francisco
To Oakland
Suspender Typ
Cable
℄ Bridge

T-1 Tower Layout

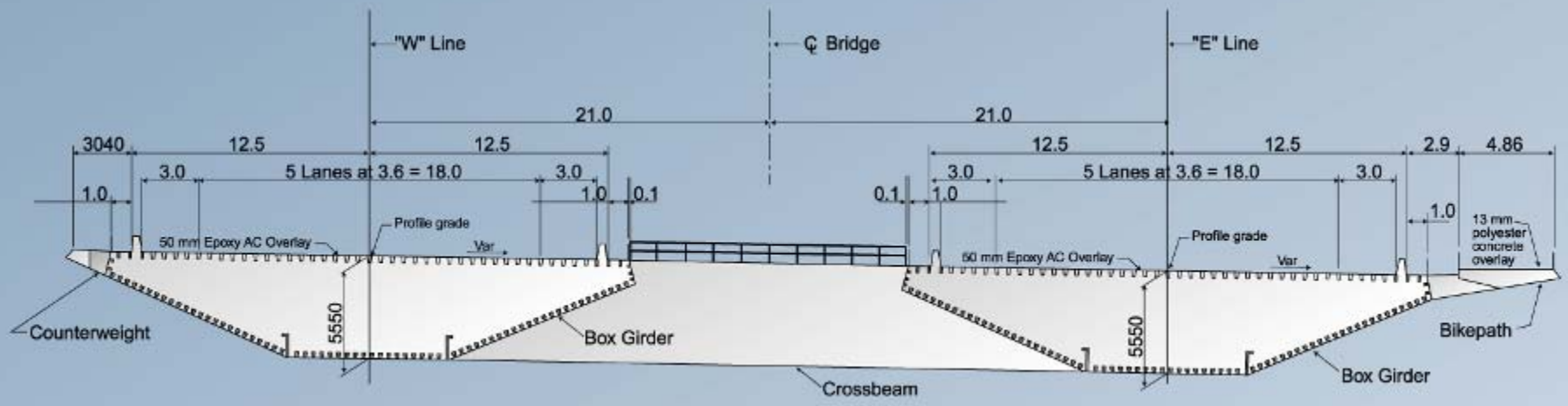






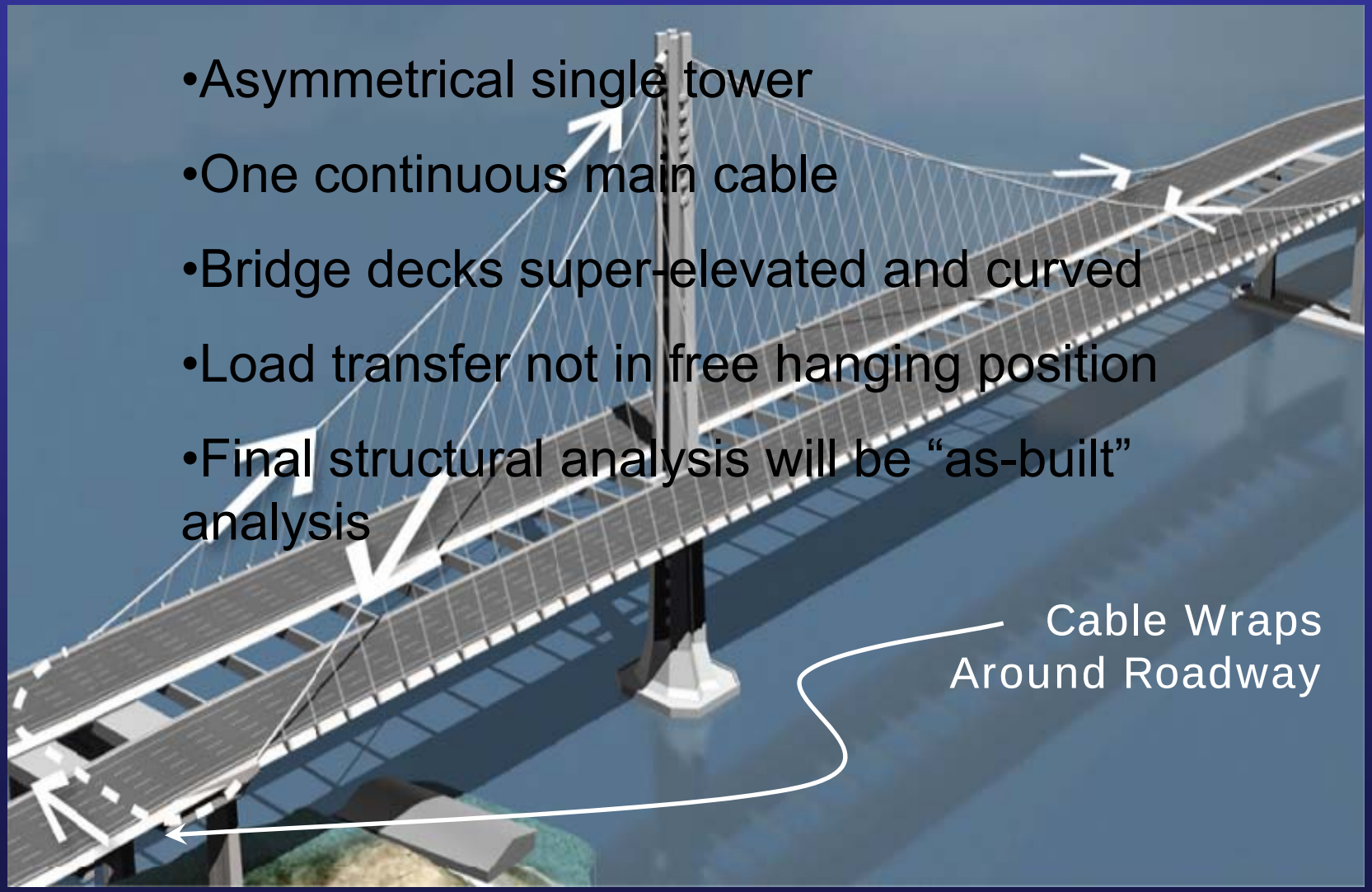
One Tower (4 Legs) Seismic Shear Link Beams

