

DIPLOMA STUDIO PROJECT:

MOHU CIRCULAR COMMUNITY CENTER

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INTRODUCTION

Hungary is lagging behind its neighboring Central European countries in terms of waste recovery, which is a great indication that something must be done to promote a circular economy and lessen the amount of waste going to landfills in the country. EU's recycling quota in terms of waste management must be met in 2040. It is to have at least 65% of the total domestic waste being recycled in the country.

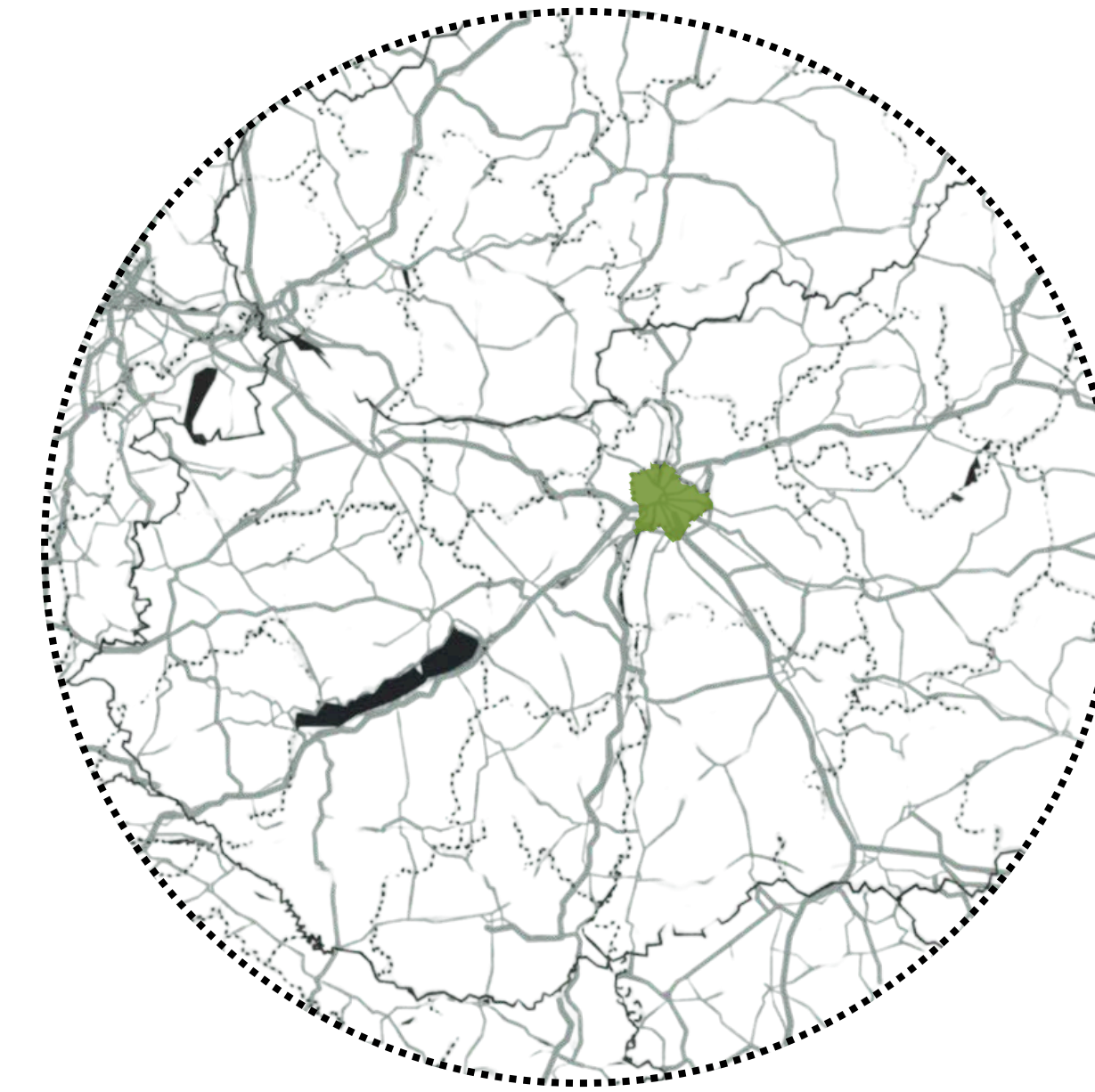
Budapest is its capital, and Kelenföld with its organized community in the Large Housing estate is a great site to demonstrate the Zero Waste Center which is a community-based learning facility that aims to enhance the knowledge of the community in handling waste in terms of the following initiatives:

- Increase environmental impact awareness,
- Community engagement and empowerment,
- Demonstrate the power of the circular economy,
- Rethink waste as a resource so proper segregation must be made,
- Collaboration efforts with business owners

