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Cohort 5

Process Improvement Report

September 20, 2018

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## **Introduction**

According to Gregoire, the definition of financial accountability is a business' responsibility to keep proper financial status of the operations to the appropriate stakeholders (2012). In the case of Florida Hospital, financial responsibility is to not waste money in order to maintain budget and have the ability to provide the best patient care possible. One-way to do this is by creating systems that can help detect shrink and manage supply costs. Shrink is the product or goods on hand that are lost due to events such as theft or damage.

Process improvement efforts are beneficial for accomplishing this because it can help the system to become more sensitive to discrepancy. It is vital for a manager to be able to identify areas in a system that can be improved upon and how to do so. In this case, Tennille Yates identified that shrink detection and supply cost management was in need of improvement. She had decided this was to be done by improving inventory strategies.

### *Inventory*

Inventory is a record of material assets owned by an organization (Gregoire, 2012). This is necessary in order to keep track of all products and equipment in a facility. Florida Hospital has an enormous inventory. In food and nutritional services, everything should be accounted for, from specialty enteral nutrition formulas, all the way down to products such as individual serve honey packets. In order to assist in making this process more effective in the patient service area (PSA) dietetic interns Stephanie Blaszczyk and Brittany Moran documented all PSA inventory in an excel spread sheet in order to convert reality into an electronic database (CBORD). The purpose of this project is to

place inventory into CBORD in order to help manage supply cost and detect shrink in Florida Hospital's Patient Services Area.

## **Methods**

### *Mapping Inventory*

To start this assignment, Brittany and Stephanie went to PSA with a clipboard and legal paper in order to draw out the racks of all dry storage, the cooler, and freezer (Appendix B). Over the course of two weeks, the interns would periodically go back to PSA when they had the opportunity in order to individually go through each rack and record the products that are on them. The way that they did this was by having one intern report while the other read off the products on each one. The racks were not organized by shelf, because products move around on racks, therefore, it is more advantageous for products to just have rack destinations. Each storage location was named, as well as each rack.

### *Location and Rack Labeling*

The location and racks needed to be labeled and named. Names were chosen based on location, and rack type (i.e., Dunnage rack, located in the kitchen; abbreviated KDR, meaning kitchen dunnage rack). The dry storage room was simply named dry storage 1, while the dry storages within the kitchen were named kitchen dry storage and differentiated by number. The cooler and the freezer were named cooler and freezer 1. The numerical differentiations were made for areas that have only one location for in the event that more inventories in nutritional services are taken. It allows for expansion of the labeling system.

The storage units were labeled as followed:

- Dry Storage 1 [DS1]
- Kitchen Dry Storage 1 [KDS1]
- Kitchen Dry Storage 2 [KDS2]
- Kitchen Dry Storage 3 [KDS3]
- Cooler 1 [C1]
- Freezer 1 [F1]

The storage racks were labeled as followed:

- Dry Storage 1 [DS1]
  - Dry 1-Dry 25 [D1, D2, ...]
- Kitchen Dry Storage 1 [KDS1]
  - Kitchen 1-5 [K1, K2, ...]
- Kitchen Dry Storage 2 [KDS2]
  - Kitchen Speed Rack 1-3 [KSR 1, KSR 2, KSR 3]
- Kitchen Dry Storage 3 [KDS3]
  - Fire Box 1 [FB1]
  - Kitchen 6 [K6]
  - Kitchen Dunnage Rack 1 & 2 [KDR 1, KDR 2]
  - Kitchen Can Rack [KCR]
- Cooler 1 [C1]
  - Cooler Dunnage Rack 1 & 2 [CDR 1, CDR 2]
  - Cooler Rack 1-8 [CR 1, CR 2, ...]
  - Food Production Center 1-3 [FPC 1, FPC 2, FPC 3]
  - Cooler Speed Rack 1-7 [CSR 1, CSR 2, ...]

- Freezer 1 [F1]
  - Freezer 1-8 [F1, F2, ...]

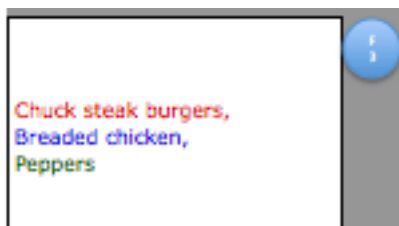
### *Entering Inventory*

Once this was complete, the interns reported to Dany Jean, who emailed them an excel document that contained all inventory, organized by vendor. Because this document is electronic, Stephanie was able to use the “search” command to type in the products name. The program was then able to sweep the document to locate the product and its corresponding vendor. Brittany then recorded the vendors for each product.

