

PerspECCtive

Theme:
The Next 50 Years: Capturing Transformational Possibilities

Onsite Leadership

“Learning from the Past . . . Preparing for the Future”

Today’s Panel:

Dave Senko, SNC Lavalin, Moderator and Past Construction Manager

Thomas Hearn, Marathon, Major Projects Manager, Past Construction Manager

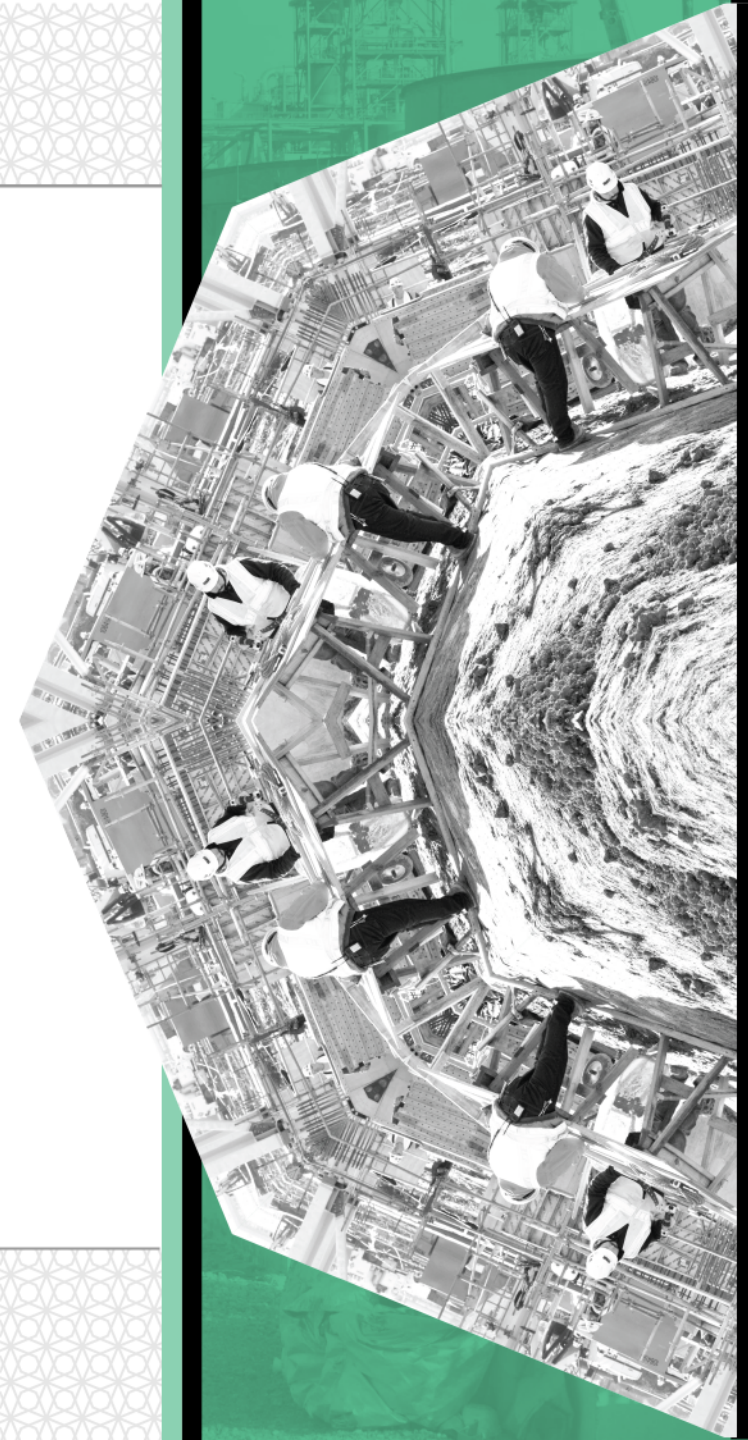
Matthew Moorhead, University of Houston, Construction Manager of the Future



Year:
2018

Date:
Sept. 5-8

Location:
**JW Marriott Hill Country
San Antonio, TX**



Dave Senko: Moderator, Onsite Leader (Contractor side)

Dave Senko has worked in the construction industry for about 39 years, in positions ranging from hands-on construction to supervision to project to executive management, on domestic and international projects in the oil & gas, power, pulp & paper, metals, and other heavy industrial projects. Project types included new construction, direct hire and construction management, both brownfield & grass roots, to over \$10B and over 10,000 crafts, small cap and portfolio programs, turnarounds / outages / shutdowns, union and merit shop, lump sum and reimbursable. Mostly his experience was direct line supervision (Craft Superintendent, Area Superintendent, Project Superintendent) and management (Construction Manager, Site Manager, Project Manager, Operations Manager, Estimating and Construction Department Manager, Director of Operations and Vice President for Operations and Construction, he also worked stints in construction engineering (Senior Field Engineer, Chief Construction Engineer and Manager of Technical Services), subcontracts, estimating, and project controls. His geographic experience includes North and South America, Europe, Africa, and Asia; including work in most of the US states.

