Program of requirements : Computational Architecture Design

Group Arthouse A1

PVE housing

Housing PVE	residents target	short description	rooms	d	b	h	housing m2	outdoor space m2	m2	housning quantities	total square meters	type of outdoor space	floor level
	studenten	studio's, low-budget, shared facilities, living and work	1 and 2 rooms	7,5	4	3	30	0	30	40	1200	public outdoor space	-
	starters	2 persons household, with a room for a first child	2 and 3 rooms	13	5	3	65	5	70	60	4200	private outdoor space	-
	assisted elderly living	wheelchair friendly, hobby room, spacious bathroom	3 rooms	13	6,15	3	80	0	80	20	1600	public outdoor space	1
tot											7000		

Project Area defined													
	short description	m2									6275		
compulsory area		9250									18450		
optional area	old railway	3375											
	football square	2000											
	communual garden	2200											
	rest area	2000											
			sum										
	tot	18825		% groen van plot									
				33,33333333									

PVE communal

Communal PVE	Per Functie	short description	d	b	h	m2	quantity		total square meters	location (NWZO)
	Housing					-	120		7000	
	Housing bvo									
	Parking	(minimum 0.5 parking lots per apartment= 60) + 40 visitors, 22,5m2 per parkeerplek(neufert data)		3.5	22.5		100		2250	ZO
	communual garden		40		50	-			2200	NO
	Vegetation	25% of the plot	-		-	-			2310	
	Workshops		10	5	3	50	2		100	
	Fablabs		5	5	3	25	2		50	
	start up offices		5	10	3	50	6		300	
	Co-work	Artistic ambiance	50	50	6	2500	1		2500	
	Library		20	10	3	200	1		200	
	Cinema		25	17	9	425	1		425	
	Pub		10	10	3	100	1		100	
	Arcade		10	5	3	50	1		50	
	Co-Cook		10	10	6	100	1		100	
	Restaurant		30	20	6	600	6		3600	
	Community hub		20	20	3	400	1		400	
	Shop		10	20	3	200	2		400	
	Gym		20	20	6	400	1		400	
	tot								22385	

Design Goals

Main aim: Artistic ambiance.

Currently there are some startups already in the housing block. The artistic class will figure as a great push for the local economy.

Design Goals (quantitative & qualitative):

o Artistic ambiance (Qual)(Quan)

Artistic and workspace are in higher priority of space use. To emphasize this, this spaces are bigger.

o Maximum Modularity (Qual) / Sustainability (Quant)

Flexibility in space use is important. Therefore a flexible construction grid is needed.

o Keeping the same amount of housing (and optional area) as before (Quant)

- 120 dwellings

o Not blocking direct light for neighbour buildings (Quant)

- maximum height is 40m

o Max Greenery (Quant)

- 25% of the building plot is greenery

o Min Noise (Quant) The most noise producing facilities will be located underneath the old railway road.

- Cinema
- Gym
- Workshop

o Social Integration with neighbourhood (Qual)

- Mirroring of functions with surrounding streets.
- Access of commercial areas (like arcade, fab lab, restaurant, cinema, community, grocery shop and gym) for visitors
- old railway road transformed as a rotterdam version of the highline

o Social Integration within residents block (Qual)

 The student residents are taking care of the elderly. Hereby social integration on block level will be achieved.

- Core of the project is an open multifunctional communal (creative) space
- Multifunctional
- communal garden is joined to the elderly dwellings

o Rational Spectra of Privacy and Community (Qual)

The type of residents will approximately be related to community and private spaces.

- The private domains of the elderly will approximately been facing inwards.
- Additionally the housing of the residents are at building level 1 or higher
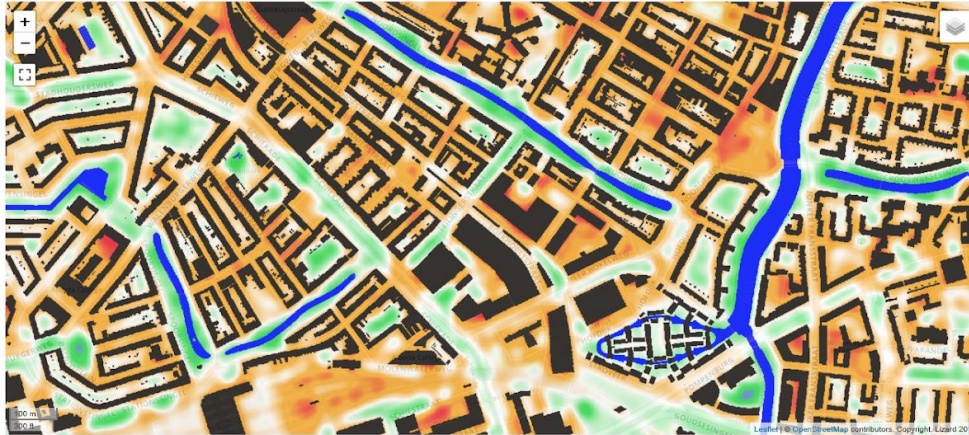- The elderly are living at building level 1

Communal PVE

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Housing					-	120	7000	
Housing bvo								
Parking	(minimum 0.5 parking lots per apartment= 60) + 40 visitors. 22,5m2 per parkeerplek(neufert data)	-	-	3.5	22.5	100	2250	ZO
communual garden	25% of the plot		40	50	-		2200	NO
Vegetation		-	-	-			2310	
Workshops			10	5	3	50	2	100
Fablabs			5	5	3	25	2	50
start up offices			5	10	3	50	6	300
Co-work			50	50	6	2500	1	2500
Library	Artistic ambiance		20	10	3	200	1	200
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Restaurant			30	20	6	600	6	3600
Community hub			20	20	3	400	1	400
Shop			10	20	3	200	2	400
Gym			20	20	6	400	1	400
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PVE

Housing PVE

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short description	m2		d				total square meters	type of outdoor space
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	sum							
tot	18825		% groen van plot	33,33333333				

Hittestress

Hittestress

Hittestress is een term die aangeeft dat een sterk verhoogde gevoelstemperatuur optreedt, die onaangenaam en zelfs schadelijk kan zijn voor mens en dier. De aanw...
Lees meer

Kies wat u op de kaart wilt zien:

Hittestress

- 🔴 Aanzienlijk warmer
- 🟠 Warmer
- Neutraal
- 🟢 Koeler
- 🔵 Aanzienlijk koeler
- ⚫ Gebouwen
- 🔵 Water

Sluiten

Waterdiepte

Korte, hevige buien zullen naar verwachting steeds vaker voorkomen. Dit klimaateffect heeft een grote impact in stedelijk gebied. Wateroverlast is bij deze extreme buien niet te voorkomen. Het is d...
Lees meer

Kies wat u op de kaart wilt zien:

Waterdiepte

- Tot 10 cm
- Tot 20 cm
- 20 cm en meer

Begaanbaarheid wegen

Kwetsbare objecten

Modelinformatie

Risico op water in pand

Stroombanen

Sluiten