Following the identification of vendors, Stephanie went into a blank excel document and virtually mapped out each location that inventory was drawn out (Appendix A). Brittany then transferred the names of each product to a word document. A color key was developed for the names to be coded in, dependent on the vendor of the product (Figure 1.1). Each item was then entered in with its vendor color-coding, on its corresponding labeled rack (Figure 1.2).

Vendor	Color	
US Foods	Red	
FPC	Blue	
Fresh Point	Green	
Cardinal	Orange	
Sysco	Purple	
Special	Black	
Other	Bold	

**Figure 1.1**  
**Vendor color code**



**Figure 1.2**  
**Example Rack with label and vendor coded product names**

*Entering into CBORD*

While this documentation has not been entered into CBORD yet, this electronic rendition of inventory will be transferred into the electronic database. Once transferred, the database will be the final step before implementing the inventory process improvement project.

**Results/ Discussion**

The final excel spread sheet contains all products that were located in PSA that were requested to be included in inventory. The limitation with this is that inventory was done by hand over the course of many days. Items could have been shifted, out of stock, or misplaced when Brittany and Stephanie were recording inventory. Additionally, there is also a margin for human error because inventory was done by hand. Inventory is not the intern's primary job function, and the hand written documentation was then transferred into the computer. During these processes it is likely that errors were made within the documentation.

The result of this documentation will be an electronic inventory rendered into CBORD, which is expected to improve sensitivity to shrink and discrepancy detection in inventory. Due to the fact that this has not been completed, it is inconclusive if the goal of this project will be achieved.

It is recommended that after the inventory is input into CBORD, it be tracked for a month to serve as evidence that this project effectively met its expectation. If not, further research will be warranted for how to better control inventory.

Future limitations of this project will be the maintenance of documentation in CBORD. If nobody is making changes in the database when products are discontinued,

changed, or introduced, this tool will become irrelevant. It is suggested that someone be made responsible for supervising and updating the system in order to ensure its effectiveness.

### **Conclusion**

Overall, if the inventory tool is completed and implemented, the benefit will be to improve the financial accountability for food and nutrition services in the patient service area. Inventory will be better tracked, and therefore give management the ability to keep tabs on product movement and a better idea of what is happening to products on the shelves.

Future additions to inventory could potentially be speed racks that contain cold prep foods that are made in the kitchen, and kept in the cooler. These were not included in this round of recording. Items that were excluded, other than cold prep, are tracked elsewhere such as the Pepsi products and water.

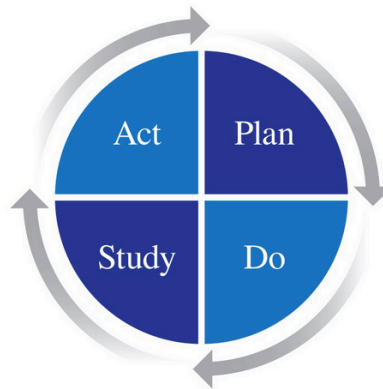
Many limitations related to the efficacy of this project were previously discussed. Limitations in relation to the execution of this project included time and knowledge constraints due to the schedule of the interns, as well as their exposure to the patient service area. While Dany was a resource, it would have been advantageous for him to be a part of the inventory tracking. This could have helped eliminate any errors by the interns, most notably for products that may have been out of stock.

It is recommended that Dany, or another person that has had longer exposure to inventory in PSA review the excel document that the interns have created in order to repair any mistakes they may come across. Once entered into CBORD, the program should also be tracked and an employee should be assigned to oversee its



implementation. The interns that have created the digital renderings in excel will be relocating within the hospital, so they will be unavailable to do this.

Overall, this project's goal was to track, record, and organize inventory digitally. Thus far, the organization has gone well. The process that was used of recording product, matching vendor, and inputting on the computer was effective. Attempting to fully input the product into the electronic database did not happen due to time constraints of the project. Once completed, the PDSA cycle (Figure 1.3) should be applied in order to continue to improve the system. PDSA is an acronym for plan, do, study, and act (Plan-Do-Study-Act (PDSA) Worksheet, n.d.). This is the process improvement model that is followed at Florida Hospital. If the inventory is accomplishing it's goals, then it should be implemented. If improvements must be made, then a plan should be made to fix any problems that may be hindering the effectiveness of this tool.