Mr Senko earned a degree in Construction Management from the University of Florida; completed graduate studies in Business and Project Management at Portland State University in Portland, Oregon; then Executive Leadership and Entrepreneurship at Babson College in Wellesley, Massachusetts. He currently sits on the Executive Board of the ECC as well as serving as Vice-President on the Executive Committee for the University of Houston Construction Management Industrial Advisory Board. He lives in Southeast Houston with his wife, Bette, married for 35 years; they have three grown daughters and three grandchildren. He enjoys tennis, golf, motorcycling, and RV'ing in his spare time.



Thomas Hearn: Panelist, Onsite Leader (Owner side)

Thomas Hearn is the Manager of Major Projects for Blanchard Refining, LLC a subsidiary of Marathon Petroleum located at the Galveston Bay Refinery in Texas City Texas. His responsibilities include the engineering and implementation of new strategic *investment at the facility*. Mr. Hearn began his career with Marathon in January of 1988 spending the next 10 years advancing in various parts of the company including marketing, engineering and refining. Following this period, Mr Hearn held positions as the manager of several multi-million dollar programs at the Catlettsburg Ky and Robinson Il refineries prior to becoming Engineering Manager at the Catlettsburg Refinery in late 2006. In 2013, Mr. Hearn was appointed to the position of Director – Refining Reliability and Engineering. In this position his responsibilities included the coordination of the engineering and maintenance programs for Marathon Petroleum Company's seven refinery system. In 2015, Mr. Hearn was named Manager of Engineering and Major Projects for the Galveston Bay Refinery. His current responsibilities include developing and implementing a multiyear mega program to better position the refinery assets within the Marathon system.

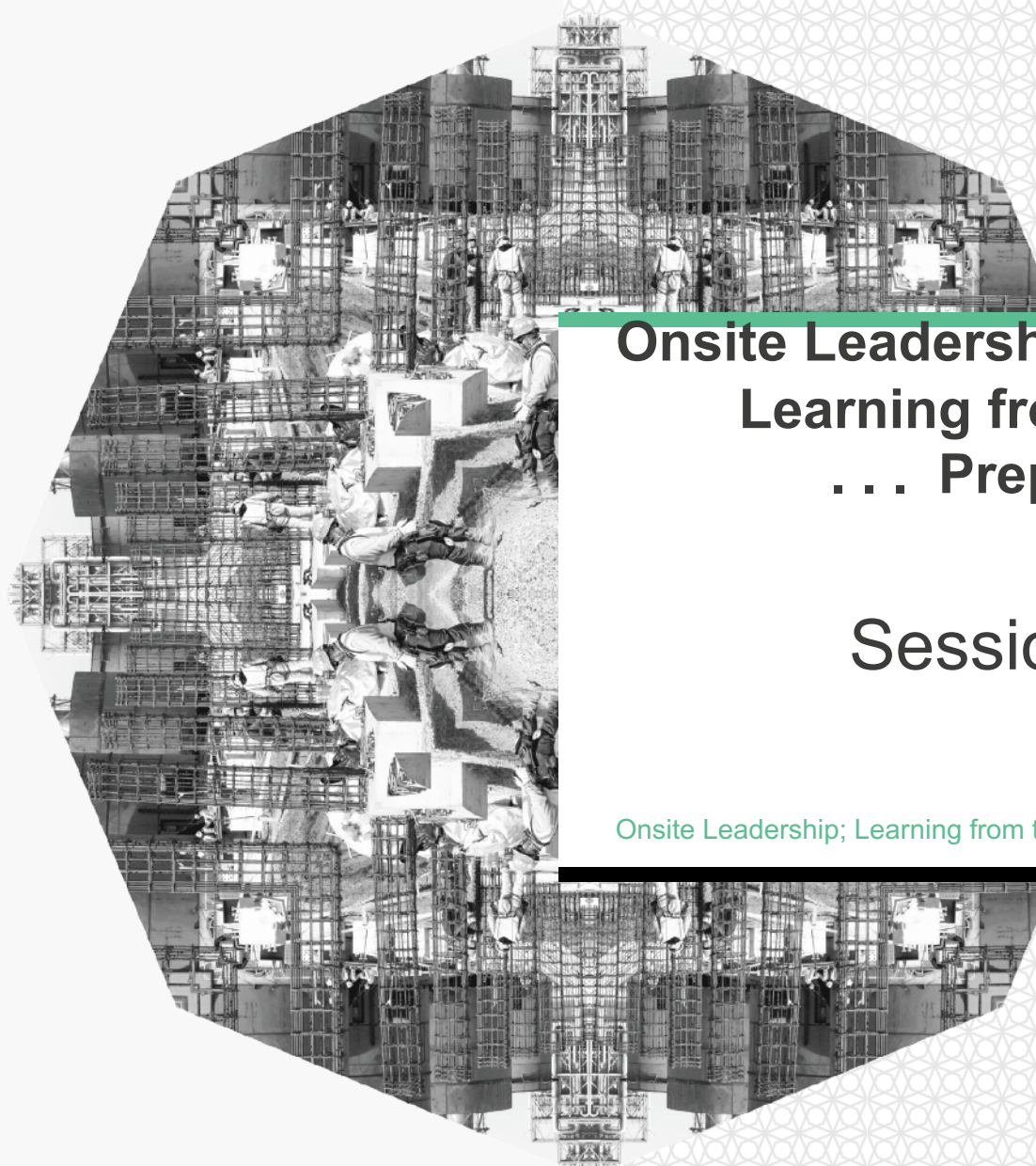
Mr. Hearn received a Bachelor of Science in Mechanical Engineering from the University of Texas at Austin in 1987. During his career he has worked in several Marathon facilities including Findlay, OH; Detroit, MI; Enon, OH; Robinson, IL; Houston, Texas; Catlettsburg, Ky; and Texas City, TX. Mr. Hearn resides in League City Texas with his wife and son. His daughter is a graduate of the University Of Louisville College Of Business.



