
CR2792-R
Visual Planning: BIM for Safety (Roundtable Session)
Jason A. Reece
Research & Development – Capability Center
Balfour Beatty
Construction
AUTODESK UNIVERSITY 2013
jreece@balfourbeattyus.com
Twitter: @jasonreece
AUTODESK.

Class summary

This roundtable session is a follow-up discussion to "CR2789: Visual Planning: BIM for Safety." The session briefly covers the highlights of the lecture and poses some specific questions to the group about how the concept could be used in innovative ways. The session takes the form of a brainstorming session and value analysis exercise. The floor is open for all ideas, and attendees receive aggregated notes and thoughts from the session as a takeaway. Not everyone is aware of all associated risks and hazards involved with complicated construction operations, even the professionals who perform those tasks every day. Special training is required before commencing this type of challenging and potentially dangerous work. This is where BIM aids in communication and training in a safe environment. BIM safety models can present both correct and incorrect practices side-by-side for comparison.

jreece@balfourbeattyus.com Twitter: @jasonreece

Key learning objectives

At the end of this class, you will be able to:

- **Learning Objective 1** - Brainstorm different ways to enhance safety communication and reduce risk with innovative approaches
- **Learning Objective 2** - Discuss the challenges of traditional safety communication methods
- **Learning Objective 3** - Perform a value analysis of the ideas discussed during the brainstorm
- **Learning Objective 4** - Open discussion of the most pressing safety concerns in the industry

jreece@balfourbeattyus.com Twitter: @jasonreece

Safety Orientation: Exits

(1) Out the back

(2) Turn to the left

(3) Left around the corner

(4) Right at the next corridor

(5) Left at the first door

jreece@balfourbeattyus.com
Twitter: @jasonreece


What is our Purpose today?
BIM for Safety
AUTODESK UNIVERSITY 2013
jreece@balfourbeattyus.com
Twitter: @jasonreece
AUTODESK.

BIM for Safety

VISUAL PLANNING

jreece@balfourbeattyus.com
Twitter: @jasonreece

It may seem like I'm making a seemingly small change to the title of the class,

This is a MONUMENTAL difference in approach and context of BIM for safety.

Some of you are thinking that this is common sense, but through all my contacts, internet searching, and academic research, I have found **fewer visual stories** used for safety **than I have fingers**.

If this idea were easy to implement, I think I would be able to find more than that.

Today's discussion will be how we **can use BIM to tell HIGHLY EFFECTIVE stories**.

What types of stories can we tell?

Which ideas are low-hanging fruit?

Safety Professionals

Who here has ever had a conversation with the safety director or a safety professional?

Do they tell you stories about what happened a jobsite?

Do you remember what they tell you?

What happens when they also show you pictures?

jreece@balfourbeattyus.com Twitter: @jasonreece

Stories are POWERFUL

http://vimeo.com/38292557

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The Difference Between Fact and Story

Have you aver been beaten into submission with facts?

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There is a profound **difference** in the ability for people to **retain facts** and **remember a story**.

Most people will try to convince of something by:

Beating you over the head with facts and information.

Example: How to Trench Safely

- Conduct on-site training with competent persons and field labor for each feature of work
- Protection systems with shields, shoring, beams and plates help prevent trench cave-ins
- A trench should be clearly marked to prevent people from getting too close
- Protective systems should have rails should to prevent falling into the trench
- There should be adequate room for ladder access into the trench

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Let me give you an example of how fact differs greatly from story:

Who thinks they will remember that information at the end of the class?

