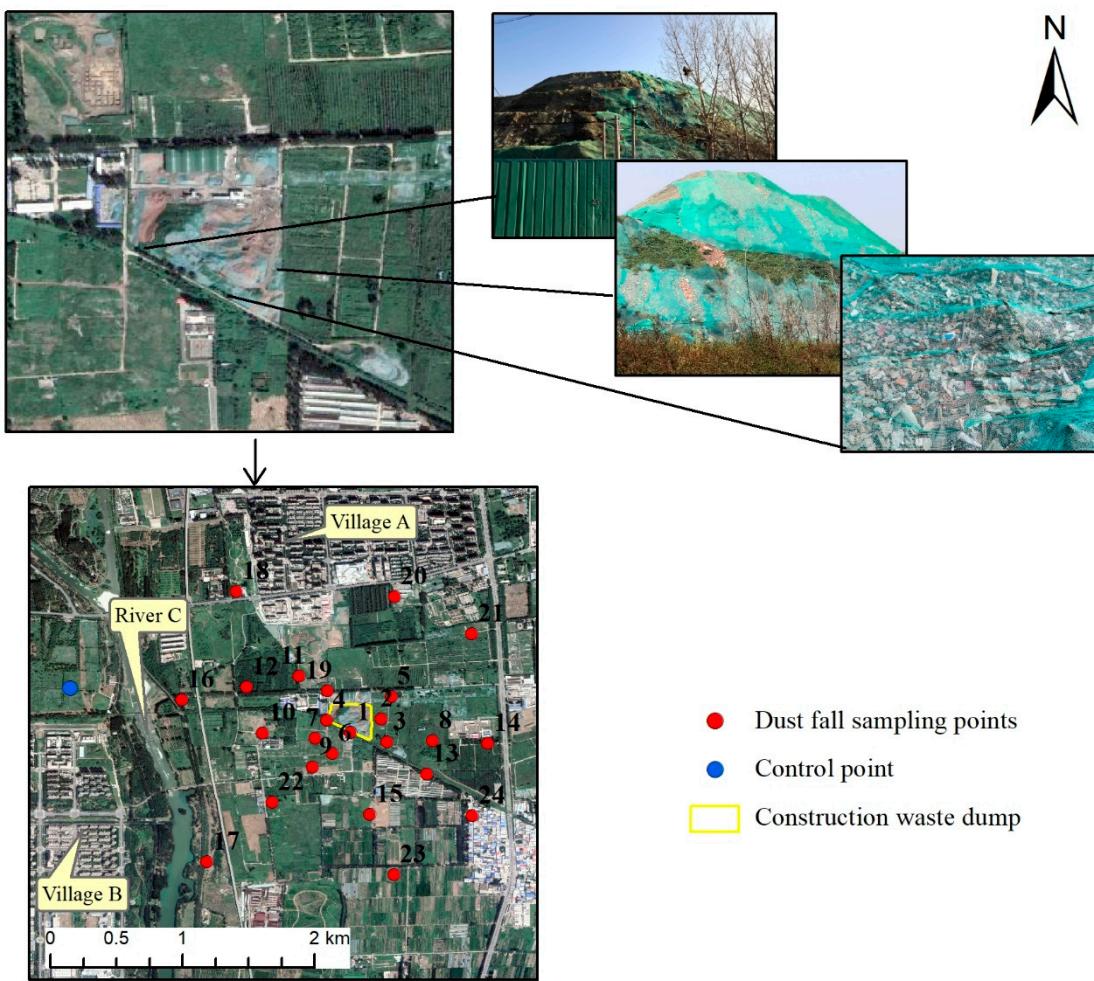Figure S1. Study area and distribution of dust fall sampling points

Table S1. Correspondence between the level of contamination and geo-accumulation index

Grade	I_{geo}	Level of contamination
0	≤0	No contamination
1	0–1	Light contamination
2	1–2	Moderate contamination
3	2–3	Moderate to severe contamination
4	3–4	Severe contamination
5	4–5	Severe to extremely heavy contamination
6	>5	Extremely heavy contamination

Table S2. Potential ecological risk classification

E_i	Individual potential ecological risk level	RI	Comprehensive potential ecological risk level
$E_i<10$	Minor risk	$RI<50$	Minor risk
$10\leq E_i<40$	Low risk	$50\leq RI<150$	Low risk
$40\leq E_i<80$	Moderate risk	$150\leq RI<300$	Moderate risk
$80\leq E_i<160$	Considerable risk	$300\leq RI<600$	High risk
$160\leq E_i<320$	High risk	$RI\geq600$	Extremely high risk
$E_i\geq320$	Extremely high risk	/	/