Matthew Moorhead: Panelist, Aspiring Onsite Leader (Future)

Matthew Moorhead is a post-baccalaureate student in the Construction Management program at the University of Houston. He serves as President of the local ABC Student Chapter. Matthew is always looking for opportunities to improve the built environment: his construction interests include site supervision, project management and building projects that benefit the surrounding community. When Matthew is not building something, he is often taking something apart. He lives in Houston with his estimable wife and two above-average children.





Onsite Leadership

Learning from the Past

. . . Preparing for the Future

Session Summary

Onsite Leadership; Learning from the Past Preparing for the Future

Agenda

- Panel Introduction & Session Summary (10 Minutes)
- Reminiscent / Forward Look at the Decades (30 Minutes)
 - OSHA Era ('60's – '70's)
 - Email Era ('80's – '90's)
 - Y2K Era ('00's – '10's)
 - Unknown Era ('20's – '50's)
- Effective Rollout / Implementation of New Technology (5 Minutes)
- Effect on Emerging Technology Today (5 Minutes)
- Most Effective Qualities of a Future Site Leader (5 minutes)
- Take-Aways / Q&A / Wrap up (5 minutes)

Advance Pre-Conference Survey Question

- In 2 or 3 words and related to EPC Project Execution in the past 50 years, what new element or technology had the biggest impact on our industry?
- Results are

Advance Pre-Conference Survey Question Responses


*Plug in summary responses
from survey*

Survey Response #1

- Please indicate if you have served in a lead capacity at a plant site or construction project.
 - 1 – Served onsite as Site Manager (SM) or Construction Manager (CM)
 - 2 - Did not serve onsite, however was directly involved in assigning the SM and / or CM
 - 3 - Neither 1 or 2

Survey Response #2

- In which era did you start your professional career?
 - 1 - OSHA Era ('60's – '70's)
 - 2 - Email Era ('80's – '90's)
 - 3 - Y2K Era ('00's – '10's)



OSHA Era 1960's – 1970's

ECC Born in 1968!

