

# LEAN Ohio

Department of Rehabilitation and  
Correction (DRC) & Department of  
Transportation (DOT)  
Truck Assembly Process

May 15 – 19, 2017

# How Did We Get Here?

- Chillicothe Correctional Institute (CCI) and the Department of Transportation (DOT) partnered together on a project that provides CCI inmates a chance to learn a job skill in building ODOT dump trucks.
- Same process has existed for over 50 years and it was time to look for ways to make improvements around quantity of trucks being built and level of quality when they leave the facility.

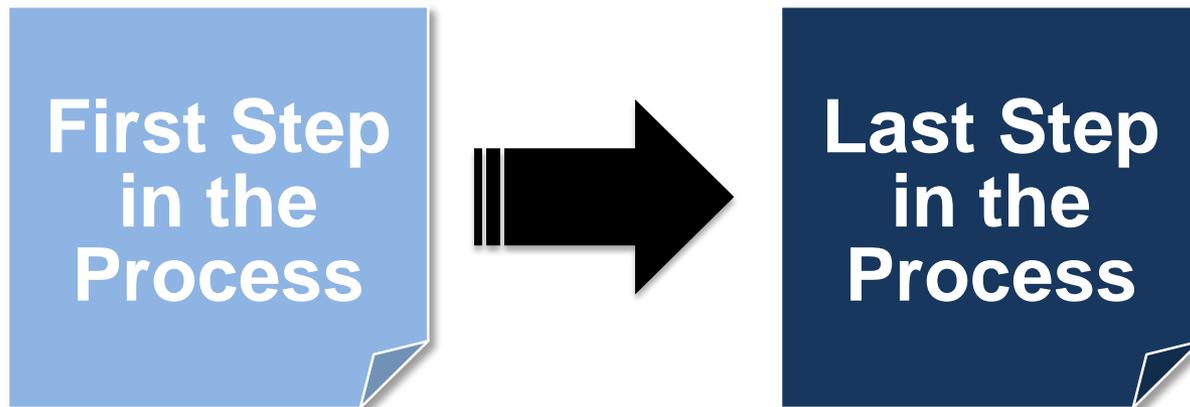


SIMPLER. FASTER. BETTER. LESS COSTLY.

[lean.ohio.gov](http://lean.ohio.gov)

# Event Scope

- What is the first step in the process?
  - **Our process begins when the trucks are delivered to CCI.**
- What is the final step in the process?
  - **Our process ends when the vehicle completes final inspection outside of CCI gate.**

