PROCESS CONSULTING

Design and/or Improve Your Warehouse Operation

As your business grows, so do the demands on your warehouse operation processes. W&H Systems helps clients create an efficient and lean distribution center that maximizes your profitability by reducing the bottom line operating cost while maximizing space utilization.

W&H Systems helps clients understand which solution (of many available alternatives) best meet their short and long-term goals to ensure maximum supply chain flexibility and scalability. W&H Systems is one of the few companies that offer full integration capabilities. We handle all aspects of a material handling project, providing an integrated material handling system most appropriate to client requirements. W&H Systems offers the total solution to individual client's material handling needs, regardless of project size or sophistication.

There is not always one answer or system that solves everyone's problem. Each client is unique, along with their material handling needs but all companies share the common goal of, reducing their bottom line operating cost.

Discover

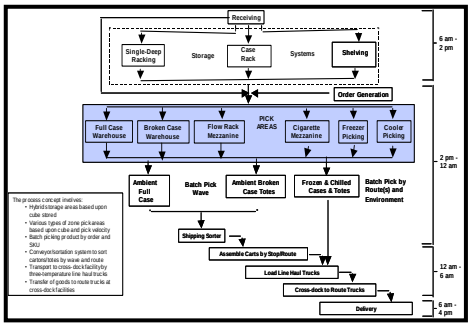
- Review clients current process
- Identify focus areas where improvements can be made
- Profile the customer service requirements
- Collect, analyze and summarize data
- Project inventory & SKU (Stock Keep Units) requirements

Comparison data: Assume: 3,608 lines/day avg.
1,760 pkgs/day avg.

Category	Method	% of Lines	# of Lines	Pick Rate	Pick Hrs/Day	Pickers	Packers	Total People
Present	Shelving	100%	3,608	40	90.2	12.4	14	27
Improve Picking	Flow Rack	70%	2,526	240	10.5	1.5	14	-
	Carousel	29%	1,046	150	7.0	1.0	-	-
	Shelving	1%	36	40	0.9	0.1	-	-
		100%	3,608		18.4	2.6	14	17
Pick/Pack Improve Pick	Flow Rack	70%	2,526	85	29.7	4.1	-	-
	Carousel	29%	1,046	60	17.4	2.4	-	-
	Shelving	1%	36	40	0.9	0.1	-	-
		100%	3,608		48.0	6.6	0	7

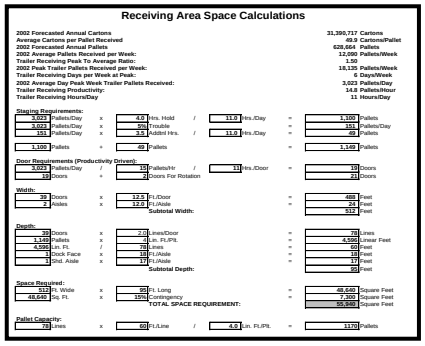
Document

- Document processing workflows
- Create Log of systems, schedules & processes
- Verify service levels
- Define key cost drivers
- Develop alternatives to be reviewed



Recommend

- Recommend alternatives
- Develop space and equipment recommendations
- Define framework to track, monitor, and manage processes
- Develop transition plan
- Prescribe re-engineered business processing procedures
- Define the concept of recommended operation

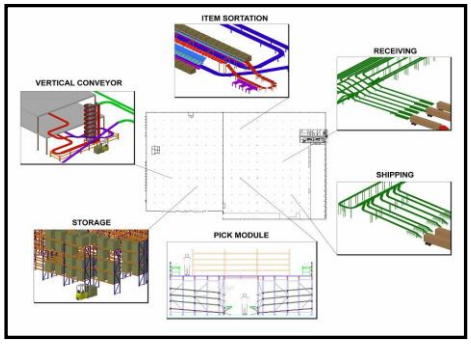


Receiving Area Space Calculations

2002 Forecasted Annual Cartons								31,390,717 Cartons
Average Cartons per Pallet Received								49.9 Cartons/Pallet
2002 Forecasted Annual Pallets								628,664 Pallets
2002 Average Pallets Received per Week:								12,090 Pallets/Week
Trailer Receiving Peak To Average Ratio:								1.50
2002 Peak Trailer Pallets Received per Week:								18,135 Pallets/Week
Trailer Receiving Days per Week at Peak:								6 Days/Week
2002 Average Day Peak Week Trailer Pallets Received:								3,023 Pallets/Day
Trailer Receiving Productivity:								14.8 Pallets/Hour
Trailer Receiving Hours/Day								11 Hours/Day
Staging Requirements:								
3,023	Pallets/Day	x	4.0	Hrs. Hold	/	11.0	Hrs./Day	= 1,100 Pallets
3,023	Pallets/Day	x	5%	Trouble				= 151 Pallets/Day
151	Pallets/Day	x	3.5	Added Hrs.	/	11.0	Hrs./Day	= 48 Pallets
1,100	Pallets	+	49	Pallets				= 1,149 Pallets
Door Requirements (Productivity Driven):								
3,023	Pallets/Day	/	15	Pallets/Hr	/	11	Hrs./Door	= 19 Doors
19	Doors	+	2	Doors For Rotation				= 21 Doors
Width:								
19	Doors	x	12.5	Ft./Door				= 488 Feet
2	Aisles	x	12.0	Ft./Aisle				= 24 Feet
				Subtotal Width:				512 Feet
Depth:								
19	Doors	x	2.0	Lines/Door				= 76 Lines
1,149	Pallets	x	4	Ln. Ft./Plt.				= 4,596 Linear Feet
4,596	Ln. Ft.	/	76	Lines				= 60 Feet
1	Stock Face	x	10	Ft./Aisle				= 10 Feet
1	Shd. Aisle	x	17	Ft./Aisle				= 17 Feet
				Subtotal Depth:				85 Feet
Space Required:								
512	Ft. Wide	x	85	Ft. Long				= 48,640 Square Feet
48,640	Sq. Ft.	x	15%	Contingency				= 7,300 Square Feet
				TOTAL SPACE REQUIREMENT:				55,940 Square Feet
Pallet Capacity:								
76	Lines	x	60	Ft./Line	/	4.0	Ln. Ft./Plt.	= 1170 Pallets

Implement

- Develop project plan
- Define organization communication plan
- Implement system design
- Finalize employee transition training strategy
- Test the new systems
- Conduct post-project review



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