Site leadership, Learning from the Past, Preparing for the Future

Fall Protection

- From 'holding on with your hands' to the safety belt



Fall Protection

- Belt & Single lanyard



Fall Protection

- Safety Harness, with double lanyard



From Big to Mega Projects

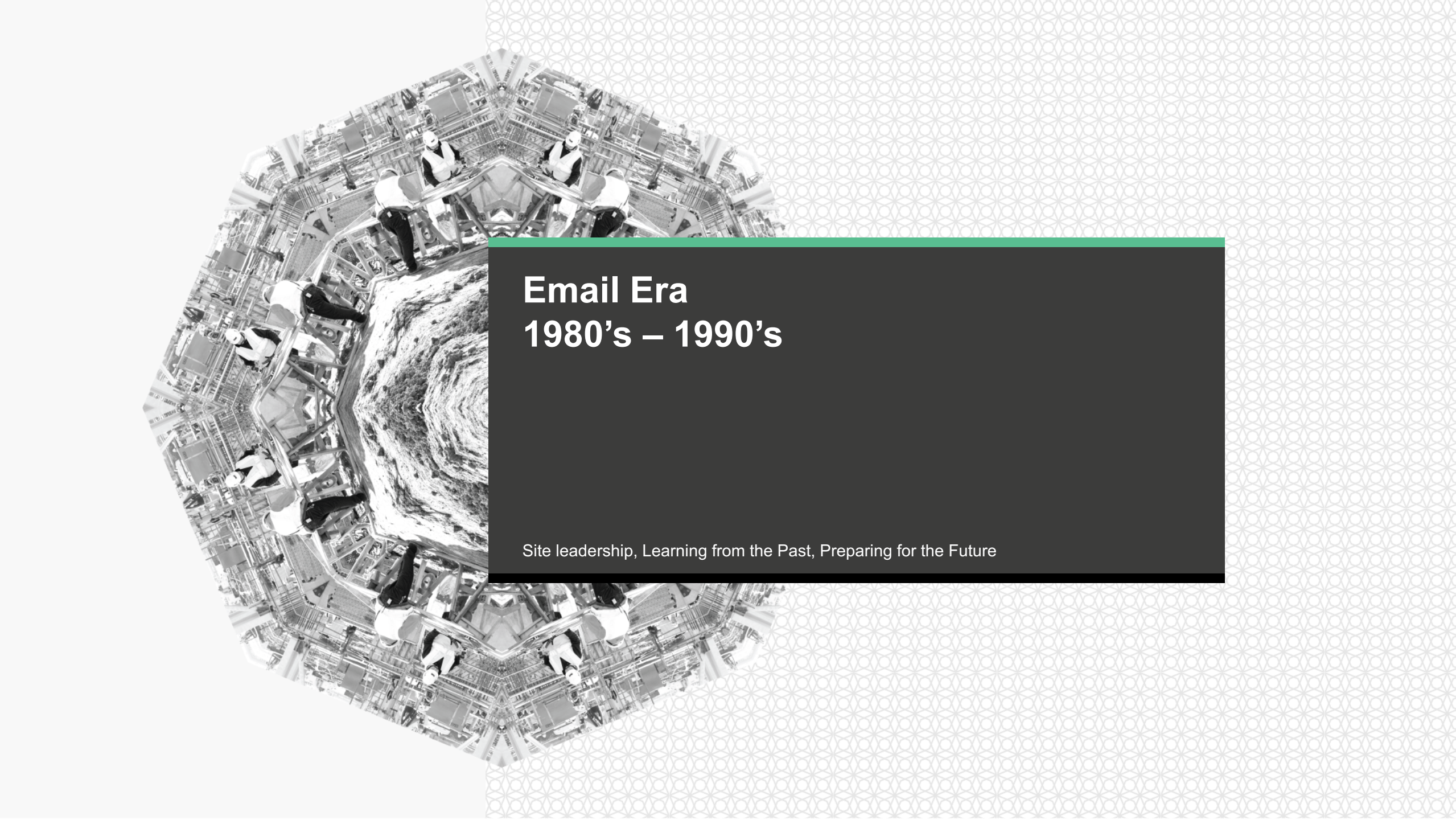
- Success dependent on site leadership
- Definition of success a constant
- Leadership is key to success
- Projects are very technical, but project success comes from leadership's vision



Evolution of Modularization

- Back in the 1970's, some equipment modules existed, but nothing like today's current modularized executions
- Typical modules then, were more like small scale “equipment packages or valve skids”, and were typically ‘truck-able’.
- Majority of the construction of the work, was generally ‘stick-built’ installations.
- Now, most projects, generally utilize a more Modularized approach, employing early design considerations and site arrangements/ complexities.



