TRANSFER STATION CONCEPTUAL SIZING CALCULATION SHEET
[Verify sizing of Conceptual Layout Figure]

Hauler stalls provided [Weekday]	2	Can be expanded by moving K-rail
Total stalls [for SH weekend]	8	

WEEKEND DATA [BASED ON SCALE DATA AUG 2005]

	Transaction
Saturday, August 06, 2005	114924
	114855
	69
Sunday, August 07, 2005	114979
376	114926
	53
Saturday, August 13, 2005	115415
	115355
	60
Sunday, August 14, 2005	115506
308	115416
	90
Saturday, August 20, 2005	115872
	115814
	58
Sunday, August 21, 2005	115941
261	115873
	68
Saturday, August 27, 2005	116264
	116202
	62
Sunday, August 28, 2005	116360
	116265
	95

AUGUST 2005 STATISTICS

Average Saturday	62	
Average Sunday	77	
Average Weekly M-F	315	
Average Weekday [Weekly/5]	63	
		Peak factor
Highest Saturday	69	1.11
Highest Sunday	95	1.24
Highest Weekly M-F	376	1.19
Highest Weekly/5days	75	

ASSUMED FUTURE SERVICE NEED
TRIP AND UNLOADING STALL ANALYSIS

Assumed Future high day	190	20 years - double of traffic high, above
Factor of Safety from data limit	1.35	
Average future hour-high day	23.8	

ASSUMED CAPACITY OF LAYOUT

Assumed Ave. unloading time	15	minutes/vehicle
Unloading Stalls Spaces	8	Weekend -self haul use all stalls
Capacity per Hour	32	vehicles
Tipping hours	8	
Capacity per Day	**256**	**Vehicles [OK]**

ANALYZE FUTURE HOURLY PEAK-HIGH DAY QUEING

Assumed hourly peaking factor	2.0	
Assumed future high hour	47.5	
Capacity in one hour	32.0	
Queuing	15.5	**OK?**
Hours to Dissipate at Ave	1.9	**OK**

check per RULE OF THUMB FOR WEEKDAY HAULER STALLS

80	TPD
6	Average Tons per refuse hauler truck
0.25	Average Tons per Self-haul

WEEKDAY

20%	Trips by refuse haulers
80%	Trips by self-haul
12	Average Refuse Truck Trips per day
48	Average SH Trips per Day
72	Average TPD refuse trucks
12	Average TPD Self Haul
84	TPD

Hauler Stalls Required

1.8	Use 9/5	Hourly Peak Factor [20% of trips in peak hour- use 9/5]
3	Trucks in peak hour	
7.5	Truck unloading time assumed (minutes)	
1	Stalls required	
2	X2 factor	**Stalls required for future doubling [OK]**

20-Year Design - Daily Tonnage and Waste Floor Storage Area

Current avaerge weekday tonnage	80	TPD
20- year projected ave.weekday tons	160	Assumed doubling of waste stream
Apply Daily peaking factor	1.5	
Resulting peak day	240	TPD

Floor Storage Capacity		
Length beyond unloading stalls	75	Ft. - 100 minus 25 ft for vehicles
Floor Width	115	Ft. - Minus 10 ft for pushwalls
Floor space	8625	SF - total floor area
Deduction for loader manuvering	-1500	SF Manuvering- 10 ft each end
Waste Storage area	7125	SF - Storage space
Average waste storage height	8	Ft. - Average waste height
Storage volume	2,111	CY storage
Assumed average waste density	400	Lbs./CY - Ave waste floor density
	422	Tons storage on floor
	160	20-year average day tons
	2.6	Average days storage capacity