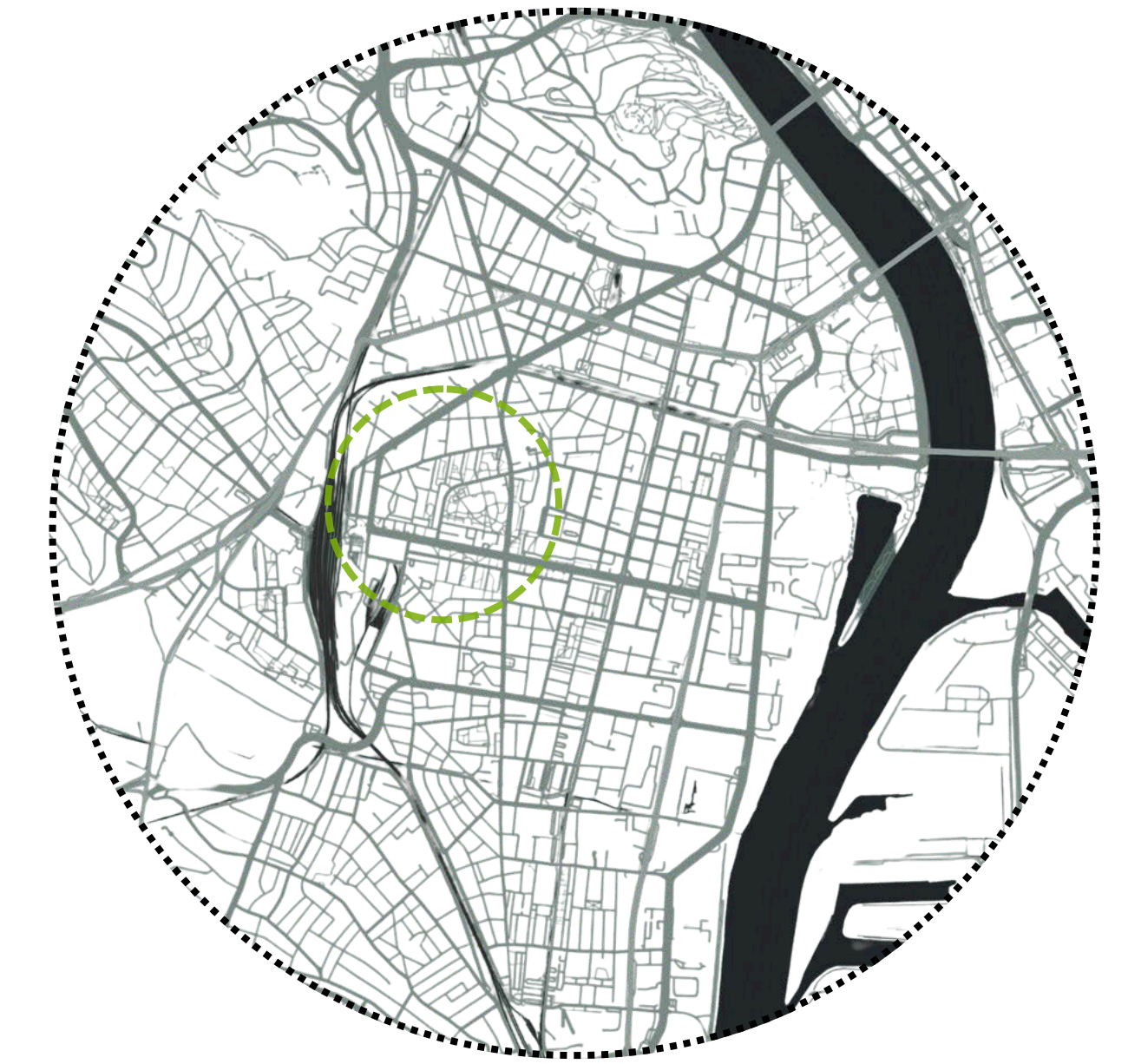
LOCATION



Hungary is a landlocked country in Central Europe. According to OECD Statistics, Hungary is lagging behind in waste recovery. Moreover, Hungarians are most concerned about waste generation.



Its capital, **Budapest**, is bisected by the Danube River. No city in Hungary made it to the list of Zero waste cities while its neighboring countries' cities in central Europe such as Slovakia and Slovenia made it in.



Kelenföld is a neighborhood in Budapest, Hungary. It belongs to Újbuda, and located in the southern part of Buda. The large Kelenföld housing estate was built between 1967 and 1983 from pre-fabricated concrete blocks.

KELENFÖLD THROUGHOUT THE HISTORY



2005
Post socialist era, construction of Large Housing estates and its utilities (1966)



2007
Started construction of Bikás Park M4 station



2011
Constructed 2 M4 stations: Kelenföld and Bikás Park (2014 operational), started const. Etele Plaza



2023
Office center building was demolished and now being replaced by a residential complex, Etele Plaza const., business centers, catholic churches, etc.

Municipal waste management



MOHU was created for the state concession of the domestic standardization and development of waste management.