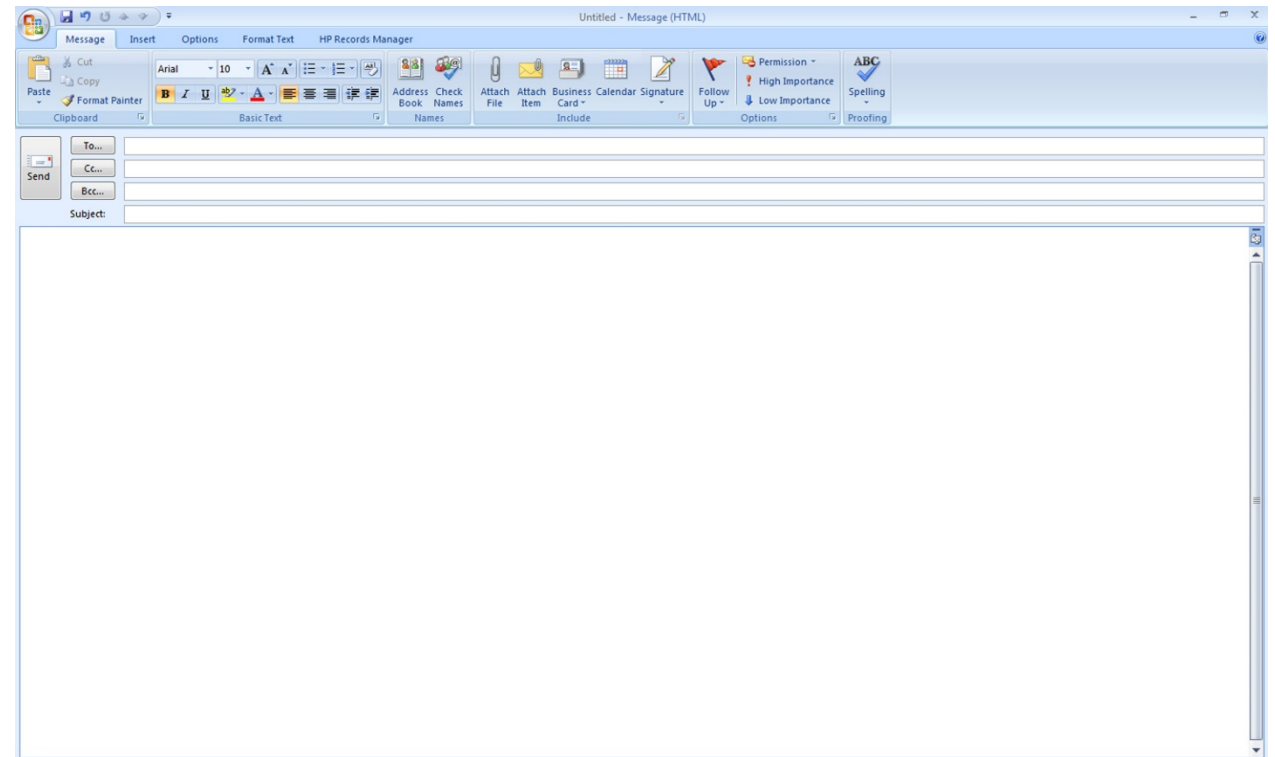


Email Era 1980's – 1990's

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Electronic Mail

- Supplemented written communication
- Telex's, then faxes, then email
- Evolved to include attachment capability



Birth of Craft Training

- In the 1970's and 1980's, construction craft training was almost non-existent
- Construction companies identified the need for “trained and qualified” craft personnel, and implemented craft training programs.
- Programs such as ABC, NCCER, Texas A&M University, various large construction companies across the US, and numerous regional area colleges blossomed
- **Craft Safety Training** was implemented in the late 1980's, after several major industrial incidents occurred, leading the construction industry to take immediate actions with Safety training of construction work forces.
- Today, the multiple Craft Training institutions continue to support the construction industry with qualified and trained personnel across the US.



Process Safety Management

- 1992 Process Safety Management of Highly Hazardous Chemicals, OSHA 1910 became the law of the land
- Compliance was the name of the game initially
- Enlightenment
- Continuous improvement through working together
- Compliance to a way of doing business



Facility Siting

- Challenge to site leadership
- Performance standard
- Success through planning
- Effective leadership must embrace the change





Y2K Era 2000 – 2010's

We're still here!

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Contracting

- In earlier decades, the project facility owner's team, and contractor's team generally acted more "independently and separated" from one another.
- Today, 'project teams' are more aligned with added "front end teambuilding" efforts . . . Sharing the 'risks and rewards'.
- Many contractors have taken a lead with bringing a wealth of 'how to' knowledge" to the projects arena. These add strength and directions with each project. Supported by owner teams has led to more partnering, strategic agreements / MSA's, program management, etc

Survey Response #3

- I believe most of us, owners and contractors, either have or are working hard to implement or develop Advanced Work Packaging (AWP) right?

