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LCI WEBINAR NO.12 (09 NOVEMBER 2017)

“LAST PLANNER® SYSTEM - THE PRACTICAL
APPLICATION AND BENEFITS OF THE 6-WEEK LOOK
AHEAD”

PRESENTED BY NIALL STONE



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Topic : Last Planner® System - The Practical Application and Benefits of the 6-Week Look Ahead

This Webinar will commence @ 15.00

LCI Ireland Webinar

Date : 9th November 2017

Presenter : Niall Stone.

Moderated by : Susan Doyle (BoxMedia)

Opening Introduction by: Richard Fitzpatrick – Chair, Lean Construction Ireland



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Today's Presentation

Today's session follows on from Webinar number 11 "The 5 Levels of the Last Planner® System: Should, Can, Will, Did and Learn. Presented by Paul Ebbs and special guest Dave Umstot

The previous webinar focused on the different levels of the Last Planner System. Today we aim to build on that demonstration by focusing on one of the key elements of the Last Planner® System, the 6-Week Look Ahead.

The previous Webinar established a flow and summary of each of the 8 system elements. We have used some of the slides to maintain the momentum and familiarity gained from the previous exercise.



Summary of the previous Webinar on Last Planner® System (LPS)

- *Benefits: Better outcomes, more reliable plans, enhanced collaboration, trust, freeing up capacity etc. (Made Available to Attendees of Webinar no. 11)*
- *Development of LPS: 1990s research by Ballard and Howell, Industry Averages.*
- *Role of the LPS in Lean project delivery: Backbone of project Delivery, Should, Can, Will, Did and learn.*
- *Reliability: Understanding Promises, Plan Reliability, PAC, Plan Do Check Act*
- *Explored the structure of the LPS System: The 8 Elements of Last Planner® System*



Early Research Data

- *Industry average PAC (Planned Activities Complete) is 54% (Ballard 2000)*
- *Projects completed when planned 41%*
- *Projects completed to budget cost 68%*
- *7 day accidents per 100,000 employed 421*
- *Median Profit before tax 2.5%*



Current Process Benchmark for the Last Planner System

- *Ballard and Tommelein revisited the earlier work from the 1990s on the LPS*
- *Sets out the 8 Elements of the Last Planner System*
- *Reviews Functions*
- *The Principles and Rules: Keep plans in public view, increase detail as you plan etc.*
- *Process Review*
- *The Methodology Explained*
- *Glenn Ballard & Iris Tommelein (2016). Current Process Benchmark for the Last Planner System. Available at p2sl.berkeley.edu*
- *Hyperlinked at the end of the document for future reference*



Should-Can-Will-Did-Learn

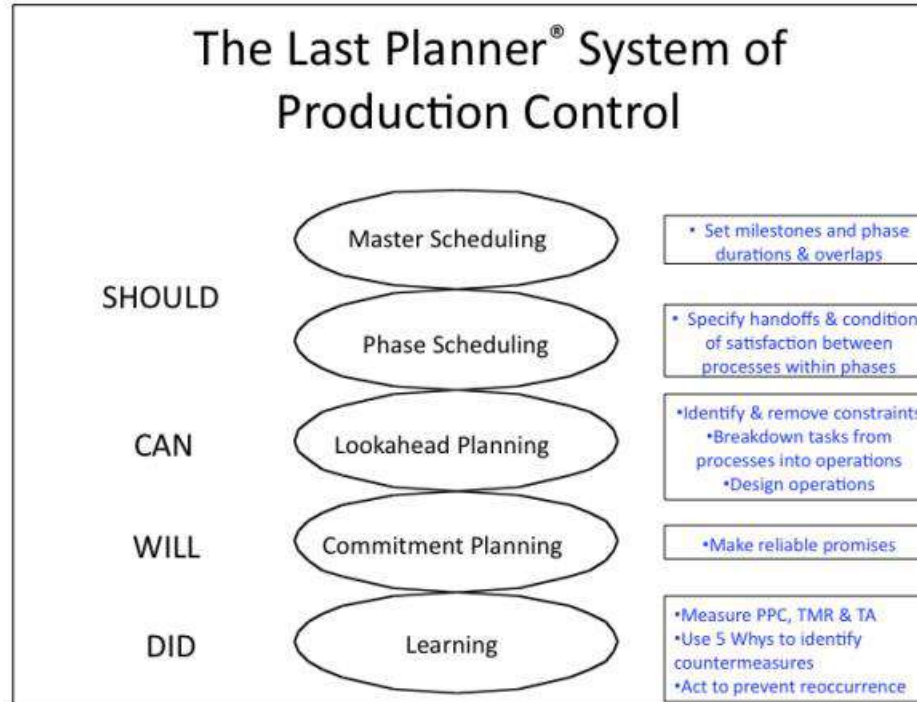


Figure 1: SHOULD-CAN-WILL-DID

(Ballard & Tommelein, 2016)

