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Warehouse Consolidation

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Warehouse Consolidation

Client: Hagie, Clarion, Iowa

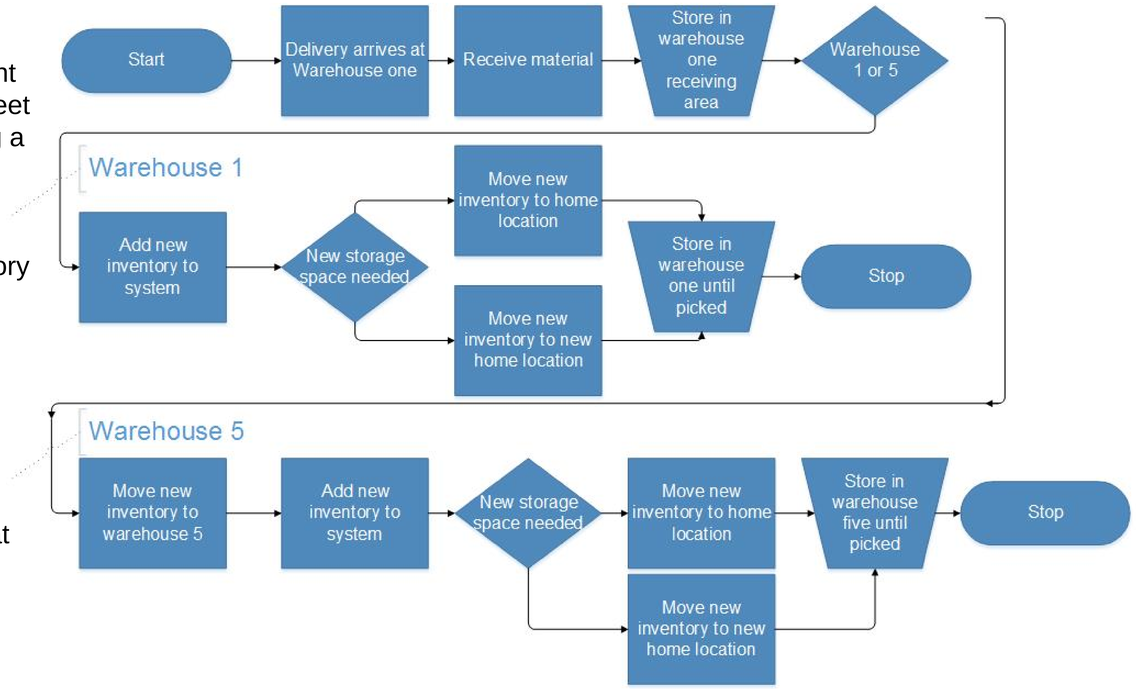
Problem Statement

The Hagie company is having difficulty using their current organization system of parts and how to pick them to meet their goal of building two sprayers a day. This is creating a problem for the company because parts are in multiple locations which is making it difficult to quickly get parts. This project will immediately affect the workers of warehouse one and five. Later affect the rest of the factory because they will have their parts faster, in a more organized manor.

Objectives

- Eliminate use of ladders in material flow system.
- Move inventory currently taking up space on the line.
- Develop inventory space in warehouse 5
- Create a new layout of inventory storage using racks that also allow for forklift travel
- Analyze material flow and improve time efficiency with new layout

Flow of Material Through Production



Constraints

Timeline

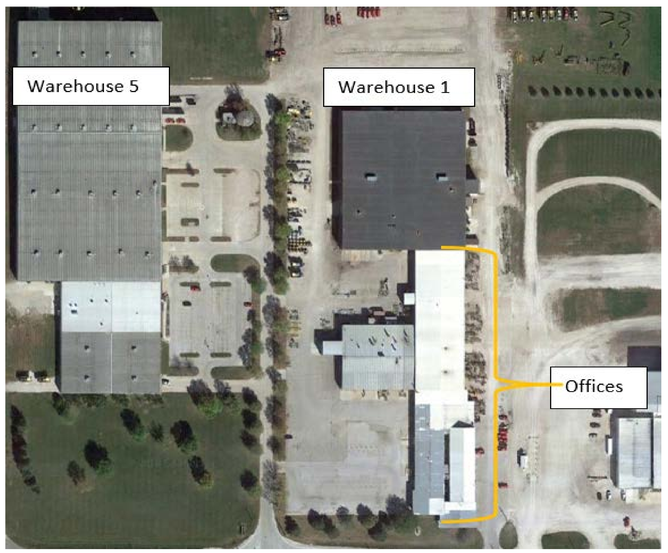
- Acquire files of layout – 12/7/18
- Identify current inventory – 1/14/19
- Material flow analysis – 2/25/19
- Identify common parts – 2/30/19

Requirements

- Inventory list
- Dollar value of parts
- Peak demand for parts
- Total travel and timings for parts

Criteria to be met

- Must maintain a safe and ergonomic way to pick up and move material
- Must have total floorspace requirements for 1 warehouse
- Must have a detailed layout of current storage to include cubic feet
- Must accommodate FIFO
- Layouts and storage solutions that Plan For Every Part (PFEP)
- Eliminate need for rolling ladders



Scope

- What is the scope
- Baseline picture of warehouse operations
- Ranked list of potential efficiency improvements
- Proposal of theoretical warehouse layouts
- With a goal of reducing outside storage
- Equipment proposal
- What is not the scope
- Redesigning material flow plan
- Changing inventory

Methods

- Most work will be done using; Autodesk Inventor, Microsoft Excel, and Microsoft Visio
- Other methods will be using flow charts and measurements to best decide new process and placements of products

Proposed Solutions

- Reorganizing large warehouse
- Modify kitting system

Major Outcomes

- Majority of materials are all moved into warehouse five
- Number of touches and movement of materials are reduced
- Materials are moved from outside to warehouse

Benefit to Client

- More organized product materials
- Easier to add new products to warehouse and provide logical space
- Higher production rate
- Easier to train new warehouse associates

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