Hangar 1 Progress Review

Scott Gromko
Navy Project Manager

March 13, 2008
RAB Meeting

Presentation Overview

BRAC PMO WEST

- Background
- Structural Analysis Update
- Next Steps
- Questions

Background

BRAC PMO WEST

- Built in 1932

- Uses:
  - Used for lighter-than-air program
  - Used for fixed winged aircraft
  - Offices and museum

Background

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PMO WEST

Background

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- 1997 - PCBs detected in settling basin sediment
- 2003 - NASA studies identified Hangar 1 as a source
- NASA sampled:
  - Building materials
  - Stormwater
  - Air
  - Wipe-samples inside

Background

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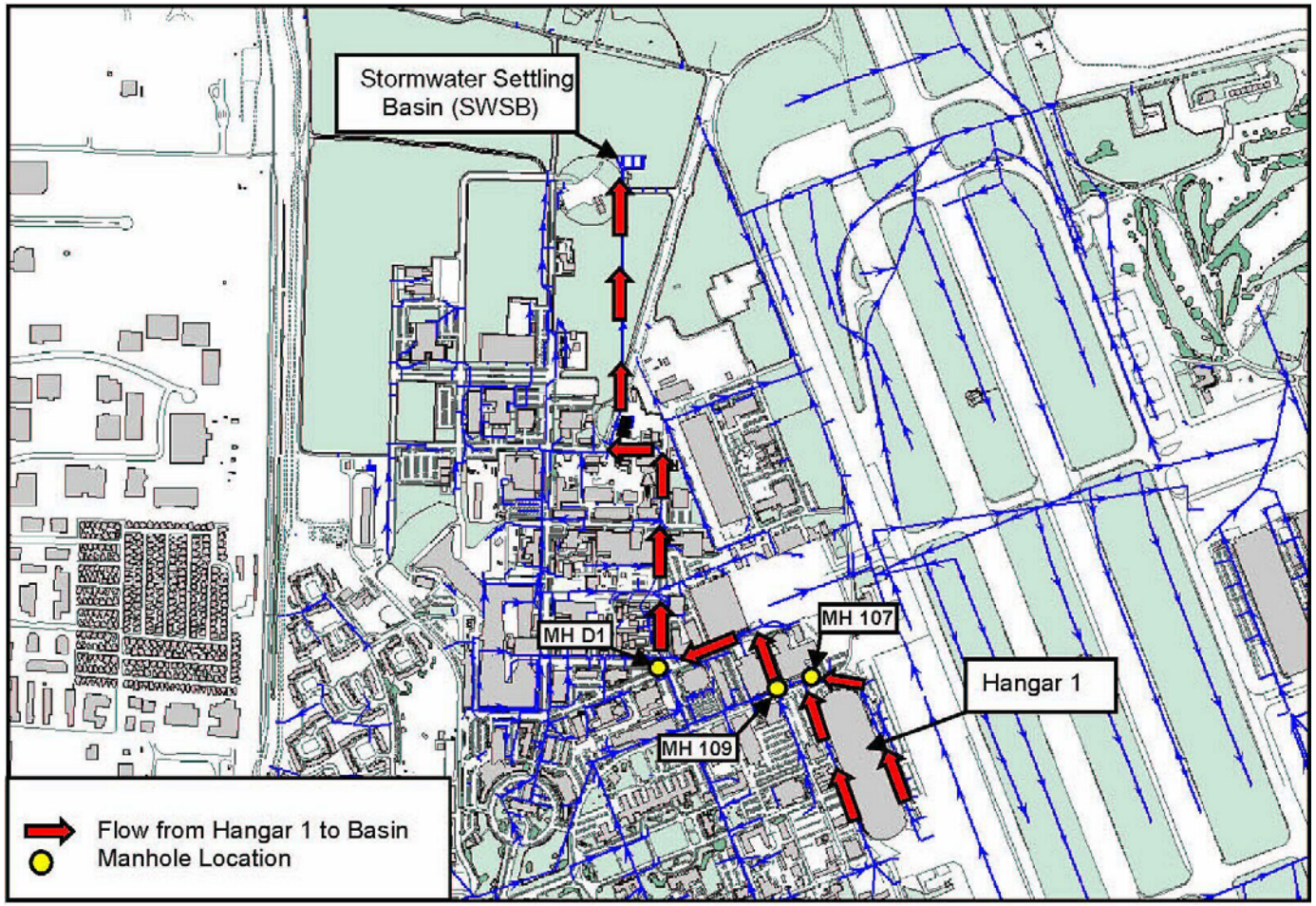