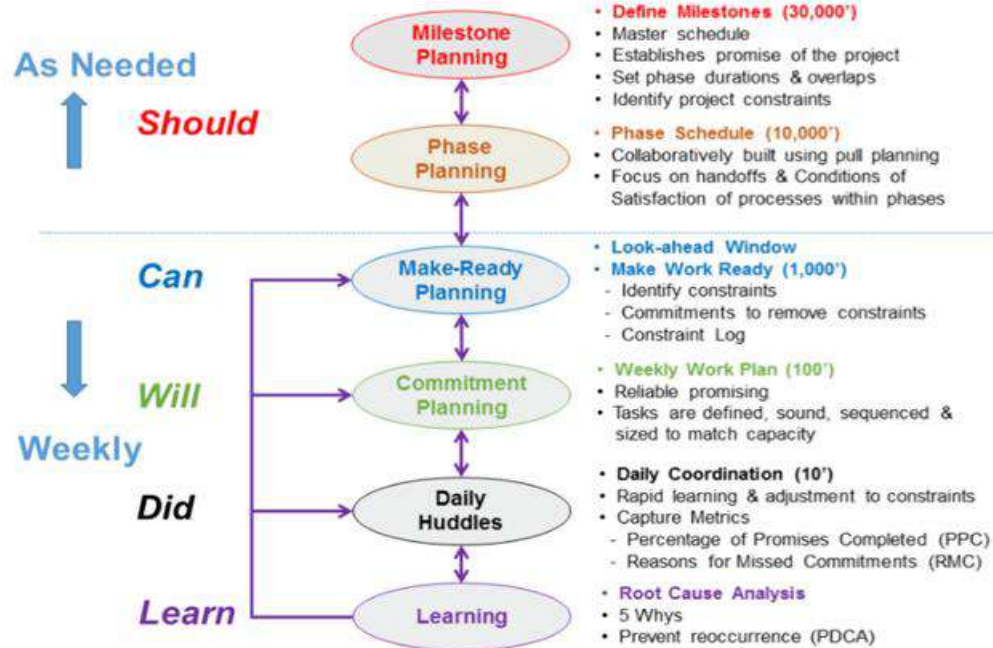


Last Planner has 8 Elements

1. *Master planning*
2. *Phase planning*
3. *Make Ready Process*
4. *Last Planner Weekly Meets*
5. *Weekly work plans*
6. *Daily production meetings*
7. *Dashboards – weekly metrics to a common format*
8. *Improvement projects driven by reasons for non-completion of plan*



What is the Last Planner® System?



Creating and maintaining reliable workflow

After Glenn Ballard, Greg Howell & Hal Macomber

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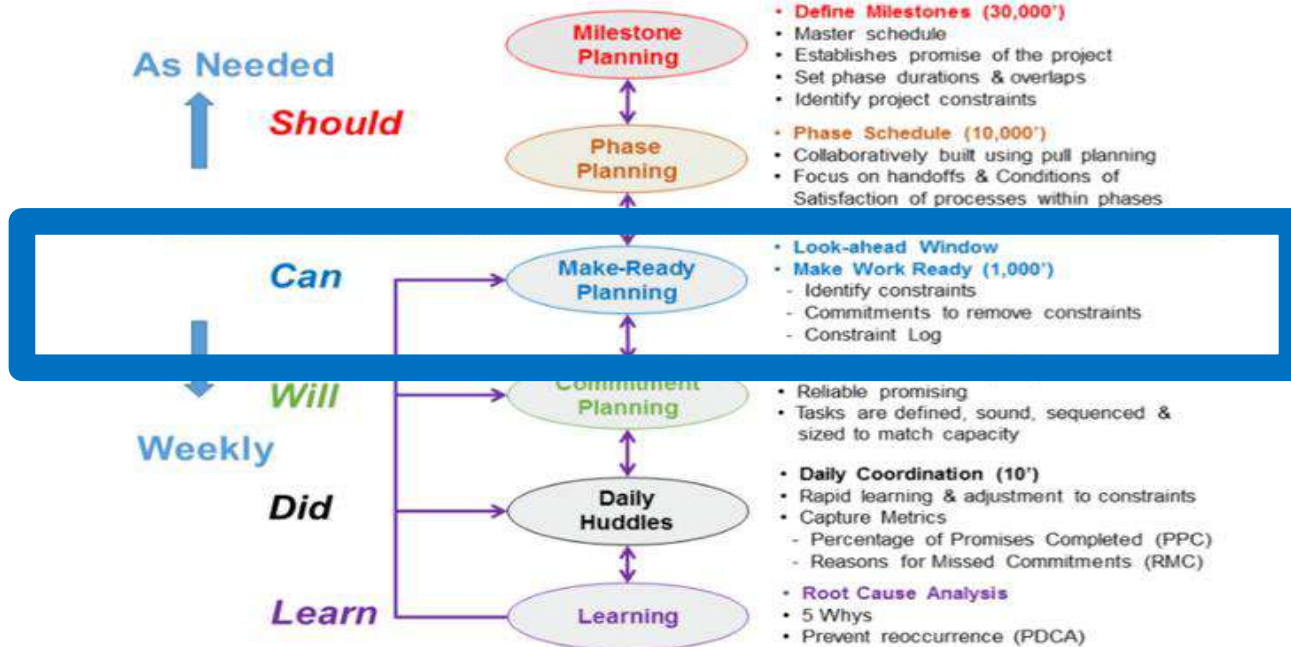