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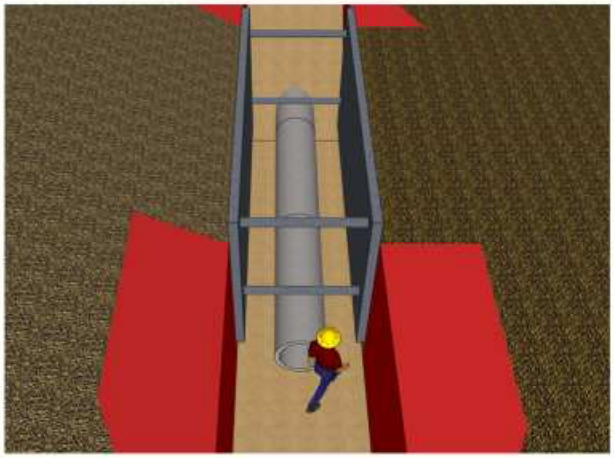
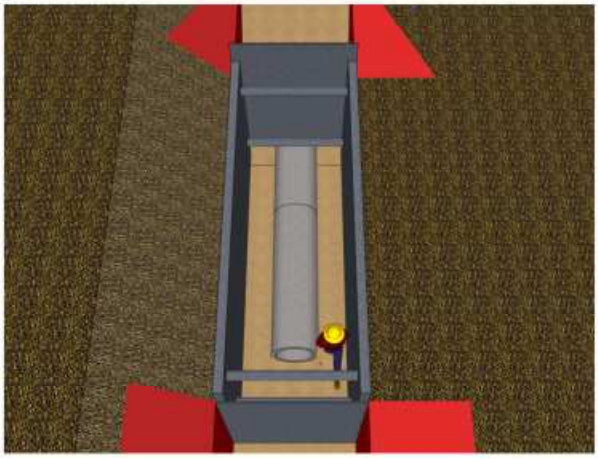
http://goo.gl/vcwXg9 http://goo.gl/62f5jf

What is different between these images?





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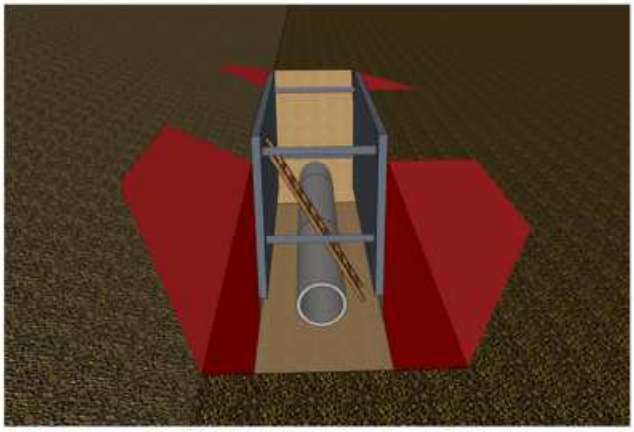
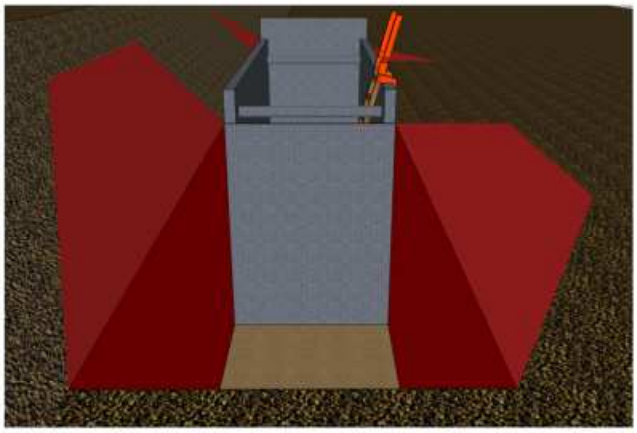
Good vs. Bad

What is different between these images?





