

Project users	Project name	Design name	Tool name		
Jonas Larsson, Mat	Bobergsgatan	Ex-situ alternative	BREEAM Infrastructure LCA (CEEQUAL)		
Section	Resource	User input	Unit	Global warm	Acidification
A1-A3-full	Crushed rock (0...10	35000	ton	229179,55	2027,8
A1-A3-full	Crushed rock (0...10	186320	ton	1220021	10794,83
A1-A3-full	Crushed rock (0...10	12600	ton	82504,64	730,01
A1-A3-full	Macadam (8...16 m	330	ton	1444,15	8,29
Subtotal for A1-A3-full:				1533149,3	13560,92
A4b	Crushed rock (0...10	35000	ton	5120,8	23,25
A4b	Crushed rock (0...10	186320	ton	27260,22	123,77
A4b	Crushed rock (0...10	12600	ton	1843,49	8,37
A4b	Macadam (8...16 m	330	ton	487,65	2,21
Subtotal for A4b:				34712,15	157,61
A5	Asphalt to recycling	2483,64	ton	8142,1	12,26
A5	Asphalt waste	1727,71	ton	5449,7	29,15
A5	Concrete waste to i	139,74	ton	135,59	0,688
A5	Concrete waste	41,2	ton	458,49	1,48
A5	Biowaste	3120	kg	627,24	3,28
A5	Soil waste	140551,04	ton	1096101,1	4531,92
A5	Contaminated Soil	60236,16	ton	17083264	5234,24
A5	Contaminated Soil	1746	ton	495173,97	151,72
A5	Hazardous waste	59	ton	148092,26	287,93
A5	Inert waste landfilli	7460,94	ton	79371,66	545,96
A5	Other diesel-driven	80	h	2174,3	3,19
A5	Crane, diesel-driver	40	h	968,67	1,46
A5	Articulated dump ti	18340	h	698705,95	1024,34
A5	Excavator, crawler,	20464	h	629871,33	950,83
A5	Compactors, diesel	285	h	3812,89	5,76
A5	Electricity, Sweden,	58669	kWh	3043,63	31,11
A5	Electricity, Sweden,	61275	kWh	3178,82	32,49
A5	Diesel	13377	l	43341,48	63,54
A5	Diesel	242344	l	785194,56	1151,13
A5	Diesel	304157	l	985468,68	1444,75
Subtotal for A5:				22072576	15507,25
D-complete	Asphalt for paving i	3001	ton	-186738,56	-471,96
Subtotal for D-complete:				-186738,56	-471,96
Total:				23640438	29225,78

Eutrophication	Ozone Depletion	Formation of acid equivalents	Abiotic depletion of fossil fuels	Abiotic depletion of minerals	Biogenic carbon dioxide	Use of net primary production	Hazardous waste
554,98	0,0372	41,2	1427,71	3194381,8	0	1369,25	1,2
2954,38	0,198	219,34	7600,33	17005064	0	7289,12	6,37
199,79	0,0134	14,83	513,98	1149977,5	0	492,93	0,431
6,3	0,000385	0,282	9,75	18868,74	0	392,9	0,0701
3715,44	0,249	275,66	9551,78	21368292	0	9544,2	8,06
5,06	0,00101	0,33	37,07	147145,6	0	0	0,02
26,92	0,00538	1,76	197,33	783319,09	0	0	0,106
1,82	0,000364	0,119	13,34	52972,42	0	0	0,0072
0,482	0,0000963	0,0314	3,53	14012,47	0	0	0,0019
34,28	0,00685	2,23	251,28	997449,57	0	0	0,136
2,51	0,00138	1,22	0,69	108764,26		4,97	0,0289
4,36	0,00191	1,22	87,79	74419,05		9,67	0,244
0,141	0,0000775	0,0685	0,0388	6119,53		0,279	0,00161
0,356	0,0000854	0,0411	3,14	7159,63		0,416	0,00173
0,905	8,98E-06	0,0186	0,000953	858,29		0,0917	0,00112
970,66	0,144	97,43	7425,14	15614135		1760,65	51,97
19379,68	0,166	4661,14	6985,64	15300423		15666,82	0,00901
561,74	0,00482	135,11	202,49	443496,71		454,12	0,000261
179,36	0,0106	78,47	0,252	557614,44		62,54	59001,78
164,43	0,0204	25,38	2,17	1873384,4		200,7	1,5
0,651	0,000367	0,328	0,000276	28655,06		1,52	0,00765
0,299	0,000168	0,15	0,000127	13145,11		0,696	0,00351
209,19	0,118	105,23	0,0886	9208253,6		487,37	2,46
194,17	0,109	97,69	0,0823	8547481,7		452,4	2,28
1,18	0,000663	0,591	0,000498	51741,68		2,74	0,0138
8,05	0,000112	1,44	0,0535	540241,75		633,45	229,66
8,41	0,000117	1,5	0,0559	564238,58		661,59	239,86
12,98	0,00732	6,53	0,0055	571197,9		30,23	0,152
235,07	0,133	118,26	0,0996	10348089		547,7	2,76
295,03	0,166	148,43	0,125	12987504		687,39	3,47
22229,17	0,885	5480,25	14707,86	76846923		21665,33	59536,2
-91,93	-0,00525	-20,96	-3,01	-2057090,9		-4266,93	-70,1
-91,93	-0,00525	-20,96	-3,01	-2057090,9		-4266,93	-70,1
25978,89	1,14	5758,15	24510,91	99212664	0	31209,53	59544,4