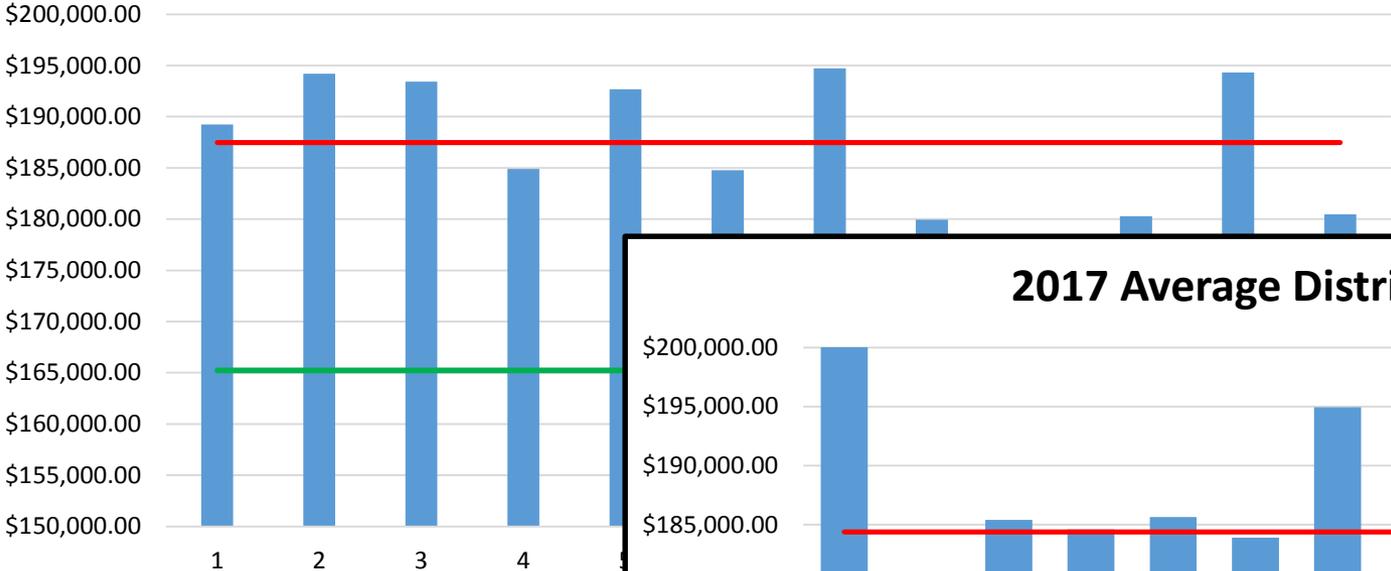


# Event Baseline Data

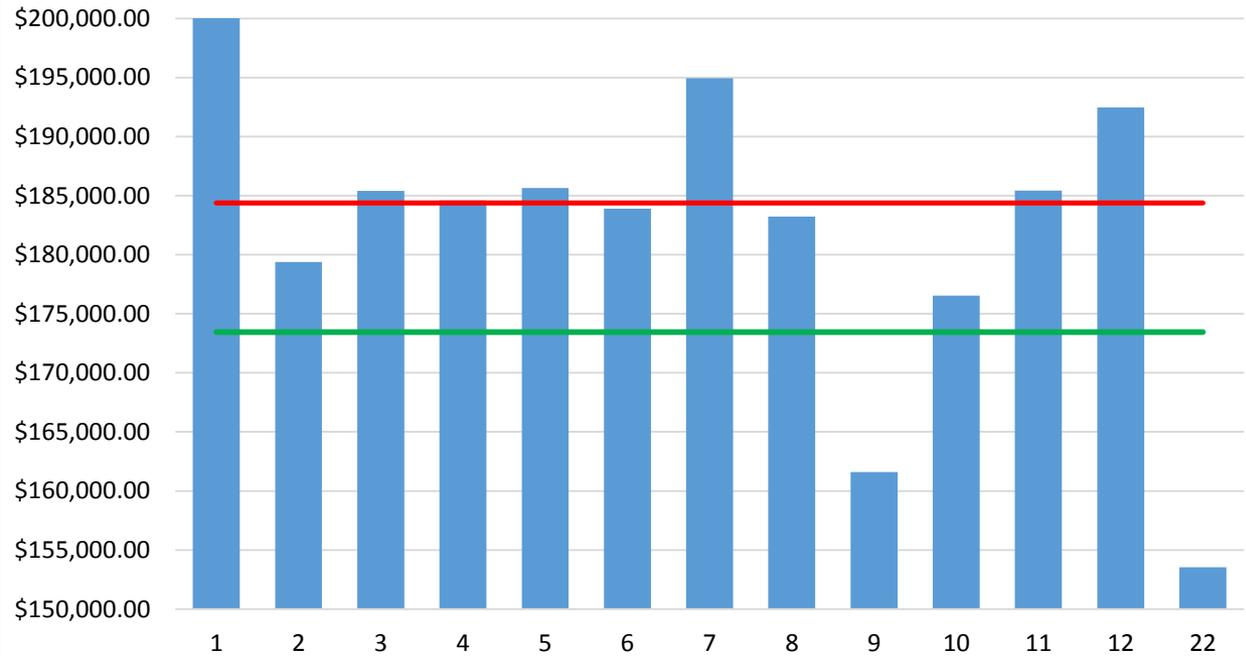
- Number of customers:
  - 12 Districts, 88 Counties
- Number of new trucks per year:
  - Between 160 and 163
- Number of refurbished trucks per year:
  - Between 10 and 12

# Event Baseline Data

### 2016 Average District Truck Costs



### 2017 Average District Truck Costs



state average —

average goal —

# Process Improvement Goals

Identify a standard production time on new and refurbished trucks in order to identify bottlenecks and align appropriate resources