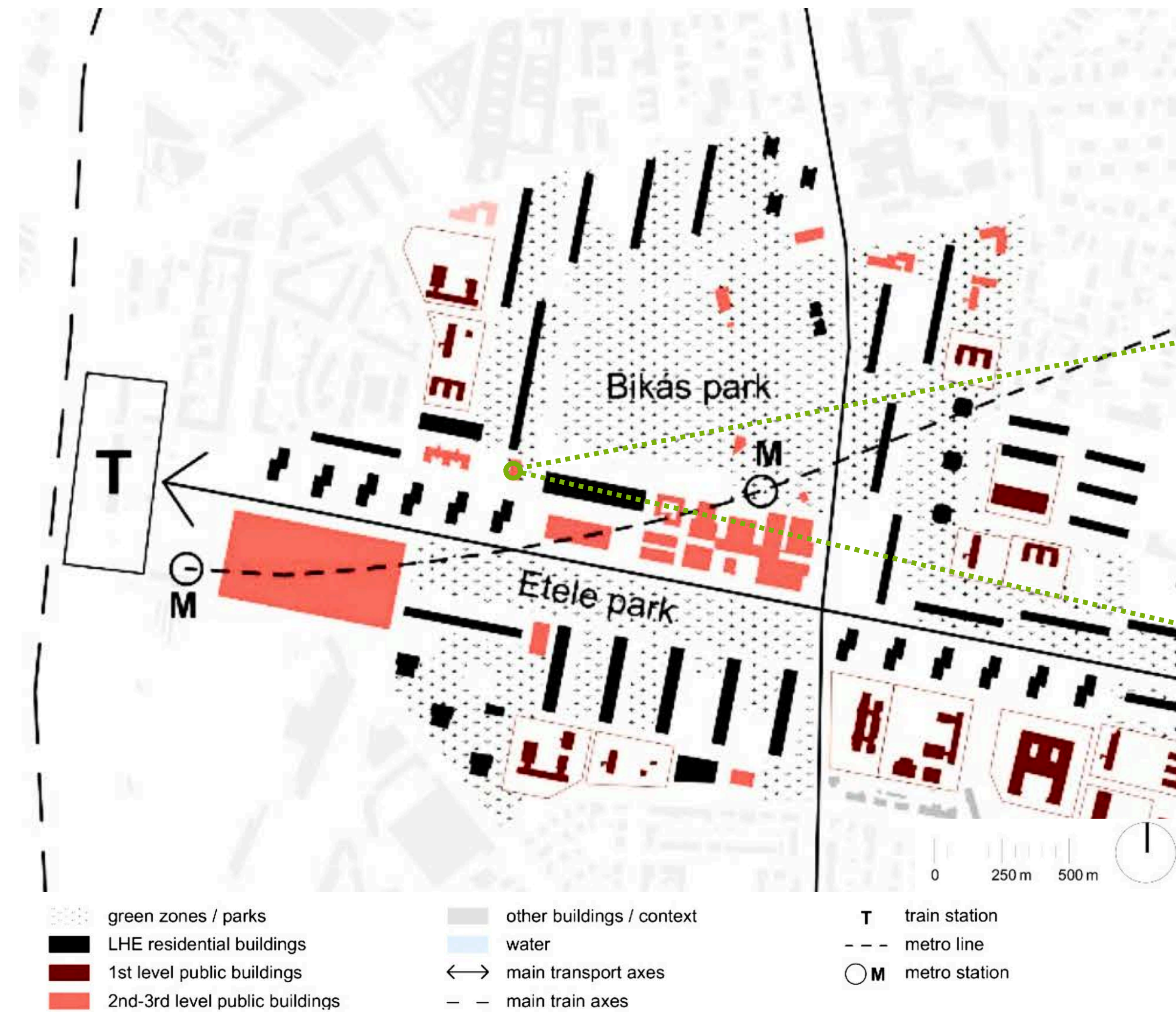
“After July 1, 2023, instead of the previously shared municipal and state waste management public tasks, a centralized waste management system will be created with the former’s termination, in which the state’s public waste management task covers the public service sub-activity of waste management and the institutional sub-activity of waste management. The right to exercise the public task of state waste management is transferred by the state exclusively in one procedure, to the same concessionaire, with a concession contract for 35 years from July 1, 2023.”

With MOHU in mind, the task must be in line with their initiatives, and the existing provisions they have made so far must be considered. The Zero Waste Center would champion the goals of the MOHU and help in reaching the communities on its roots to better propagate and increase awareness of the process of circular economy that they’re promoting.

