



LEAN Times

Monthly Update of JEG Lean Information

Marketing and CompEx show how to do 'MORE' with 'less' Construction education gets a boost from JEG

TU Dublin has enjoyed a close working partnership with Jones Engineering for many years through our founder institutions, and I am delighted to have this opportunity to thank Jim Curley and Jones Engineering for this very generous support of our *Transforming Tomorrow* philanthropic campaign. With our partners, we will deliver Ireland's first national centre of excellence in design and construction at Broombridge, where students will have an incomparable opportunity to experience all construction disciplines and to learn alongside researchers and innovators in what will become a testbed for the Built Environment sector in Ireland and abroad."

lead to more Irish construction and architectural firms competing successfully on the global stage.

"At Jones Engineering, we firmly believe in 'STEAM', the integration of science, engineering and the arts to generate new ideas and deliver innovative solutions. Our Group works in more than 13 countries, and every day I see the advantage Irish people have in how they do business. As Irish people, we have a natural creativity that allows us to

be good communicators but also to look through a more creative lens to projects. The multidisciplinary approach to construction education being developed at TU Dublin will be a game-changer in construction education, and we are delighted to support the university in this new approach as a partner in the building of the new Centre and in the presentation of these scholarships to Engineering and Arts students".

Jim Curley, CEO, Jones Engineering Group, said; "As a graduate of Bolton Street, I am delighted that Jones Engineering Group is supporting TU Dublin as it establishes this world-class campus here in Broombridge. The centre of excellence for construction education being established by TU Dublin is an important initiative for the future of Ireland's construction sector. I am particularly pleased that this multidisciplinary centre will break down the traditional silos that can exist between the creative and engineering disciplines and will ensure that our future leaders in the construction sector have the skills which will deliver greater innovation and



Pictured at the event to celebrate a new partnership with Jones Engineering were our own Jim Curley, scholarship winners Molly Mew and Gearoid Cronin and President of TU, Professor David Fitzpatrick.



Ho, Ho, Ho everybody, it's that time of year again when one of the stalwarts of Jones Engineering unknowingly volunteers to play Santa Claus, or as we call it "the Secret Santa." Your job is to guess who is safely hiding behind the beard and the red suit. A fantastic prize will await the winner who will be picked from all the correct answers we receive by Friday 13th December. Every Jones Engineering employee can enter by emailing their answer to Lean@joneseng.com Site personnel can enter using their personal email addresses if they don't have a Jones Engineering address. The Secret Santa's identity will be revealed in the final LEAN Times of the year on Thursday 19th December and the winner of the competition will be featured receiving their prize. December's LEAN Times will recap all that has happened in the world of Lean this year.



Jim Curley pictured with Professor David Fitzpatrick of TU Dublin and three of this year's recipients of the Jones Engineering scholarships to Engineering and the performing arts

GOT A STORY TO TELL?WELL, WHAT'S THE STORY BUD?

If anyone has information or news they want to share regarding innovations or Lean Principles on their site, or maybe you have an article or story you want to share. Please feel free to contact the LEAN Development Group at the email address below and we will be delighted to help.



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Catch-up Corner
LCi Conference 2019
NCH team new Innovations
5 Reasons your team should adopt stand-up meetings
Lean@joneseng.com

Jones Engineering Group has announced a €1 million donation to Technological University Dublin (TU Dublin) to support the building of Design & Construct, Ireland's first centre of excellence for construction education at TU Dublin in Broombridge, Cabra. TU Dublin is Ireland's largest provider of education and skills to the Architecture, Engineering and Construction sector with over 7,500 undergraduate and postgraduate students, 1,000 trade apprentices and 120 doctoral students. Design & Construct is TU Dublin's response to the critical skills shortages and challenges facing the construction sector. It will be a national centre of excellence for multidisciplinary and collaborative education, research and industry engagement for the Architecture, Engineering and Construction (AEC) sector in Ireland. Broombridge will, for the first time in Ireland, unite all AEC disciplines allowing

the sector address challenges and innovate to maintain competitiveness both nationally and internationally. Details of the donation were announced at the presentation of the inaugural Jones Engineering Scholarships to Engineering and Performing Arts students at TU Dublin. Five scholarships were presented in total - three to engineering students and two to students from the University's Conservatoire of Music and Drama. **Speaking at the Jones Engineering presentation, the President of TU Dublin, Professor David FitzPatrick said:** "As Ireland's first Technological University, TU Dublin is leading a transformation in Higher Education, encouraging deeper collaboration with industry for the advancement of knowledge and innovation, and developing key skills through practice-based educational opportunities. Cont'd on back page...."



Small minds want more space

Shigeo Shingo

Article from "The Pocket Sensei" by Hal Macomber & Calayde Davey

This lesson reminds me of construction job-sites. The more space there is on the site, the more materials seem to take up that space. Construction managers and site superintendents want lay-down space to keep materials ready for use. But the more space they use, the more non-value-adding work has to be performed.

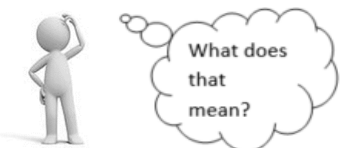
Material inevitably has to be moved multiple times before it is used. Material has to be inventoried so it can be found. Material has to be protected from weather. It has to be protected from theft. The more space we use, the less Lean we are. And as all Lean leaders know, inventory is waste.

At the opposite end is the inner-city construction site that has no lay-down space at all. It certainly is more work to coordinate the availability of material so production is not interrupted. Or is it? Downtown job-sites have far less inventory that is moved, damaged, stored, and tracked. Why would we want more space in the first place?

