

Freezer IWI Rack Modification Final Plan

- **Cost of Initial Modification (Estimated) - \$125,000 –150,000**
- **62 Bays of Case flow in various configurations and placement locations**
- **639 Additional facings for Product**
- **Estimated Arrival of Materials – September 30, 2000**
- **Estimated IWI initial product arrival – October 21, 2000**
- **Estimated Completion Date – November 11, 2000**

Total Cost of Modification:

Item	Quantity	Unit Price	Total Price
Material A	100	\$100	\$10,000
Material B	200	\$50	\$10,000
Material C	300	\$30	\$9,000
Material D	400	\$25	\$10,000
Material E	500	\$20	\$10,000
Material F	600	\$15	\$9,000
Material G	700	\$10	\$7,000
Material H	800	\$5	\$4,000
Material I	900	\$5	\$4,500
Material J	1000	\$5	\$5,000

Direct Labor Cost Subtotal per year:

Grand Total:

Prepared by:

Date:

Balers

IN



Aisle 14

OUT



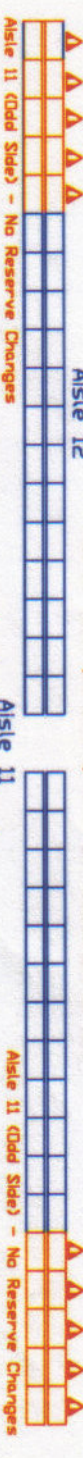
Aisle 13

IN



Aisle 12

OUT



Aisle 11

IN



Aisle 10

OUT



Aisle 9

IN



Aisle 8

OUT



Aisle 7

IN



Aisle 6

OUT



Aisle 5

IN



Aisle 4

OUT



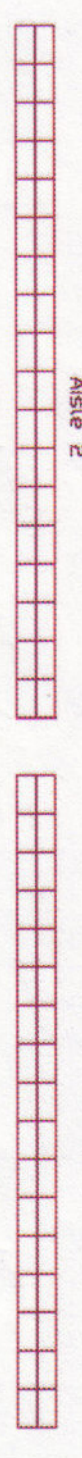
Aisle 3

IN



Aisle 2

OUT



Aisle 1

Case Flow Modifications

▽ - Denotes Direction of Flow

Rect Changes

- 62 Bays Total
- 16- 4 Level S-S
- 25- 2 Level S-S
- 15- 3 Level S-D
- 6 - 3 Level D-D

85' 300 slots

65' 300 slots

Balers

Aisle 14

caseflow area

caseflow area

Aisle 13

Aisle 12

caseflow area

caseflow area
Aisle 11

caseflow area

caseflow area

Aisle 10

Aisle 9

caseflow area

caseflow area

Aisle 8

caseflow area

Aisle 7

caseflow area

Aisle 6

Aisle 5

caseflow area

Aisle 4

caseflow area

caseflow area

Aisle 3

Aisle 2

Aisle 1

85°
DD slots

65°
DD slots

IWI Rack Modifications

Bakery

Grocery

Meat

Rack Changes

- 62 Bays Total
- 16- 4 Level S-S
- 25- 2 Level S-S
- 15- 3 Level S-D
- 6 - 3 Level D-D