**Figure 1.3**

**PDSA Cycle**

### **References**

Gregoire, M.B. (2012). Food service organizations: *A managerial and systems approach*.

Upper Saddle River, NJ: Prentice Hall.

Plan-Do-Study-Act (PDSA) Worksheet. (n.d.). Retrieved from

<http://www.ihi.org/resources/Pages/Tools/PlanDoStudyActWorksheet.as>

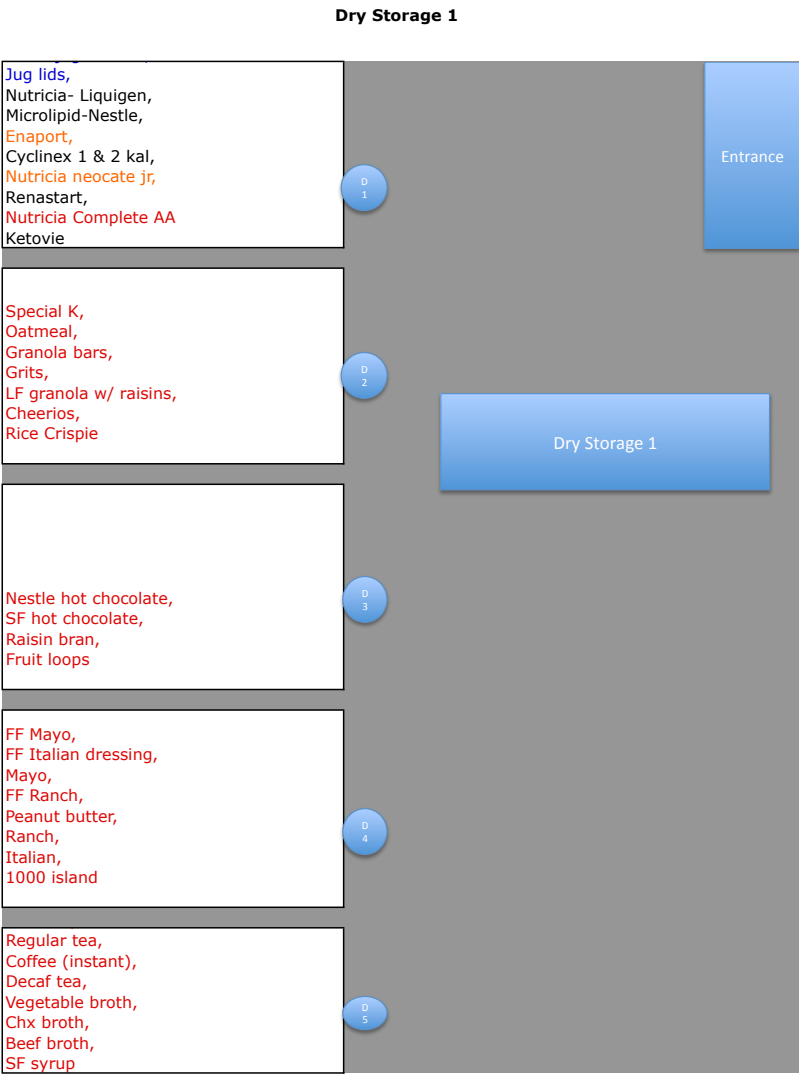
**Appendices**

Appendix A.....Excel Inventory Renditions

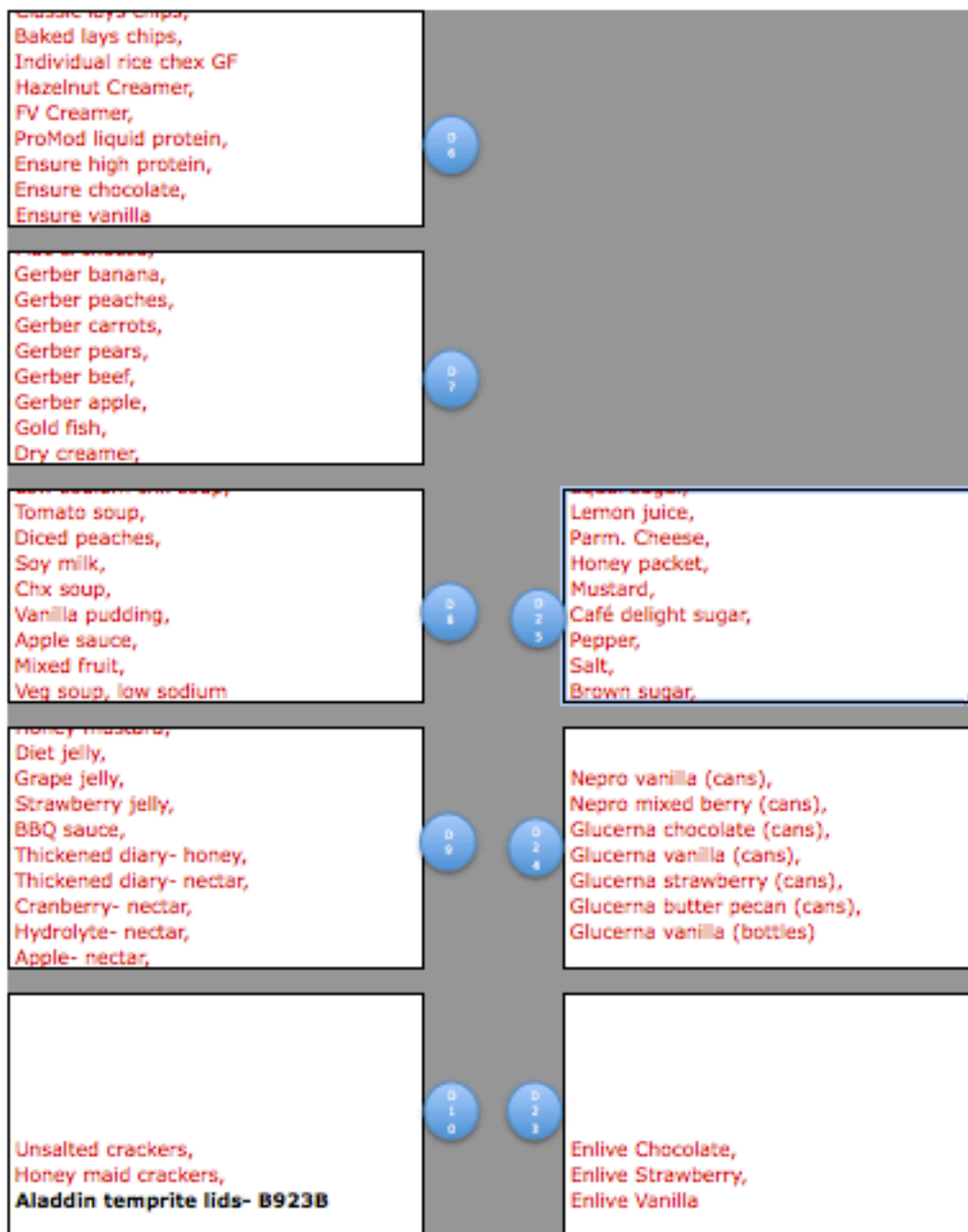
Appendix B.....Handwritten Excel Inventory