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Good vs. Bad

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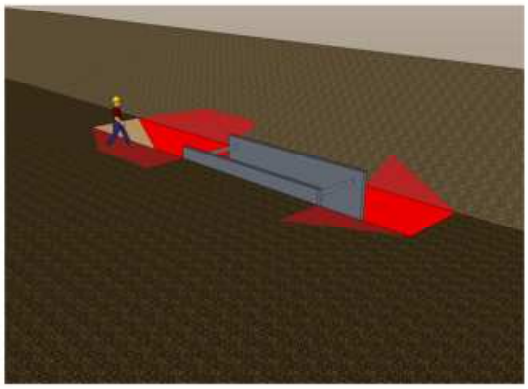

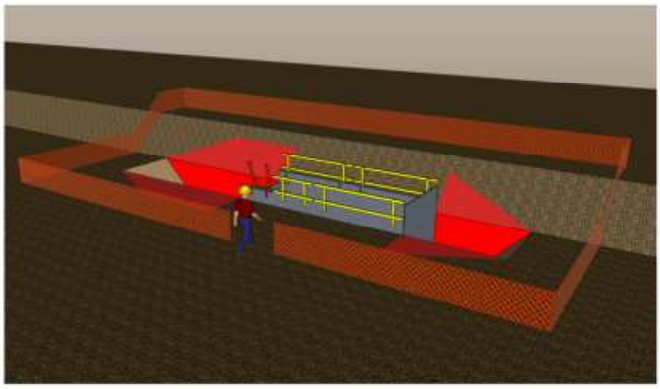

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Twitter: @jasonreece

Good vs. Bad

Self Assessment

How many people remember how to safely trench

tomorrow?

in a month?

in a year?

Forever?

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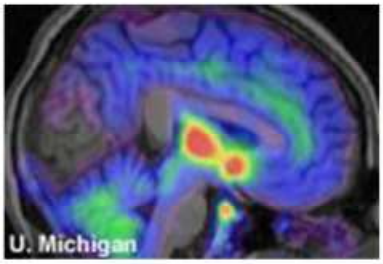
How do you teach the WRONG way to act?

Why did this work?

People tend to learn more from mistakes



0.1 seconds

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Safety is interesting, because in order to show someone how NOT to do something, you have to act in an unsafe manner, or create an unsafe condition.

With BIM, we can tell the **"bad"** and the **"good"** stories.

This is powerful because our **brains learn quicker, and retain information longer** if we experience what makes something wrong.

Psychologists from the University of Exeter were able to show that once we understand what makes something incorrect, our brain are able to identify that same incorrectness within .1 seconds of experiencing it a second time.

This means that **your brain will tell you not to do something before you can act in any given situation**.

This is clearly a survival instinct…. And that is what we want to impact with BIM for safety, **helping people go home every night.**

http://www.sciencedaily.com/releases/2007/07/070702084247.htm

Context of the Facts

Without a story, facts have no context

Facts need to be tied to something memorable.