OUT

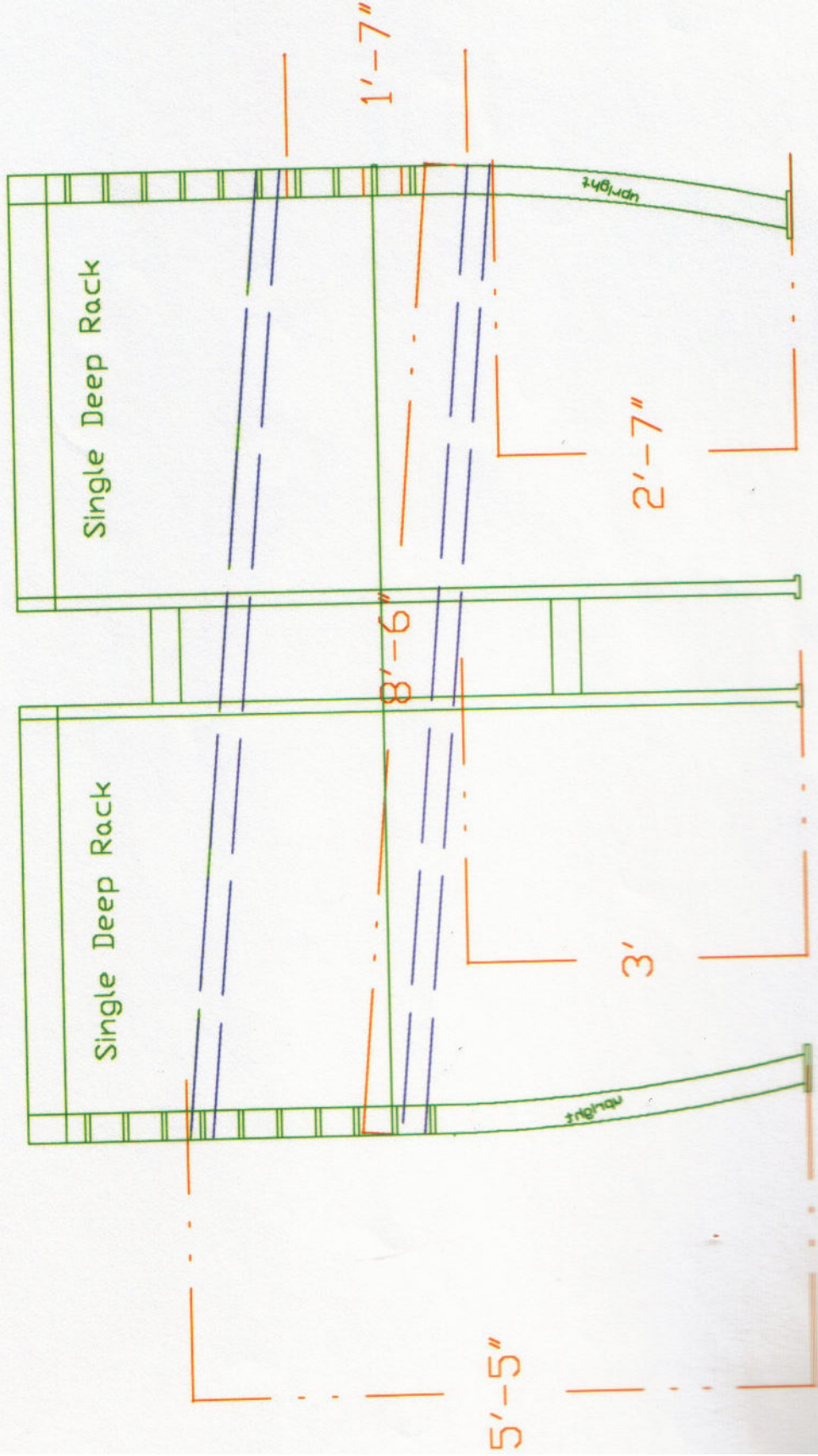
IN

OUT

IN

Maximum rack slot height - 65"
 Max. front slot height - 37"
 Level 1 case height - 17" max
 Level 2 case height - 20" max
 Front Pallet height - 20"
 Back Pallet Height - 36"

Case Flow Configuration for 2 level - 14 - 16 slots



Maximum back feed slot height - 65"

Max. Front slot height - 57"

Level 1 case height - 19" max

Level 2 case height - 20" max

Front Pallet Height - 30"

Back Pallet Height 36"

Cost Analysis of Freezer Revamp

Materials	Total Materials	Cost per Item	Total Cost	Quote
Gravity flow(62 Bays)-See Bay Cost	639	\$110.58	\$70,659	Yes
Materials Subtotal			\$70,659	

Labor for Removal and Installation	Total Hrs	Cost per Hour	Total Cost	Quote
2 Men @ .5 hrs/Bay for 21Bays of Push back rack removal	21	\$32	\$672	Yes
2 Men @ 1.5 hrs/Bay for 62 Bays of Cross Beam Adjustments	186	\$32	\$5,952	Yes
Installation of Gravity flow(2 men@1 /hr*62 Bays)	124	\$20	\$2,480	No
Labor Subtotal			\$9,104	

Reslotting and Interruption to operations	Total Hrs/Pallets	Cost/Pallet or Hr	Total Cost	Quote
Interruption to Selection(5 weeks @-10%)	1250	\$20	\$25,000	
Removal of Current items from Double Deeps(4x Handling)	4480	\$1.24	\$5,561	
Reslotting Time for IWI and other Items(4X Handling)	6000	\$1.24	\$7,448	
Slotting Subtotal			\$38,008	

Freight Cost(Shipping w/tax)	Total Cost	Quote
Gravity flow	\$5,033	Yes
Salvage of Pushback Racks	\$1,344	Yes
Shipping Sub Total	\$6,377	