Orthotropic Deck and Crossbeam



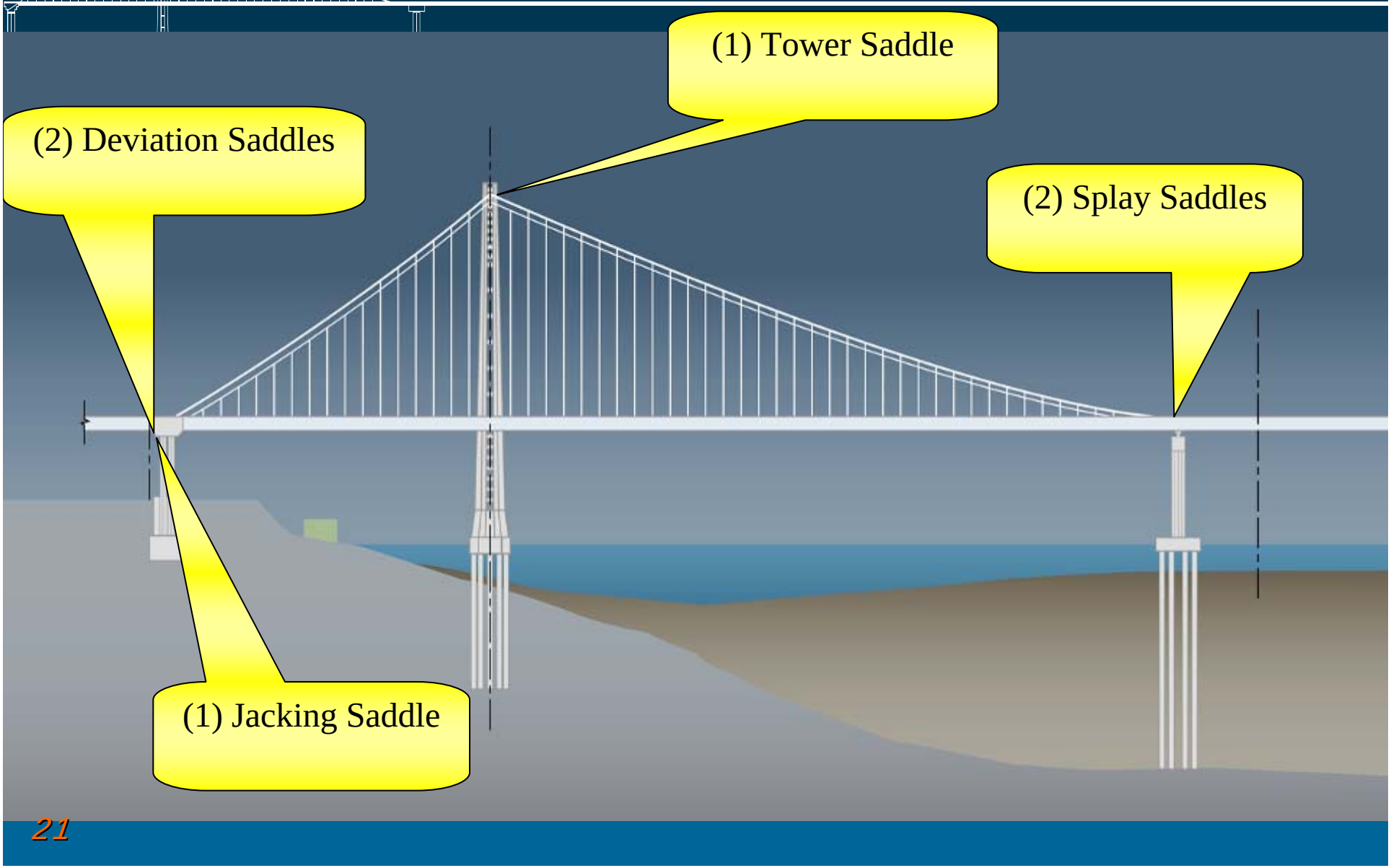
Typical Cross Section

Cable Installation

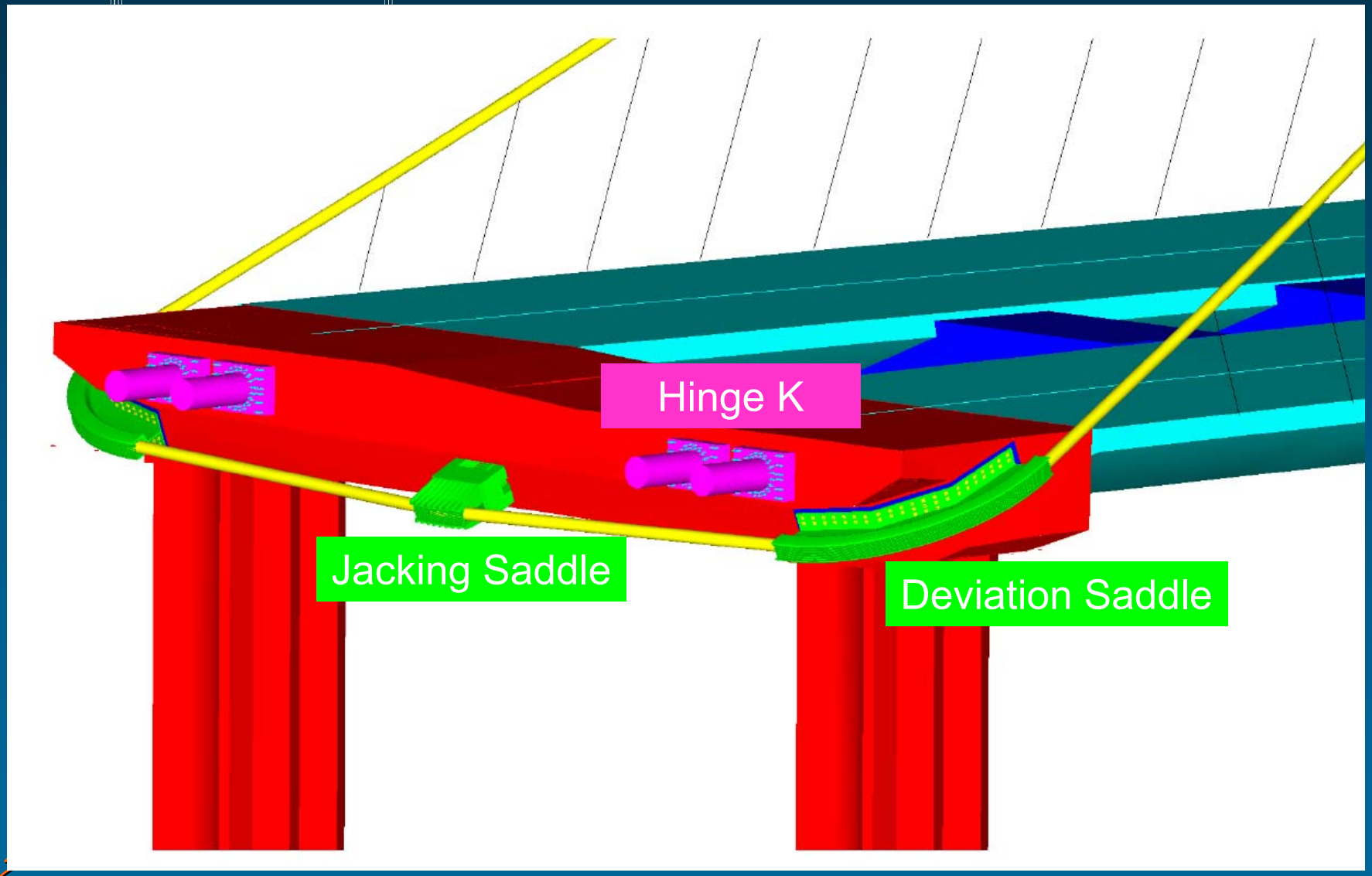


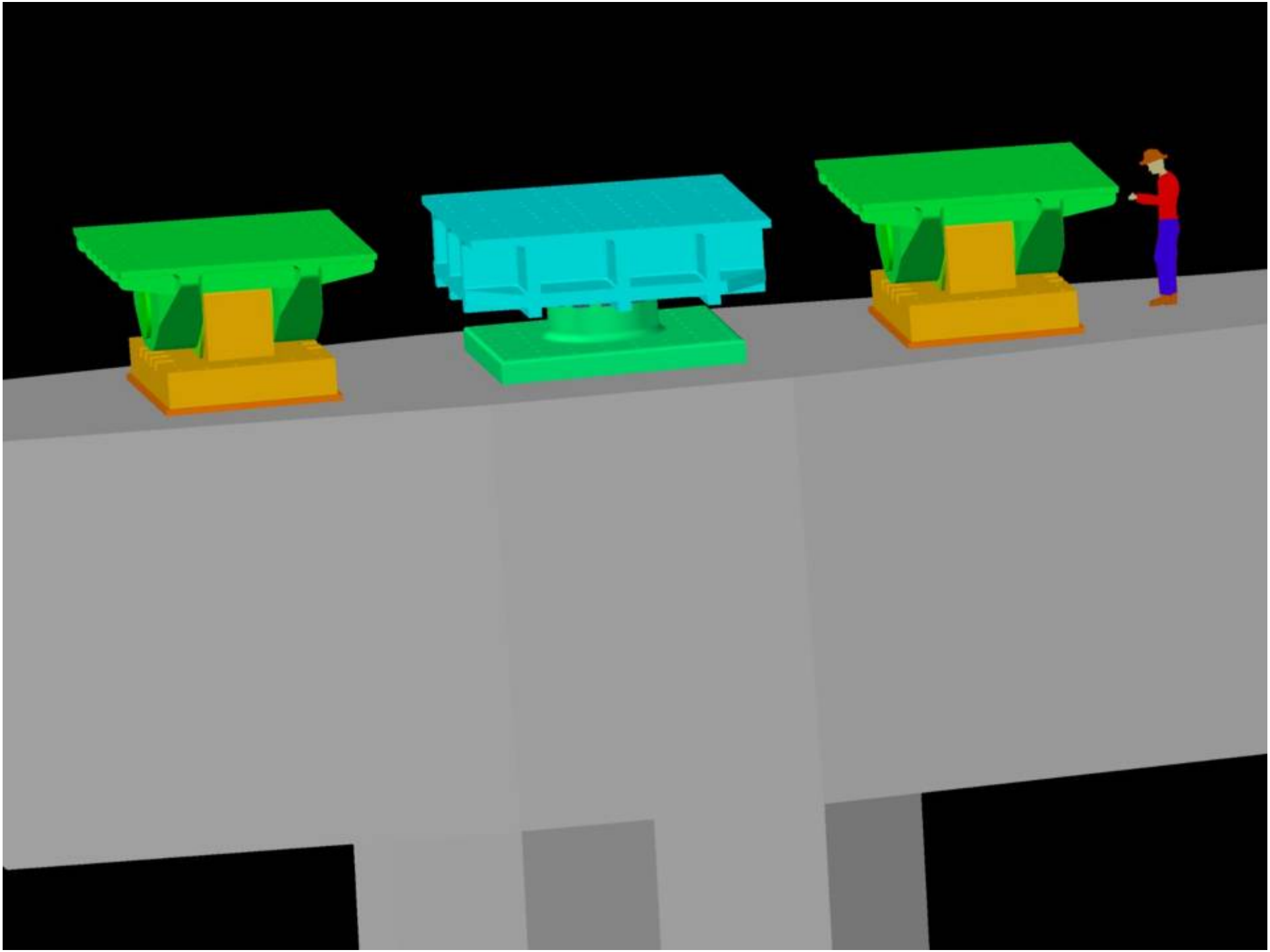
Single Cable Concept

SAS Saddle Location (Total 6)



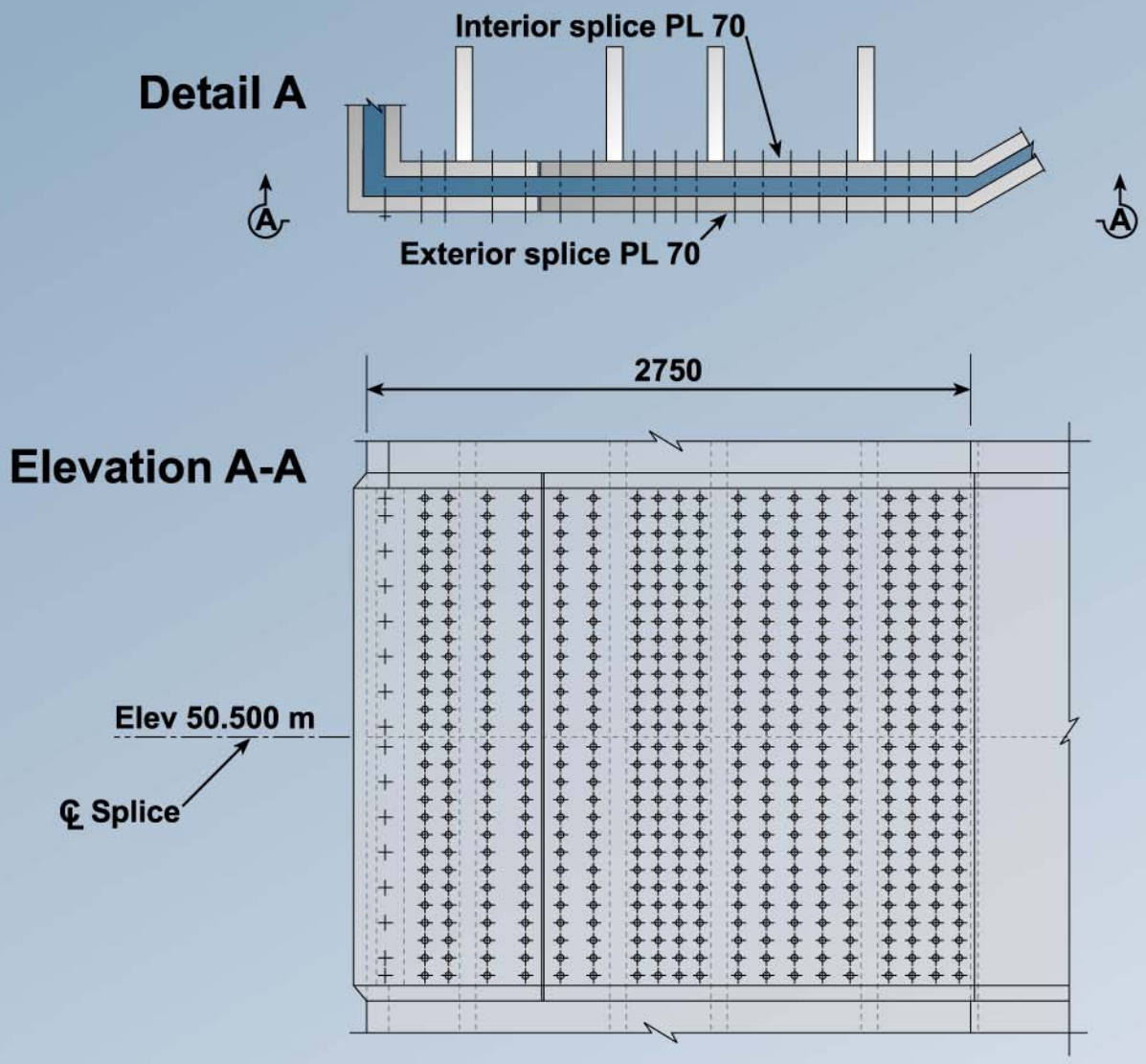
West Deviation and Jacking Saddles at W2

