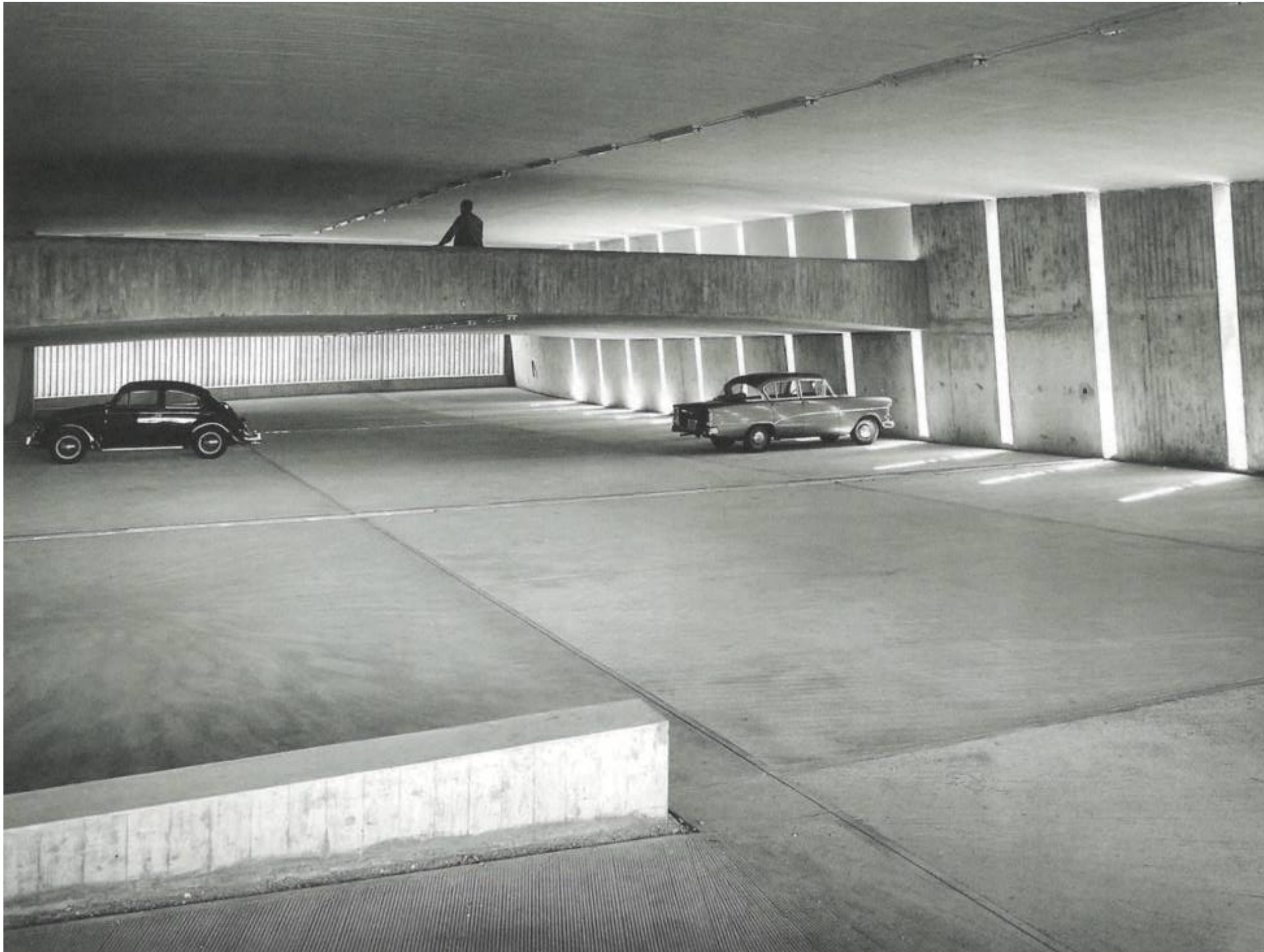


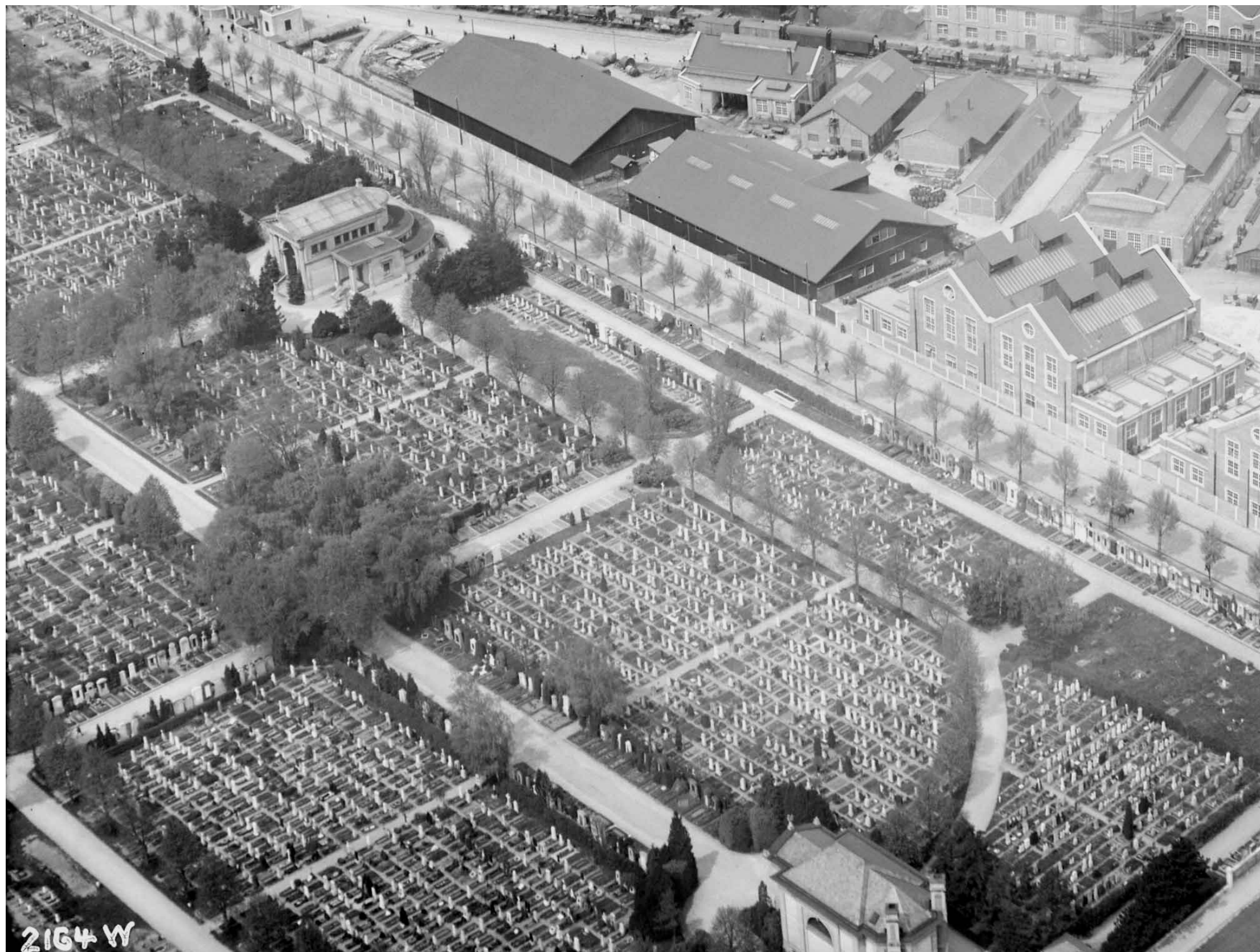
KLYBECK CREMATORIUM

Magnus Lidman
Professur An Fonteyne
Masterthema C: RE-USE CIBA
Frühlingssemester 2020

The parking garages in Klybeck consist of one-way ramps going up and down in a double spiral. The continuous forward movement of the gently sloping ramps offer an introspective processional walk. By re-using the structures as a crematorium and columbarium for the storage of ashes, they gain a new meaning, now serving the funeral procession. The function of the crematorium is not new to the site. The neighboring park used to be a cemetery with the first crematorium in Basel, until it was relocated to the outside of the city. Today, since more than eight out of ten funerals involve cremation, there is a growing need for crematoria and columbaria in the expanding city of Basel.



SUTER + SUTER, BAU 442-444, 1963
(www.klybeckplus.ch Pressefoto Novartis und BASF)



HORBURG CREMATORIUM 1890-1951
(Staatsarchiv Basel-Stadt, BALAIR 2164W)