Appendix A

Excel Inventory Renditions

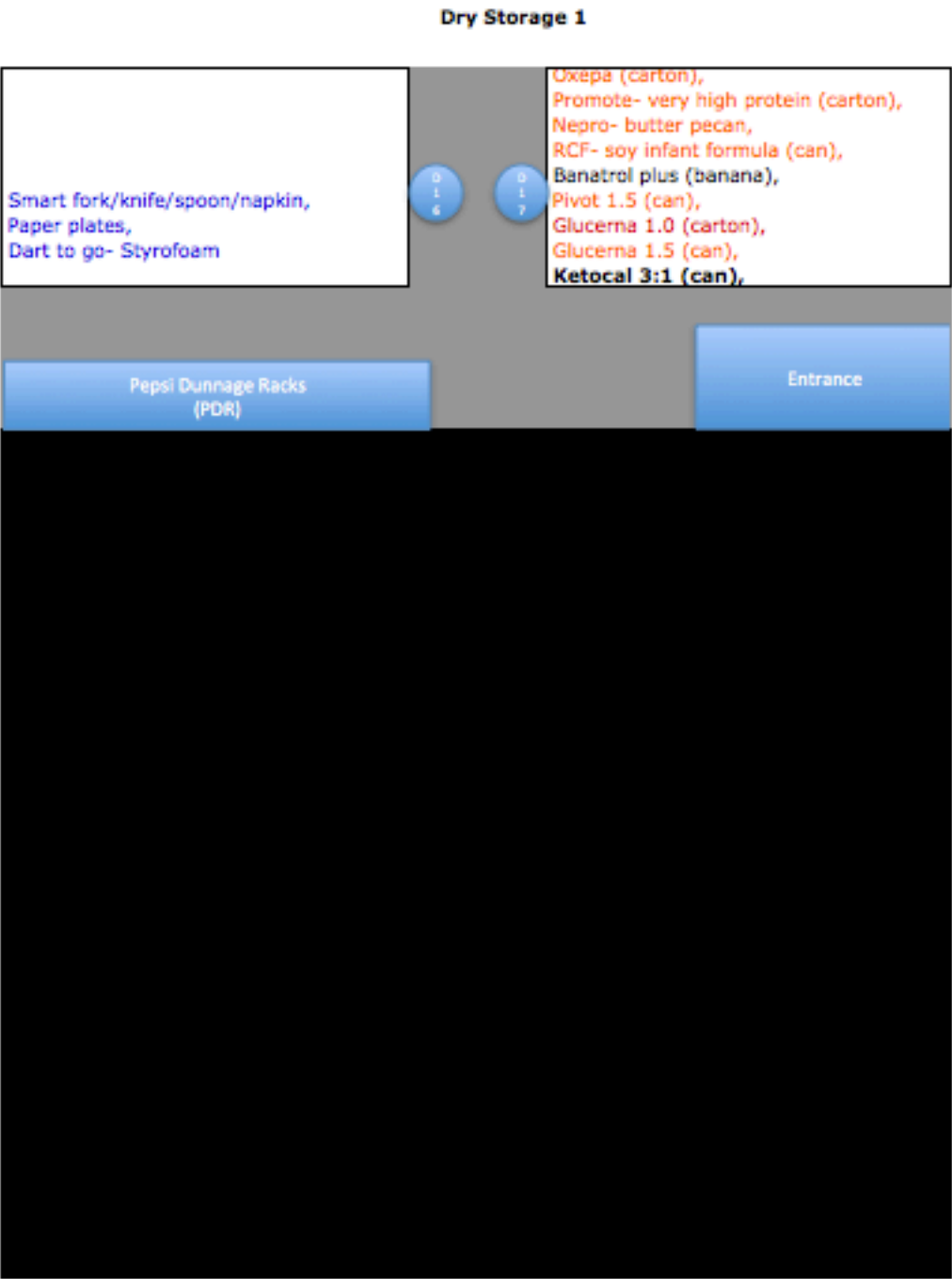


Dry Storage 1

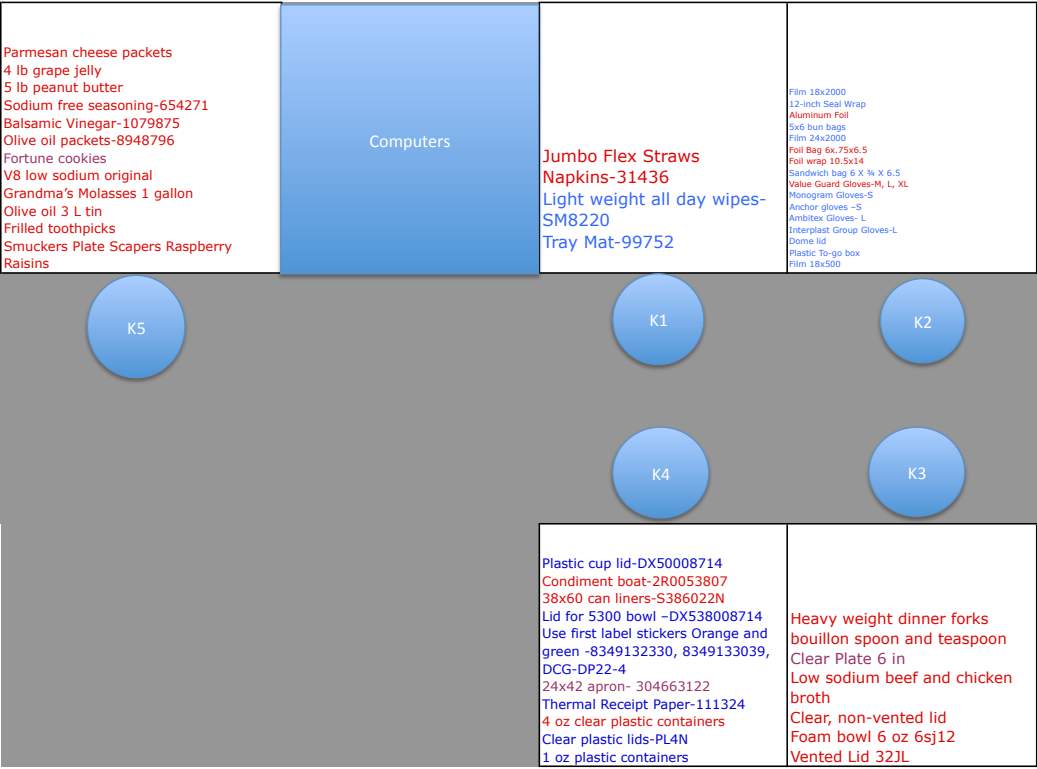


## Dry Storage 1

<p>Lid bowl- B262, Entrée dish- A01, DI Plate-A435, Saltine crackers, Bowl- B278, Condiment cup/ lid- PL4N</p>	<p>0 1 1</p>	<p>0 2 7</p>	<p>Fiber stat- prune, Ensure chocolate pudding, Ensure vanilla pudding, Ensure strawberry (bottle), Ensure vanilla (cans), Ensure chocolate (cans), Pediasure vanilla, Pediasure chocolate, Ensure clear,</p>
<p>Knife- plastic, Fork- plastic, Spoons- plastic</p>	<p>0 1 2</p>	<p>0 2 1</p>	<p>Juven orange powder, Juven FP powder, Juven unflavored powder, Similac- spit up, Similac- expert care alimentum, Similac soy isomil, Sol carb, Similac sensitive, Alfamino Jr,</p>