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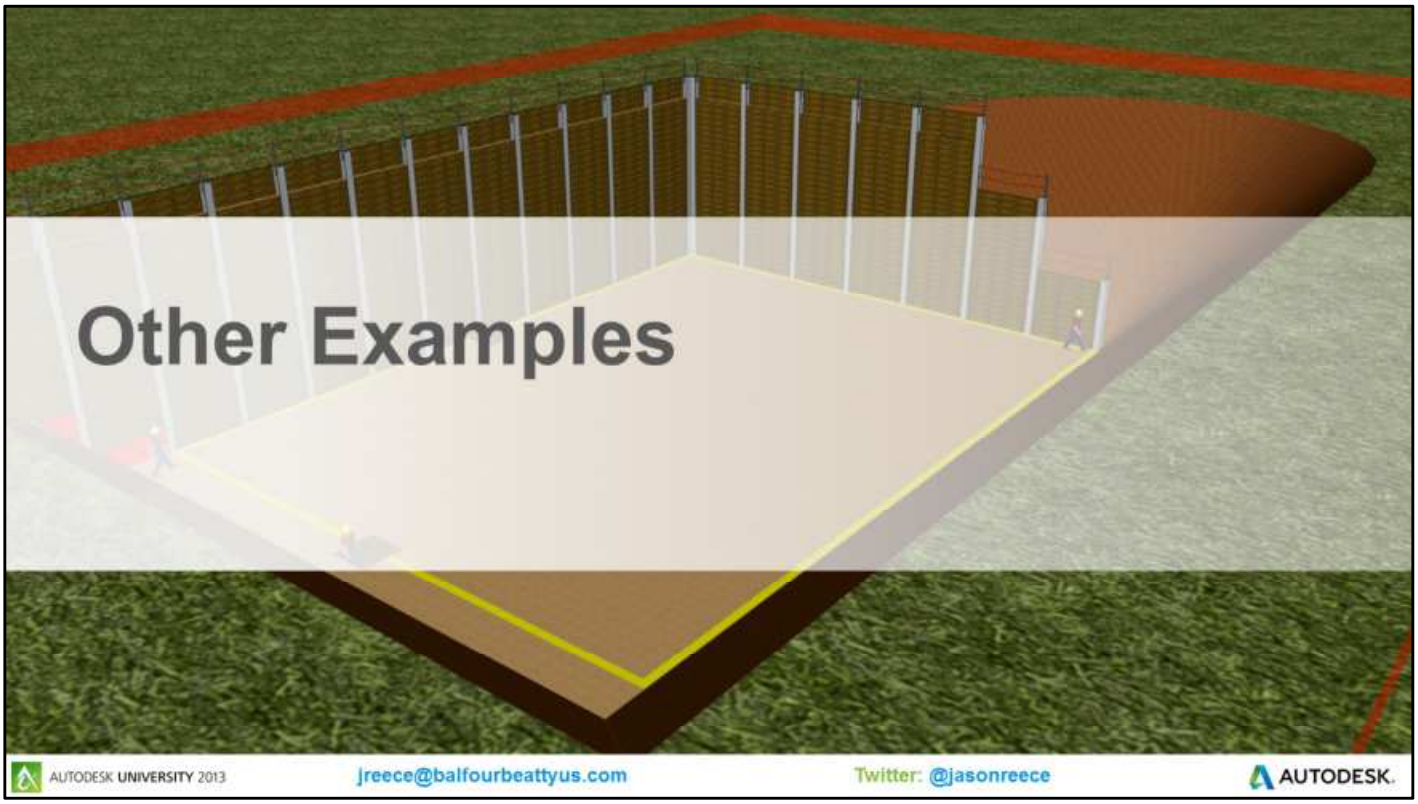
Facts will almost never stick with you even after just a few minutes after you hear them.


Other Examples
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Twitter: @jasonreece
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Mass Excavation

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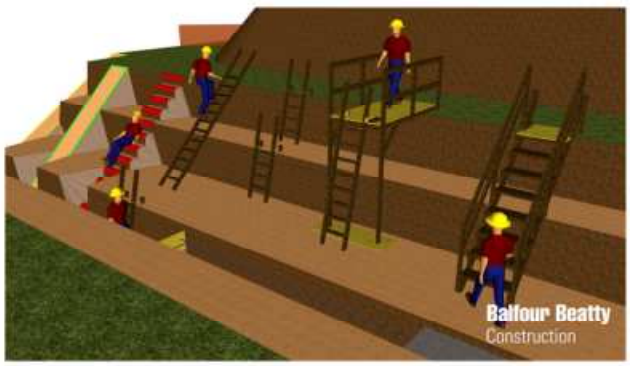
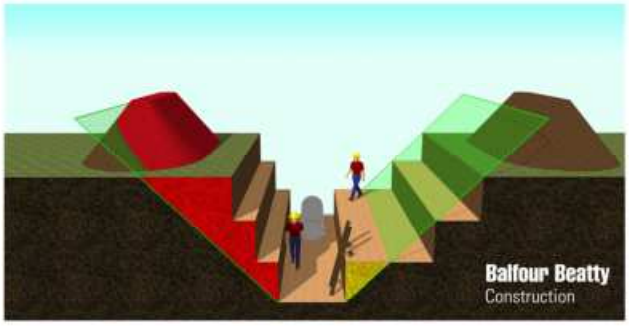
Benching