50 m

SITE

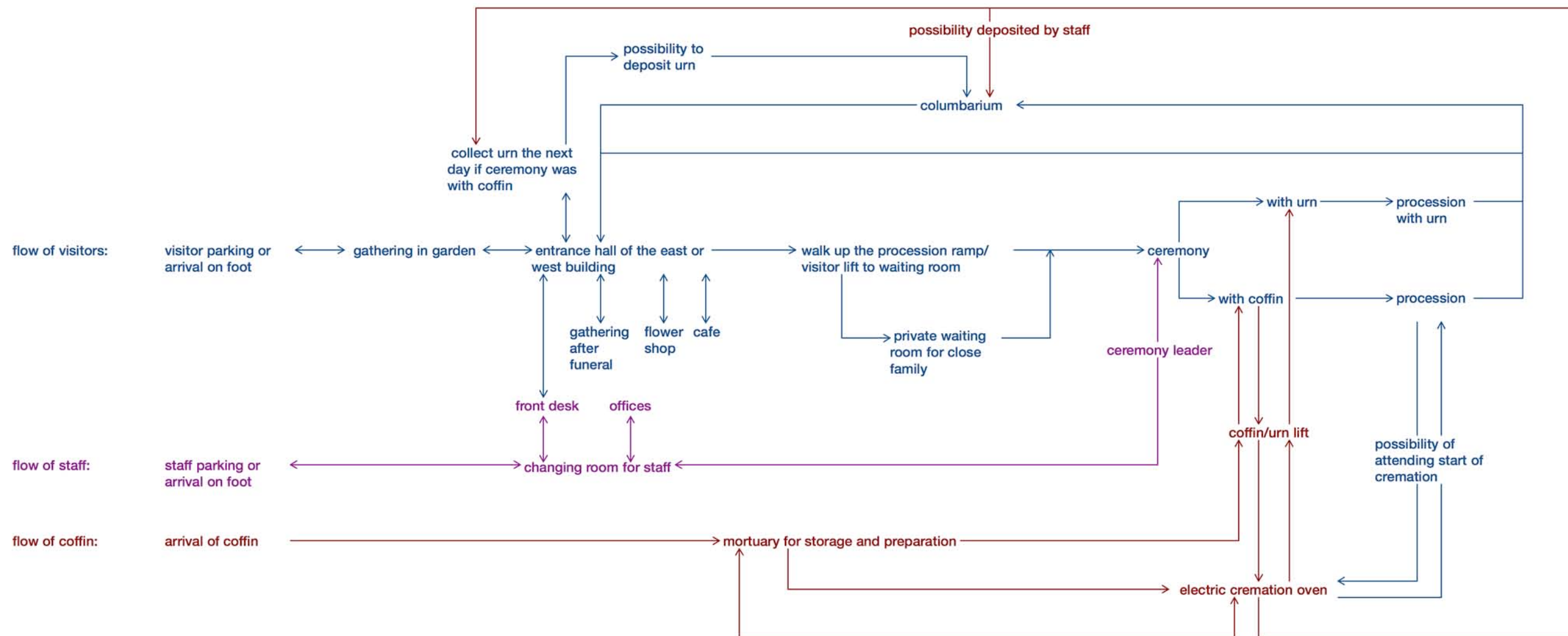
N ↑



50 m NEW GARDEN STRUCTURE N ↑



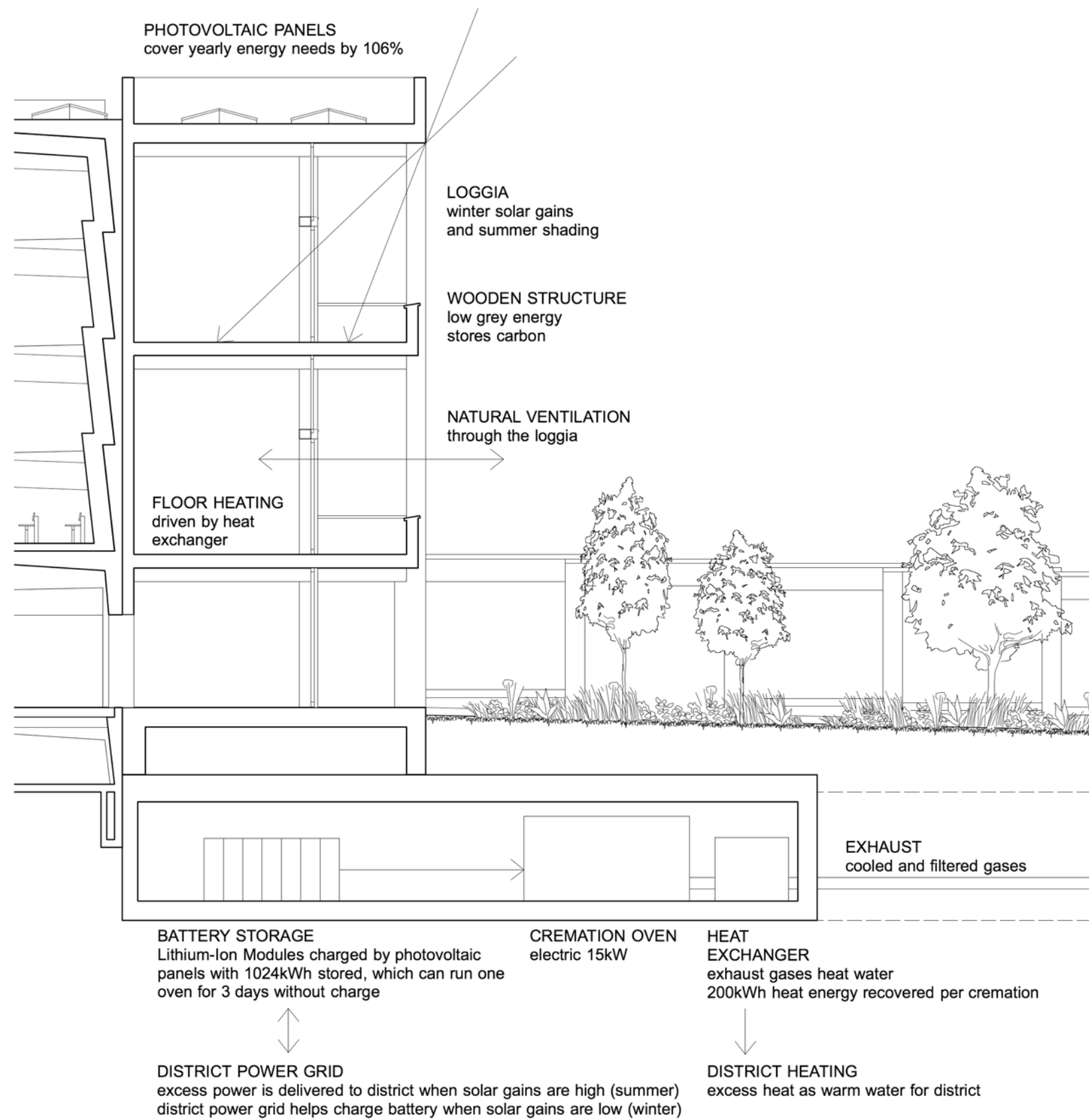
50 m NEW GARDEN STRUCTURE N ↑



VISITOR, STAFF AND COFFIN FLOWS

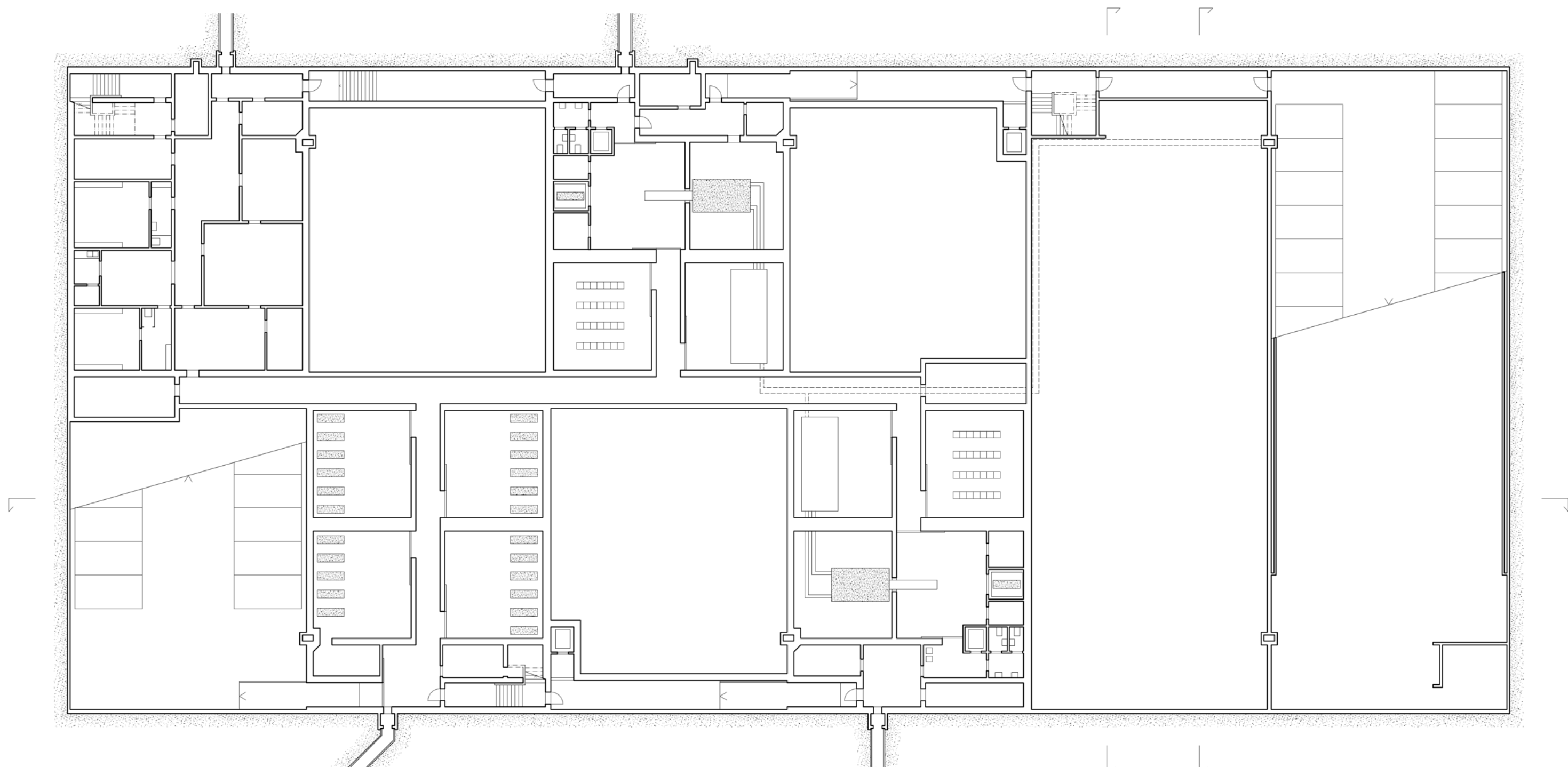


GARDEN ENTRANCE



ZERO-EMISSIONS BUILDING

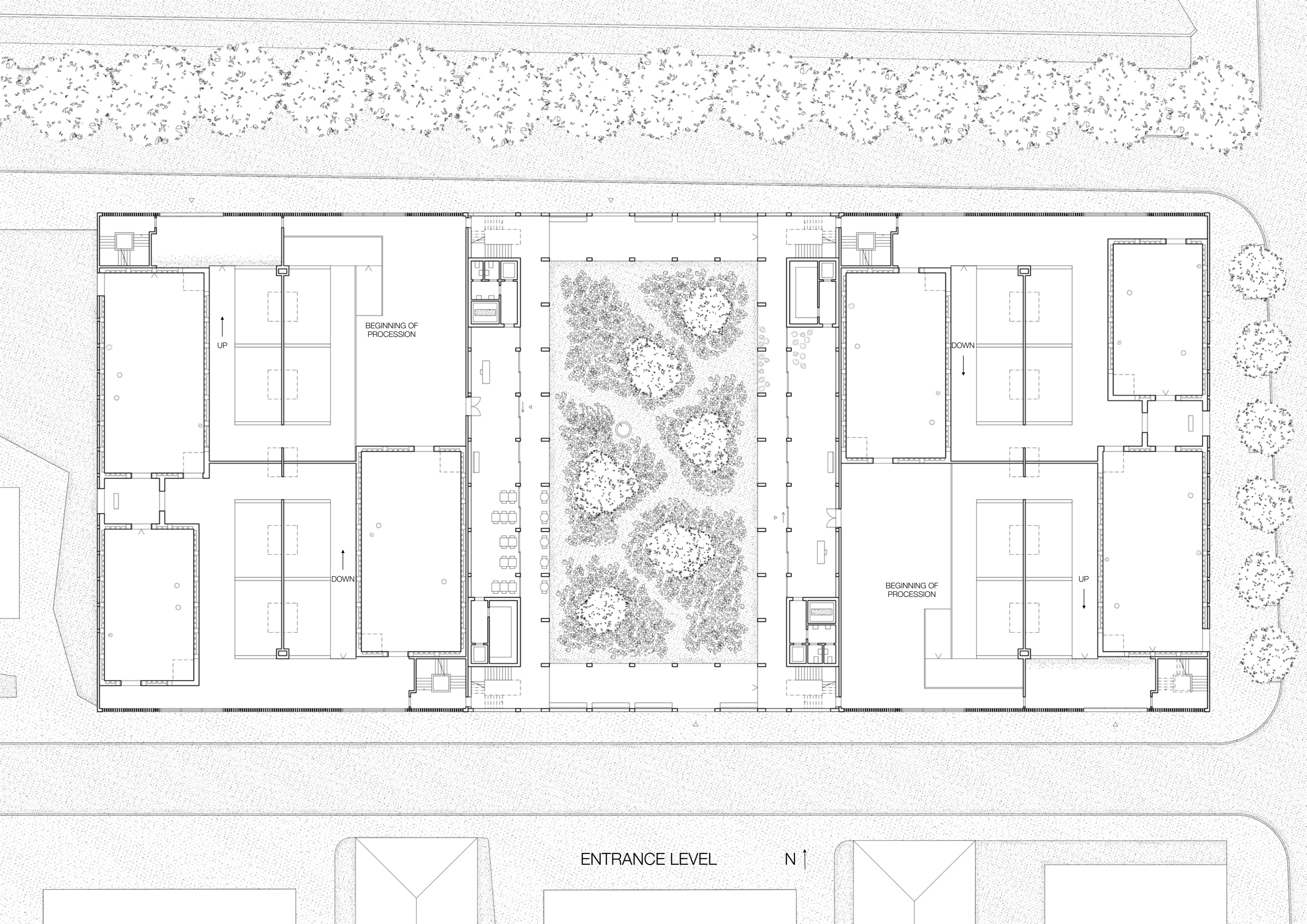
			Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember	Jahr	
Energiebedarf Wärme	Heizung	Wärmebedarf 35°C Bodenheizung Bereitstellung durch Abwärme Kremationsöfen	9,63	8,27	3,97	1,75	0,03	0,00	0,00	0,00	0,03	1,36	6,26	8,76	40,07	kWh/m2 thermisch
	Warmwasser	Wärmebedarf 60°C Bereitstellung durch Abwärme Kremationsöfen	0,61	0,61	0,61	0,61	0,61	0,61	0,61	0,61	0,61	0,61	0,61	0,61	7,30	kWh/m2 thermisch
	Heizung + Warmwasser		10,24 34 588,05	8,88 29 988,59	4,58 15 452,31	2,36 7 963,25	0,64 2 163,59	0,61 2 054,81	0,61 2 054,34	0,61 2 054,34	0,64 2 154,91	1,97 6 662,42	6,87 23 200,53	9,37 31 630,33	47,37 159 967,48	kWh/m2 thermisch kWh thermisch
