
PerspECCtive

Theme:

The Next 50 Years: Capturing Transformational Possibilities

Onsite Leadership

"Learning from the Past Preparing for the Future"

..... Images from the decades



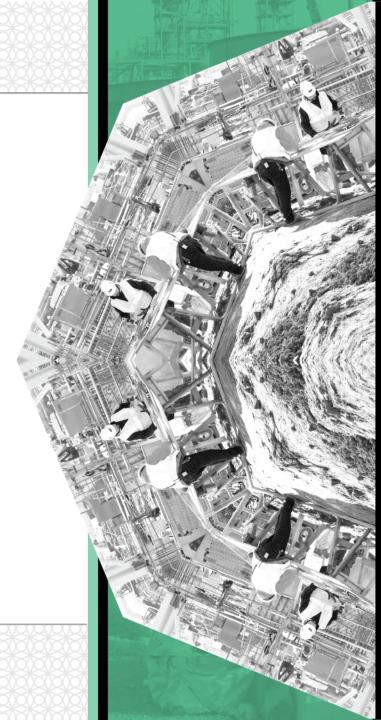
Year: **2018**

Date: Sept. 5-8

Location:

JW Marriott Hill Country San Antonio, TX





Seat belts!

- Provided in vehicles only as an option
- Now standard and a legal requirement



Safety Belts

Replaced the fall protection method of 'holding on' with your hands!

Single Lanyard

 Single lanyard connected a safety belt to a support as a required fall protection

... Although a single lanyard cannot provide 100% fall protection!



Fall Protection

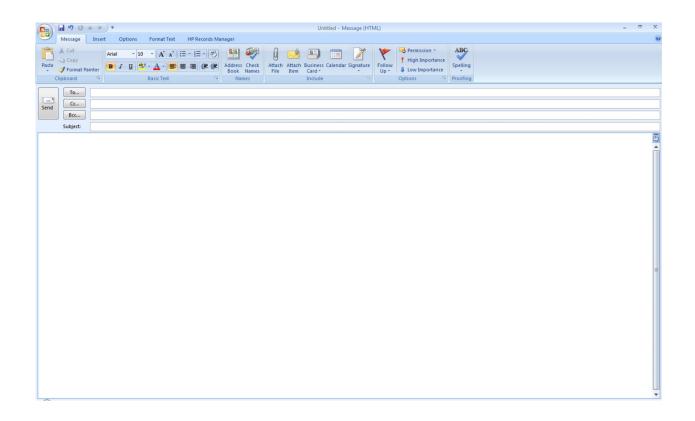
- Safety Harness, with double lanyard
- Allowed for sufficient time needed for extraction without suffocation
- Double Lanyard enabled true 100%
 Fall Protection