Total Cost of Modifications

\$124,148

*****Additional Labor Cost due to Breakdown	Total Hrs/WK	Cost per Hour	Cost/YR	Quote
Increased Dock Handling-2000 pallets@20cs/pallet	25.0	\$11	\$14,300	
Increased Porter work due to cleaning Low-Profile Racks	10.0	\$12	\$6,240	
Increased Pallet Let Downs-1000 pallets	16.7	\$20	\$17,212	
Case flow stacking-525items*20cs/wk@6secs/cs	17.5	\$20	\$18,073	
Direct Labor Cost Subtotal per year			\$55,825	

Grand Total

\$179,973

Date/Time of Reference

7/27/2000 13:58

Bay Cost

60" Single

Type for Case flow	Bay Cost	Gains in Facings	Storage capacity(Cu. Ft)	Cost/Cu.Ft.	Single Deep RP
4 level -single to single 20 lanes(100")	\$1,181.18	12	255.21	\$4.63	Yes
4 level -single to single 24 lanes(100")	\$1,376.59	13	255.21	\$5.39	Yes
2 level -single to single 12 lanes (4-30" slots)	\$586.24	8	319.50	\$1.83	Yes
3 level -single to double 15 lanes(160")	\$1,611.56	11	368.75	\$4.37	Yes
3 level -single to double 16 lanes(160")	\$1,699.82	12	371.48	\$4.58	Yes
3 level - double to double 15 lanes (200")	\$1,775.05	11	468.75	\$3.79	No
3 level - double to double 16 lanes (200")	\$1,874.26	12	472.22	\$3.97	No

Bay Types and Costs	Bay Cost	Gains in Facings	Total Bays	Cost	Gains in facings	Cost/Slot
4 level -single to single 20 lanes(100")	\$1,181.18	12	8	\$9,449.44	96	\$98.43
4 level -single to single 24 lanes(100")	\$1,376.59	13	8	\$11,012.74	104	\$105.89
2 level -single to single 12 lanes (4-30" slots)	\$586.24	8	25	\$14,655.90	200	\$73.28
3 level -single to double 15 lanes(160")	\$1,611.56	11	8	\$12,892.49	88	\$146.51
3 level -single to double 16 lanes(160")	\$1,699.82	12	7	\$11,898.77	84	\$141.65
3 level - double to double 15 lanes (200")	\$1,775.05	11	5	\$8,875.23	55	\$161.37
3 level - double to double 16 lanes (200")	\$1,874.26	12	1	\$1,874.26	12	\$156.19
			62	\$70,658.83	639	
			Tax@5%	\$3,532.94		
			Freight Charge	\$1,500.00		
			Material Cost	\$75,691.77		

Product Parameters

Volume (30 or less) Depth (Width constant @ 18")

Height	20"	18"	16"	14"	12"	10"	8"	Totals	% of Totals
12"-16"	1	1	2	1	5	4	6	20	3.95%
9"-12"	10	6	8	10	28	51	15	128	25.30%
6"-9"	13	21	34	52	49	93	21	283	55.93%
0"-6"	0	7	12	10	18	22	6	75	14.82%
Totals	24	35	56	73	100	170	48	506	
% of Total	4.74%	6.92%	11.1%	14.4%	19.8%	33.6%	9.5%		

Cases Depth > 12" 188
 Cases Depth < 12" 318
 Case Height > 12" 20
 Case Height > 9" 148
 Case Height < 9" 358

Lane Length(in.)	Case Depth						
	20"	18"	16"	14"	12"	10"	8"
100	5.0	5.6	6.3	7.1	8.3	10.0	12.5
160	8.0	8.9	10.0	11.4	13.3	16.0	20.0
200	10.0	11.1	12.5	14.3	16.7	20.0	25.0

Lane Height(in.)	Case Height		
	9"-12"	6"-9"	0"-6"
20	1	2	3
16	1	2	2
14	1	1	2
12	1	1	2

Configuration #1

Height Min 16" to 18"
 Lane depth 160"
 Lane Width 16-18"
 Storage Capacity(Stacked) 25 to 32

Configuration #2

Height Min 16" to 18"
 Lane depth 100"
 Lane Width 16-18"
 Storage Capacity(Stacked) 18 to 20

Configuration #3

Height Min 12" to 16"
 Lane depth 200"
 Lane Width 16-18"
 Storage Capacity 16 to 20