Nutzung Abwärme	Kremationsöfen		48 000,00	48 000,00	48 000,00	48 000,00	48 000,00	48 000,00	48 000,00	48 000,00	48 000,00	48 000,00	48 000,00	48 000,00	576 000,00	kWh thermisch
	Prozentuale Deckung des Wärmebedarfs mit Abwärme Kremationsöfen		139%	160%	311%	603%	2219%	2336%	2337%	2337%	2227%	720%	207%	152%	360%	
Energiebedarf Elektrisch	Geräte, Beleuchtung, Lüftung		1,28 8 793,82	1,28 8 793,82	1,28 8 793,82	1,28 8 793,82	1,28 8 793,82	1,28 8 793,82	1,28 8 793,82	1,28 8 793,82	1,28 8 793,82	1,28 8 793,82	1,28 8 793,82	1,28 8 793,82	15,40 105 525,80	kWh/m2 elektrisch kWh elektrisch
	Kremationsöfen		21 900,00	21 900,00	21 900,00	21 900,00	21 900,00	21 900,00	21 900,00	21 900,00	21 900,00	21 900,00	21 900,00	21 900,00	262 800,00	kWh elektrisch
	Geräte + Beleuchtung + Lüftung + Kremation		30 693,82	30 693,82	30 693,82	30 693,82	30 693,82	30 693,82	30 693,82	30 693,82	30 693,82	30 693,82	30 693,82	30 693,82	368 325,80	kWh elektrisch
Energieerzeugung Eletkrisch	Photovoltaikanlage															