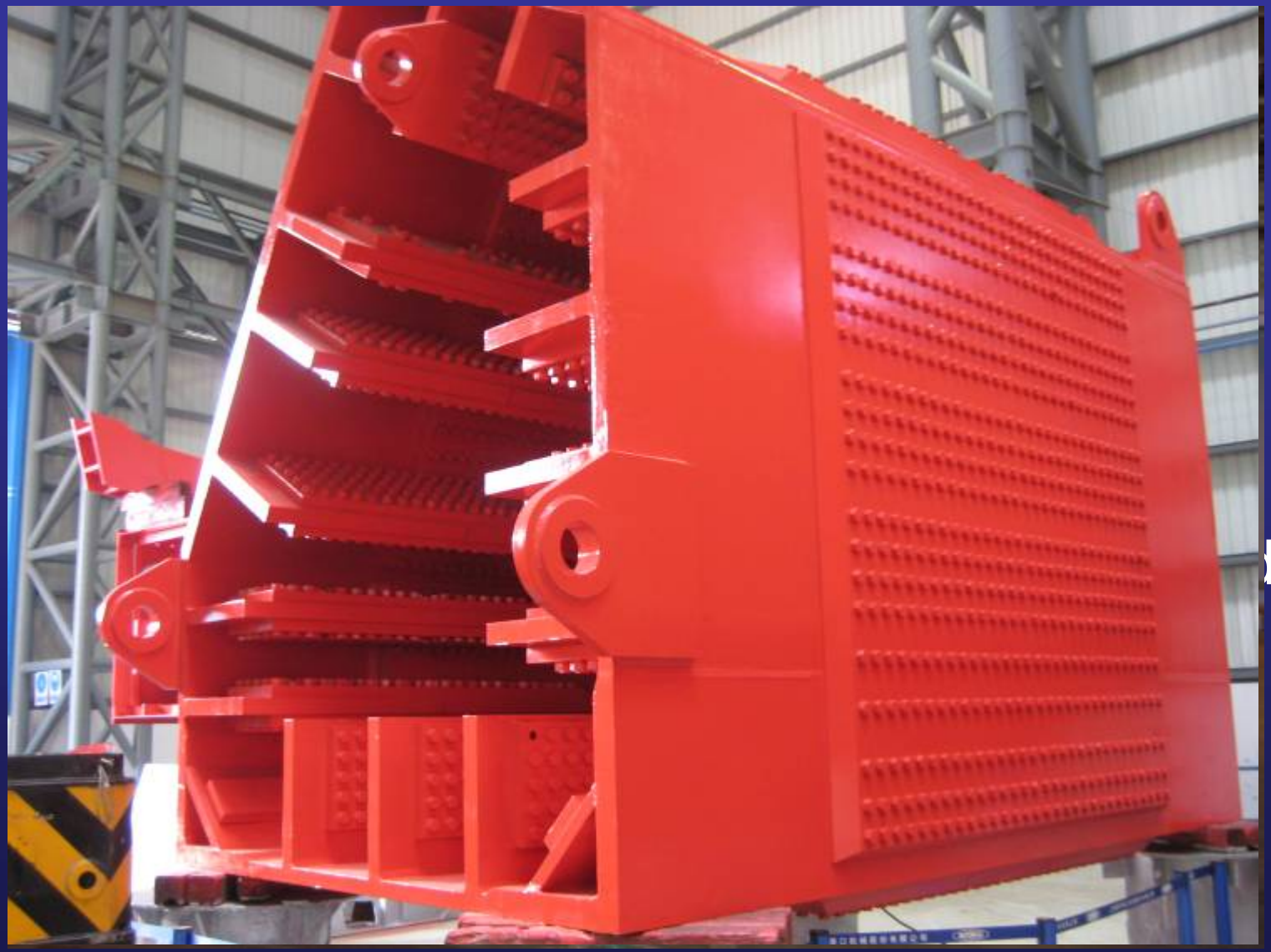




Tower Bolted Splice Details

Bolted Splice Defined for Tower Skin Plate A





International Fabrication

Bay Bridge Self-Anchored Suspension Tower Rendering

SAS - International Fabrication Effort

Suspender Cables-Kiswire

Bearings- Hochang Machinery Industries

Shear Key- Hochang Machinery Industries

Pipe Beams-Oregon Iron Works

Washington

Minnesota

Saddles-Japan Steel Works

Misc Steel-D.S Brown & Westmont Industries

Korea

Japan

Shanghai

So. Calif

PWS Cables-Shanghai Pujiang Cable Co

Tower Fabrication - ZPMC

Orthotropic Box Girder Sections - ZPMC

Bikepath - ZPMC

Superstructure Fabricator - ZPMC

Changxing Island Facility
Shanghai, P R China

ZPMC
Shanghai Zhenhua Port Machinery

New Tower Fabrication Shop

Tower

Orthotropic Box Girder

Submerged Arc Welding Gantry

U-Rib Bending Machine

Orthotropic Box Girder

OBG Lift Assembly

OBG Lifts Lined Up


FIRE

Saddle Fabrication

JAPAN STEEL WORKS

Casting West Deviation Saddle

Saddle Fabrication Types:

Machining West Deviation Saddle

Shanghai Pujiang Cable Co., Ltd.

PWS Cable Assembly

PWS Cable Taping

Goodwin Steel Castings

Pattern Shop

Mock-up Casting

Xitang, PRC

PWS Cable

Stoke-on-Trent, UK

Cable Bands

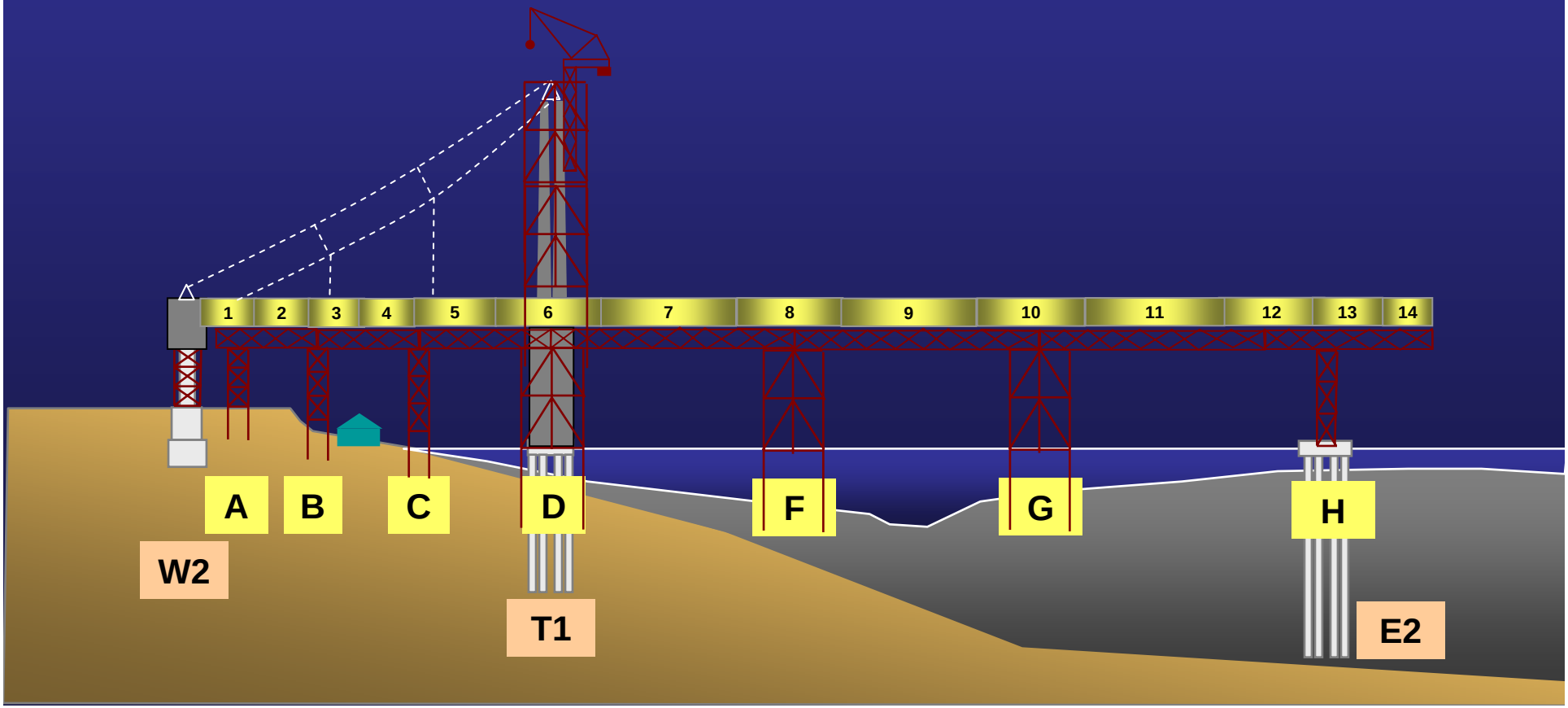
Temporary Bridge

Bay Bridge Self-Anchored Suspension Tower Rendering

Temporary Works

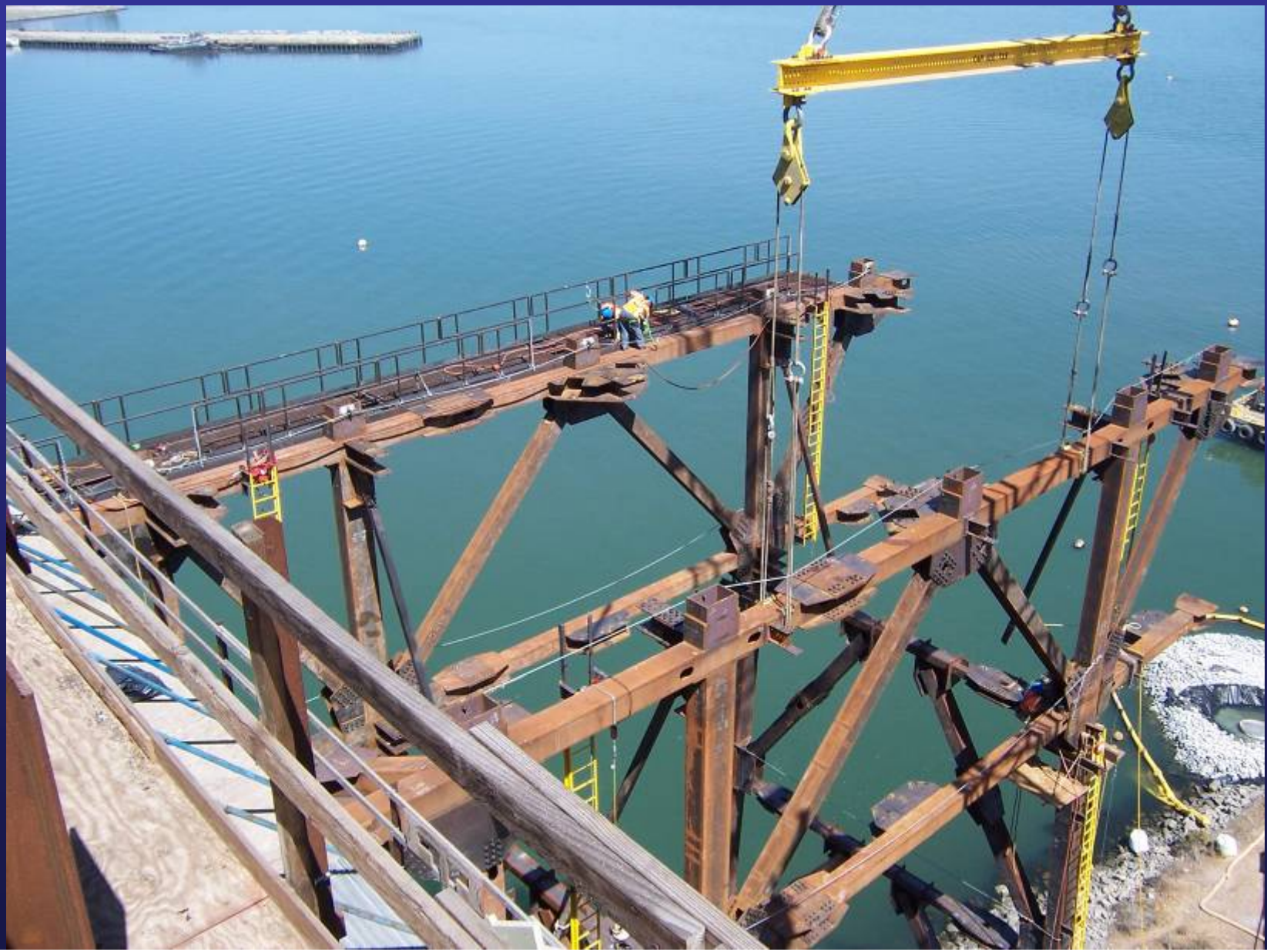
Facts

- 6,500 Mtons of Piling consisting of 48” x 1-1/4 and 42” x 1-1/2”
- 4,300 Mtons for Towers
- 5,500 Mtons Truss Material
- 2,124 Mtons of Driving Frames