<p>9 in foam plate, 6 in foam plate, drink tru lids-DT8, Hair net, Beard net</p>	<p>0 1 1</p>	<p>0 1 0</p>	<p>Two cal HN RTH, Osmolite 1.5 RTH, Osmolite 1.0 RTH, Two cal HN (cans), Osmolite 1.0 (cans), Vital AF 1.2 (cans), Osmolite 1.5 (cans)</p>
<p>Styrofoam trays, 8 oz foam cups, Coffee plastic lids,</p>	<p>0 1 4</p>	<p>0 1 9</p>	<p>Promote RTH, Oxepa RTH, Nepro RTH, Jevity 1.5 (cans), Jevity 1.5 RTH, Pediasure w/ fiber 1.5 (cans), Pediasure w/ fiber 1.0 (cans), Pediasure 1.5 (cans), Pediasure 1.0 (cans)</p>
<p>Creation foam cups 16 oz- 16F18, 12 oz to go foam bowls- 12B32</p>	<p>0 1 5</p>	<p>0 1 8</p>	<p>Vital High RTH, Vital AF 1.2 RTH, Glucerna 1.5 RTH, Jevity 1.2 RTH, Vital 1.0 (cans), <b>Pivot 1.2 RTH,</b> Jevity 1.2 (cans), Vital 1.5 (cans)</p>