	Dach: Monokristalline Siliziumzelle (ηmodul = 21%)		6,22	8,80	16,77	20,09	27,82	31,60	26,44	22,72	17,11	11,90	6,80	4,89	202,18	kWh/m2 elektrisch
	1 936,00	m2	12 050,44	17 036,49	32 472,76	38 886,65	53 867,57	61 179,15	51 197,29	43 986,54	33 126,51	23 030,81	13 172,54	9 464,72	391 416,45	kWh elektrisch
	Prozentuale Deckung des Strombedarfs mit Ertrag aus Photovoltaik		39%	56%	106%	127%	175%	199%	167%	143%	108%	75%	43%	31%	106%	
Gebäudefläche ungeheizt	17 840	m2														
Gebäudefläche geheizt	3 377	m2														
Leistung Kremationsofen	15	kW														
Stunden pro Jahr	8 760	h														
Verbrauch Kremationsofen/Jahr	131 400	kWh elektrisch														
Anzahl Kremationsöfen	2															
Verbrauch Kremationsöfen/ Jahr	262 800	kWh elektrisch														
Anzahl Kremationen	8	pro Tag														
Anzahl Kremationen	2 880	pro Jahr														
Abwärme / Kremation	200	kWh thermisch (Angabe Hersteller DFW Europe)														