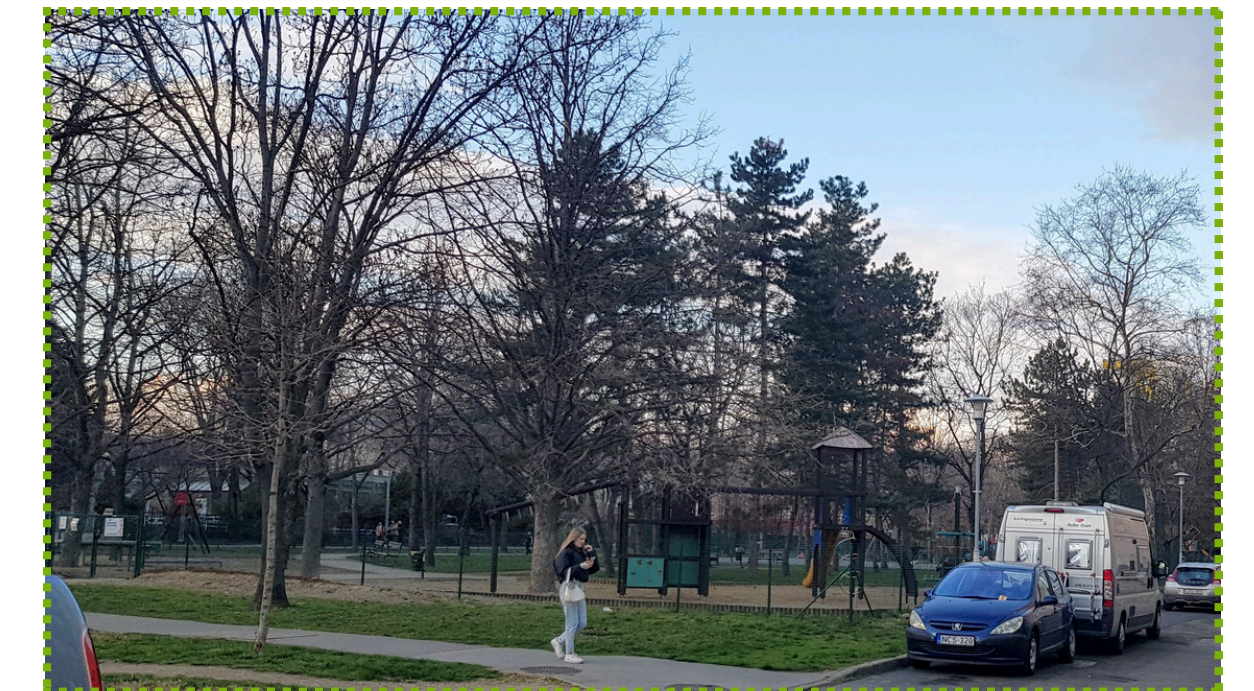
“The goal of MOHU is to bring about a change in social attitude and behavior: let's not see our discarded goods as garbage, but see waste as a valuable raw material and source of energy, which can be turned into useful materials again and again.

We would like MOHU to be a partner in turning materials currently considered waste into value.”

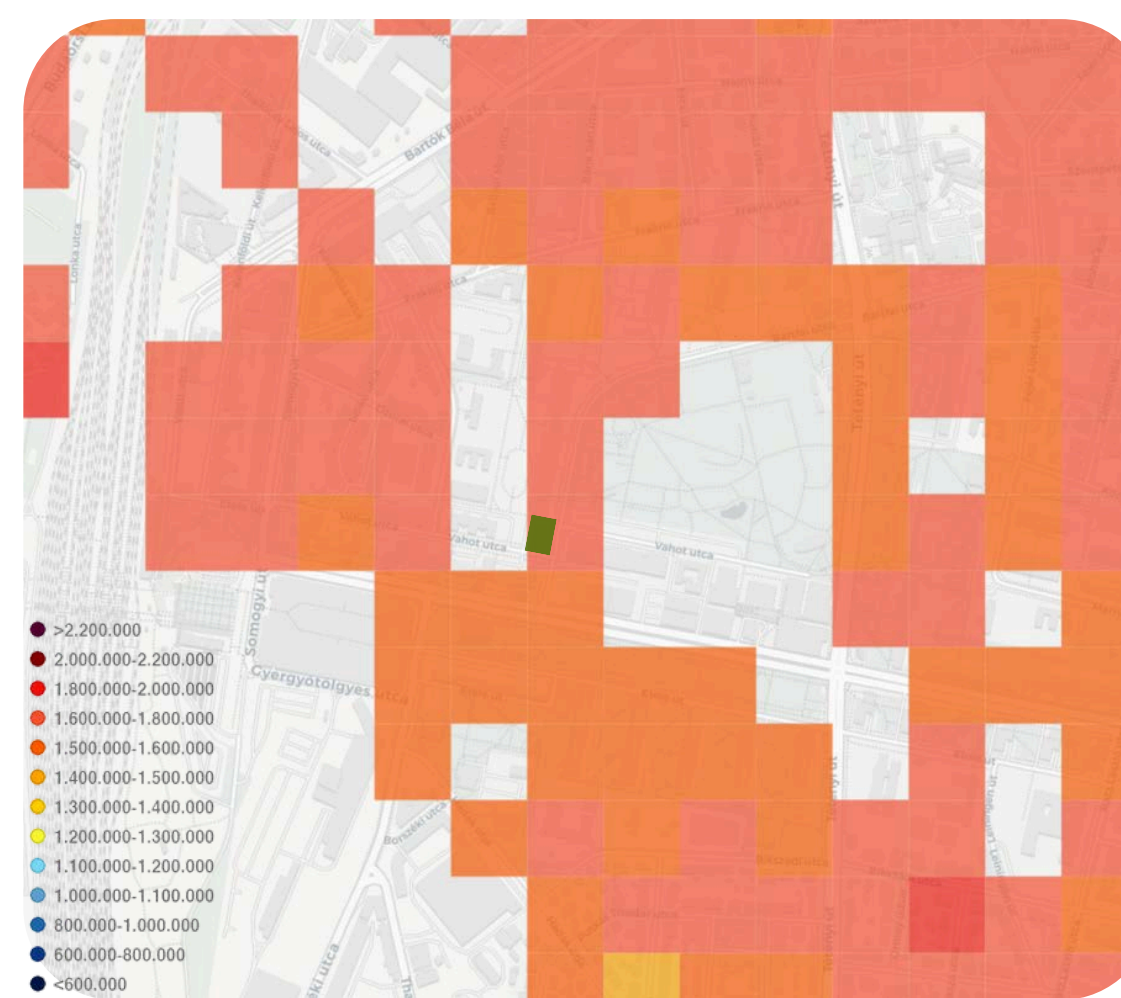
SITE



(Kelenfold Housing Estate, 2022 by Dr. Melinda Benkő)