Decrease errors made in the refurbished and new truck production process

Reduce % of rejected trucks at final inspection

# Change for the Better

- Customer focused
- Right people changing the process
- One week-quick and action oriented
- Necessary resources available immediately
- New process implementation begins next week





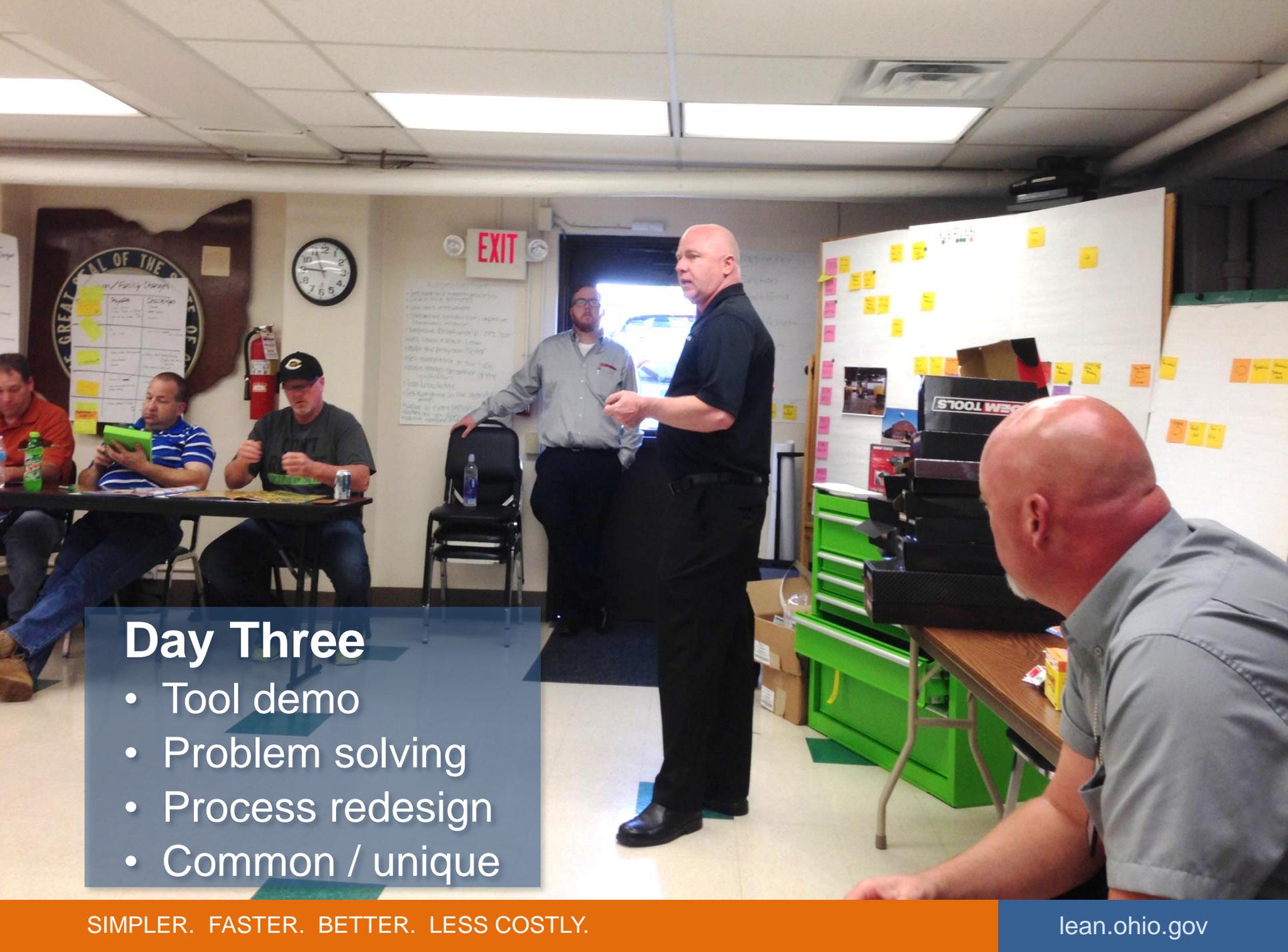
## Day One

- Level setting
- Scope of event
- Customer identification
- Current state mapping



## Day Two

- Finish current state mapping
- Waste identification
- Value added discussion
- Lean training
- Brainstorming