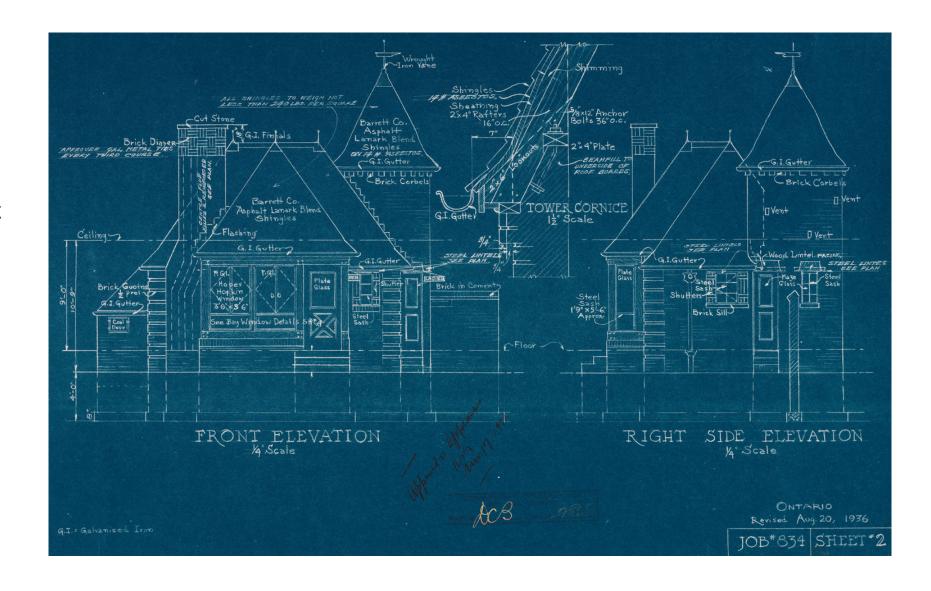
Electronic Mail, now E Mail

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



Blueprints

- Were actually 'blue'
- Hand lettered
- Templates and straight edges used



8 Track Tapes

Major advancement from reel to reel



Cassette Tapes

Big advancement from 8-track tapes



Bluetooth

Wireless connections



Dot-matrix printer

 Big advancement from images made by striking against an ink ribbon



Driverless vehicles

Exist now



Drones

Unmanned aircraft vehicles



DVD / CD

Big advancement from plastic tape
 Beginning from reel to reel devices, to
 8 track tapes to cassette tapes to plastic m such as DVD's and CD's



Floppy disks

- Plastic storage components
- Rewritable and non-rewritable
- 5 1/4" then 3 1/2", now extinct



Internet

- Global electronic connection
- World Wide Web



Communication

- First was telephone and telegraph
- Now Email, Skype, Sametime, WhatsApp, Line, Texts, and more



Weather forecast

- Look up in the sky
- A real issue that impacted construction sites, safety, and progress



Weather channel

- 24/7 global coverage
- On your Smart Device, phone, car and television



Microwave Ovens

Enabled more flexible menu for staff and workers



Personal Computer

 Replaced reliance on main frame computers



Laptop computer

From main frames to personal computers To laptops, notebooks, ipads, and other devices



Smart phone

- Apps Apps Apps
- Also alarm clock, video and still photo camera, tracking device, encyclopedia, and so many other uses . . . Even has personal assistant!



Advanced Laptop

- Were thick and heavy, with big batteries
- Evolved to be lightweight with detachable screens



Robot

- Robots were fictional characters from ...
 "Lost in Space" or the "Jetsons"
- Now they perform many routine and complicated functions
- Long before next 50 year ECC celebration, we will have 'craft-bots' construction our jobs



Robotics

 Became commercial and now expanding



Philadelphia Rod

 Used by surveyors together with a level to determine existing elevations and layout new



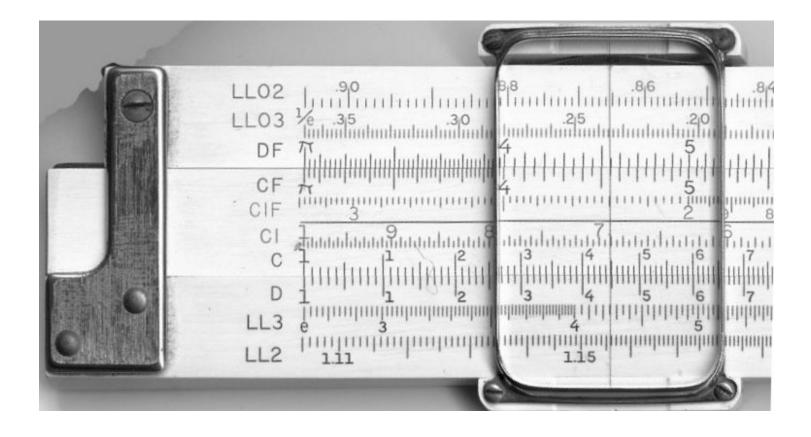
OSHA

- President Nixon signing OSHA into law
- Created a new agency in the Dept of Labor; a new governance and standard for plant and personnel safety