Note: / indicates no data

Table S3. Enrichment factors of various metals found in dust fall in the vicinity of the construction waste yard

Distance	Number	Cd	Ca	Zn	Cu	Mn	Fe	Pb	Cr	As	Ni	V	Co	Mg	Al
<250 m	1	10.56	14.52	9.77	8.06	7.87	7.74	4.30	4.13	3.74	2.72	2.24	1.68	1.50	0.34
	2	5.14	8.41	3.19	2.10	3.37	2.79	1.44	1.42	1.19	1.13	0.84	0.64	6.00	1.36
	3	19.64	10.21	3.04	2.47	2.52	0.93	1.89	1.31	1.12	1.01	0.86	0.63	9.64	0.56
	4	5.25	11.18	8.92	4.47	5.36	5.12	2.63	2.23	2.58	1.74	1.49	1.07	1.63	1.14
	5	7.13	6.23	6.89	3.26	3.66	3.72	2.71	2.44	1.45	1.41	1.04	0.79	3.33	1.41
	6	17.46	13.58	16.56	6.38	6.55	0.81	5.56	2.60	2.64	3.54	0.73	1.46	3.06	0.53
	7	13.22	20.47	12.12	10.25	4.77	1.21	2.03	1.73	1.60	1.64	1.05	0.80	2.66	0.51
250-500 m	8	4.51	8.07	14.24	5.24	7.06	5.90	4.97	2.75	4.09	3.48	1.55	1.43	2.53	0.47
	9	4.50	10.39	7.41	5.14	3.70	3.24	1.40	1.50	1.01	1.45	1.20	0.61	2.32	0.40
	10	12.94	21.35	16.98	6.73	6.79	1.18	3.67	1.76	2.08	2.41	1.10	1.26	5.07	0.73
	11	5.73	4.93	2.91	1.48	2.45	2.37	1.11	1.21	0.89	0.84	0.65	0.53	1.16	1.03
	12	9.01	8.96	6.17	3.77	4.16	4.55	2.27	2.18	1.47	1.55	1.26	0.90	1.41	1.15
	13	6.42	10.60	4.69	3.20	3.65	2.41	2.18	2.45	1.27	1.42	0.86	0.75	4.90	1.40
500-1000 m	14	40.70	16.49	10.50	5.65	9.88	6.68	3.42	2.63	2.39	2.71	1.79	1.51	7.10	0.51
	15	24.83	11.83	9.44	3.95	3.06	0.95	1.62	1.27	1.40	1.14	0.85	0.70	4.85	0.53
	16	3.84	17.19	6.81	10.64	4.09	0.99	2.70	1.44	1.80	1.38	0.87	0.79	5.51	0.45
	17	3.49	16.32	7.31	8.68	5.40	4.80	3.30	2.59	2.48	1.91	1.30	1.04	4.09	0.44

18	47.49	22.47	4.81	6.20	4.00	0.71	1.81	1.05	1.66	1.83	0.65	0.88	13.16	0.47
Control point	4.90	9.86	5.45	6.10	3.75	2.92	2.87	1.95	1.94	1.56	1.12	0.90	4.15	0.44

Table S4. Metal contents of different types of construction waste

Element	Concrete	Red brick	Marble	Ceramic tile	Glass	Wood	Plastic pipe	Plaster
Ca	131935.42	10863.19	372751.25	13751.89	58328.97	19412.62	169600.14	219827.75
Fe	24432.84	5917.31	2475.31	7039.50	7247.48	1544.86	2482.61	1608.76
Mg	16112.81	2042.28	2571.64	4807.30	20954.18	2756.73	8788.69	92600.57
Al	11106.40	6026.37	653.29	6615.84	4596.24	1298.51	1983.13	1753.62
Cr	842.81	11.03	30.42	901.55	1669.19	16.61	70.30	4.72
Mn	532.72	141.39	330.76	127.01	114.75	56.23	105.63	97.22
V	54.36	11.70	1.24	12.75	12.36	4.70	8.63	4.34
Ni	23.90	1.79	2.53	22.24	167.24	2.43	12.08	0.57
Zn	17.91	1.49	0.00	31.73	356.14	37.09	26.86	3.79
Pb	8.48	5.04	2.29	4.54	12.64	2.68	3196.61	2.02
Cu	6.48	2.46	0.04	2.20	3.53	6.11	2.16	1.44
Co	5.61	1.84	0.73	2.36	6.44	0.80	1.02	0.69
As	4.49	4.60	1.90	3.65	2.87	2.04	2.54	2.38
Cd	0.00	0.01	0.03	0.02	0.03	0.28	0.19	0.32