10 m UNDERGROUND LEVEL N ↑



GARDEN

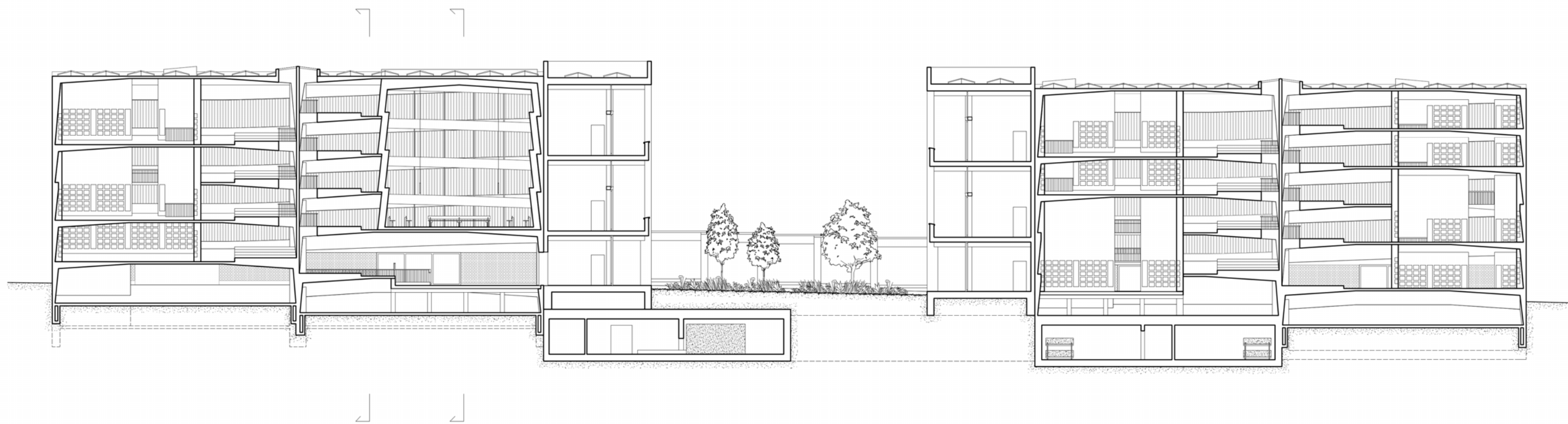


ENTRANCE LEVEL

N ↑

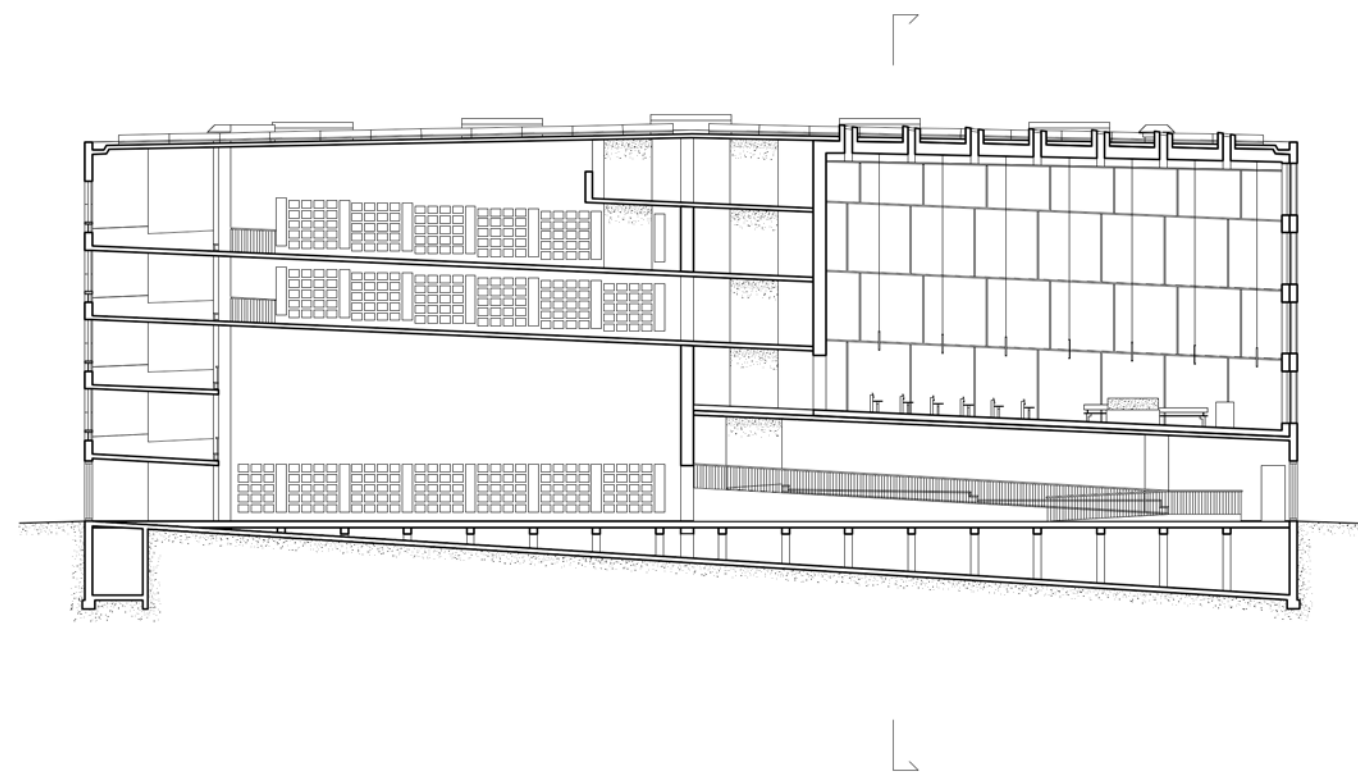