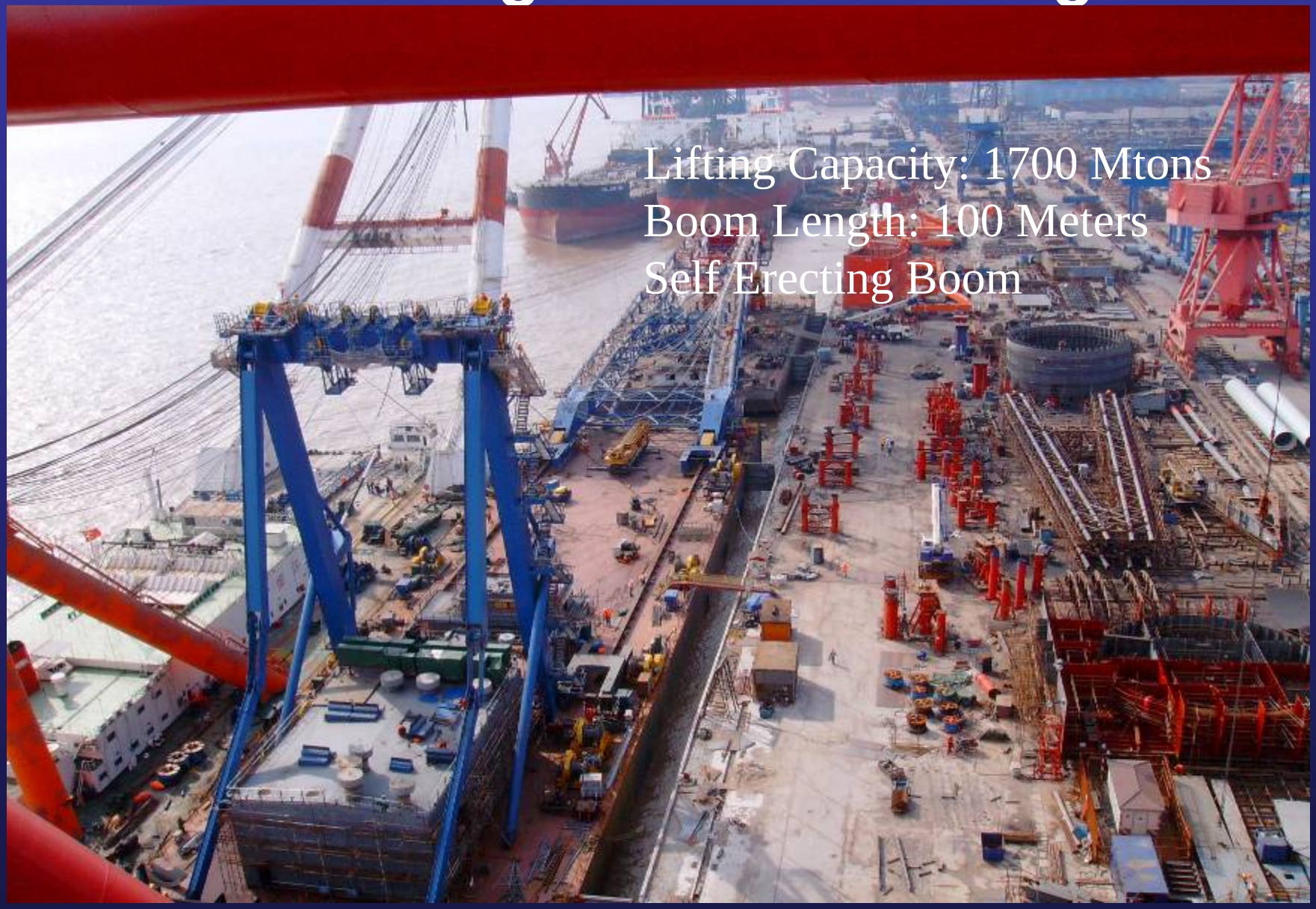
Temporary Tower Foundations

Temporary Bridge



Shear Leg Crane

Shear Leg Crane and Barge



Shear Leg Crane

Concrete Works

Bay Bridge Self-Anchored Suspension Tower Rendering

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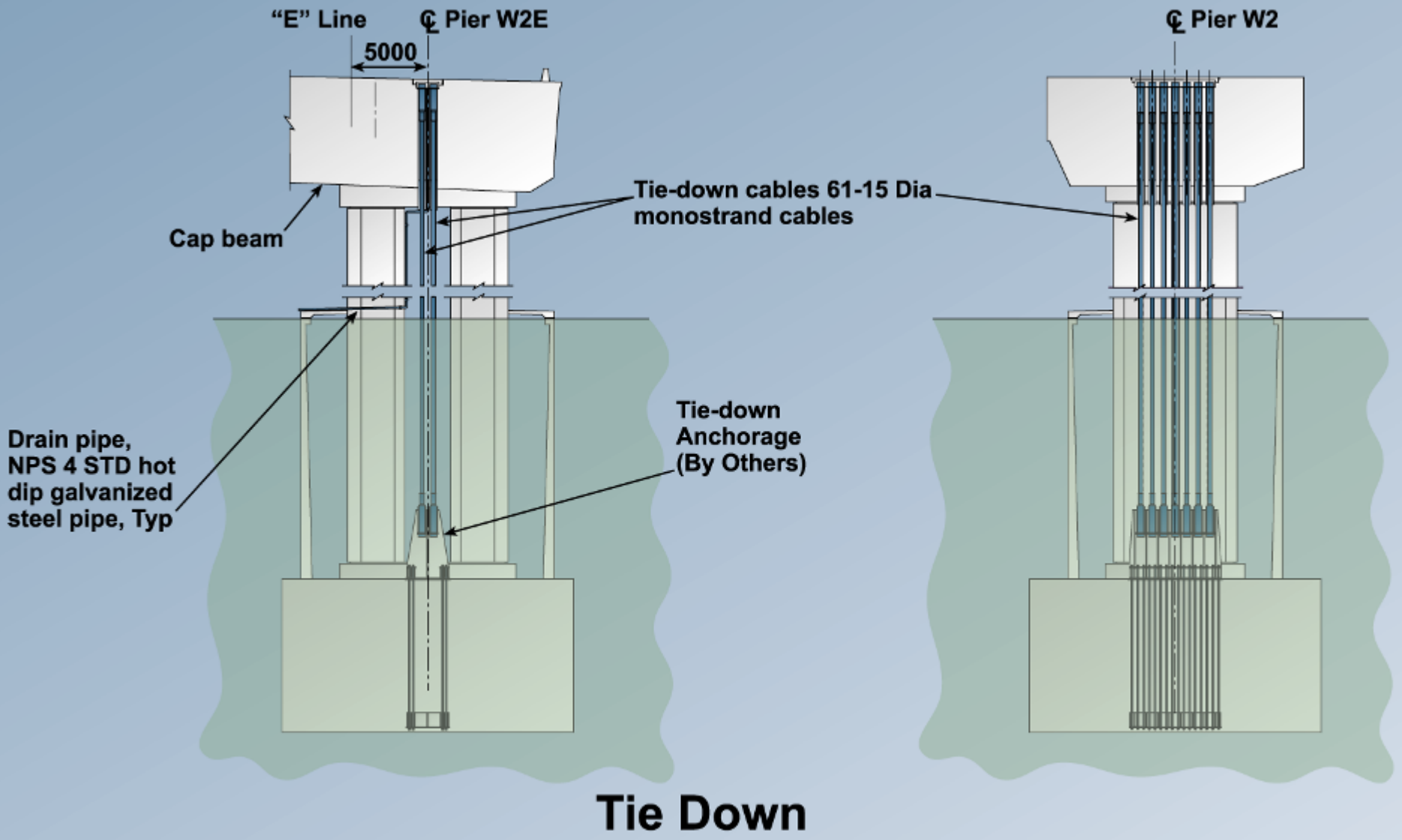
W2 Cap Beam Details Elevation

Cable Tie-down Details



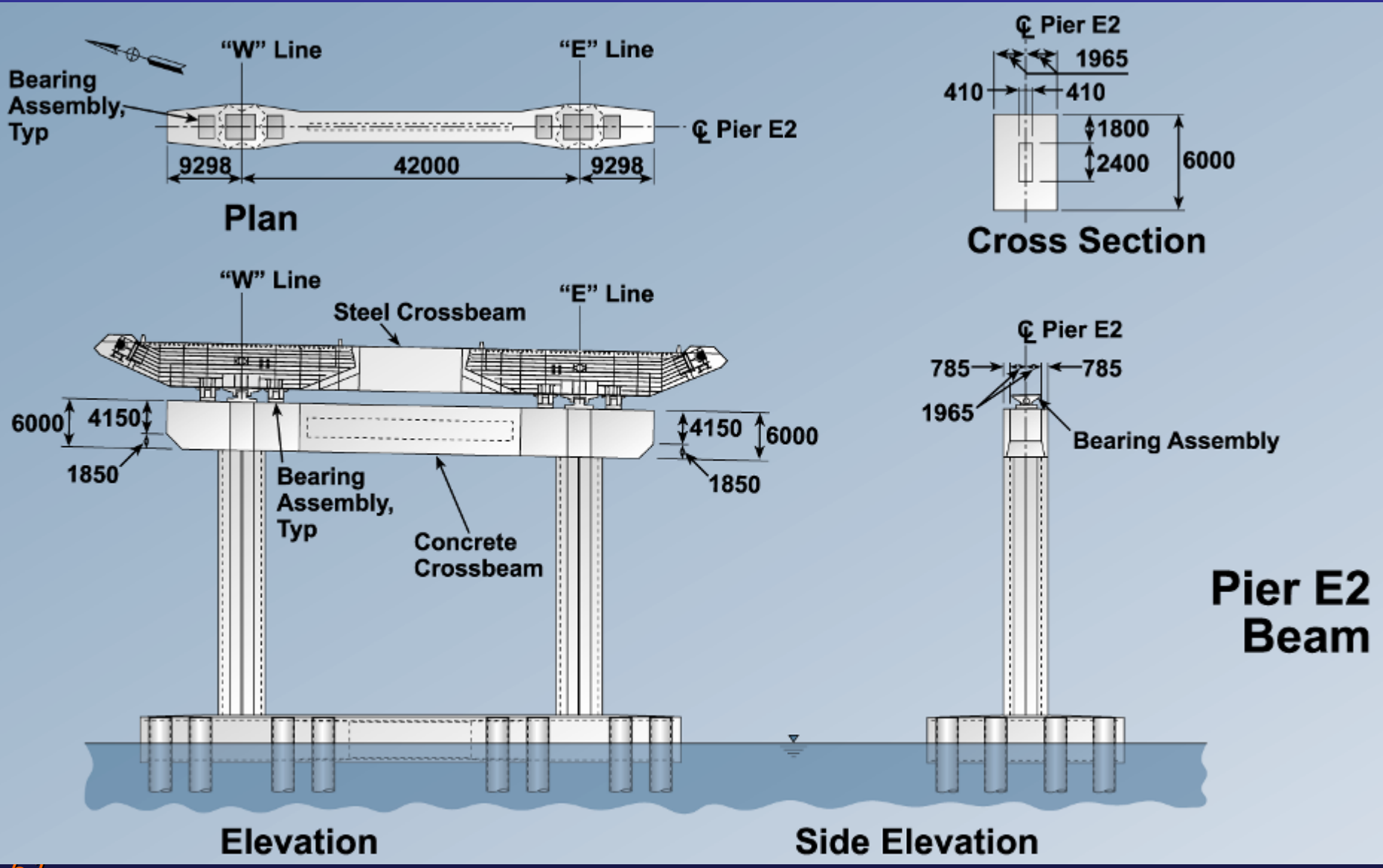
Tie Down

W-2 Cap Beam

Facts

- 2,300 cubic meters conventional concrete
- 4,500 cubic meters self-consolidating concrete (8,700PSI)
- 1,000 tons of rebar
- Dimensions: 55’W x 225’L x 22’D

Pier E2 Details



E-2 Cross Beam

Facts

- 2,000 cubic meters self-consolidating concrete (8,700PSI)
- 650 tons of rebar
- Dimensions: 15’W x 200’L x 20’D

Quality Program

Bay Bridge Self-Anchored Suspension Tower Rendering

Facility Audits

Audits (40 performed to-date)

- Extensive in-depth facility audits
  - Audit checklist from lessons learned
  - Paperwork approval (English only) before audit
  - Facility audit
    - American standards
    - Verify capability and control/traceability though out the process
    - Extensive international travel
    - Some doing work for Caltrans on other projects do not receive a pass for the SAS
    - Extends to lower tier subcontractors
  - Cannot start ANY work until passing an audit
  - Financial penalties for failing an audit

Quality Programs

QUALITY PLANS
(14 approved to-date)

- CONTRACT DOES NOT REQUIRE ONE **COMPREHENSIVE** ABFJV QC PROGRAM/MANUAL
- SPECIFIC CONTRACT QUALITY PROGRAM REQUIREMENTS
  - SEVERAL QC MANAGERS
  - SEVERAL QC PLANS
  - OTHER FABRICATION SPECIFIC PLANS (i.e., THERMAL CONTROL PLAN, PRECAST FENDERS, BEARING LUBRICANT, CABLE BAND SLIP, etc.)