Background

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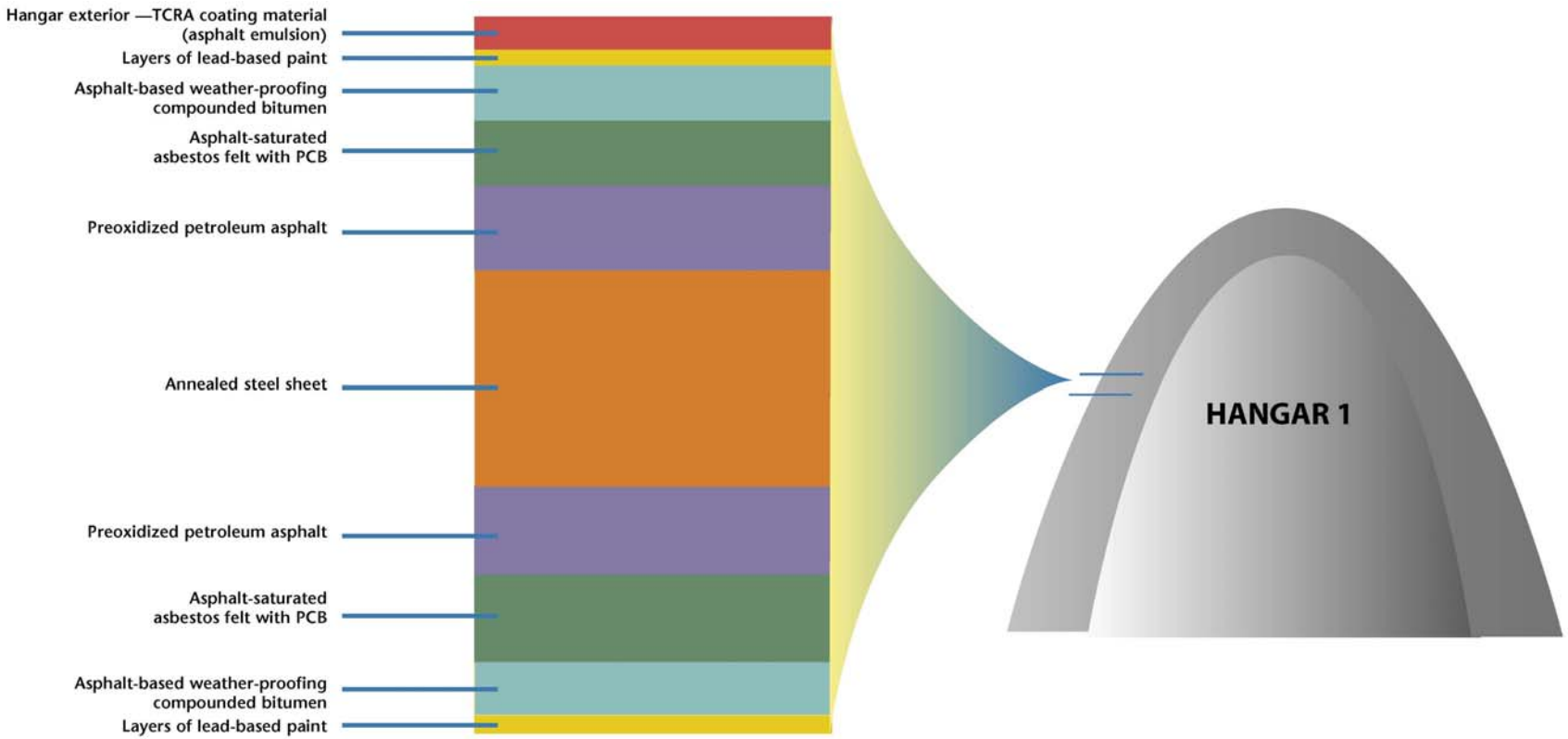

Structural Analysis Update

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- Exceltech Consulting, Inc.
- Established in 1987