GARDEN FACADE



————— 10 m

SECTION

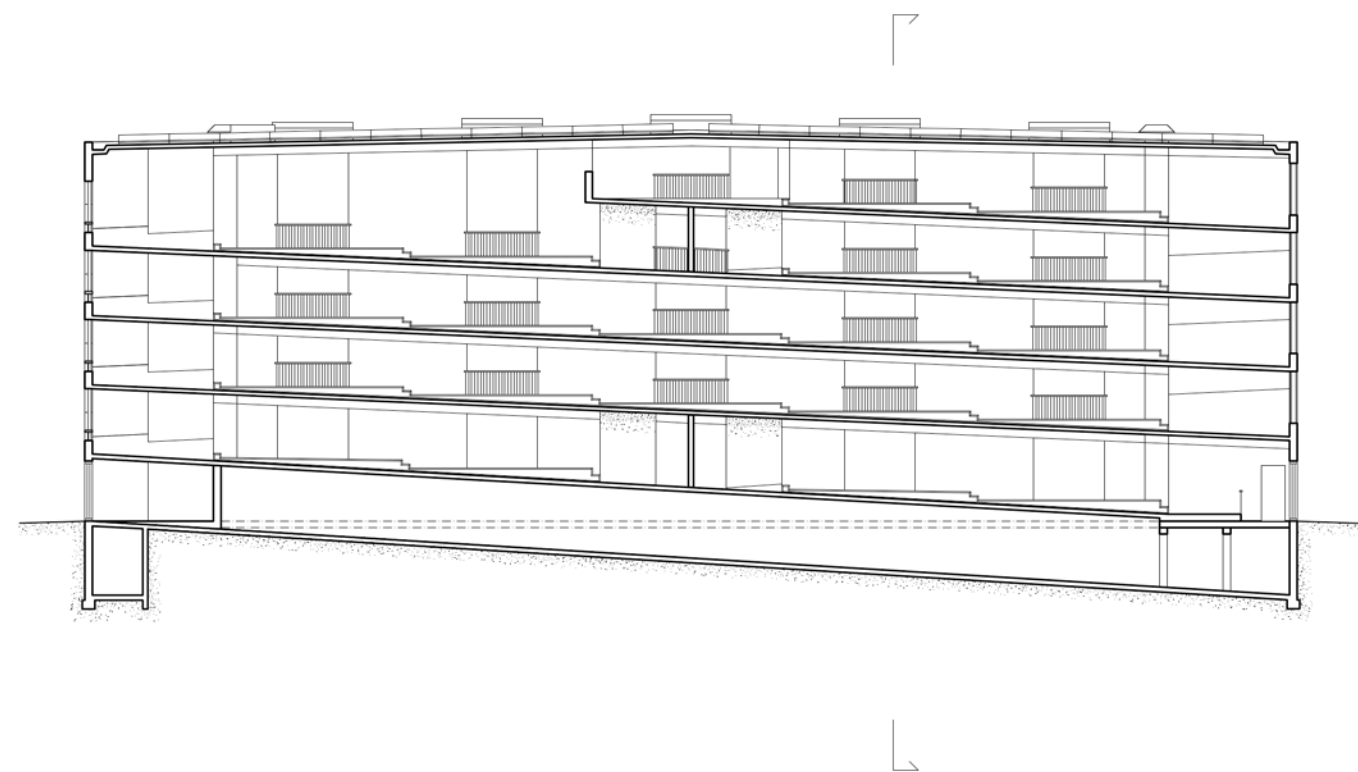


————— 10 m

SECTION



PROCESSION