American Bridge / FLUOR
A JOINT VENTURE

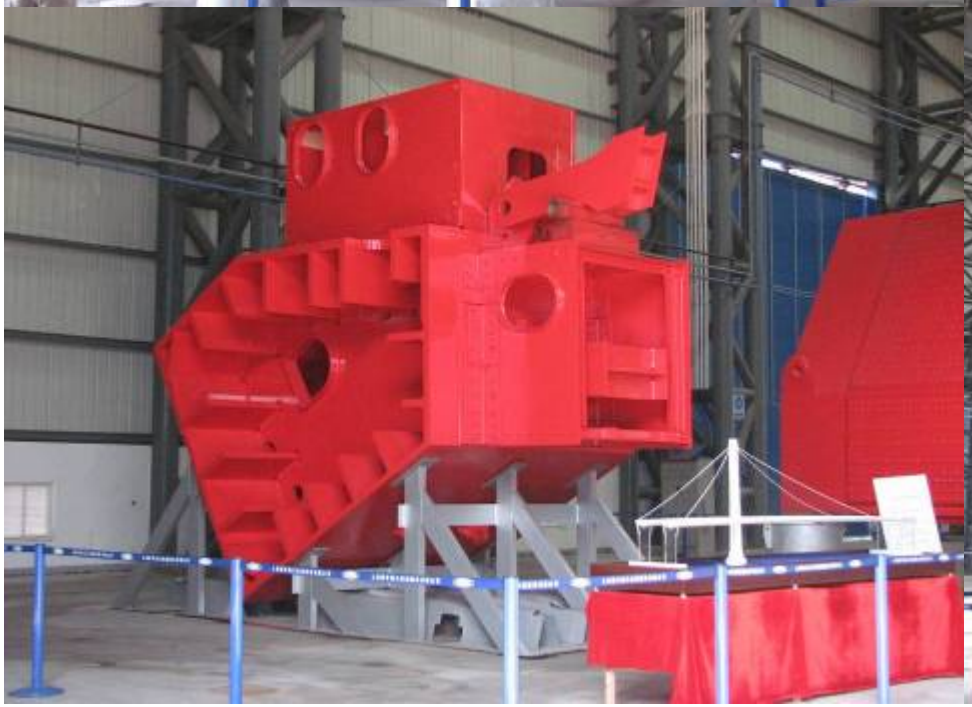
Table of MFSQA Audits, Quality Plans & Quality Managers Required By Special Provision Section

SP Sec.	Title	Install	Supply	2nd Tier	MFSQA	Quality		Welding		Painting	
						Plan	Mgr.	Plan	Mgr.	Plan	Mgr.
10-1.35	DREDGING	TBD	-	-	-	●	●	-	-	-	-
10-1.40	EPOXY ASPHALT CONCRETE	OC Jones	-	-	-	●	●	-	-	-	-
10-1.42	PRESTRESSING CAST-IN-PLACE CONCRETE – Grouting	AB/F	SDI/Cemex	-	-	●	-	-	-	-	-
10-1.43	HIGH STRENGTH PRESTRESSING ROD (75MM)	AB/F	Macalloy	-	●	O	O	-	-	-	-
10-1.44	CABLE TIEDOWN	AB/F	SDI	-	●	O	O	-	-	-	-
				Welding (TBD)	●	O	O	-	-	-	-
				Painting (TBD)	●	O	O	-	-	-	-
10-1.46	FURNISH PRECAST CONCRETE FENDER MODULES	AB/F	Cemex	-	●	●	●	-	-	-	-
10-1.47	FURNISH AND INSTALL SPHERICAL BUSHING BEARING (PIER E2)	AB/F	Hochang	-	●	●	●	●	●	●	●
				Lubrite	●	●	●	●	●	●	●
10-1.48	FURNISH SPHERICAL BUSHING RING BEARING (HINGE K)	AB/F	Lubrite	-	●	●	●	●	●	●	●
10-1.49	TOWER CROSS BRACING SPHERICAL BUSHING BEARING	AB/F	ZPMC	-	●	-	-	●	●	●	●
				Lubrite	●	O	O	-	-	-	-
10-1.50	FURNISH AND INSTALL SHEAR KEY (PIER E2)	AB/F	Hochang	-	●	●	●	●	●	●	●
10-1.54	SEISMIC JOINT	AB/F		-	-	-	-	●	●	●	●
10-1.58	HEADED BAR REINFORCEMENT	AB/F	Regional	-	-	●	-	-	-	-	-
10-1.59	FURNISH AND ERECT STRUCTURAL STEEL (BRIDGE)	AB/F	ZPMC	-	●	-	-	●	●	-	-
				HSB (TBD)	●	O	O	-	-	-	-
10-1.59	FURNISH AND INSTALL STRUCTURAL STEEL (BRIDGE) (SADDLE)	AB/F	JSW	-	●	-	-	●	●	-	-
				HSB (TBD)	●	O	O	-	-	-	-
				Galv. (TBD)	●	O	O	-	-	-	-
10-1.59	FURNISH AND INSTALL STRUCTURAL STEEL (BRIDGE) (PIPE BEAM AND FUSE)	AB/F	OIW	-	●	-	-	●	●	●	●
10-1.59	INSTALL STRUCTURAL STEEL (BRIDGE) (PIPE BEAM) (HINGE AW & AE)	AB/F	Caltrans	-	-	-	-	●	●	-	-
10-1.60	FURNISH AND ERECT PWS CABLE AND SUSPENDER SYSTEM	AB/F	-	-	●	O	O	-	-	-	-
			ZPMC (Shrouds)		●	O	O	-	-	-	-
			Shanghai P (PWS)		●	O	O	-	-	-	-
			Nippon (Z Wrap)		●	O	O	-	-	-	-
			Grignard (Paste)		●	O	O	-	-	-	-
			Kiswire (Susp. WR)		●	O	O	-	-	-	-
			Goodwin (Bands)		●	O	O	-	-	-	-
10-1.61	TOWER SUSPENDER ASSEMBLIES	AB/F	Phillystrand	-	●	O	O	-	-	-	-
10-1.62	SERVICE PLATFORM	AB/F	ZPMC	-	-	-	-	●	●	-	-
10-1.63	TRAVELER SCAFFOLD	AB/F	Westmont	-	-	-	-	●	●	-	-
10-1.66	CLEAN AND PAINT SIGN STRUCTURES	Certified	Certified	-	-	-	-	-	-	●	-
10-1.69	CLEAN AND PAINT STRUCTURAL STEEL	Certified	Certified	-	●	O	O	-	-	●	●
10-1.70	CLEAN AND PAINT JOINT SEAL, BEARINGS AND KEY	Certified	Certified	-	-	-	-	-	-	●	●
10-1.71	CLEAN AND PAINT CABLE SYSTEM	Certified	Certified	-	●	O	O	-	-	O	O
10-1.73	MISCELLANEOUS METAL (BRIDGE)	AB/F	ZPMC	-	-	-	-	●	●	-	-
10-1.75	MISCELLANEOUS METAL (SERVICE PLATFORM)	AB/F	ZPMC	-	-	-	-	●	●	-	-
10-1.80	STEEL BARRIER	AB/F	ZPMC	-	-	-	-	-	-	●	●

● = REQUIRED BY CONTRACT
O = RECOMMENDED BY ABFJV QC
- = NO REQUIREMENT

Mock-Ups and Prequalification

Completed ABF Tower Mock-Ups



Electroslag Weld trials

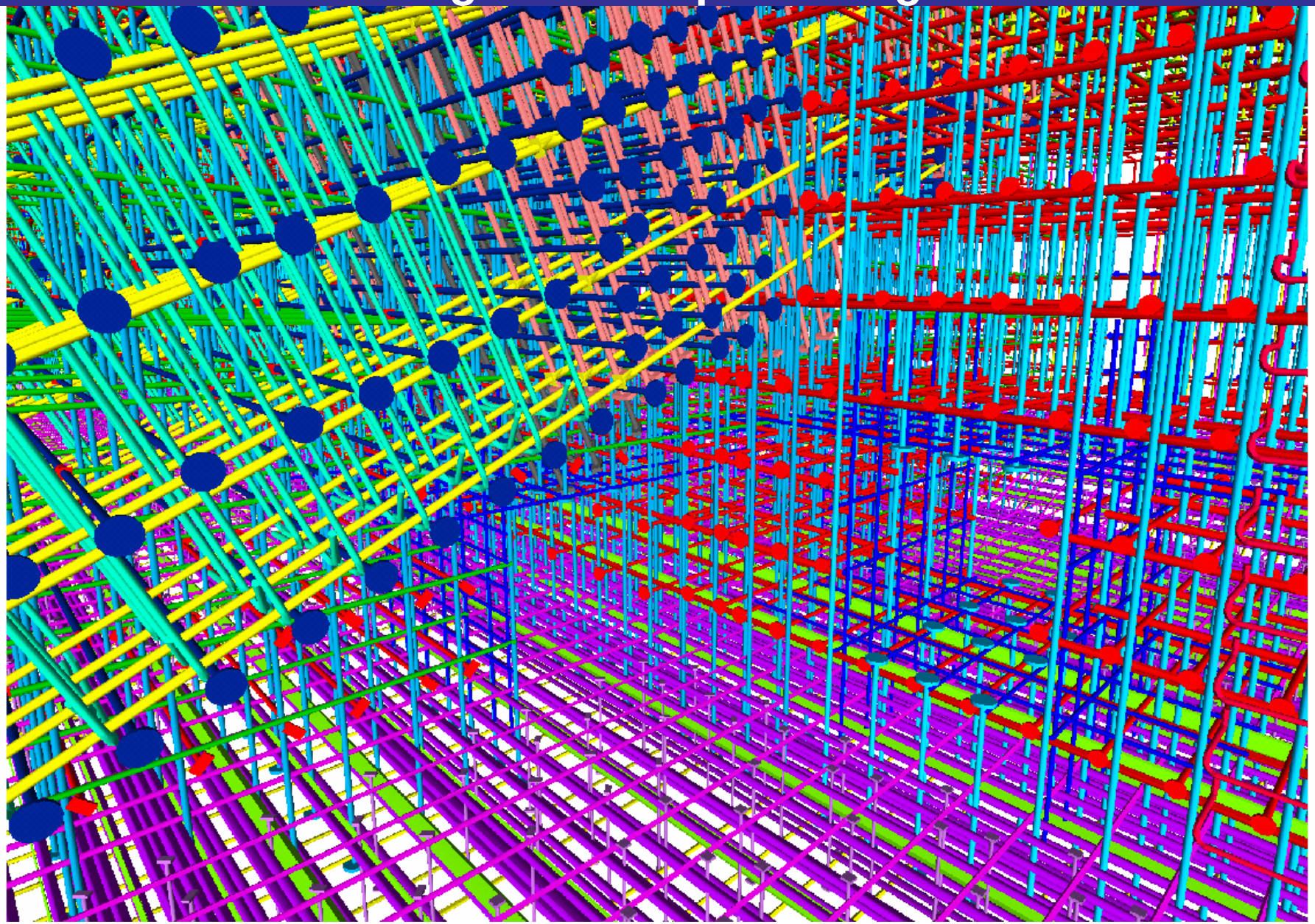
U-Rib Bending Demonstration

Cable Compaction
Cable Band Slip Test

W-2 Cap Beam
Integrated Shop Drawings

1. Prepared Using “Navisworks” Program by ABFJV Personnel (Michael Lewis)
2. Modeling of Approximately 30,000 Elements which includes:
   a. Reinforcing Steel
   b. Post Tensioning Ducts
   c. Embeds
   d. High Strength Rods for Main Hinge & Deviation Saddles
3. Resolved 30,000 conflicts which was almost one conflict per every element modeled