- - Site Civil Engineering
  - Structural Engineering
  - Seismic Retrofit and Analysis
  - Blast/Anti-Terrorist Force Protection (ATFP) Design
  - Construction Services

Structural Analysis Update

BRAC PMO WEST

- Abdul Chahim, P.E., S.E.
  - 28 years of structural engineering experience

- Steel structure projects
  - VAQ Trainer Building Whidbey Island, WA
  - West Farm Food Processing Plant, ID
  - Shore Operation Building, Seattle, WA
  - Air National Guard fire/crash rescue station, Portland, OR
  - 10-story Woodland Condominium, Lexington, KY
  - 76,000-square-foot Federal Way community center

Structural Analysis Update

BRAC PMO WEST

- Hangar 1 structural system
  - Gravity system
    - Three-hinged arch system supported on A-Frames
  - Lateral resisting system
    - The arch and the steel bracing trusses between the arches

Structural Analysis Update

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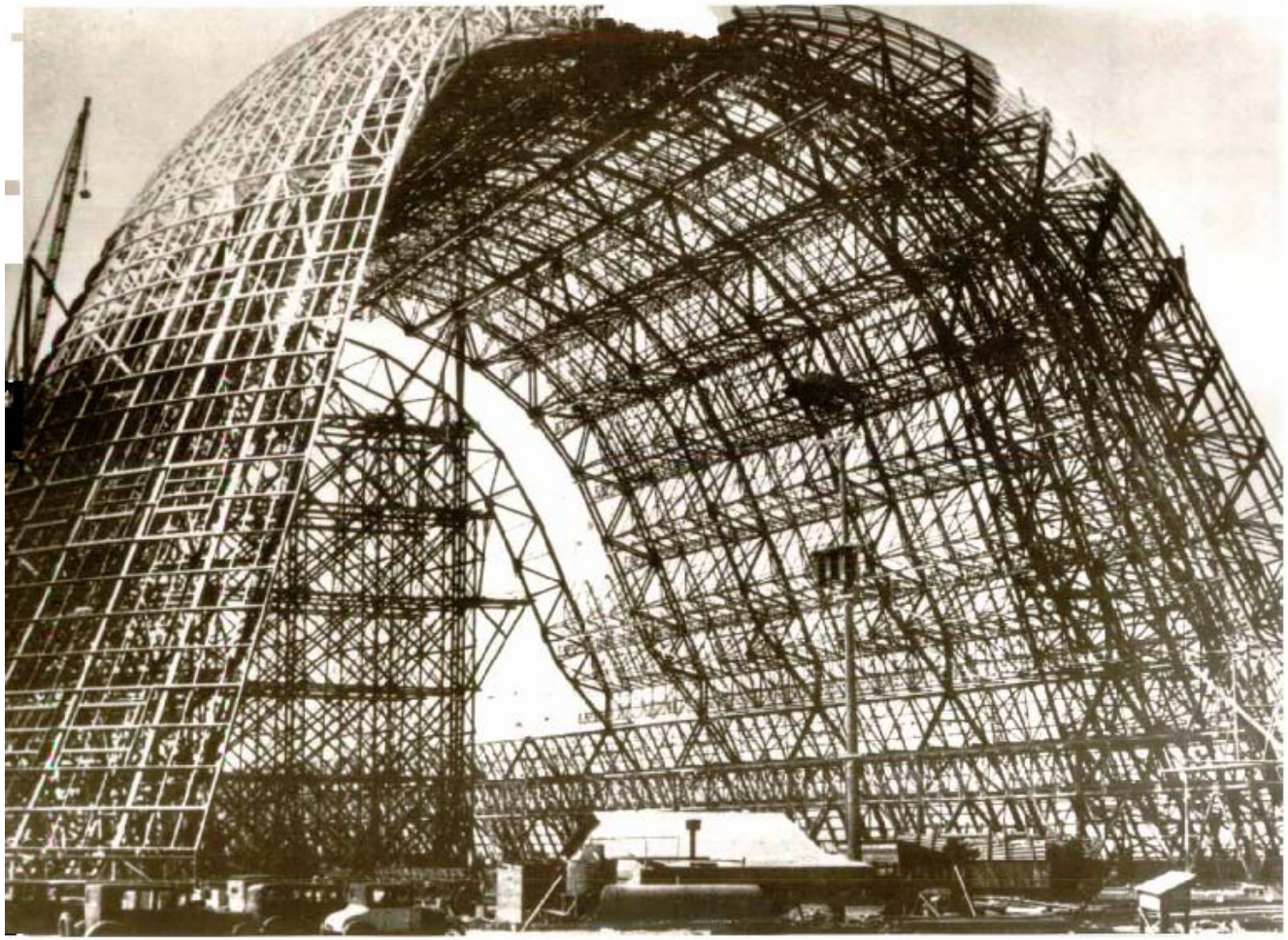
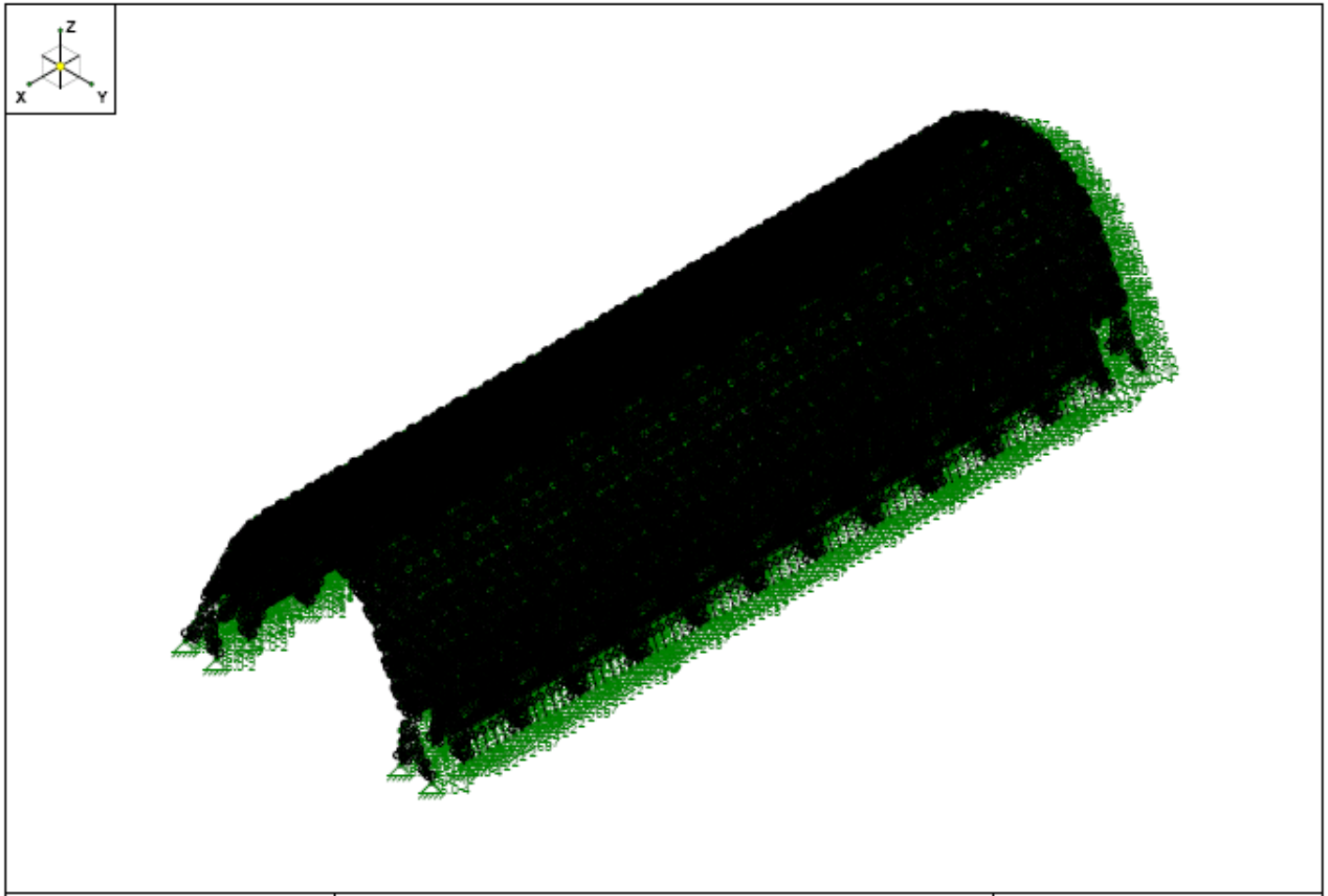