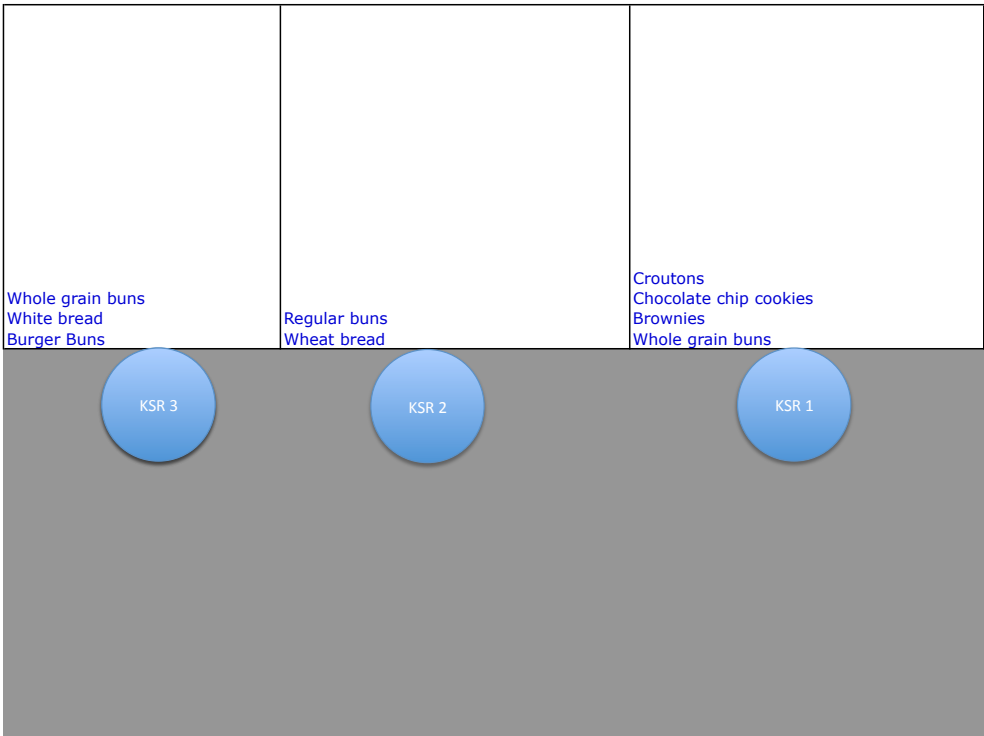


Kitchen Dry Storage 1

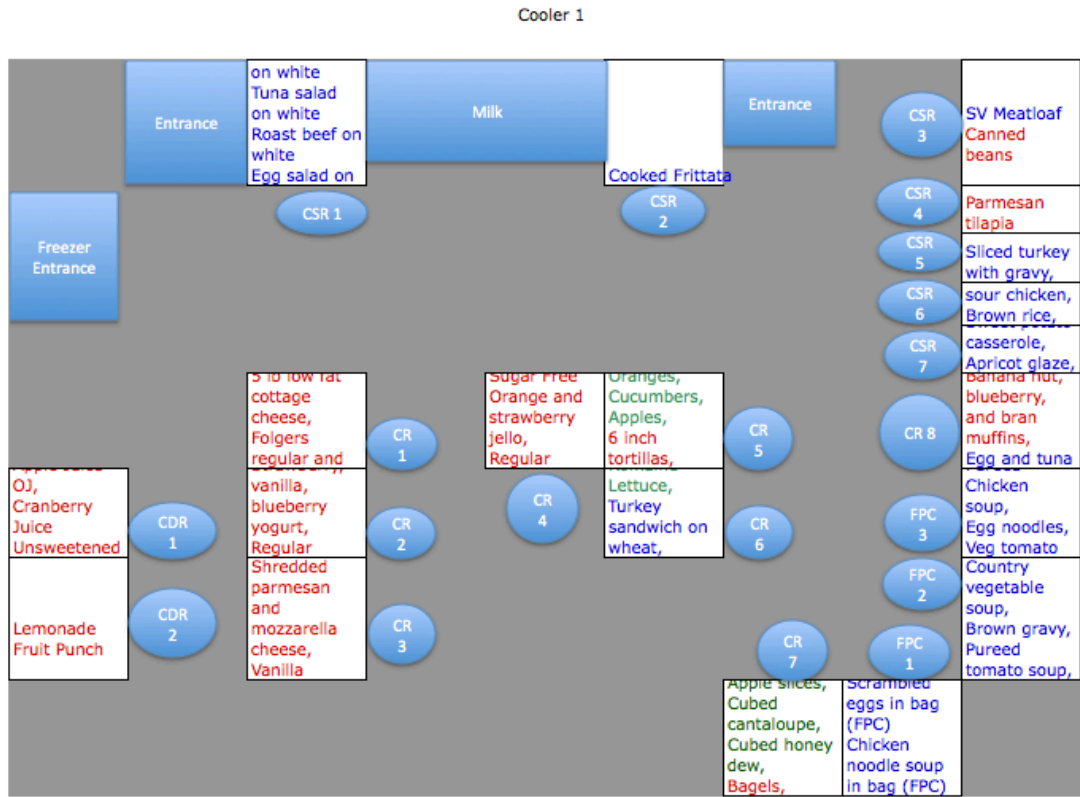




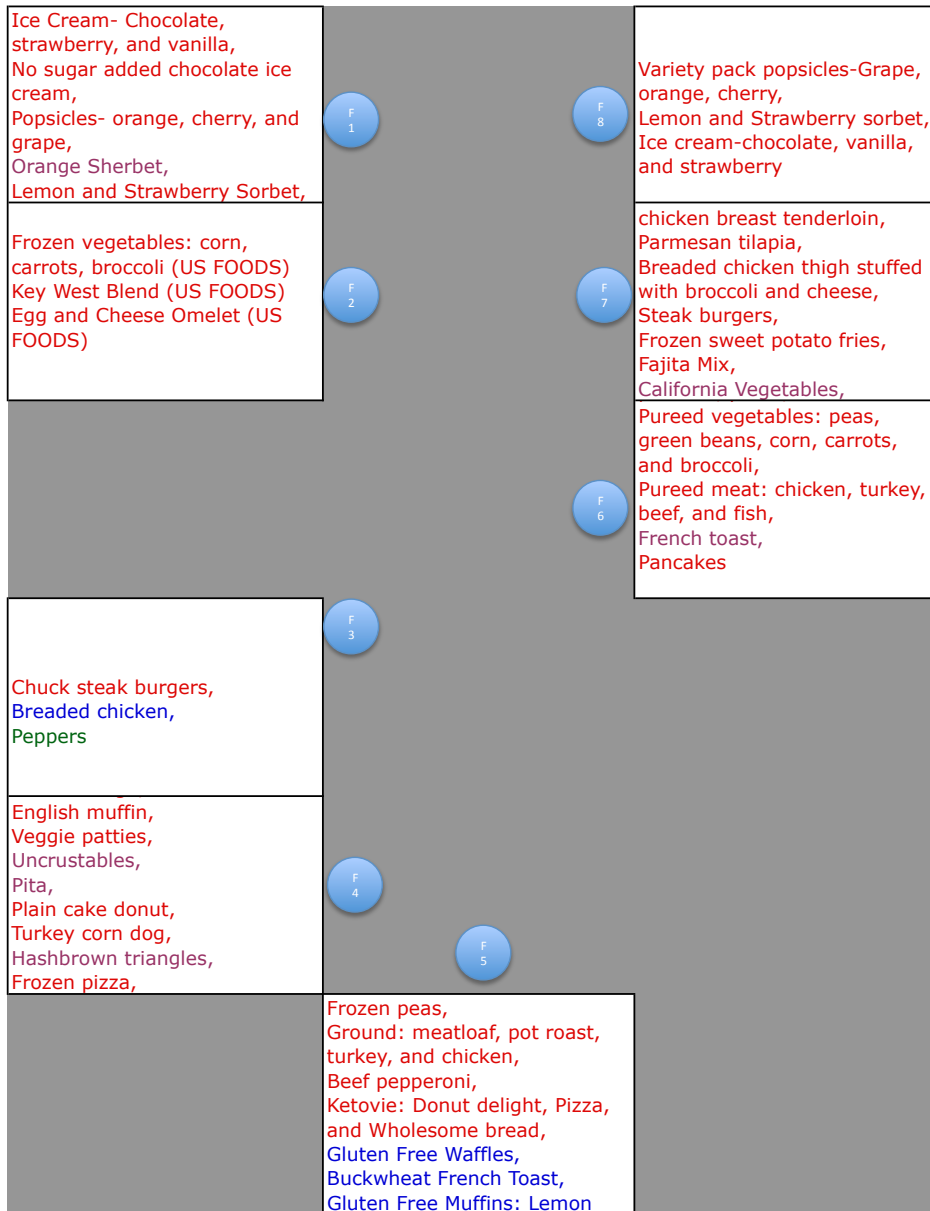
Kitchen Dry Storage 2







Freezer 1



Vendor	Color	
US Foods	Red	
FPC	Blue	
Fresh Point	Green	
Cardinal	Orange	
Sysco	Purple	
Special	Black	
Other	Bold	

# Appendix B

## Handwritten Excel Inventory

Entrance left		Dunnage Racks		612 051	
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