W-2 Cap Beam
Integrated Shop Drawings



Reinforcing Mechanical Coupler Pre-qualifications

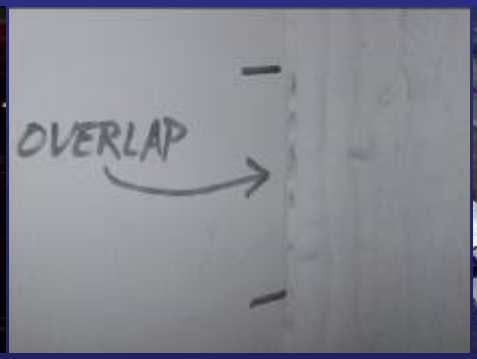
W-2 Cap Beam

Formwork for Mass Concrete Demonstration Pour

SCC Pour Mock-up

Spread Test Performed During Self Consolidating Concrete Pour Mock-up

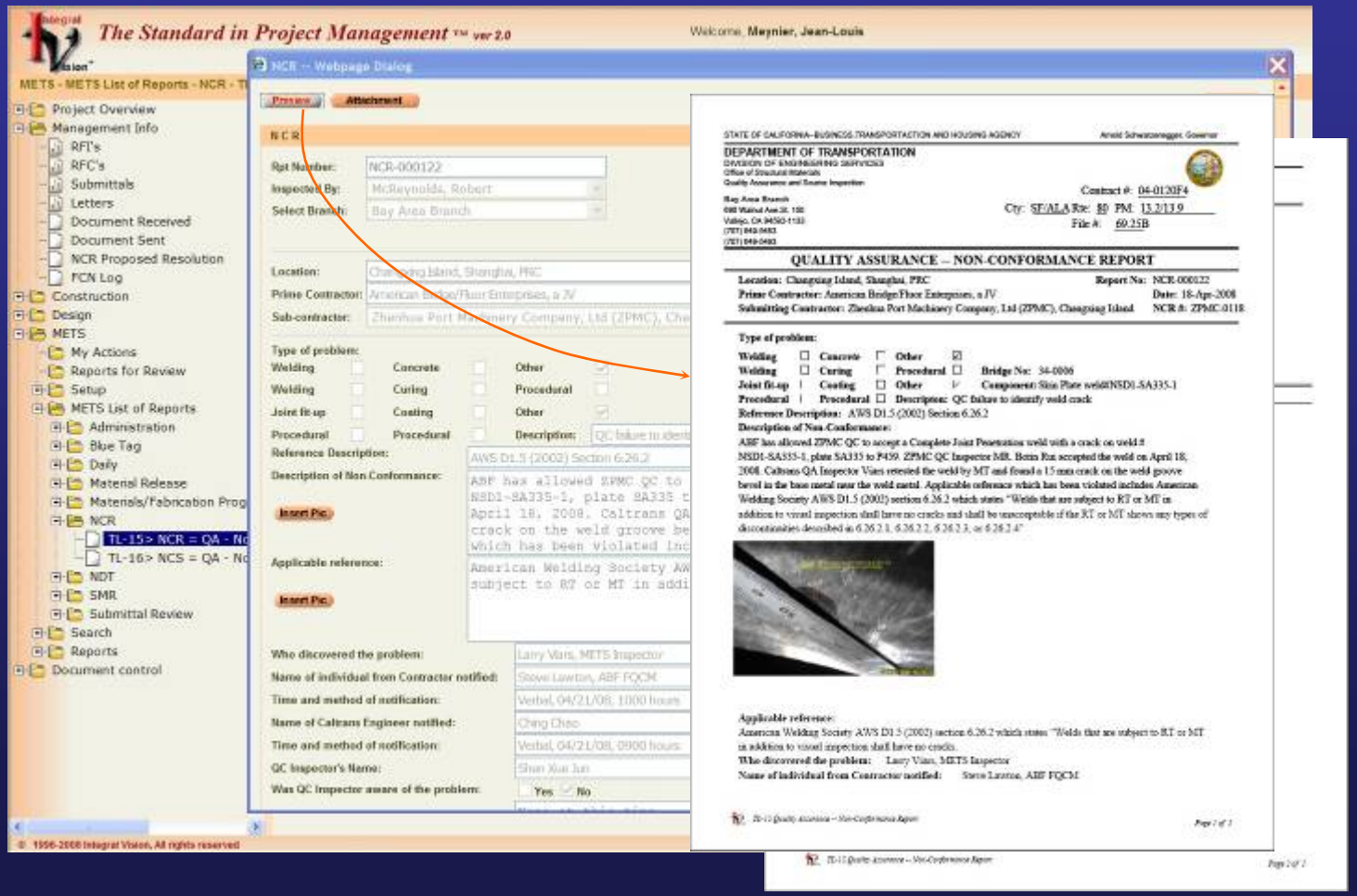
NCR Processing



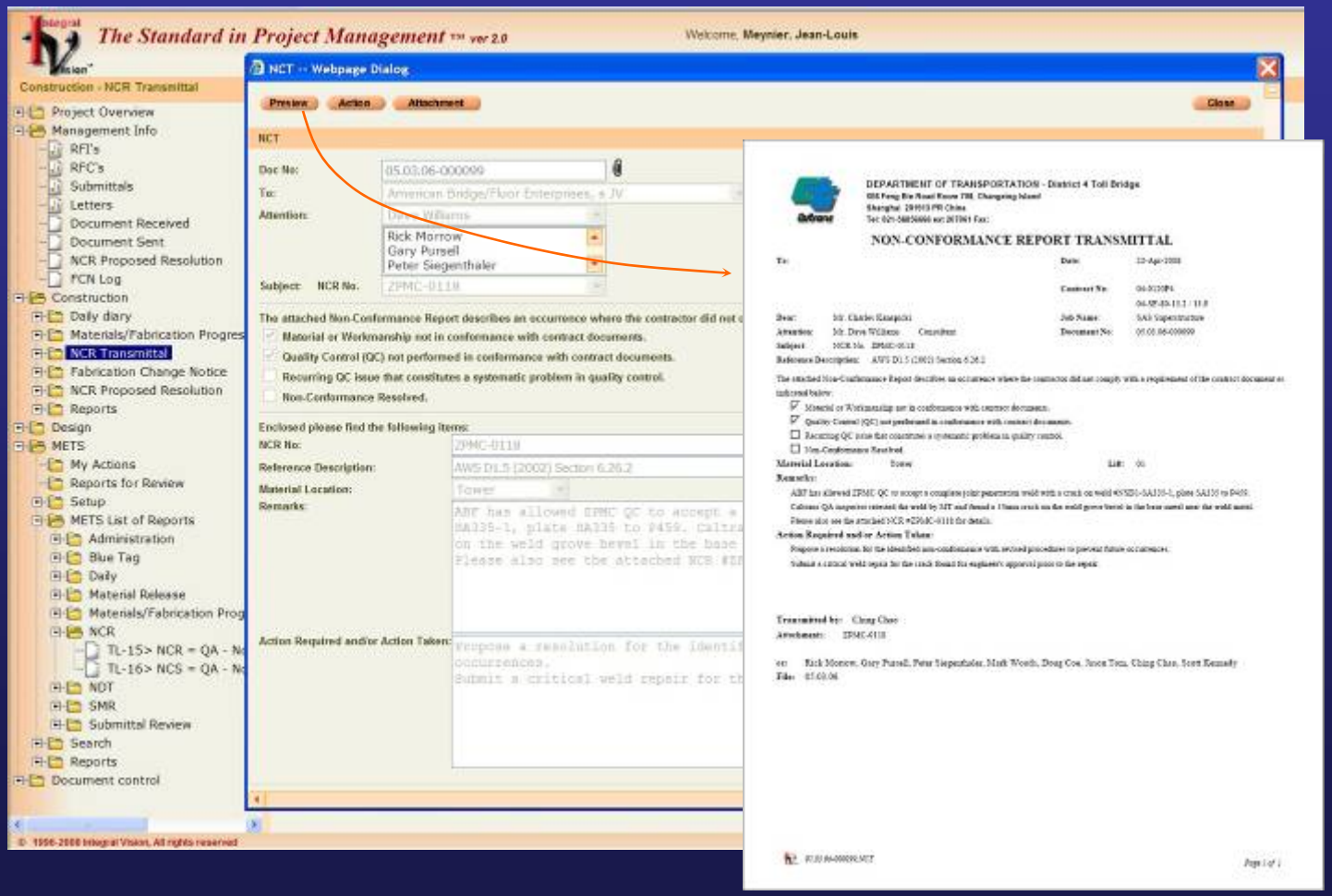
NCR Processing

- Transition from serial letters with attachments to on-line document control process
- Lesson Learned – Technology is not the process. There need to be buy-in and commitments from all parties to make the system work

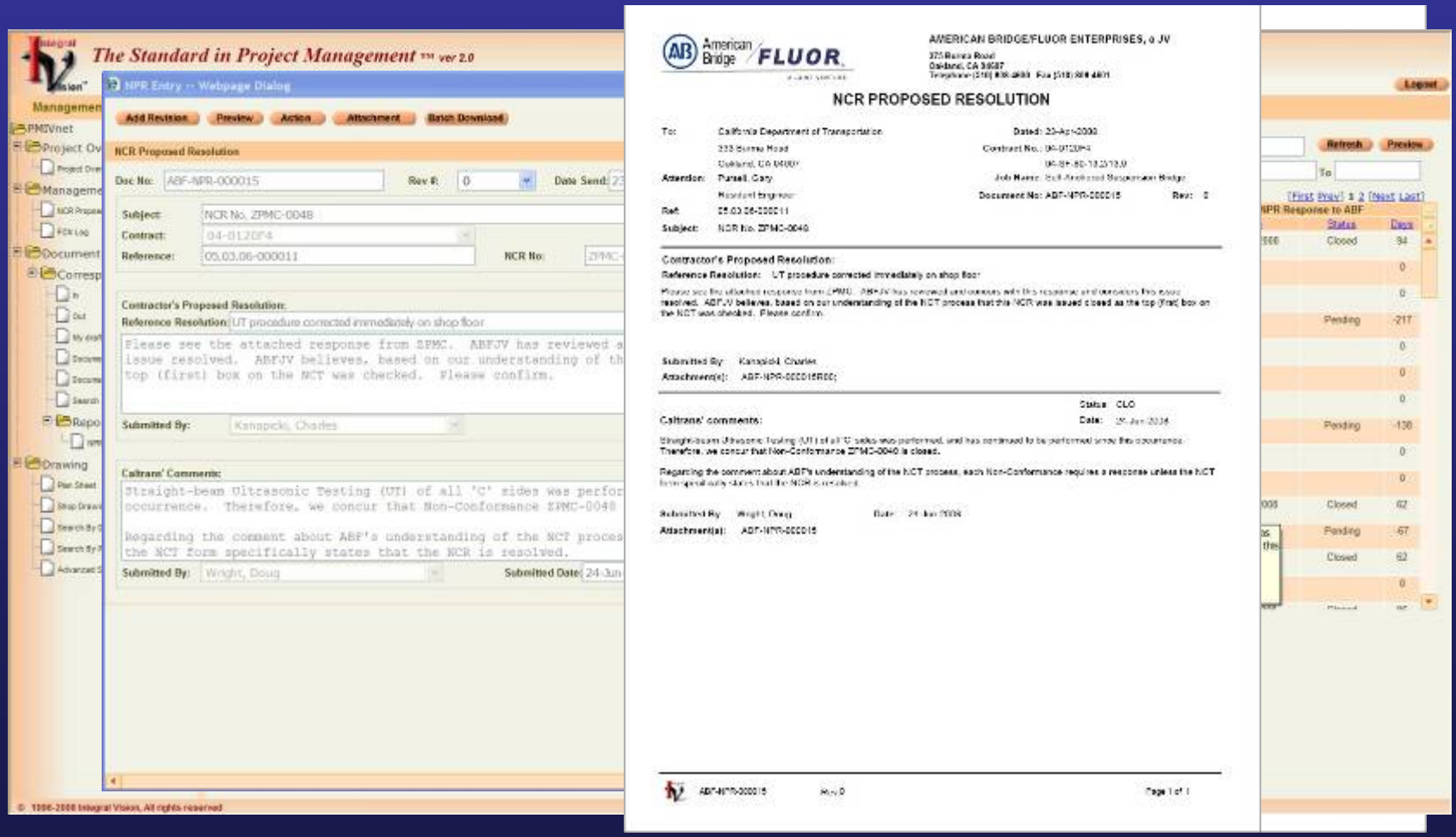
Creation of a Non-Conformance Report in PDF format



The NCR is transmitted to the Contractor



Quick search and status of all the Non-Conformance Reports and Non-Conformance Proposed Resolution reports



PMIV
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In-Process Tests and Inspections

In-Process Tests and Inspections

- Coordination of inspection and testing activities
  - Numerous sub-consultant contracts
  - Domestic and international
  - Coordination with Caltrans

In-Process Tests and Inspections

- Welding Quality Control
  - Procedure Qualifications
  - Welding Quality Control Plan
    - Only AISC Category 3 facilities can self-perform welding NDT & inspection
  - Daily Reports

Welding QC Plan


Caltrans
AMERICAN BRIDGE/FLUOR
SFOBB BRIDGE PROJECT
QUALITY ASSURANCE SOFTWARE
WELDLINKPRO©
American Bridge / FLUOR
A JOINT VENTURE
ZPMC
INSPECTECH
Consulting and Testing

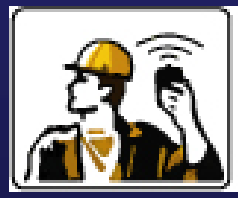

WELDLINKPRO
Because Quality should never be a Question

Designed by

INSPECTECH

Consulting and Testing

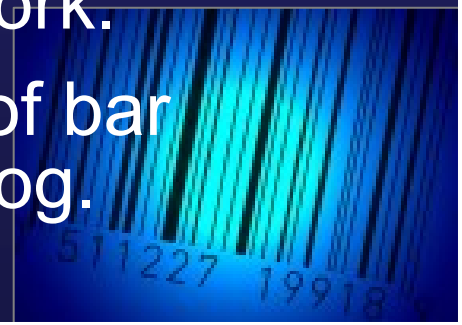
Built by



MobileDataforce™

Introduction

- Web based Quality tool developed using Microsoft's ASP.NET and C# programming language. Designed to be utilized by Fabricator, Contractor and Owner specifically to document the fabrication of the San Francisco Bay Bridge Project.
- Real time reporting of inspections and repairs before, during and after welding by use of hand held devices and wireless network.
- Material traceability through the use of bar code technology and Material Data Log.