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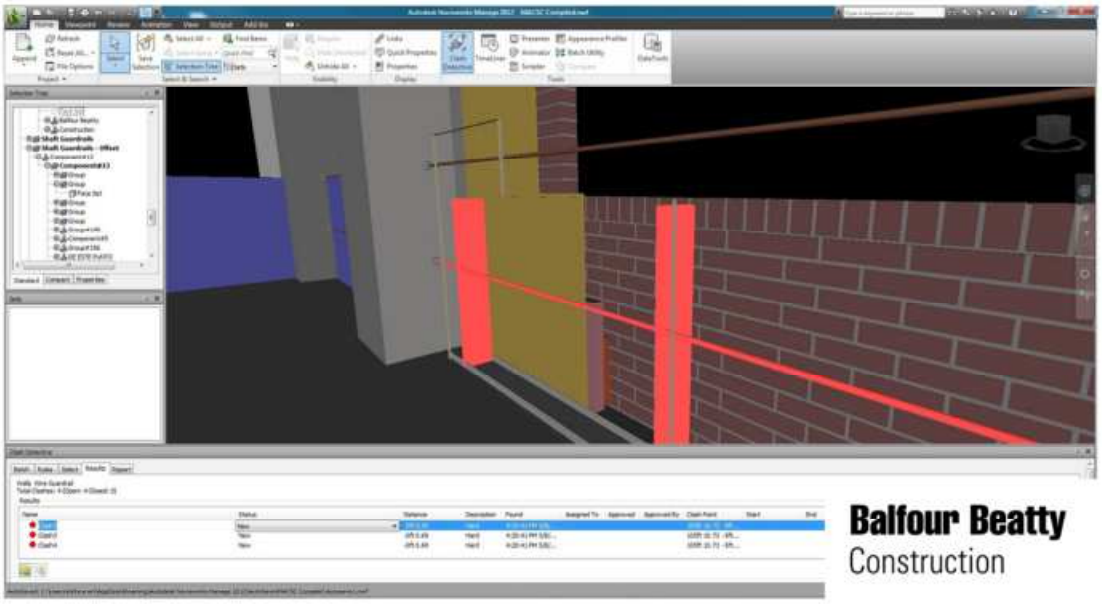
Railing Clashes (Using Navisworks)



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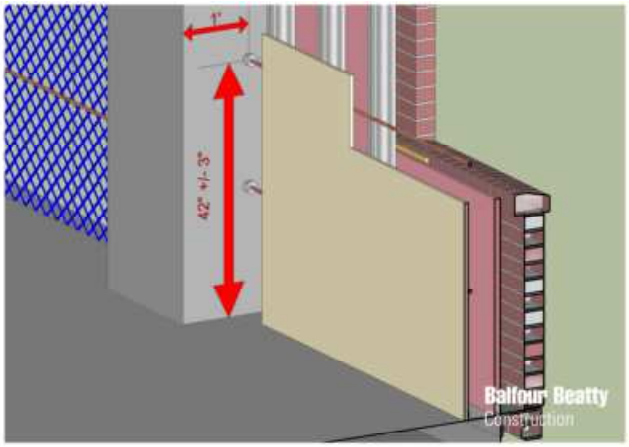
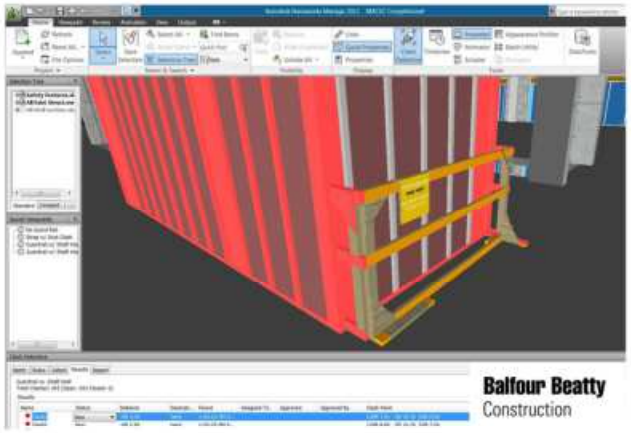
Twitter: @jasonreece