Structural Analysis Update

BRAC PMO WEST

- Conducted structural analysis inspections
  - Dec. 12, 2007
  - Jan. 11, 2008
  - Feb. 7, 2008

- Built computer model
  - Includes entire building
  - Over 25,000 structural members
  - Numbering system based on drawings



ExelTech	Hangar 1	
AjC		Feb 29, 2008 at 10:16 AM
0722-003		untitled.r3d

Structural Analysis Update

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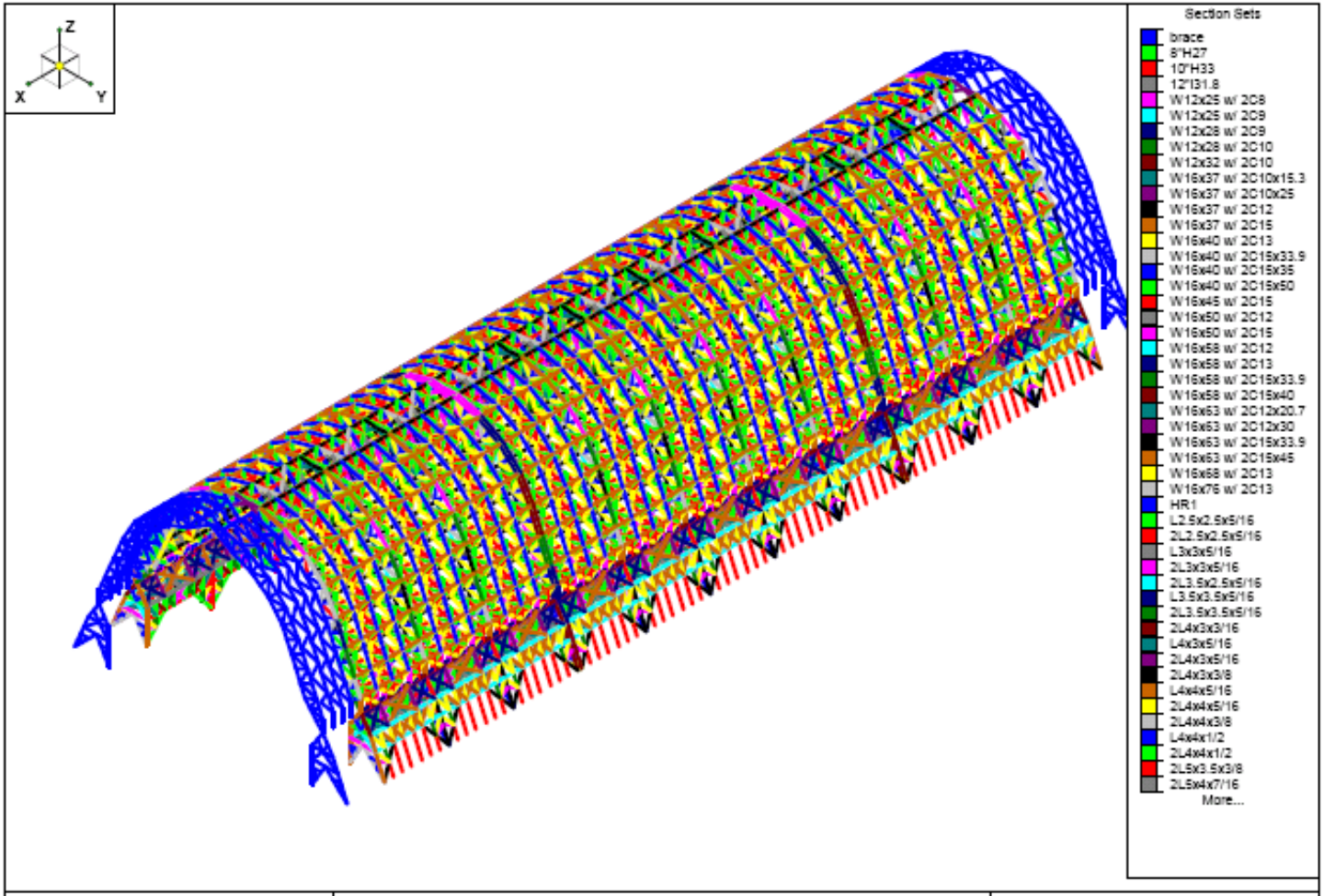