Introduction

(continued)

- Accountability of welders through tracking repair rates by welder, process, position, joint configuration and cause.
- Insures all required inspections and repairs have been completed in advance of shipment.
- Provides access via the world wide web to unlimited personnel to view the real time inspection and repair status.

Industries

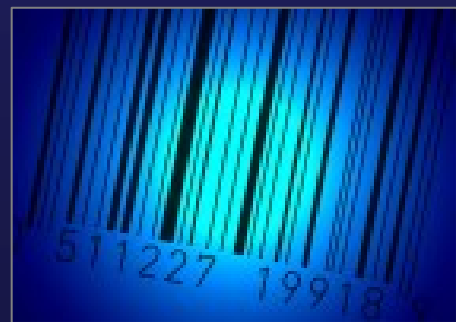
- Bridge
- Aerospace
- Nuclear
- Hydroelectric
- Marine
- Military
- Construction

Highlights

- Material traceability
- Weld joint tracking
- Welder performance tracking
- Weekly Welding Report
- Documentation
- Benefits
- Contact information

Material traceability

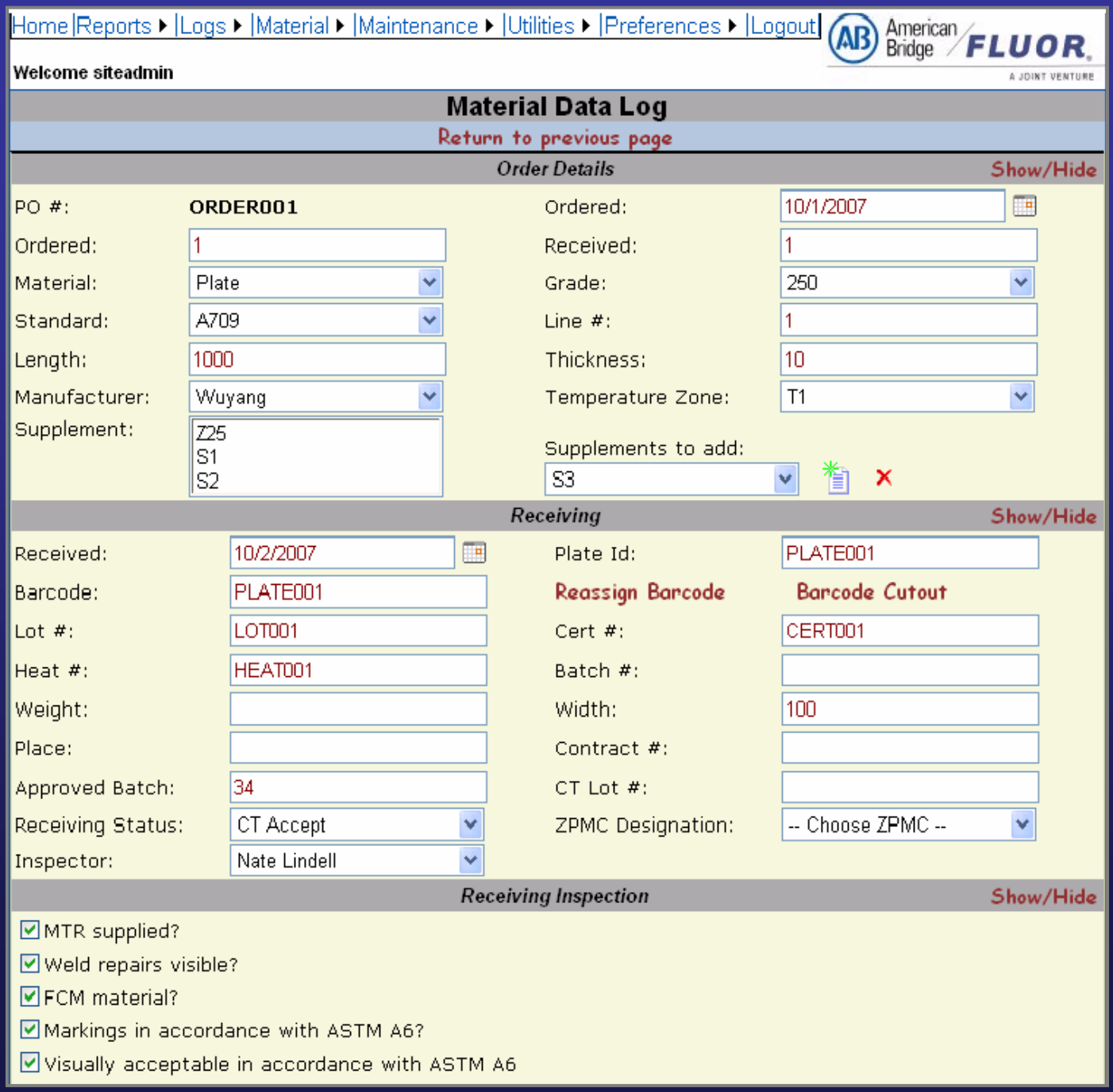
- Material traceability is accomplished by use of bar code technology and/or traditional means of tracking items such as heat number and grade.
- Material information is compiled and stored on the Material Data Log as well as the Weld Data Log.
- Filtering allows the user to search by any desired combination of fields.



Material traceability

(continued)

- Material lists can be downloaded offsite for material on hand payments.
- Consolidated material list between parties.
- Individual plate traceability.
- Check sample verification
- PDF material test report


Home |Reports ▸ |Logs ▸ |Material ▸ |Maintenance ▸ |Utilities ▸ |Preferences ▸ |Logout
American Bridge / FLUOR
A JOINT VENTURE
Welcome siteadmin
Material Data Log
Return to previous page
Order Details
Show/Hide
PO #: ORDER001
Ordered: 10/1/2007
Ordered: 1
Received: 1
Material: Plate
Grade: 250
Standard: A709
Line #: 1
Length: 1000
Thickness: 10
Manufacturer: Wuyang
Temperature Zone: T1
Supplement: Z25 S1 S2
Supplements to add: S3
Receiving
Show/Hide
Received: 10/2/2007
Plate Id: PLATE001
Barcode: PLATE001
Reassign Barcode
Barcode Cutout
Lot #: LOT001
Cert #: CERT001
Heat #: HEAT001
Batch #:
Weight:
Width: 100
Place:
Contract #:
Approved Batch: 34
CT Lot #:
Receiving Status: CT Accept
ZPMC Designation: -- Choose ZPMC --
Inspector: Nate Lindell
Receiving Inspection
Show/Hide
MTR supplied?
Weld repairs visible?
FCM material?
Markings in accordance with ASTM A6?
Visually acceptable in accordance with ASTM A6


Home | Reports | Logs | Material | Maintenance | Utilities | Preferences | Logout
American Bridge / FLUOR
A JOINT VENTURE
Welcome siteadmin
Material Receiving Filter List
Return to previous page
Show/Hide Search Panel
PO #:
-- Choose PO # --
PO Date:
Line #:
Received Date:
Supplement
Barcode:
Plate Id:
Lot #:
Batch #:
Heat #:
Cert #:
Length:
Width:
Thickness:
Weight:
Place:
Contract #:
Approved Batch:
CT Lot #:
Receiving Inspector:
-- Choose Inspector --
Manufacturer:
-- Choose Manufacturer --
Material:
-- Choose Material --
Standard:
-- Choose Standard --
Grade:
-- Choose Grade --
ZPMC Designation:
-- Choose ZPMC --
Status:
-- Choose Status --
Temperature Zone:
-- Choose Temp Zone --
MTR Supplied
Check Sampled
Check Sample Date:
Check Sample Status:
-- Choose Status --
Check Sample Inspector:
-- Choose Inspector --
Search

Highlights

- Material traceability
- Weld joint tracking
- Welder performance tracking
- Weekly Welding Report
- Documentation
- Benefits
- Contact information

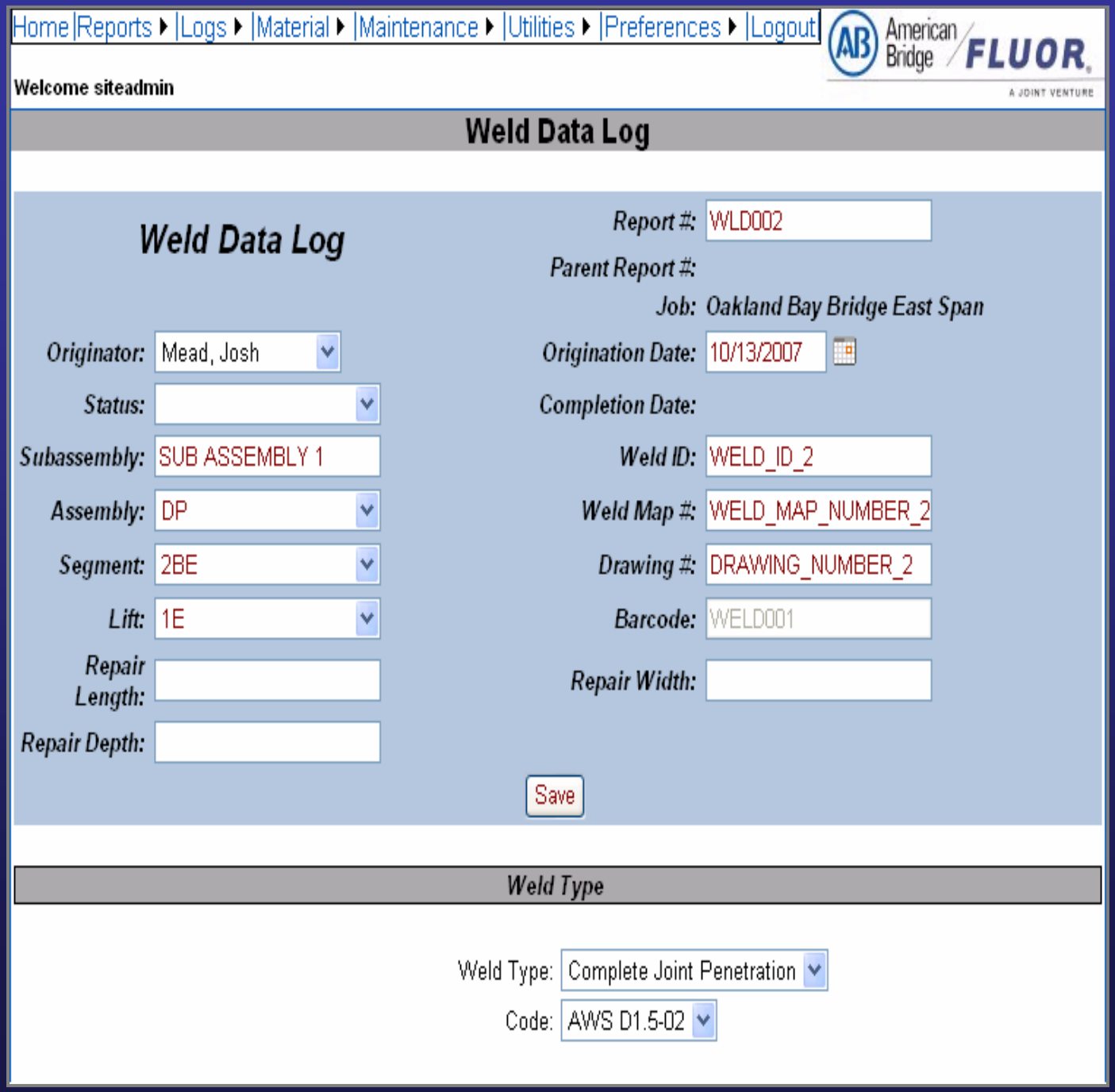
Weld Data Log

- A centralized location for each weld joint on the project.
- Created prior to weld joint fit up.
- Outlines the required nondestructive testing.
- Outlines the required in process inspections per the contract requirements.
- Provides material traceability used to construct the weld.
- Works in conjunction with weld maps.