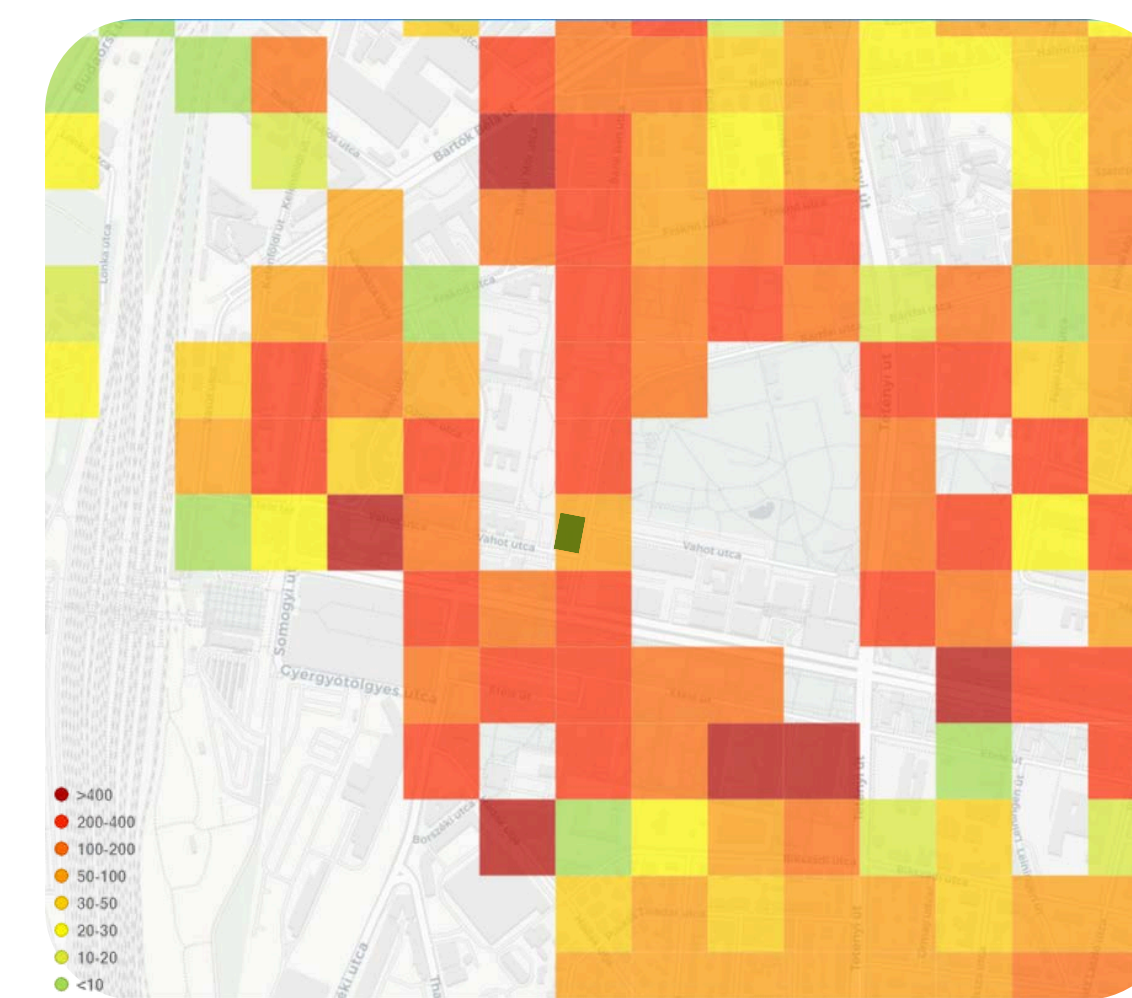


SOCIAL BACKGROUND (100x100)