ExelTech	Hangar 1	
AjC		Feb 25, 2008 at 4:04 PM
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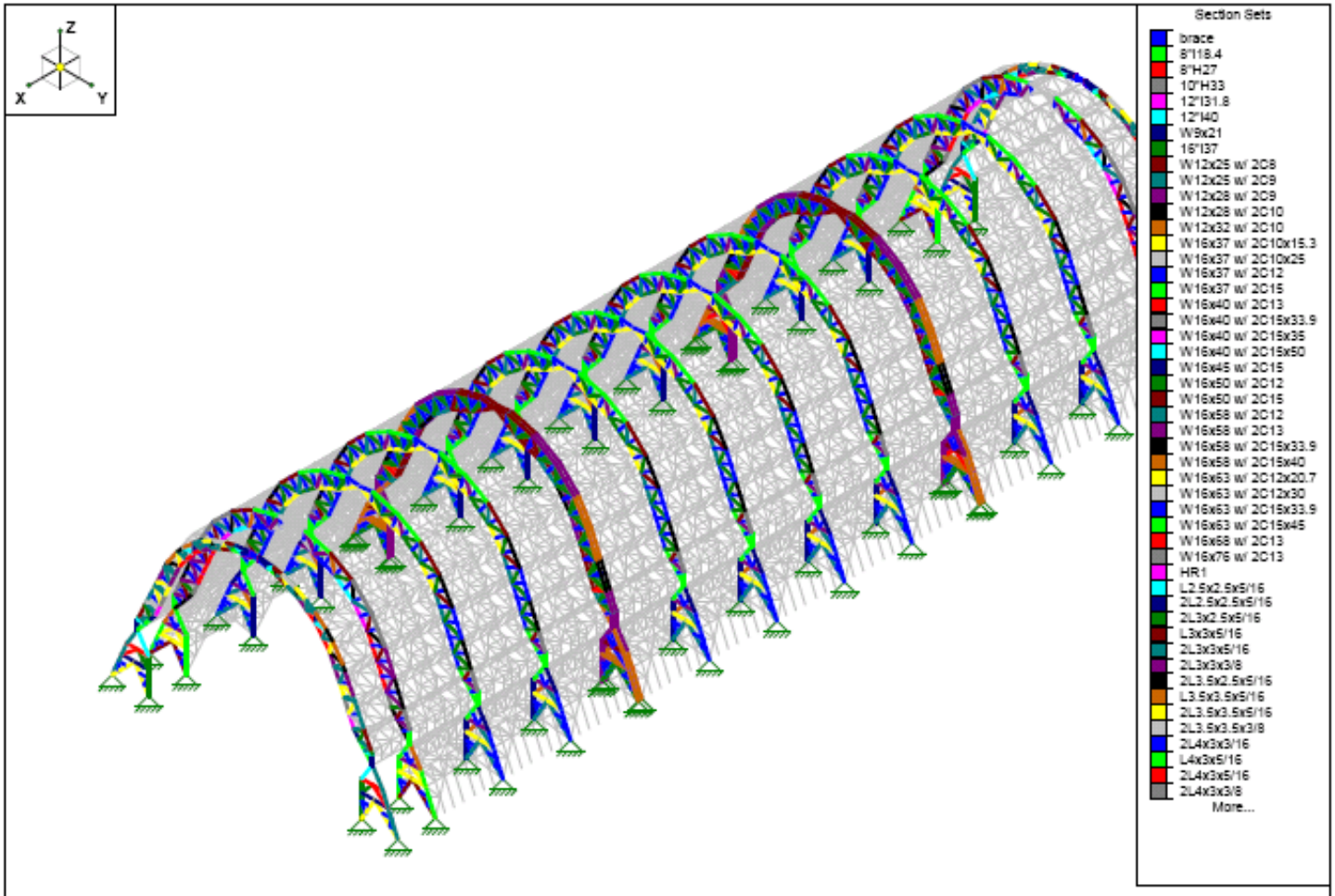
Structural Analysis Update

