The Lean Supply Chain Professional

- Problem Solver
- Lean SCM Expert
- Lean Leader
The Lean Enterprise System

**The People**
- Students & Teacher
- Responsibility & Results
- Systems Thinker
- Problem Solver
- “Go See”
- Change Agent

**The Purpose**
- Creating Customer Value

**Long Term Thinking**
- PDCA
- Change Agent
- "Go See"
- Systems Thinker
- Problem Solver
- Responsibility & Results
- Students & Teacher

**The Process**
- Respect For Humanity
- Customer Focus
- Waste Elimination
- Quality at the Source
- Flow - JIT
- Stability
- Standardization

**Learning Organization**
- The Purpose
- The People
- The Process

- Customers Focus
- Waste Elimination
- Quality at the Source
- Flow - JIT
- Stability
- Standardization
Lean Supply Chain - Guiding Principles

1. Make consumption visible throughout the fulfillment stream
2. Reduce lead time to enable pull and reduce inventory
3. Create level flow to reduce variation and enable stability
4. Use pull systems to reduce complexity and over production
5. Collaborate, solve problems and focus on process discipline
6. Increase velocity to drive flexibility for meet customer demand
7. Lead and make decisions based on Total Cost of Fulfillment

Why: To eliminate all waste so that only value remains
Process: Systems Thinking

Ownership and Control

Taking Responsibility for System Wide Results
# Takt Time for Shipping and Receiving

## Unload Takt Time & Work Planning Calculation

<table>
<thead>
<tr>
<th>Daily Demand - Trailers</th>
<th>Demand</th>
<th>Trailers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schedule Work Minutes / Shift</td>
<td>480 Minutes</td>
<td>480 Minutes</td>
</tr>
<tr>
<td>Number Shifts Per Day</td>
<td>2 Minutes</td>
<td>2 Minutes</td>
</tr>
<tr>
<td>Lunch Minutes</td>
<td>30 Minutes</td>
<td>30 Minutes</td>
</tr>
<tr>
<td>Breaks</td>
<td>30 Minutes</td>
<td>30 Minutes</td>
</tr>
<tr>
<td>Total Downtime Per Shift</td>
<td>60 Minutes</td>
<td>60 Minutes</td>
</tr>
<tr>
<td>Total Working Time / Day</td>
<td>840 Minutes</td>
<td>840 Minutes</td>
</tr>
</tbody>
</table>

### Takt Time - Trailer Unloading

<table>
<thead>
<tr>
<th>Standard Work - Trailer Unload Process Time</th>
<th>45 Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Work Demand Minutes - Per Day</td>
<td>1350 Minutes</td>
</tr>
<tr>
<td>Availabe Time Per Team Member - Per Shift</td>
<td>420 Minutes</td>
</tr>
<tr>
<td>Optimal Number of Team Members</td>
<td>3.2 Team Members</td>
</tr>
</tbody>
</table>

### What if?

<table>
<thead>
<tr>
<th>Demand</th>
<th>Demand</th>
<th>Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>60</td>
<td>80</td>
</tr>
</tbody>
</table>

### Optimal Team Members Per Shift

<table>
<thead>
<tr>
<th># Unloading Doors Required</th>
<th>1.6 Doors</th>
</tr>
</thead>
<tbody>
<tr>
<td># Lift Trucks Required</td>
<td>1.6 Lift Trucks</td>
</tr>
</tbody>
</table>

©LeanCor 2011
The Lean Fulfillment Stream

Customer Bases

RDC’s

Order Mgt
  - Customer Mgt
  - Supplier Mgt

Logistics Design

Traffic Mgt

Yard Mgt

Shipping Mgt

Receiving Mgt

Supplier Bases

Pooled Volumes

Reverse Logistics

Right Part • Right Quantity • Right Time • Right Place • Right Price • Right Quality • Right Source • Right Service

Delivery Frequency
Delivery Verification
Window Times
Customer Compliance
Feedback Mechanism

Network Ownership
Network Optimization
Shipping Schedule
Carrier Performance
Reduced Lead Time

Planned System
Event Mgt
Pull Replenishment
Visibility & Stability
Trailer Activity.

Cross Docking
Yard Control
Receiving Schedule
Leveled Flow
Delivery Frequency

Pick Up Frequency
Pick Up Verification
Supplier Compliance
Feedback Mechanism

©LeanCor 2011
Lean Supply Chain Professional Series

Building the Lean Supply Chain Problem Solver
March 13-15, 2012
September 18-20, 2012

Building the Lean Supply Chain Professional
April 10-12, 2012
October 16-18, 2012

Building the Lean Supply Chain Leader
May 15-17, 2012
November 13-15, 2012

www.scl.gatech.edu/LEAN
Get Lean

Thank You

Robert@leancor.com