## Day Three

- Tool demo
- Problem solving
- Process redesign
- Common / unique



## Day Four

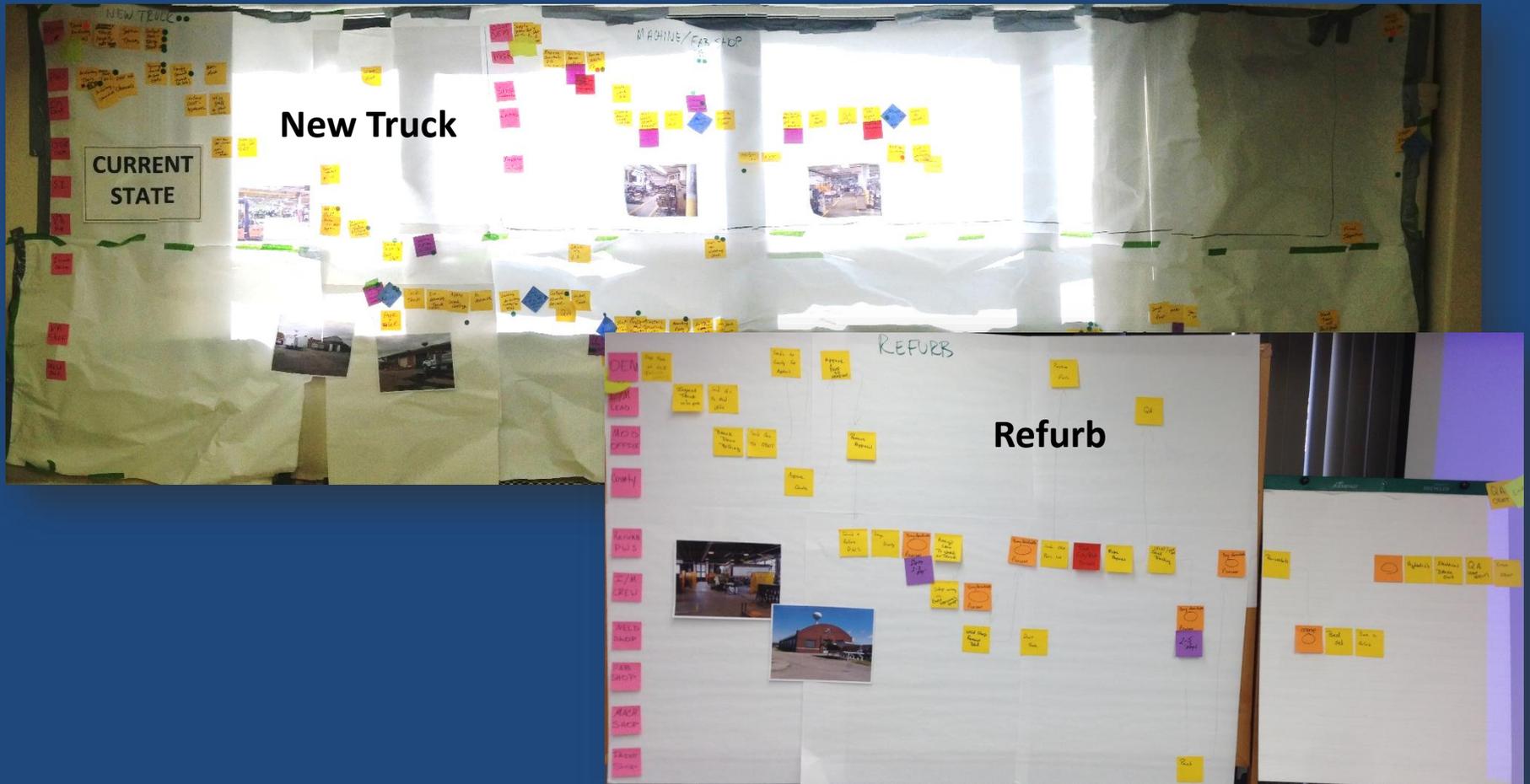
- Future State Process
- Discussion and consensus
- Implementation planning
- Details