Weld Data Log

(continued)

- Insures proper acceptance criteria is applied.
- Eliminates costly re inspections


Home | Reports | Logs | Material | Maintenance | Utilities | Preferences | Logout
American Bridge / FLUOR
A JOINT VENTURE
Welcome siteadmin
Weld Data Log
Weld Data Log
Report #: WLD002
Parent Report #:
Job: Oakland Bay Bridge East Span
Originator: Mead, Josh
Origination Date: 10/13/2007
Status:
Completion Date:
Subassembly: SUB ASSEMBLY 1
Weld ID: WELD_ID_2
Assembly: DP
Weld Map #: WELD_MAP_NUMBER_2
Segment: 2BE
Drawing #: DRAWING_NUMBER_2
Lift: 1E
Barcode: WELD001
Repair Length:
Repair Width:
Repair Depth:
Save
Weld Type
Weld Type: Complete Joint Penetration
Code: AWS D1.5-02

Weld Data Log

(continued)

- All inspection and repair reports are created via links from this central location.
- Captured data populates the weld reject log and daily production.
- Insures the correct acceptance criteria is applied during inspections.
- Eliminates the need for manual creation of reports reducing reporting errors.

Base Metals

Barcode	Plate Number	Standard	Grade	Heat Number	Thickness	
PLATE001	PLATE001	A709	250	HEAT001	10	Remove
PLATE002	PLATE002	A709	250	HEAT002	10	Remove

Add Base Metal

Tasks

#	Hold	Task Type	Report	Completor	Status	Date			
1	☐	Install Barcode or Weld ID	Accept				Edit	Delete	▼
2	☐	Weld joint fit up inspection	Accept				Edit	Delete	▲ ▼
3	☐	Assembly Practice	Log Progress				Edit	Delete	▲ ▼
4	☐	Welding Techniques	Log Progress				Edit	Delete	▲ ▼
5	☐	Welding Parameters	Log Progress				Edit	Delete	▲ ▼
6	☐	Perform 100% Visual Inspection	Create Report				Edit	Delete	▲ ▼
7	☐	Perform 100% Ultrasonic Inspection AWDS D1.5-02 Table 6.3 for acceptance	Create Report				Edit	Delete	▲ ▼
8	☐	Perform 25% Magnetic Particle Inspection	Create Report				Edit	Delete	▲

Add Task

Repair History

No Repairs have been made

Weld Data Log

(continued)

- History of all repairs associated to the weld
- Provides the positive proof all required inspections and repairs have been completed.
- Supports the creation of the weekly welding report.
- Supports and captures revisions to repair reports such as critical weld repairs.
- May be utilized during the review of the weekly welding report

Base Metals

Barcode	Plate Number	Standard	Grade	Heat Number	Thickness	
PLATE001	PLATE001	A709	250	HEAT001	10	Remove
PLATE002	PLATE002	A709	250	HEAT002	10	Remove

Add Base Metal

Tasks

#	Hold	Task Type	Report	Completor	Status	Date			
1	☐	Install Barcode or Weld ID	Accept				Edit	Delete	▼
2	☐	Weld joint fit up inspection	Accept				Edit	Delete	▲ ▼
3	☐	Perform 100% Visual Inspection	VT0000007	Site Admin	Accepted	02/05/2008	Edit	Delete	▲ ▼
4	☐	Perform 100% Ultrasonic Inspection AWDS D1.5-02 Table 6.4 for acceptance	UT0000009	Site Admin	Repair In Progress	02/05/2008	Edit	Delete	▲ ▼
5	☐	Perform 10% Magnetic Particle Inspection	MT0000011	Site Admin	Repair In Progress	02/05/2008	Edit	Delete	▲

Add Task

Repair History

#	Task Type	Report	Completor	Status	Date
4	Perform 100% Ultrasonic Inspection AWDS D1.5-02 Table 6.4 for acceptance	UT0000009	Site Admin	Repair In Progress	02/05/2008
	Critical Weld Repair	CWR0000010 R0	Site Admin	Repair Successful	02/05/2008
5	Perform 10% Magnetic Particle Inspection	MT0000011	Site Admin	Repair In Progress	02/05/2008
	Weld Repair	WRR0000012 R0	Site Admin	Repair Failed	02/05/2008

Highlights

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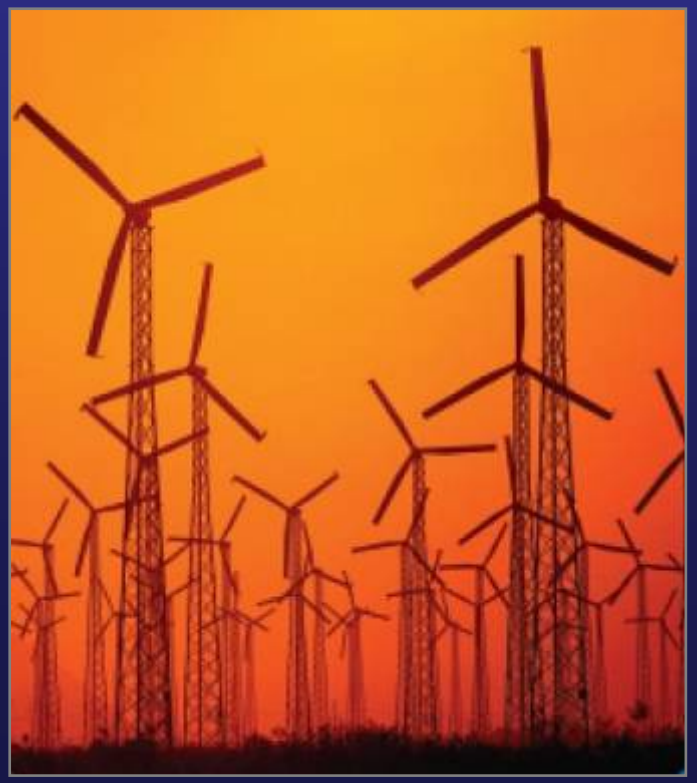

Welder Performance

- Welder performance is captured on the Weld Reject Log.
- Filtering allows the user to search by any desired combination of fields.
- Utilized for trend analysis of weld repairs.
- Provides real time total reject percentages project wide by any filterable field.

Welder Performance

(continued)

- Inspector
- Welder
- Repair type
- Weld identification
- Location in the structure
- Position
- Process
- Joint type
- Repair length
- Repair depth
- Repair width
- Repair percent
- Cause

Weld Reject Log

Show/Hide Search

☑ Original Weld		☑ Repair Weld	
☑ Date Range:	to	☑ Inspection Method:	
☑ Inspector		☑ Repair	
☐ SubAssembly		☐ Assembly	
☐ Segment		☐ Lift	
☐ Structure		☐ Weld ID	
☑ Repair Length		☑ Repair %	
☑ Cause		☑ Welder	
☑ Indication Repair		☑ Process	
☑ Joint Type		☐ WPS #	
☐ Filler Metal:			

Search

All , None

Date	Inspection Method	Inspector	Repair	Repair Length	Repair %	Cause	Welder	Position	Process	Joi Typ
11/16/2007	UT	Li Liming	WRR0000010 R0	210			50242	1G	FCAW	Butt
11/16/2007	UT	Li Liming	WRR0000013 R0	160	9.52	First time excavation	50242	1G	FCAW	Butt
11/16/2007	UT	Li Liming	WRR0000014 R0	60	2.86	First time excavation	50242	1G	FCAW	Butt
11/16/2007	UT	Li Liming	WRR0000012 R0	150		First time excavation	50242	1G	FCAW	Butt
11/16/2007	UT	Li Liming	WRR0000009 R0	580			50242	1G	FCAW	Butt
11/16/2007	UT	Li Liming	WRR0000011 R0	500		First time excavation	50242	1G	FCAW	Butt
03/21/2008	UT	Xue Hairong	T-WR001 R0	130	.69	First time excavation	48659	1G	SMAW	Butt
04/05/2008	UT	Xue Hairong	WRR0000003 R0	130	1.06	First time excavation	40421	1G	FCAW	Butt
04/05/2008	UT	Xue Hairong	WRR0000005 R0	160	1.11	First time excavation	53870	1G	FCAW	Butt
04/06/2008	UT	Xue Hairong	WRR0000007 R0	160	1.28	First time excavation	53753	1G	SMAW	Butt

Highlights

- Material traceability
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Weekly Welding Report

- Weekly Welding Report is Compiled electronically following completion of tasks outlined on the Weld Data Log.
- Following review by the Quality Control Manager the Weekly Welding Report is submitted electronically to the Engineer for approval.
- During review by the Engineer the database may be available to verify current status of inspections and repairs.

Weekly Welding Report
(continued)

- Weekly Welding Report includes:
  - NDE reports
  - Critical Weld Repair Reports
  - Weld Repair Reports
  - Heat Straightening Reports
  - Nonconformance Reports
  - Weld Reject Log
  - Daily Production report

Weld Report

Structure	OBG
By Date	11/12/2007 View
By Week	11/12/2007 - 11/19/2007 (Week #2)

11/12/2007 - 11/18/2007

Viewing	11/16/2007 - Friday

Weld Reject Log

Show/Hide

Date	Inspector	Repair	Lift	Segment	Assembly	Sub Assembly	Weld ID	%	Cause	Inspection Method
11/16/2007	Li Liming	WRR0000009 R0			FB	FB003	FB003-13-001			UT
11/16/2007	Li Liming	WRR0000010 R0			FB	FB003	FB003-14-006			UT
11/16/2007	Li Liming	WRR0000011 R0			FB	FB003	FB003-15-001		First time excavation	UT
11/16/2007	Li Liming	WRR0000012 R0			FB	FB003	FB003-05-001		First time excavation	UT
11/16/2007	Li Liming	WRR0000013 R0			FB	FB3A	FB003-16-001	9.52	First time excavation	UT
11/16/2007	Li Liming	WRR0000014 R0			FB	FB3A	FB003-16-006	2.86	First time excavation	UT

Daily Production Log

Show/Hide

Weld ID	Inspector	Welder	Task	Location	Logged	%	SubAssembly	Assembly	Segment	Lift	Structure	Repair
FB003-10-001	Li Liming		Ultrasonic Examination 100% AWS D1.5-02 Table 6.3		11/16/2007		FB003	FB			OBG	
FB003-10-006	Li Liming		Ultrasonic Examination 100% AWS D1.5-02 Table 6.3		11/16/2007		FB003	FB			OBG	
FB003-08-001	Li Liming		Ultrasonic Examination 100% AWS		11/16/2007		FB003	FB			OBG	

Highlights

- Material traceability
- Weld joint tracking
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- Weekly Welding Report
- Documentation
- Benefits
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Documentation

- Records can be viewed electronically or printed.
- Final acceptance of components is obtained by producing a Data Acceptance Packet.
- Data Acceptance Packets are compiled after completing a query and are produced in PDF format.

Documentation

- Data Acceptance Packet include the following
  - Nondestructive Testing Reports
  - Weld Repair Reports
  - Post Weld Repair NDE Reports
  - Weld Map
  - Weld Data Log
  - Material Test Report
  - In process inspections as required

Highlights

- Material traceability
- Weld joint tracking
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Benefits

- Real time wireless accurate and consistent reporting of inspection and repair results.
- Electronic submittal process reduces the approval time and personnel.
- Increased level of traceability of material, inspections and repairs result in decreased time and involvement by the customer before, during and after fabrication including shipment.
- Eliminates costly re-inspections of previously inspected and accepted welds and components.

Benefits

(continued)

- Shared information between all parties at all locations through the use of web based application.
- Onsite reporting increases floor coverage and decreases office time.
- Increased level of accountability of welders and inspectors.
- Localization (bilingual)
- Eliminate redundant tracking by multiple parties.

Benefits

(continued)

- Reduced exposure for omitted and duplicate reports.
- Customer satisfaction by providing access to the database during the review and approval of the Weekly Welding Report.
- Reduce costly repairs through trend analysis
- May be implemented project wide
- Paperless submittal process
- Electronic report correlation and PDF printing

Summary

- Designed for the "Total Quality Management" approach this unique tool will greatly enhance traditional Quality Control and Quality Assurance reporting and documentation.
- Web based application opens the door for cooperation between Fabricator, Contractor and Owner.
- Increases accountability for welders, inspectors and reviewers.
- Captures valuable data that can be utilized to establish controls to reduce or eliminate defects.
- Provides complete material traceability from beginning to end.

Highlights

- Material traceability
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Contact information

Inspectech Corporation

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www.Inspectechconsulting.com

Further product information on WeldLinkPro can be found at the following website

www.WeldLinkPro.com