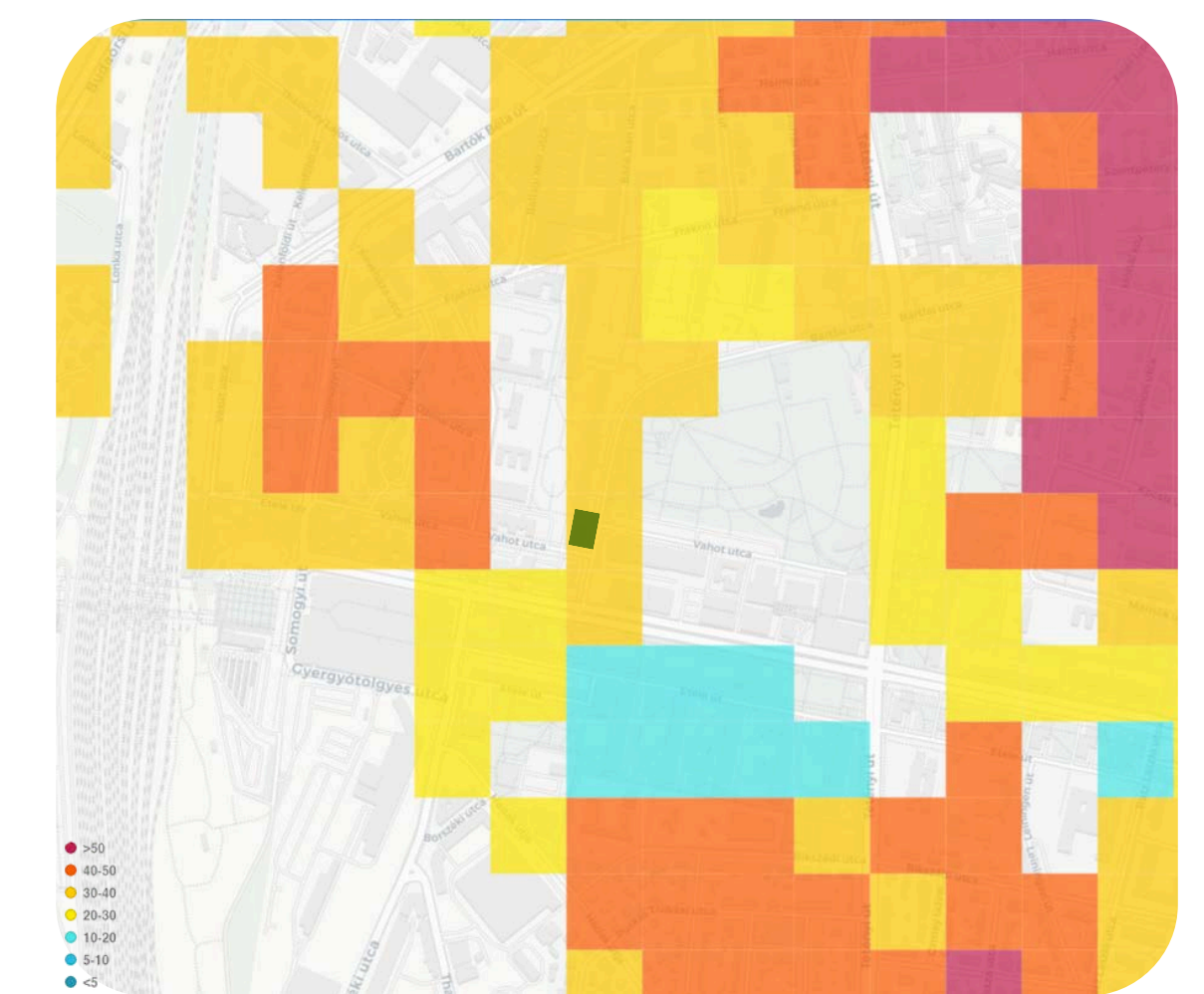
Annual net income per year

(1,400,000 - 1,600,000)
Learning the economic status of the community is crucial in designing community based learning center



population density

(averaging 100-200)
Density is a great indicator if the area is a great site for a community-based learning center advocating circular economy



percentage of graduates

(20%-40%)
Aside from economic background, this graph might indicate the age of the population in a specific area



Keveháza Street Kindergarten

Keveháza Street Kindergarten provides a nurturing and enriching educational experience for young children, laying the foundation for their future success in school and beyond.



Large Housing Estates

LHE's residents are the main target of the circular economy. The population around the area could alleviate the causes of circular economy and the building.



Bikás Park

Bikás Park is the nearest park in the area. The area helps in providing social environment in the area where people could do calisthenics, sports, running, dog walking, events, playgrounds, and picnic.



Vahot utca Medical Clinic

The Vahot Street Medical Clinic provides a variety of medical services include general medical consultations, preventive care, vaccinations, diagnostic tests