Slide rule

Preceded the calculator for math calculations



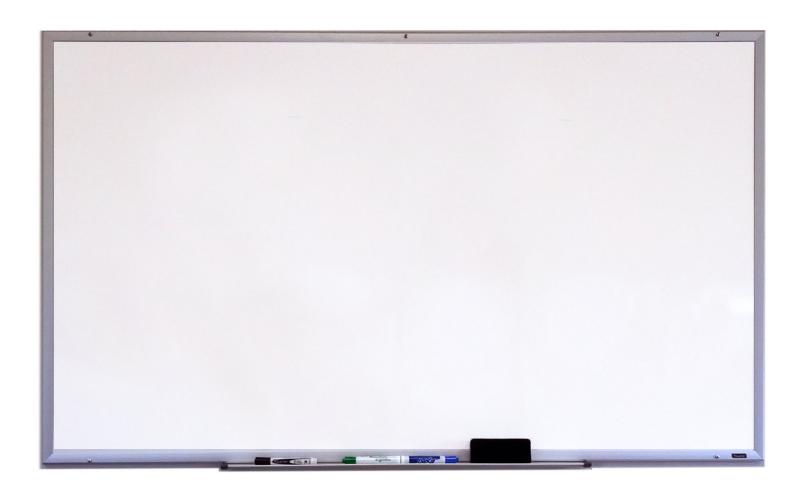
Chalkboard

• ... With chalk



White board

Replaced black board and chalk



Smart board

Black board to white board to smart board!



Surveyor's Tool

 A 'chain' used to measure horizontal distances



Surveyor's Chain

- For horizontal measurements
- No electronics, no GPS
- Held manually together with a plumb-bob to measure distances; reading had to be manually adjusted for temperature



Measuring Tape

With convenient handle and crank mechanism to recoil



Telex machine

- Provided typed messages thru phone line
- Note rotary dial which also disappeared in the 70's



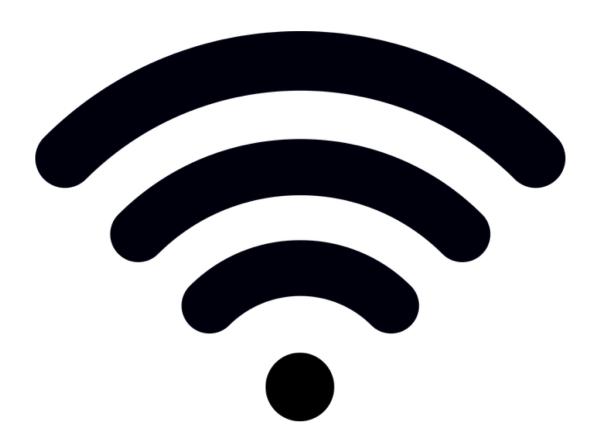
Theodolite Transit

- Surveyors best friend
- Accurately measures angles, both horizontal and vertical
- Centuries old, but only in recent decades was modernized



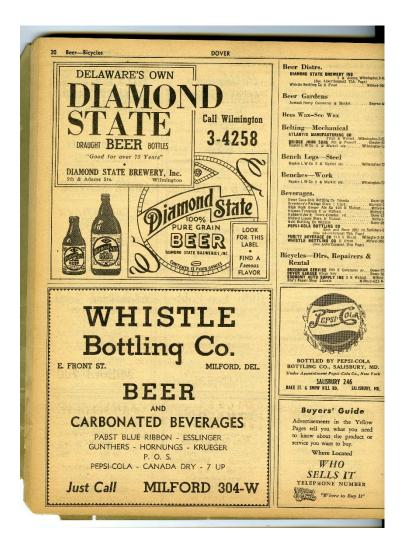
Wifi

- Household word
- Long way from Hi-Fi



Yellow Pages

- Business telephone listing
- Best friend for procurement and buyers
- There were white pages too!



Electric Typewriter

- Initial was just electric
- Then with memory
- Programmable





Equal Opportunity

EEO, Affirmative Action and all HR



Basic Calculator

- Basic functions with LED
- Then rechargeable
- Then scientific functions
- Then programmable
- Then quartz crystal
- Then solar charging



Vocabulary expansion

- Bytes, kilobytes, megabytes, zigabytes
- Wifi, Bluetooth,
- CD, DVD
- USB, HDMI,
- Modularization!
- Work packaging . . . Advanced Work Packaging!
- Human Relations / Human Resources
- EEO, Affirmative Action, Diversity
- ISO 9000