Proper Railing Installation Techniques





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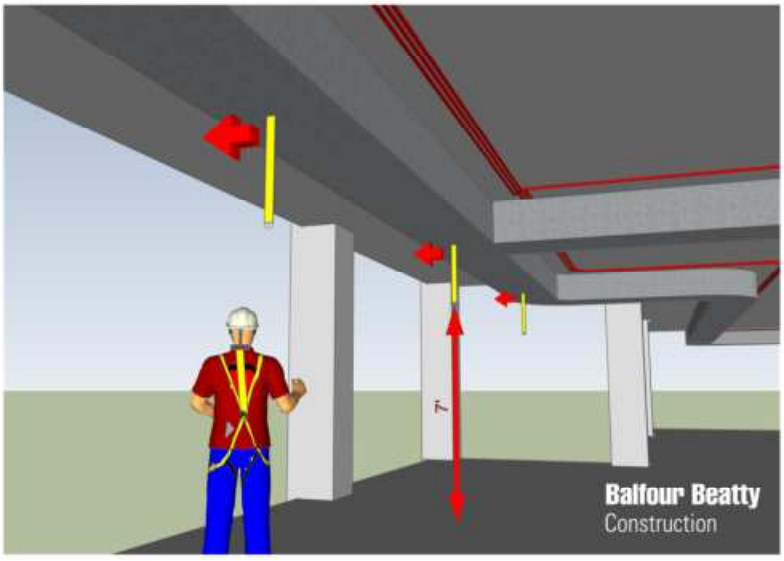
Twitter: @jasonreece

Embedded Safety Tie-off Coordination



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Brainstorming
What are some specific safety issues or features of work that you could apply the visual storytelling concept?
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jreece@balfourbeattyus.com
Twitter: @jasonreece
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Think Outside! Crowdsourcing Ideas

How can you use the visual storytelling concept for safety?

Please share with the class using the APP!

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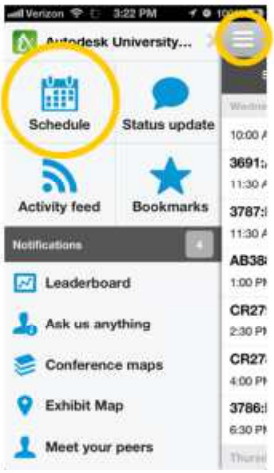
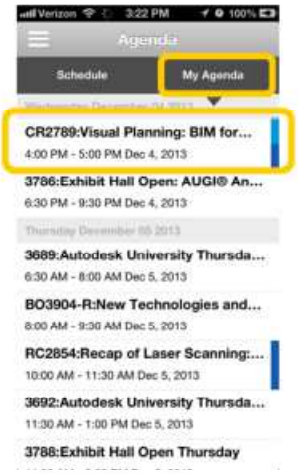
Interactive Class: How to Ask Your Questions