BRAC PMO WEST



ExelTech	Hangar 1	
AjC		Feb 29, 2008 at 10:24 AM
0722-003	ARCHES MEMBER	untitled.r3d

Structural Analysis Update

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Structural Analysis Update

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Structural Analysis Update

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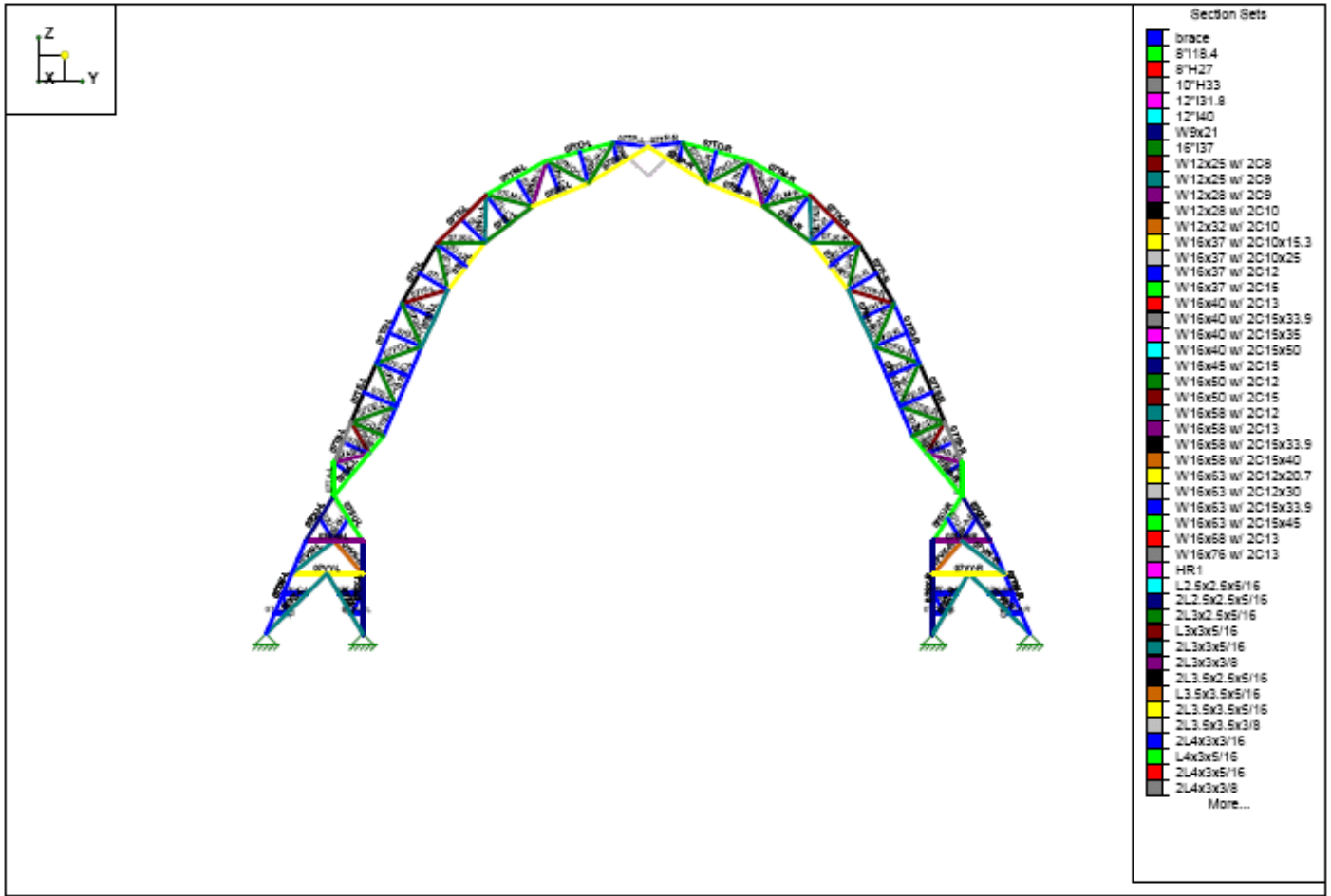

Structural Analysis

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Structural Analysis Update

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- Inspect and summarize site conditions
- Build the computer model
- Calculate input parameters
- Identify any areas of unacceptable structural integrity
- Present options and costs for areas of retrofit, if necessary

