BIM for Safety in Facilities Management

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Agenda

• What does BIM mean?
• What does BIM in FM Look Like?
• Safety in Building Maintenance
• Impacting Safety Through BIM
What Does BIM Mean?

Defining BIM Outside of Design and Construction
Building Information Management
Meaningful Definition

Combining information and graphics to allow communication in a way that best fits each person

A method of working aimed at overcoming the artificial limitations imposed by outdated technology
What Does BIM in FM Look Like?

Visualising BIM in Facilities Management
What Does BIM in FM Look Like?
What is Safety in Facilities Management?
Safety in Facilities Management

2015 saw a 300% increase in workplace deaths in the field of building maintenance

- Working at height
- Unsafe work environment
- Unsafe work practices
- Missing PPE

WSHI National Statistics Report 2015 courtesy of WSH Institute
www.wsh-institute.sg
Safety is Not Just about Workplace Death

**HOW YOU WORK IS HOW YOU LIVE**

**I CAN PREVENT ALL INJURIES AND BE HEALTHY AT WORK**

Total WSH sticker images courtesy of WSH Council
www.wshc.sg
Common Factors Impacting Safety

- Most factors are human factors...
- Can't find information
  - Equipment data
  - Shutoffs
  - Work procedures
- Incorrect tools
  - No time to get the correct ones
Impacting Safety with BIM

How Can BIM Impact Safety in Facilities Management?
Access to Information

- Asset information can be difficult to find for maintenance people
- Information (paper based) is often out of date
- BIM and FM Systems strengths are in coordinated information

Image copyright Lucasfilm
Virtual Safety Risk Assessment

- Use model to review worksite for potential safety hazards
- Develop work plans for safe work practice inline with WSH Council guidelines.
Access to Correct Work Methods

• **Simple Methods**
  - Work procedures, tool requirements, etc. attached as documents to the asset record

• **Advanced Methods**
  - Barcodes/QR tags that link to work procedure videos
  - Currently being tested in oil and gas industry

Good WSH Practices Pictogram images courtesy of WSH Council
www.wshc.sg
Easy Location of Safety Elements

- 3D model makes easy reference for finding;
  - Switchboards
  - Breakers
  - Shutoff Valves
  - Etc.
BIM for Safety in Facilities Management

• Some items may be difficult to impact through facilities management

• Combining BIM and FM can make a significant impact on the everyday elements that result in unsafe work.

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www.wshc.sg
For more information on workplace safety visit

www.wshc.sg

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• Scan to BIM
• BIM to/for Facilities Management
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