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Twitter: @jasonreece


Discussion: Storytelling
What are your experiences with storytelling and visual storytelling?
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Twitter: @jasonreece
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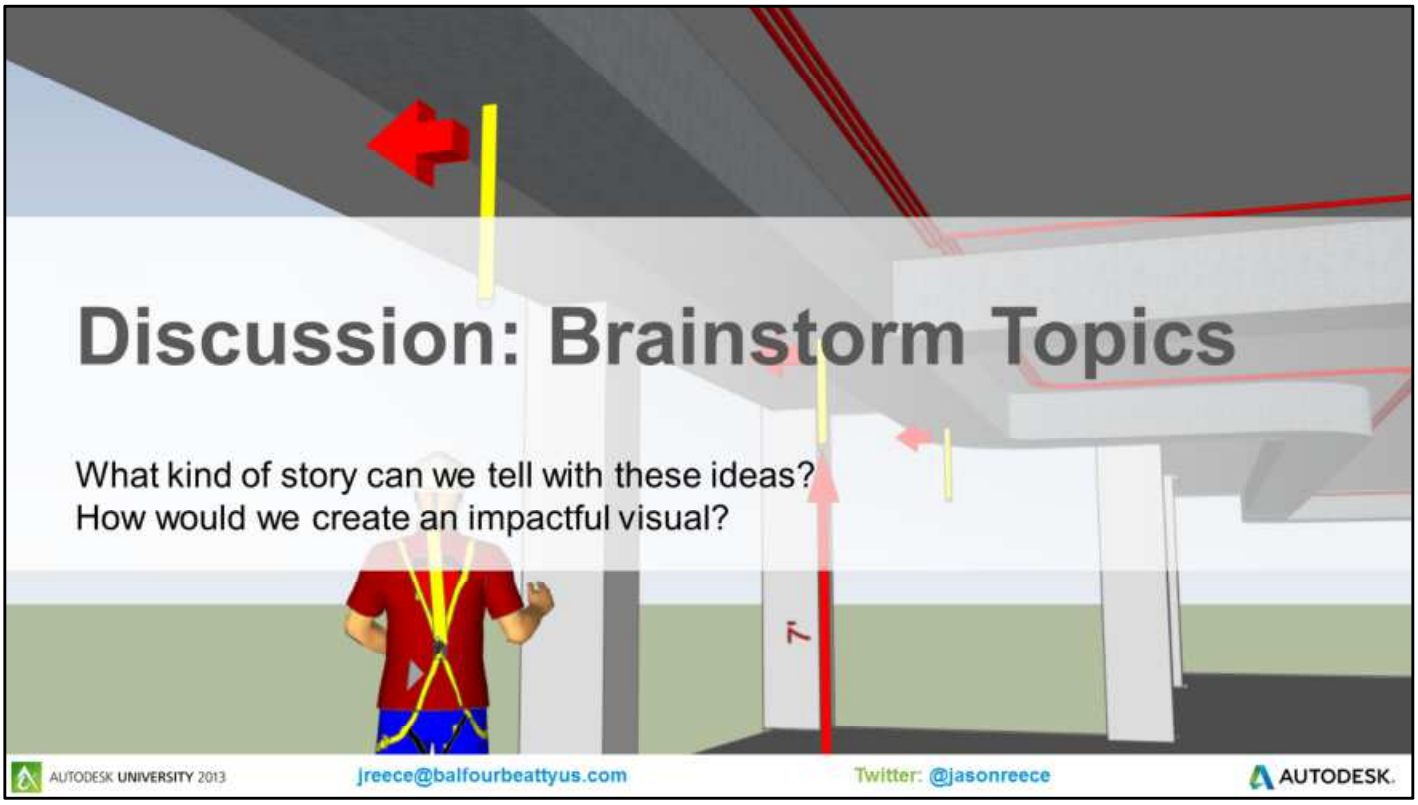
Discussion: Brainstorm Topics
What kind of story can we tell with these ideas?