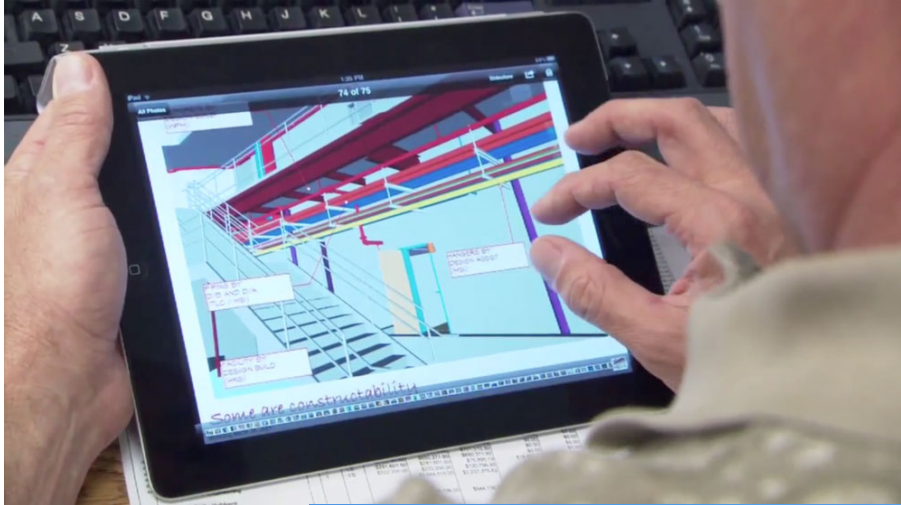
How many in the room would be comfortable giving a 1 minute explanation defining what AWP is?

- 1- Very comfortable, thoroughly understand what it is and how to use it
- 2- My company uses AWP, although I think it is same thing we have done for years, with different name
- 3 - I can not even spell AWP

Survey Response #4

- Same question for Digitalization?
 - 1- Very comfortable, thoroughly understand what it is and how to use it
 - 2- My company has a program to expand, although I don't really know what it is
 - 3 - I think it is same thing as the Dewey Decimal System
 - 4- I don't understand AWP, nor the Dewey Decimal System

Disruptive Technologies - Today



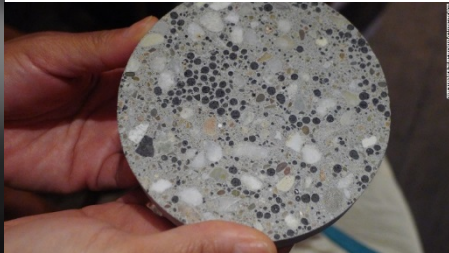
- Drones
- Digitization
- BIM
- RFID
- Real-Time Data Collection
- Advanced Work Packaging
- Front End Loading



Future of the Future 2020's – 2050's

Site leadership, Learning from the Past, Preparing for the Future

Disruptive Technologies - Tomorrow



- Craft Bots
- Biometric ID of Site Personnel
- Flying Cars
- Amazon-supplied Jobsite
- Biological Building Materials
- Internet of Things
- 3D Printing
- Autonomous Self-driving...Everything

Effective Rollout / Implementation of New Technology

Technology training is complementary to management and construction skill development

- Education example: bad teachers with cutting-edge technology become expensive bad teachers.



Tomorrow's Site Leaders:

- Are people-driven.
- Represent diverse cultures and backgrounds.
- Demonstrate solid management and construction fundamentals.
- Motivate others to innovate.
- Are tech-immersed.
- Use “big levers” to effect change.



Take Aways

- Fully appreciate the subject; make sure all understand the real value
- History tends to repeat itself; remember the safety belt, email, and AWP
- The actual roll out can be more important than the item
- Consider appropriate leader qualities, soft and hard

Soft:

Sensitivity, Empathy, Cultural Awareness, Teambuilding, Appreciate capability of next millenia

Hard:

Intricate knowledge of the new technology

Thorough awareness on its purpose and value

Construction Processes and Methods

Question / Comments / Advice?

#THANK YOU to our #Panelists

#THANK YOU for your time and participation

**Note: # was originally a tic-tac-toe game, evolved to represent pounds, now called a hash tag to label keywords in social media!
What next??**