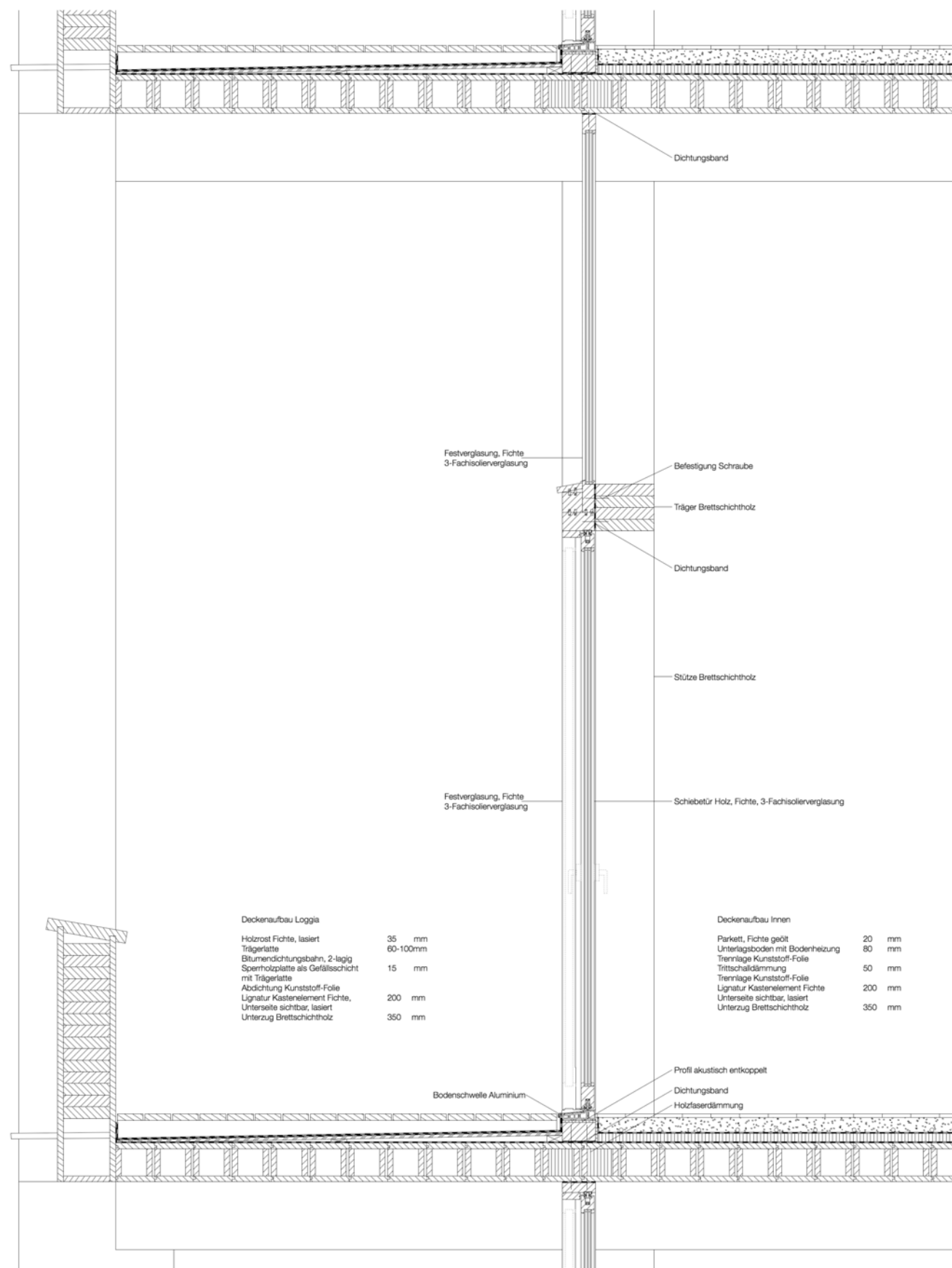


————— 10 m

SECTION



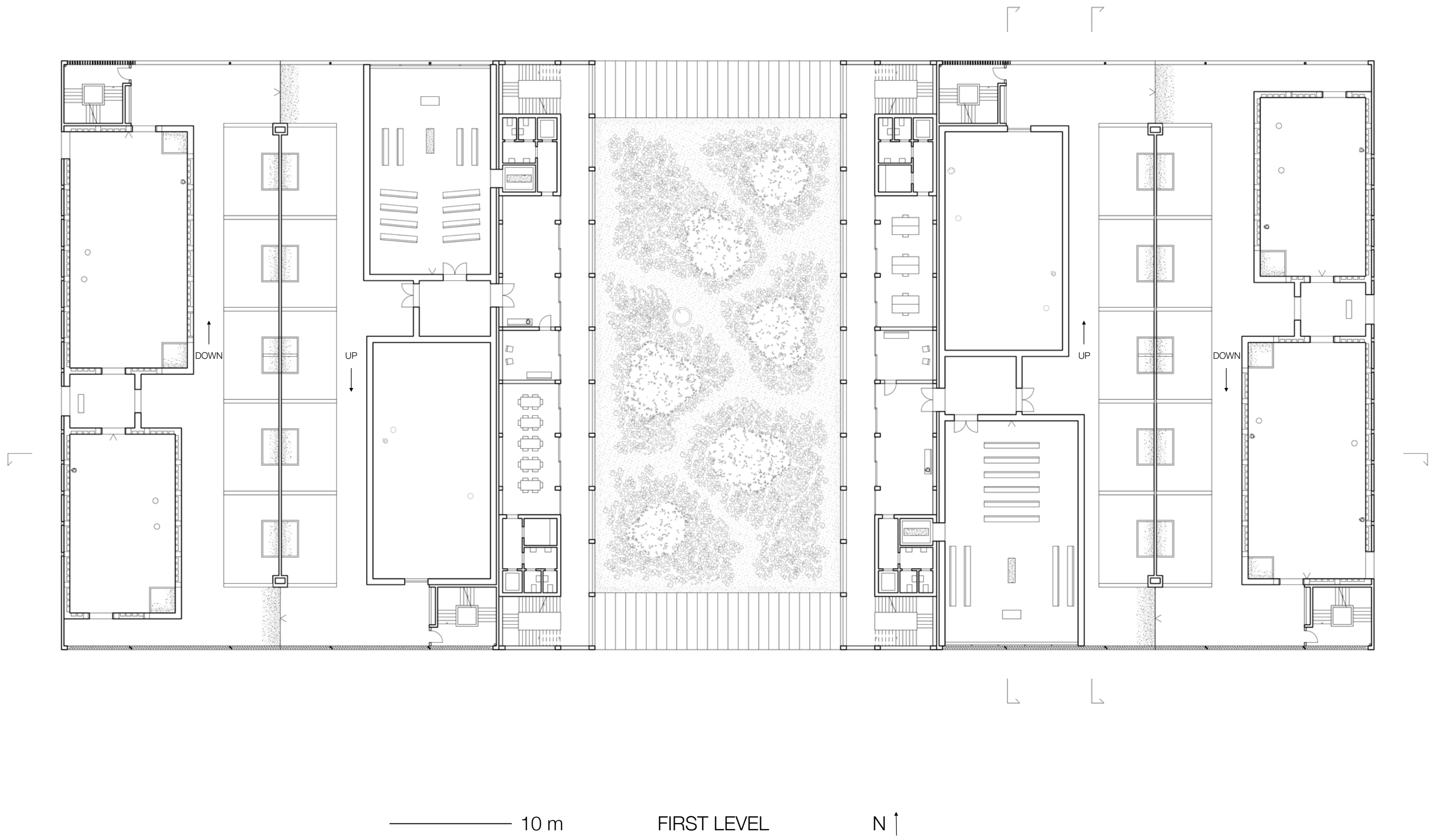
LOGGIA AND WAITING ROOM