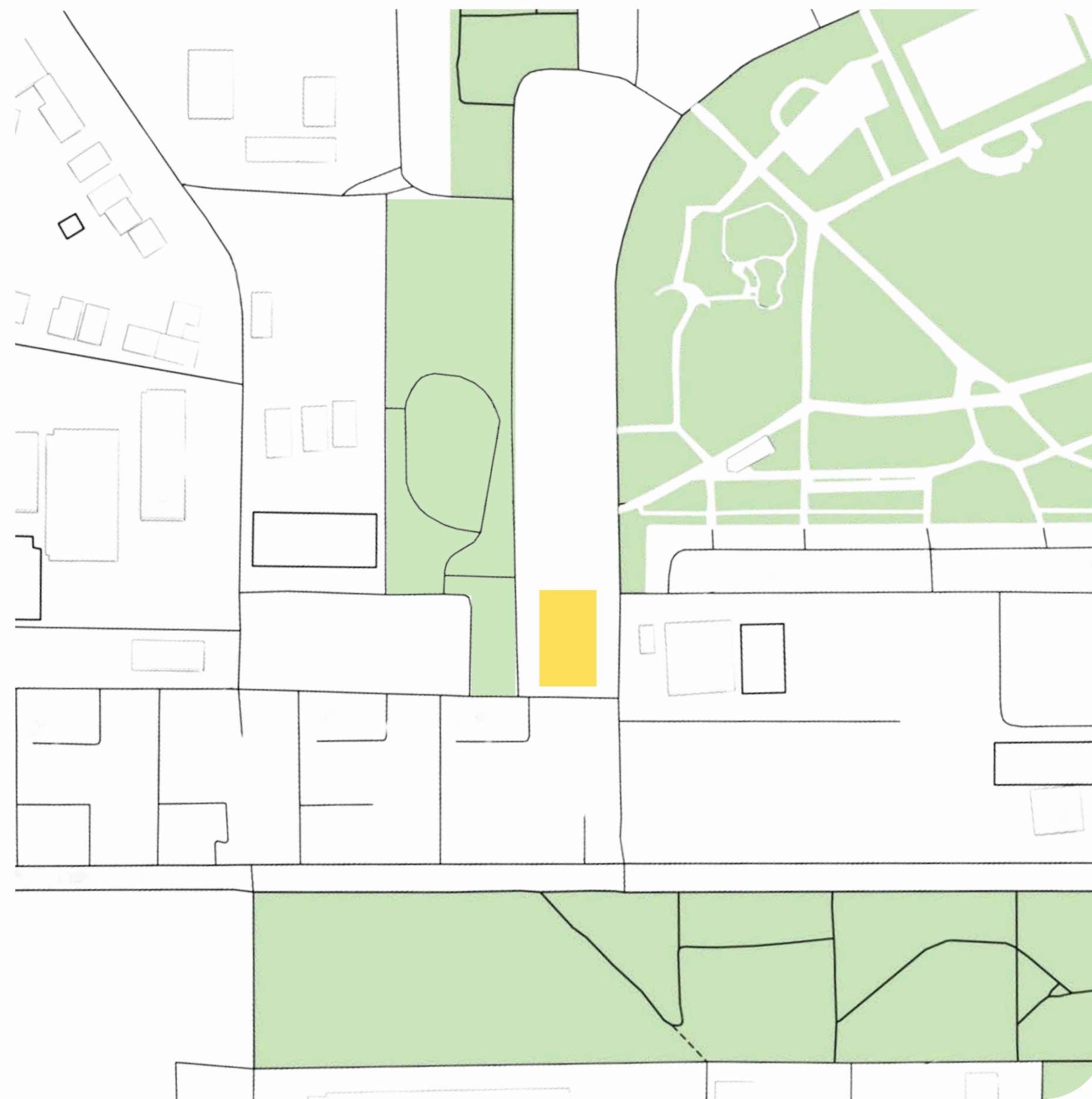
Local Market

The left part of Bikás park has over a hundred parking spaces for cars during the weekdays but the same space were used to make an accommodation for a weekend local market.