Non hazard	Radioactiv	Mass of ra	Question	Comment	Cost item	Service life	CESMM4	Resource s
4883,02	20,77	35000000	Masses sol	Bergkross C				Sand, soil a
25994,41	110,59	1,86E+08	Masses sol	Bergkross C				Sand, soil a
1757,89	7,48	12600000	Masses sol	Bärlager 0-				Sand, soil a
459,03	0,423	330000	Masses sol					Sand, soil a
33094,35	139,27	2,34E+08						
15,59	0,571	35000000	Masses sol	Bergkross C				Sand, soil a
82,98	3,04	1,86E+08	Masses sol	Bergkross C				Sand, soil a
5,61	0,206	12600000	Masses sol	Bärlager 0-				Sand, soil a
1,48	0,0544	330000	Masses sol					Sand, soil a
105,66	3,87	2,34E+08						
46,98	0,773	4967280	Constructic	DKBC Maln				Other wast
0,211	0,00738	3455420	Constructic	Högbytorp,				Other wast
2,6	0,0435	279480	Constructic	DKLBC Sika				Mineral wa
2,03	0,0481	82400	Constructic	Högbytorp,				Mineral wa
280,49	0,00529	6240	Constructic	DKLBC Mal				Organic wa
18,33	0,601	2,81E+08	Constructic	IFO schaktr				Mineral wa
60236167	0,257	1,2E+08	Constructic	FO schaktr				Mineral wa
1746000	0,00746	3492000	Constructic	Högbytorp,				Mineral wa
26609,01	1,58	118000	Constructic	Högbytorp,				Other wast
7460941	11,6	14921880	Constructic	Schakt & riv				Mineral wa
12,41	0,206	0	Machine hc					Machine oq
5,7	0,0945	0	Machine hc					Machine oq
3989,52	66,21	0	Machine hc					Machine oq
3703,24	61,45	0	Machine hc					Machine oq
22,42	0,372	0	Machine hc					Machine oq
5386,81	10,05	0	Site electric	Bodar				Electricity
5626,09	10,5	0	Site electric	Övrigt				Electricity
247,47	4,11	0	Site fuel co	Lastbil trea				Oil based fi
4483,36	74,4	0	Site fuel co	Lastbil trea				Oil based fi
5626,9	93,38	0	Site fuel co	Lastbil trea				Oil based fi
69499172	335,68	4,29E+08						
-8063,03	-137,38		Pavings anc			30		Asphalt
-8063,03	-137,38							
69532372	478,82	8,97E+08						

Uni class	CSI master Constructi	Occurrence	Original cl	Environme Resource	Transformation
P3	31			One Click L	Crushed rock (0...100 mm), dry bul
P3	31			One Click L	Crushed rock (0...100 mm), dry bul
P3	31			One Click L	Crushed rock (0...100 mm), dry bul
P3	31			One Click L	Macadam (8...16 mm), dry bulk de
P3	31			One Click L	Crushed ro Dumper truck, 19 ton c
P3	31			One Click L	Crushed ro Dumper truck, 19 ton c
P3	31			One Click L	Crushed ro Dumper truck, 19 ton c
P3	31			One Click L	Macadam (Dumper truck, 19 ton c
e					Asphalt to recycling
e					Asphalt waste
ste					Concrete waste to recycling
ste					Concrete waste
ste and paper					Biowaste
ste					Soil waste
ste					Contaminated Soil Waste to landfi
ste					Contaminated Soil Waste to landfi
e					Hazardous waste
ste					Inert waste landfilling
peration				LCA for ma	Other diesel-driven machinery ope
peration				LCA for ma	Crane, diesel-driven, operation pe
peration				LCA for ma	Articulated dump trucks, diesel-dri
peration				LCA for ma	Excavator, crawler, diesel-driven, c
peration				LCA for ma	Compactors, diesel-driven, operati
P8	1			LCA study f	Electricity, Sweden, 2019
P8	1			LCA study f	Electricity, Sweden, 2019
P8	1			LCA invent	Diesel
P8	1			LCA invent	Diesel
P8	1			LCA invent	Diesel
P3	31		30, 60, 90	EPD ECO-A	Asphalt for Crushed stone

iven, operation per hour (+A1&A2)