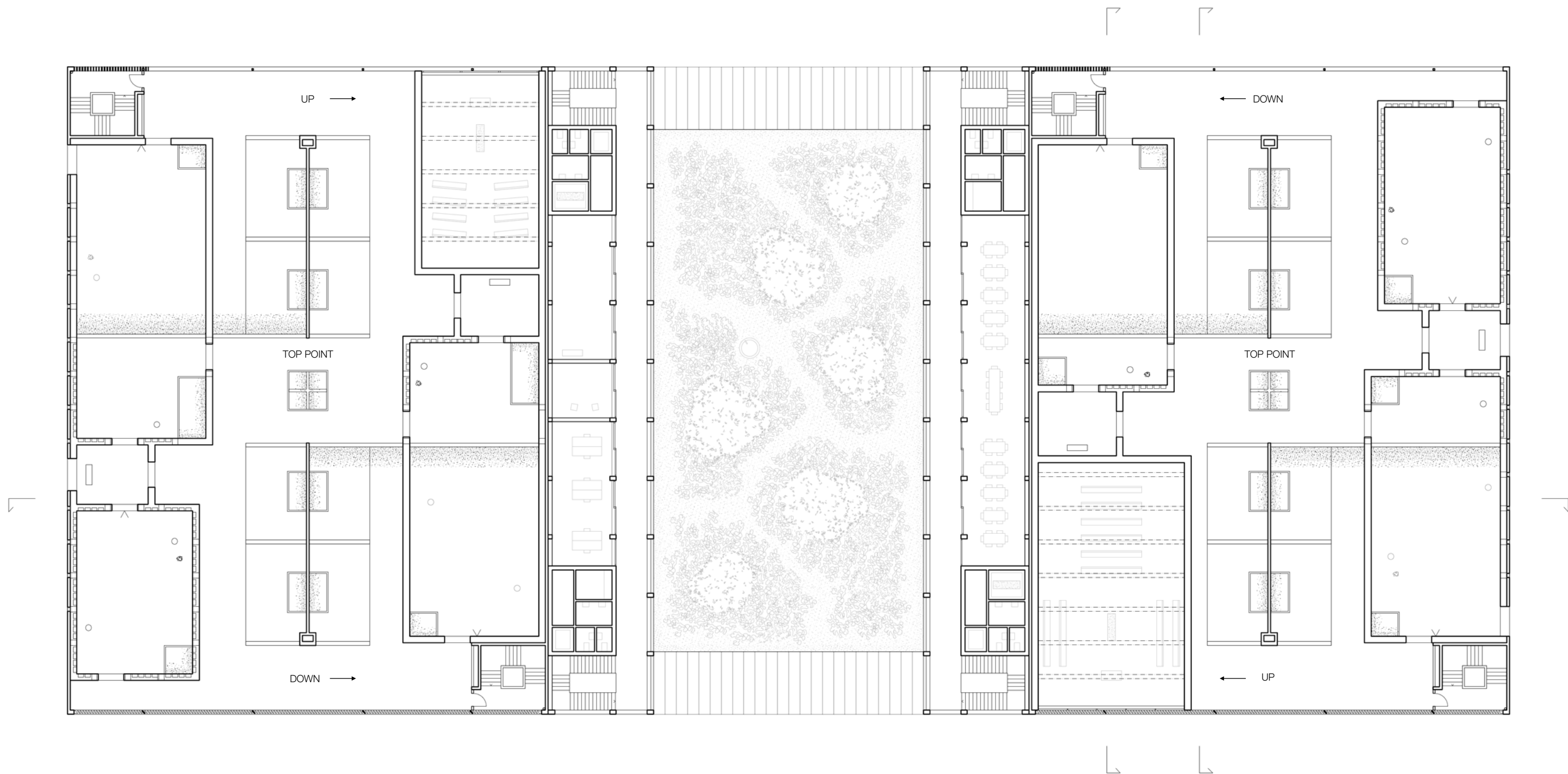


LOGGIA CONSTRUCTION



AUDITORIUM





10 m

TOP LEVEL

N ↑



COLUMBARIUM



COLUMBARIUM