More space is a physical buffer for the variation that occurs in the production of the project. We don't know when something will be completed by one trade, so we don't know when something else will be started by another trade. We want more space to accommodate this variation in task completion—and with the use of that space we add waste to our operations.

Instead, let's go to the source of that waste—the variation of work completions. By decreasing the variation in the completion of work, we won't need buffering. High reliability of task completion uncomplacates the coordination of material arrivals. The reliability of task completion makes Kanban possible. How do you improve reliability? By making and securing reliable promises.

Promise Kata



Coaching kata is the repeating routine by which lean leaders and managers teach the improvement kata to everyone in the organization. The teacher or coach gives the learner procedural guidance – not solutions – that make the learner successful in overcoming obstacles.

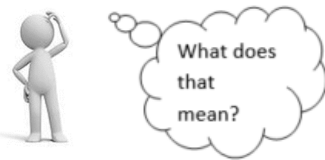
As usual, we start with ourselves. Begin recording the promises you make to include all elements of the promise along with the characteristics of reliability.

Follow the form below:

I (performer) promise to do something (conditions of satisfaction) for someone (customer) by some specific time in the future. I have the wherewithal to perform; I have estimated the time it will take; I have allocated that time on my schedule; and I sincerely intend to perform, still acknowledging that the future is uncertain, and I might have to revise my promise or take care of the consequences of not performing to my customer's conditions of satisfaction.

Record at least eight promises you make each day for a week. Repeat the process for the following week by recording the promises others make to you. Capture at least eight promises each day.

Hansei



Hansei is a Japanese word meaning "reflection" or "self-reflection".

What are you noticing about your reliability? How did it change over the week you recorded your promises? What impact will reliability have on your work? The work of others? What are you noticing about how you work with others? Are they becoming more reliable for you? What is the connection between reliability and waste in your operations?

How to do more with less

The previous article highlights how we still seem to be able to manage our materials even on city centre construction sites where we have minimal laydown space.

The more space we have, the more material we seem to store there!



Congested pipe laydown area

Most peoples' first reaction when setting up on any project is to grab as much real estate as possible. Without a system in place to manage what is stored there, this will definitely be counter-productive.

Having less space available forces us to:-

- Be more organised
- Plan ahead
- Schedule fabrication in the right sequence
- Call materials to site 'Just in time'
- Deliver straight into the building

If we spend more time up front with a smaller number of people planning and scheduling things in the right sequence, we will save on a much bigger scale by wasting less time for the much larger number of crew members on site.




Positive actions:-

- Map out laydown areas into a grid pattern and log which items are in each grid to save time finding things
- Position similar items close together and lay out in order of size eg. Pipe clips, bolts etc. (smallest to largest)
- Label shelves in stores or office with type of product to be stored there, to simplify search eg. Butterfly valves, O&M manuals etc.
- Use mobile trolleys or racks for storage on the site, to prevent wasted time relocating these
- Label each pipe rack with list of spool

- numbers and when removing a spool, update the list by crossing off number
- Arrange deliveries of material required for specific areas on site and move them directly to that area.
- Only plan to take in a week or two worth of material to the area (at most) each time

Marketing show the way

What do you do when you are told you now have only half the amount of storage space available to you for your department?

1. Put your head in the sand and hope the problem goes away. 
2. Get totally stressed out about it and let it effect all the other things you should be dealing with. 
3. Think logically about what items you really need to store locally, make a plan and get on with it. 

During the recent office move from Mespil Court to Pembroke Road, this was the scenario our Marketing team were faced with.

Their storage area in the new building was half the size they were used to, so they needed a plan.

- Only items that were used regularly could be stored here and quantities of these had to be kept to a workable level.
- Shelves were labelled to show what could be stored in each area
- Storage holders for marketing literature and brochures were used and labelled
- All pull-up banners had a photo of the banner attached to the outside for ease of identification and are now issued and tracked from a log sheet



Marketing store, easily accessible

This just goes to re-inforce the point that when you are faced with having less space available, you can still be as efficient, if not more efficient with a little more planning up front.

Keep up the good work guys!

CompEx goes up in the world

What is 'CompEx'? I hear you say.

CompEx is an internationally recognised qualification for M&E personnel who install or maintain 'Ex' equipment in potentially explosive atmospheres. Jones Engineering in conjunction with UK based ExVeritas operate the first and only licensed CompEx training centre in Ireland.

As part of our recent upgrading of the offices at Little Island, Cork, the CompEx training centre has had to move from the ground floor to a smaller footprint at first floor level.



New CompEx training room layout

Some might have considered this a problem, but to Peadar Walsh and Michael O'Brien (Douglas calibration Management Team for this area), it was taken as a challenge to see how they could improve their facility and provide a more superior service to their customers.

- Individual work benches on wheels were developed to give each trainee flexibility to position their bench adjacent to their work area
- Local storage of components (lin bins) attached to each bench now means less walking and more efficiency for the trainees as well



Cable drum storage on rollers

- Heavy cable drums now need to be transported to the new first floor location, so a clever platform installed at first floor level in the adjacent workshop allows use of the existing overhead gantry crane to make this task very easy and eliminate any manual handling issues



New loading platform accessible by overhead gantry crane in workshop

- Use of rollers under each cable drum means rolling off lengths of cable is now significantly easier



Mobile bench c/w lin bin storage

"It is not the strongest of the species that survives, nor the most intelligent. It is the one that is the most adaptable to change." – Charles Darwin