# Today - Day Five

- More implementation planning
- Celebration
- Sharing results



# Current State



# Issues with the Current Process

- Lack of storage space for inventory / tools / equipment
- Facility limitations impacting flow
- Too many delays in the process
- Tool control issues
- Purchasing constraints
- Paper process

# Major Improvements

- Centralizing inventory
- Blanket purchasing
- Tool boxes / tool policy
- Facility modifications
- Sequencing and planning



# Simpler



- Centralized inventory control system
- Better tracking of parts / tools /equipment
- Less confusion for everyone involved in the process
- Increased transparency, visibility, and communication
- Piggy back ODOT materials contract

# Faster



- Materials readily available with new inventory system
- On-demand inventory
- Global Solutions System provides real-time inventory tracking
  - No guesswork
- Better planning upfront
- Fewer delays and flow interruptions with advanced planning and prep

# Better



- Improved communication
  - Daily huddles
  - Monthly meetings with ODOT
  - Radio communication system
- Better quality and updated tools for inmates
- More space to work
- Improved building restructures

# Less Costly



- Less cost of tools after initial purchase (lifetime warranty)
- Less wasted inventory
- Less paper in process

# Implementation Plans

- Communication
- Tools
- Facility Changes
- Inventory

# Communication Plan

TOPIC: COMMUNICATION

WHAT	WHO	WHEN
Daily Meetings (Roll call Room) w/agenda	<ul style="list-style-type: none"> <li>- PWS</li> <li>- Super Ind.</li> <li>- Manager</li> </ul>	- 6:20 am
- Notification of MOD OFFICE opening/closing	- Manager and/or SI notify PWS in VA (Radio?)	- Whenever the Office will be empty. (leave the office) <i>- How long will managers will be gone?</i>
- Secured outside line	<ul style="list-style-type: none"> <li>- PWS</li> <li>- SI</li> <li>- Manager</li> </ul>	- When Manage. is not in the office
- Monthly Meetings (MOD OFFICE)	<ul style="list-style-type: none"> <li>- PWS</li> <li>- Super Ind.</li> <li>- Manager</li> </ul>	<ul style="list-style-type: none"> <li>- 3:30 - 4:00pm (Mgmt Staff)</li> <li>- Around first of each month (to go over previous month)</li> </ul>
- Monthly meeting (ODOT Mgmt Staff)	<ul style="list-style-type: none"> <li>- ODOT</li> <li>- SI</li> <li>- Manager</li> </ul>	- First Wed. of every month
- Follow-up meeting w/ LEAN OHIO	<ul style="list-style-type: none"> <li>- LEAN OHIO</li> <li>- Tom</li> <li>- Bob</li> </ul>	- July 2017



# Tools Plan



TOOLS		
WHAT	WHO	WHEN
STANDARDIZED Policy Between OPE Mod Shops	G. CLEVER T. CORDIAL MAYOR Tool Cont. Lt.	30 DAYS
INDIVIDUAL Tool Boxes Job Specific CUSTOMIZED	PWS'S	45 DAYS (AFTER Approval)
Tool & Lock ORDERING	IND. MANAGER S/I CC: Product Manager	 45 DAYS 180 DAYS?
Tool Replacement	PWS'S → CC: Ind. Manager Product Manager Tool Control Lt.	<del>CONTRACT</del> MONDAY 22, MAY Continuous

# Facility Plan

TOPIC: Facility

What	Who	When
- Combine Mach. and Fab (Move to the YUSA building)	- Warden - ODOT - OPI - <del>Managers</del> Managers	- ASAP... if we can? - 6 to 8 months...
- Change weld school location	- Warden - OPI - Managers	- ASAP? - 30 days...
- Remove wall between Fab and Va	- Warden - OPI - Managers	- ASAP
- Set up bays 7 and 8 double bays, by removing hose room wall	- Warden - OPI - Managers	- ASAP
- Need dim. on new building - PLANS..?	- T. Cordial	- ASAP