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CAN: Make Ready Planning (1,000')



Creating and maintaining reliable workflow

After Glenn Ballard, Greg Howell & Hal Macomber



Make Ready Planning

1. *Look ahead plan*
2. *Make work ready (Ready To Build)*
3. *Identify constraints*
4. *Commit to removing constraints*
5. *Constraints log*



Make Ready Planning

- *Aim:*

To be able to start an activity, when it is planned to start. At either master plan level or weekly last planner level.

- *The Question:*

Do we really have everything we need to start the work?



***CAN:* 6 – 8 Week Make Ready Plan**



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Make Ready Plan In Practice



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(Leanconstruct, 2017)




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Constraints Summary

Constraints Summary Sheet

Client / Project		Prepared by														
Phase		Date														
Area																
Ref	Task Description	Task Start Date	Trade	Information				Pre-requisites			Inputs				Proceed?	Comments
				contract/instruction	design	Outstanding RFIs	method statement/risk assessment	weather dependent	preceding tasks complete	access	labour	materials	plant/tools	Space		


Constraints Summary

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
		Ready to Build Summary															
Client/Project: Digital Hub		Prepared by: A.N Other															
Phase:		Date: 5/8/2013															
Area:																	
Task Details			Information				Prerequisites		Inputs					Proceed	Ready to Build score	Comments	
Ref	Task Description	Task Start Date (Week Number)	Trade	Tech Sub signed off	design checked	no outstanding RFIs	method statements/ risk assessment	preceding tasks complete	access	Labour	Labour clearance	Plant/ Tools	Materials ordered	Materials on site	Proceed	Ready to Build score	Comments
35	Electrical distribution	4		y	y	y	y	y	y	y	y	y	y	y	y	11	
49	Install new drainage	3		y	y	y	y	y	y	y	y	y	y	y	y	11	
43	Excavate new route	2		y	n	y	y	n	y	y	y	y	y	y	y	9	
P25	Erect Boundary Fence	1		y	n	n	n	y	y	y	y	y	y	y	y	8	
sfacc1	Erect scaffolding	1		y	n	n	y	y	y	y	y	y	y	y	y	9	
sfacc1	Erect scaffolding	1		n	n	n	n	n	n	n	n	n	n	n	n	0	



Assigning Tasks

Information				Prereq
Tech Sub signed off	design checked	no outstanding RFIs	method statement/ risk assessment	preceding tasks complete
y	y	y	y	y
y	y	y	y	y
y	n			
y	n			
y	n			
n	n			



Niall Stone

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Assign to Alan Woods

The assigned person will be notified and responsible for marking as completed.



Benefits of Make Ready Planning

- *Avoid delays and disruptions*
- *Supports teamwork*
- *Maximise productivity*
- *Ensures that we have everything in place to start the work on time*
- *Issues can be highlighted and addressed before work commences rather than as a task commences.*
- *Supports the Weekly Planning Process*
- *Help to increase the Planned Activity Rate*



Trademark of the Last Planner® System

According to the Lean Construction Institute (2015, p. 149):
The LCI holds a registered trademark (®) on Last Planner®. The purpose of trademarking the term is to take care of the use and meaning of Last Planner and the Last Planner System of Production Control®. There is no intent to prevent people and companies from using LPS® to deliver their projects. All LCI asks is for people to include the registered trademark ® once in any document, to note that the Lean Construction Institute is the owner of the trademark and to include LCI's website with the attribution. (www.leanconstruction.org)



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Further Information

Current Process Benchmark for the Last Planner System

GLENN BALLARD¹ & IRIS TOMMELEIN²



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Thank You

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