How would we create an impactful visual?
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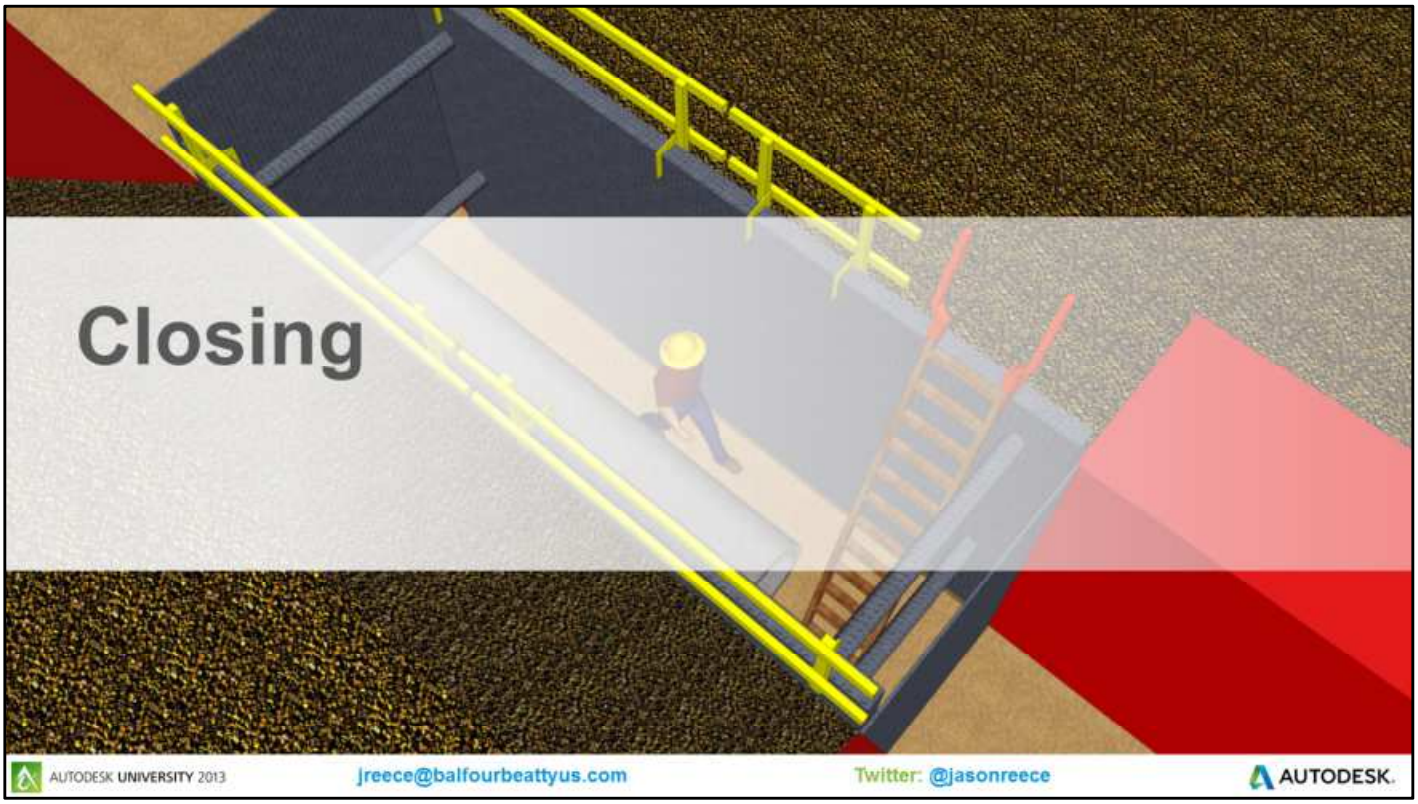
Closing
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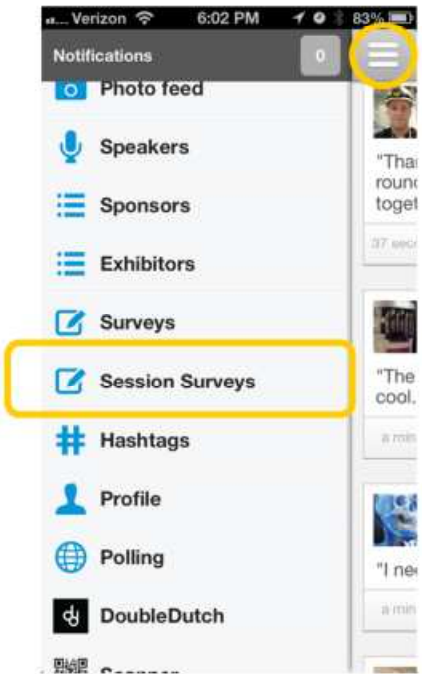
Rate this Class!

Speakers need your feedback!

It's the only way we'll be able to improve our performance



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