Next Steps

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- Complete structural analysis
- Incorporate structural analysis findings into revised EE/CA
- Release revised EE/CA for review and comment
- Public meeting to receive comments
- Issue Action Memorandum

Questions

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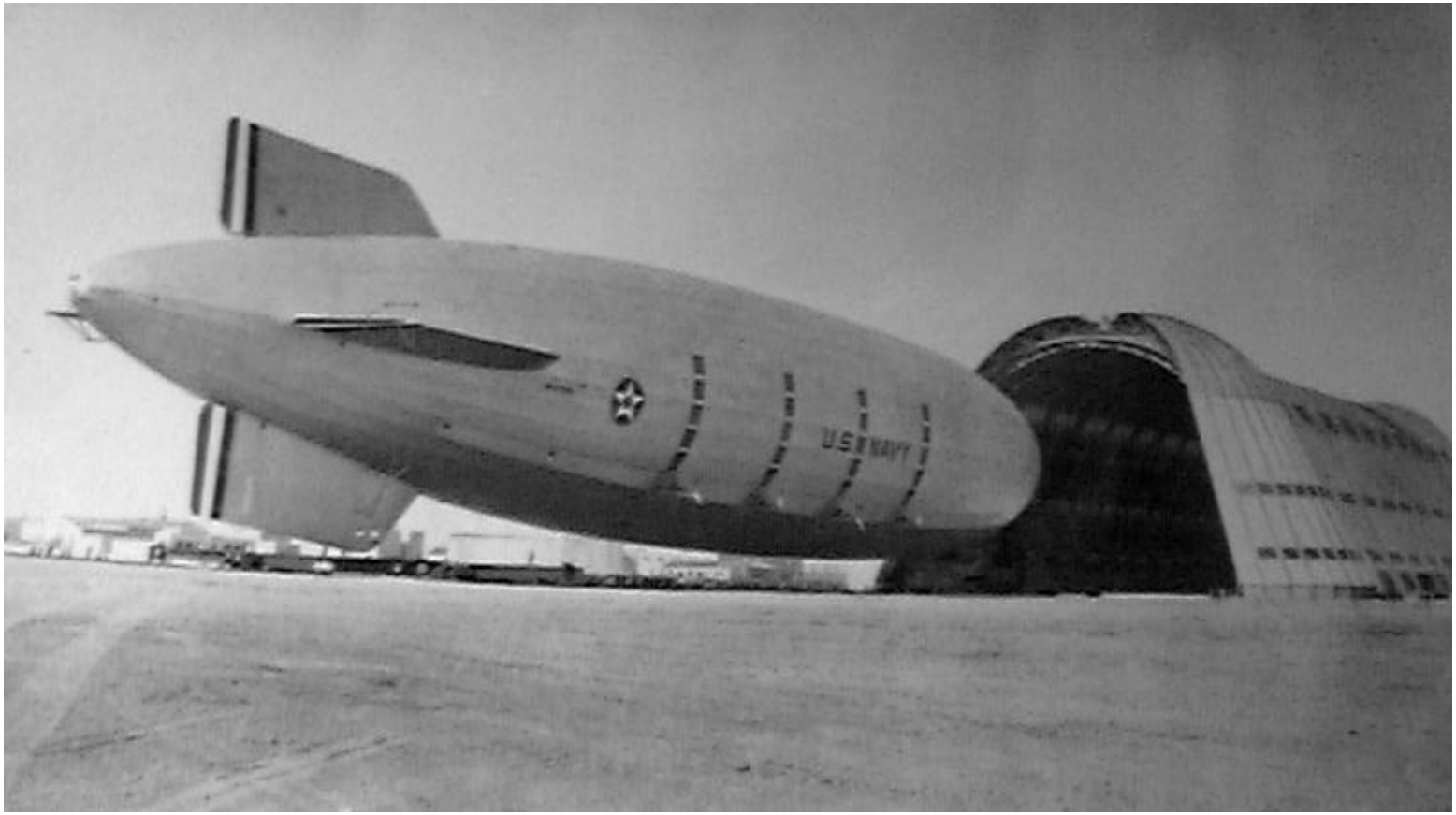

Point of Contact

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