

Construction waste management

Possible 3 points

Intent

To reduce construction waste generation and to reuse and recycle debris.

Requirements

Reduce total construction waste or divert from landfills and incinerators a large proportion of the waste generated from new construction. Use the tables below to calculate the percentage of waste avoided or recycled. Exclude excavated soil, land-clearing debris from calculations. Include materials destined for alternative daily cover (ADC) in the calculations as waste (not diversion). Any waste-to-energy is not considered recycling for this credit.

Table 1. Baseline waste for LEED reference home

Bedrooms	Conditioned floor area (sf)	Waste (lbs)
1	1,000	4,200
2	1,600	6,720
3	2,200	9,240
4	2,800	11,760
5	3,400	14,280
6	4,000	16,800
7	4,600	19,320
8 or more	—	Area (sf) * 4.2

Table 1a. Baseline waste for LEED reference home

Bedrooms	Conditioned floor area (sq. m)	Waste (kg)
1	93	1 905
2	148	3 048
3	204	4 191
4	260	5 334
5	315	6 477
6	371	7 620
7	427	8 763
8 or more	—	Area (sq. m) * 20.5

For multifamily buildings, use the project's floor area for any non-unit spaces, and add it to the floor area of the LEED reference home calculated for each unit.

Calculate the waste generated by the project according to the following equation:

$$\text{Project construction waste} = \text{Total waste} - (\text{Recycled waste} * 0.25)$$

To convert volume to weight, assume 500 pounds per cubic yard (296 kg per cubic meter) of mixed construction waste, or use Table 2 to calculate the weights of specific waste products.

Table 2. Volume-to-weight conversion for construction and demolition debris

Material	LB/CY	TONS/CY	CY/TON	KG/cubic meter
Aluminum (scrap, whole)	175	0.09	11.1	103.8
Asphalt	1,380	0.69	1.4	818.7
Brass (scrap)	906	0.45	2.2	537.5
Brick (common hard)	3,024	1.5	0.67	1794
Cardboard (uncompacted)	100	0.05	20	59.3
Carpet & Padding (loose)	84	0.04	25	50
Concrete	1,855	0.92	1.4	1100.5
Copper (scrap)	1,094	0.56	1.8	649
Dirt (loose, dry)	1,890	0.94	1.1	1121.2
Drywall	500	0.25	4	296.6
Glass (broken)	2,160	1.1	0.91	1281.4
Metal (scrap)	906	0.45	2.2	537.5
Mixed C&D Debris	900	0.45	2.2	533.9
Mixed Waste/Trash	350	0.17	5.9	207.6
Rock (loose)	2,570	1.28	0.78	1631.5
Roofing (wood shake, shingle)	435	0.22	4.5	258

Tree Limbs & Stumps	1,080	0.54	1.9	640.7
Wood (scrap, loose)	330	0.17	5.9	195.7
Yard Trimmings (mixed)	108	0.05	20	64

Source: Contra Costa Waste Authority

Table 3. Points for reducing construction waste below baseline

Percentage reduction	Points
10%	0.5
20%	1.0
30%	1.5
40%	2.0
50%	2.5
60%	3.0