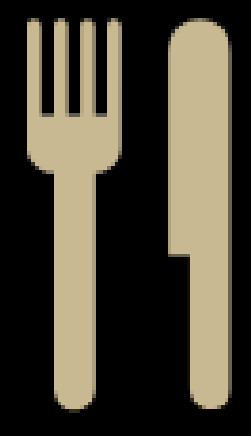


### CLIENT BACKGROUND

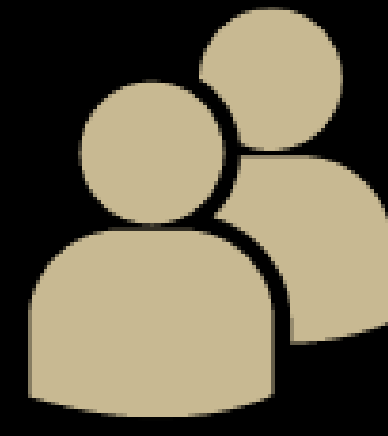
#### ABOUT WILEY DINING COURT



Purdue Dining location specializing in wood-smoked meats.



Located across from the Purdue Co-rec & near academic campus.



Currently 3500-4000 customers per day.

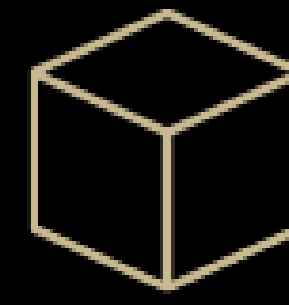


Currently there is not effective or flexible options for chilled food storage due to continuous influx of meal plans.

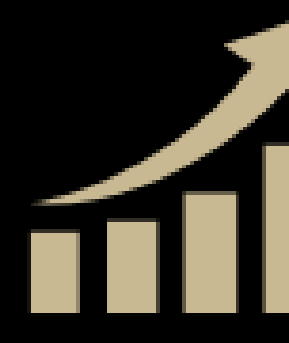
### PROBLEM STATEMENT

Using the building's current storage methods and open space, we hope to improve staff's ability to slack, thaw, and produce more meat products by increasing utilized storage capacity by 20%.

### METHODOLOGY



**VOLUMETRIC ANALYSIS**  
Displays how often each storage space overflows to the point it is unsafe.



**MEAL PLAN GROWTH PROJECTION**  
Projects the increase of meal swipes used at Wiley in the near future.



**ACTION PRIORITY MATRIX**  
Assists in deciding which recommendation is optimal based on effort and impact of each.

### RESULTS



Wiley needs 487 cubic ft of cooler space and 90 cubic ft of freezer space to run at its current capacity



Over the next 10 years, meal plan holders visiting Wiley will increase by 41%



Wiley needs 121-141% of 487 cubic ft of cooler storage space in order to maintain safe operations