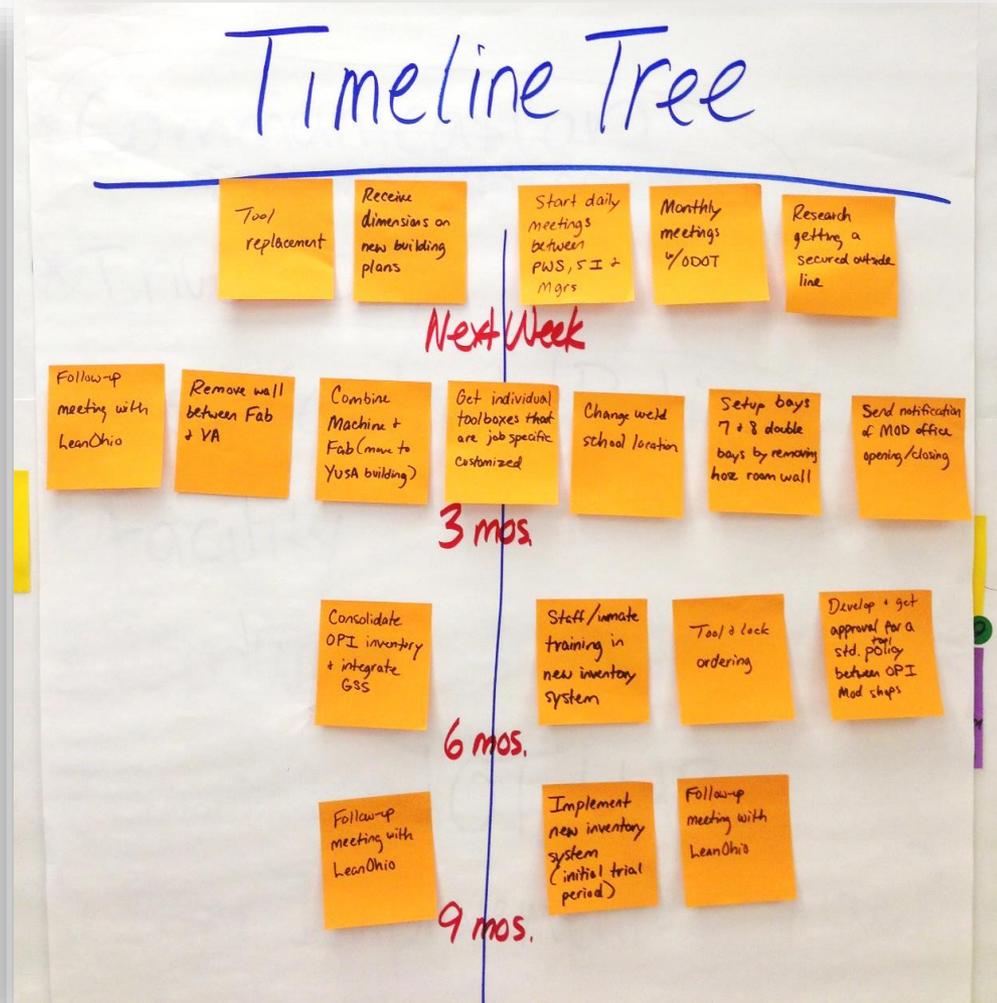
# Inventory Plan



TOPIC: Inventory

WHAT	WHO	WHEN
Move Mach. (Move World School)	* OPI/CCI Facilities or Cont.	Late fall 2017
Consolidate OPI Inv. & Integrate GSS	OPI Mgr, Supt, IT, ODOT PWS's,	Winter 2017/ Early 2018
Staff / Inmate Training in new Inv. System	GSS IT Staff <del>PWS's</del> , Mgr, Supt PWS's	Winter 2017/ Early 2018
Implementing New Inv. System (Initial Trial Period)	OPI Mgr, Supt, PWS's, ODOT, Inmates	Spring 2018

# What Begins Monday?



# Special Thanks to...

## Senior Leadership:

- **Steve Masters, DOT Deputy Director of Facilities and Equipment Management**
- **Michelle Miller, DRC SW Director**
- **Kevin Stockdale, DRC Deputy Director of Administration**
- **Gary Clever, SW Regional Operations Manager**
- **Charlotte Jenkins, CCI Warden**
- **Major Paul Arledge**

## Sponsors:

- **Sheri Duffey, DRC/OPI Chief**
- **Todd Cordial, DRC/OPI Assistant Chief**
- **Doug Burke, DOT Section Manager**

## Team Leaders:

- **Tom Justus, DOT**
- **Bob Starkey, DRC/OPI**