### SYSTEM MODEL

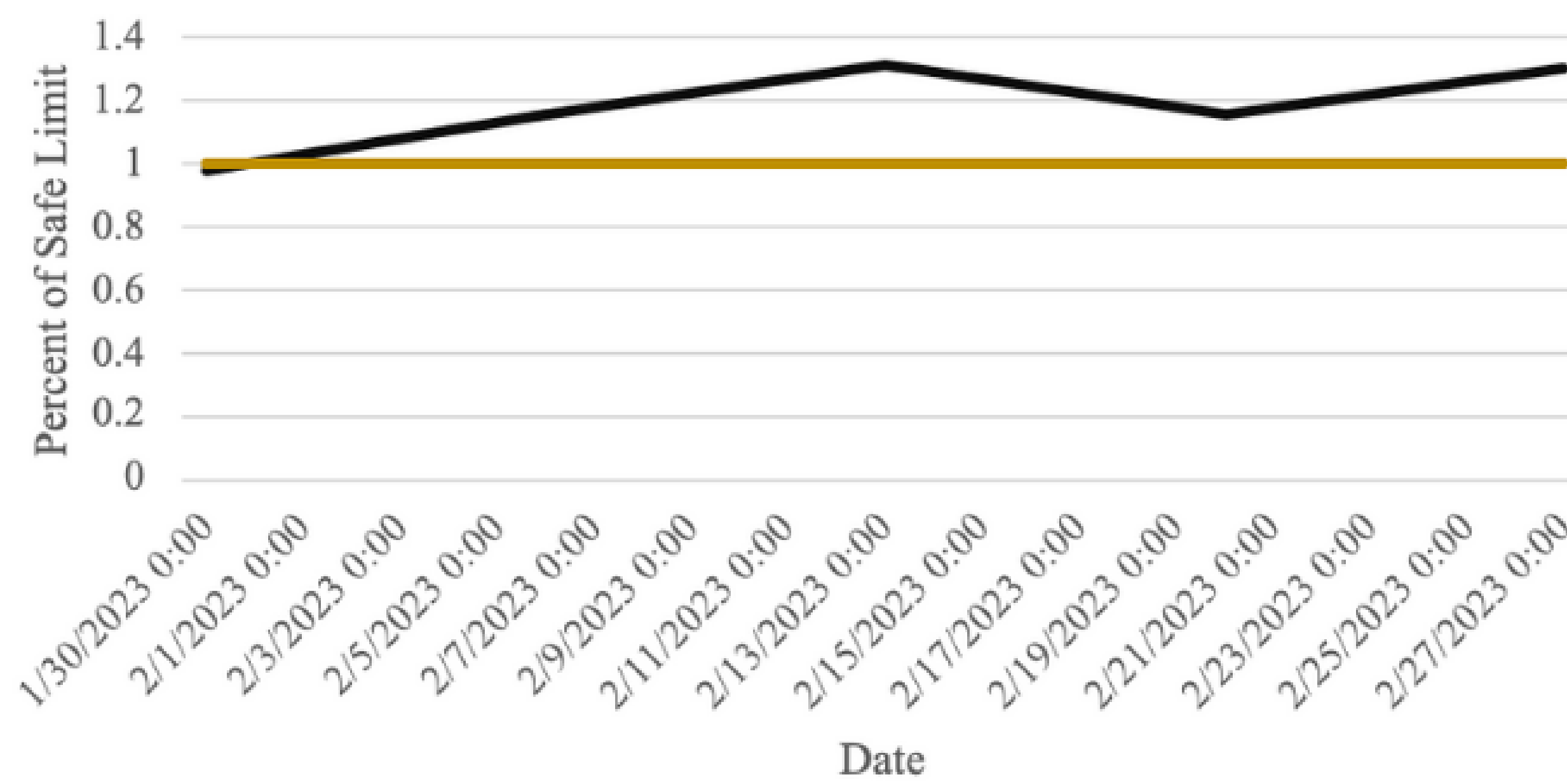
#### ASSUMPTIONS, MEASUREMENTS, & DATA

- Storage space measurements were done manually
- Safe reach height of 60 in
- Safe walkway width of 40 in
- Average case size determined per cooler and freezer by taking a random sample of inventory
- Inventory data provided by Wiley over a 5-week period

#### CALCULATIONS

- Average volume taken up by inventory:
  - average case sizes multiplied by inventory held
- Compare against maximum usable volume for each of the 6 storage areas

### DAIRY WALK-IN COOLER % OF SAFE LIMIT



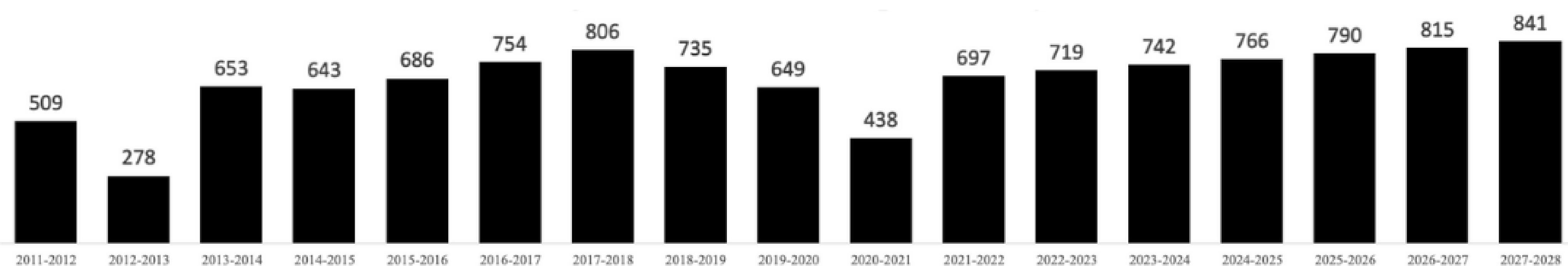
From the volumetric inventory analysis, it is revealed that the Dairy Walk-In cooler is consistently above the safe storage limit.

### SYSTEM MODEL

#### VOLUMETRIC INVENTORY ANALYSIS

- Cook's walk-in cooler is consistently 70-110% of safe storage limit
- Dairy walk-in cooler is consistently 100-135% of the safe storage limit
- Basement freezer is consistently 80-130% of safe storage limit
- Produce cooler is consistently 90-115% of safe storage limit

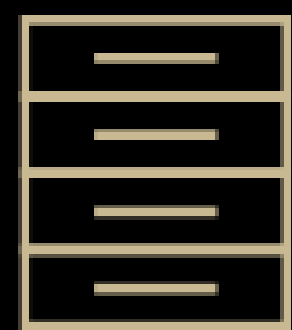
### PROJECTED TOTAL MEAL SWIPES AT WILEY



### DISCUSSION

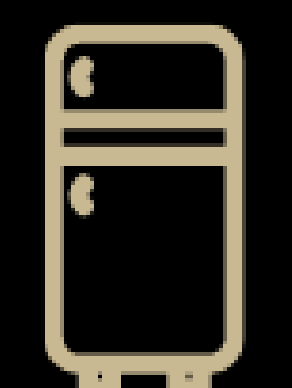
#### POTENTIAL RECOMMENDATIONS

##### Sliding Shelves



Potential Locations  
Kitchen Freezer  
Basement Freezer  
Dairy Cooler

##### Outdoor Cooler



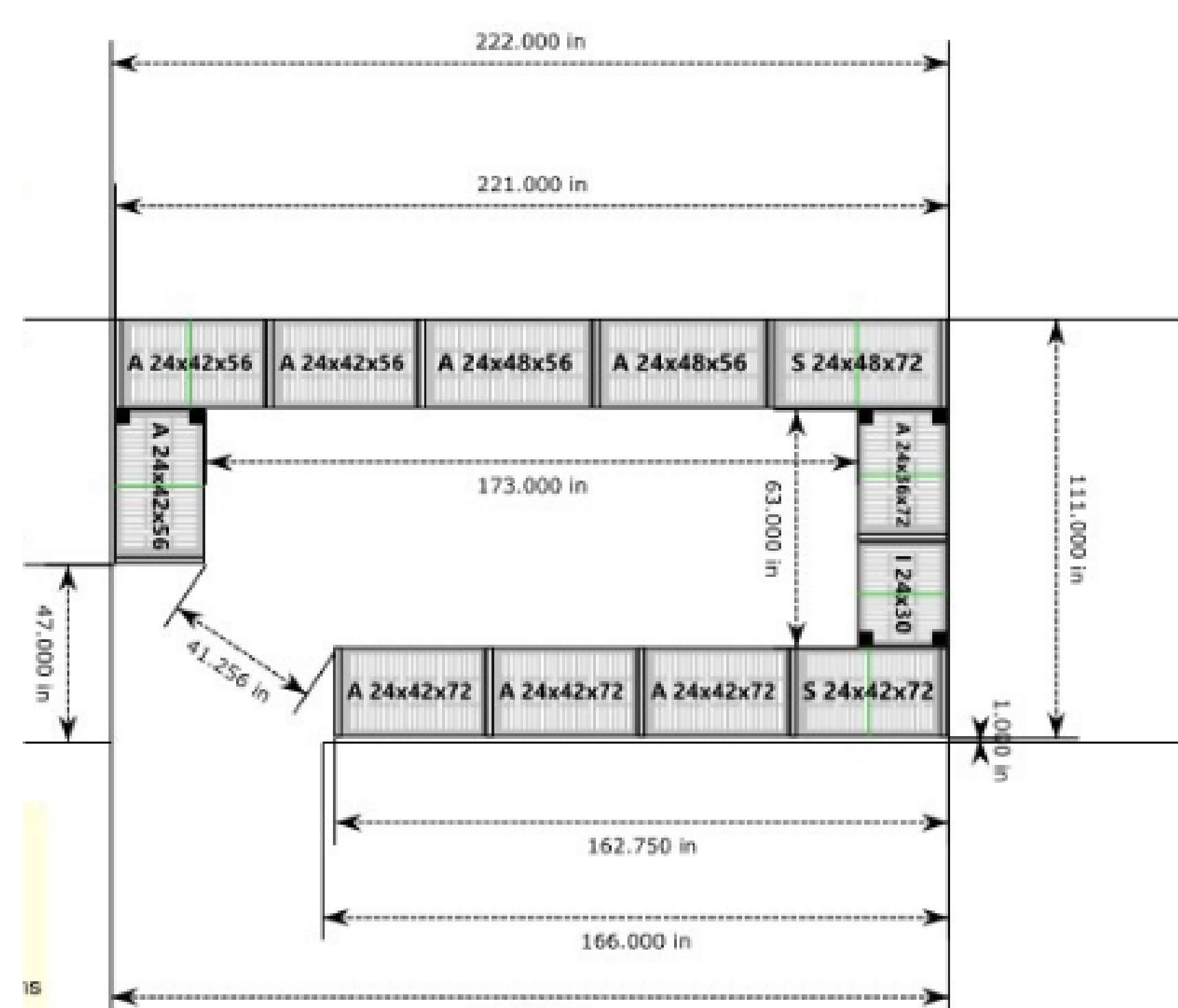
Potentially Replacing  
Cooks Walk-In  
Dairy Cooler

##### Freezer-to-Cooler Conversion

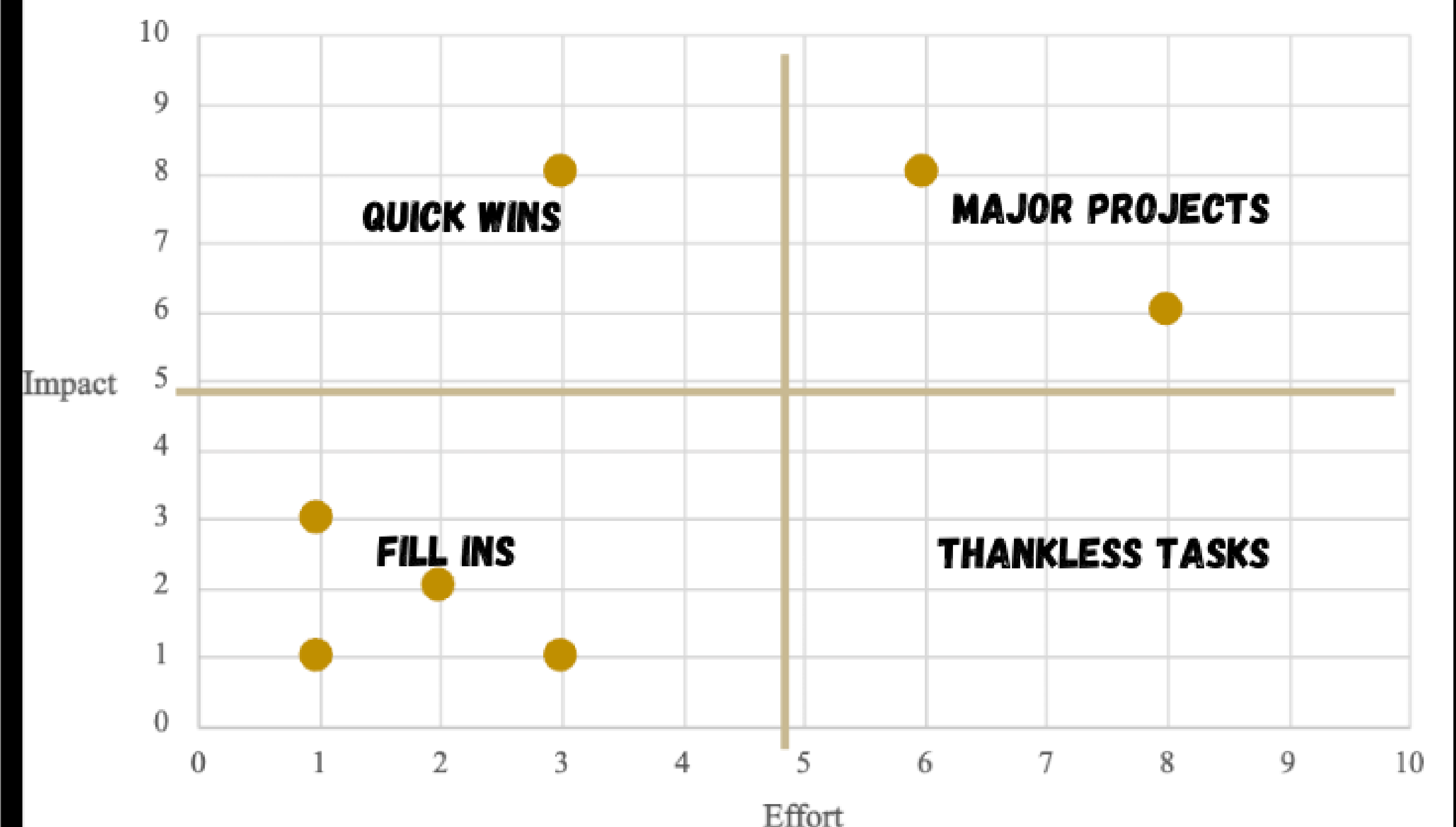


Potential Conversions  
Kitchen Freezer  
Basement Freezer

### SLIDING SHELVES CAD MODEL FOR BASEMENT FREEZER



### ACTION PRIORITY MATRIX



Purpose: To recommend the best option for Wiley based on a variety of factors  
Factors Considered: Time to implement, cost, space added, and possible complications