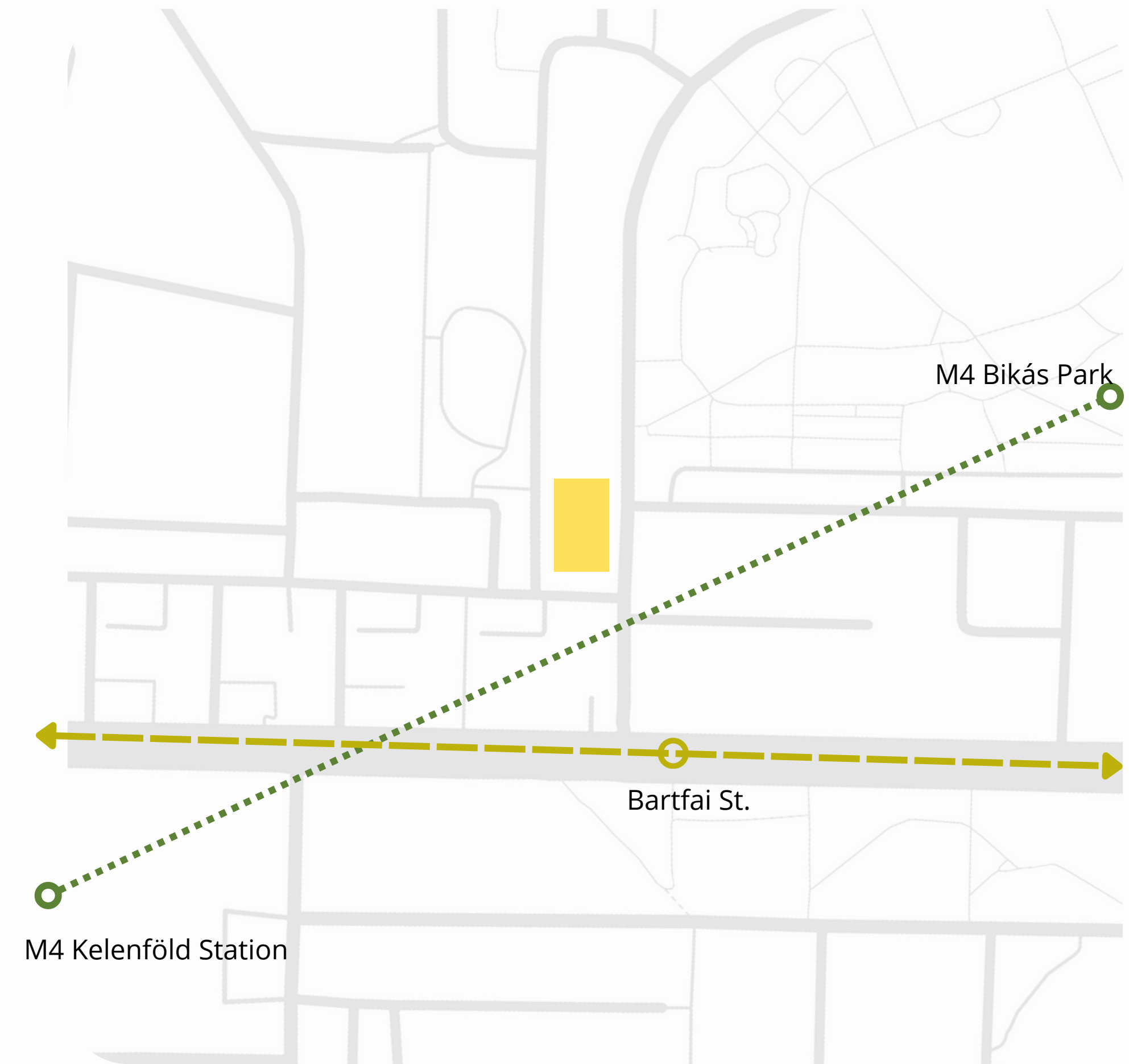




Solid Voids



Green areas



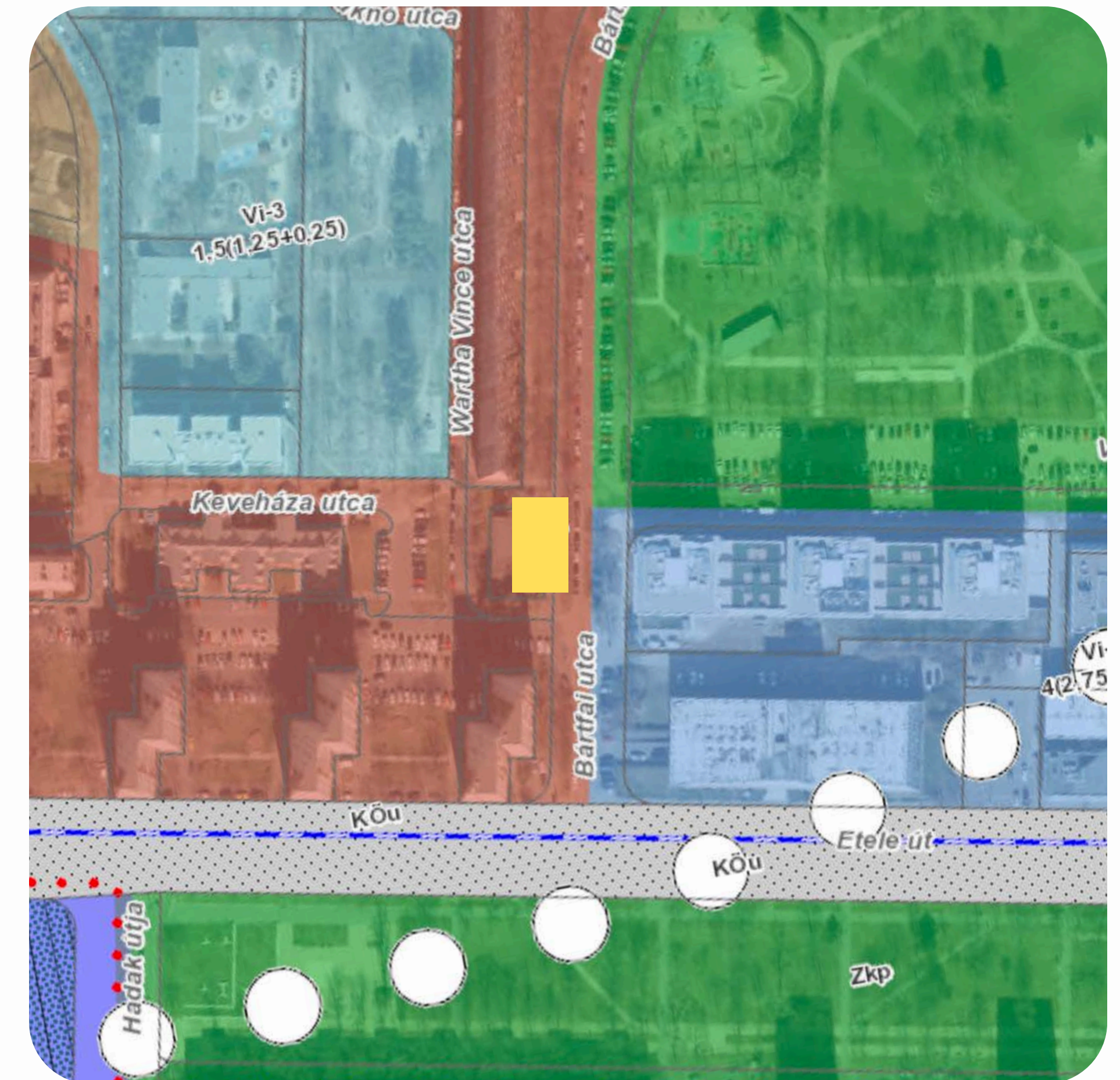
Public Transpo



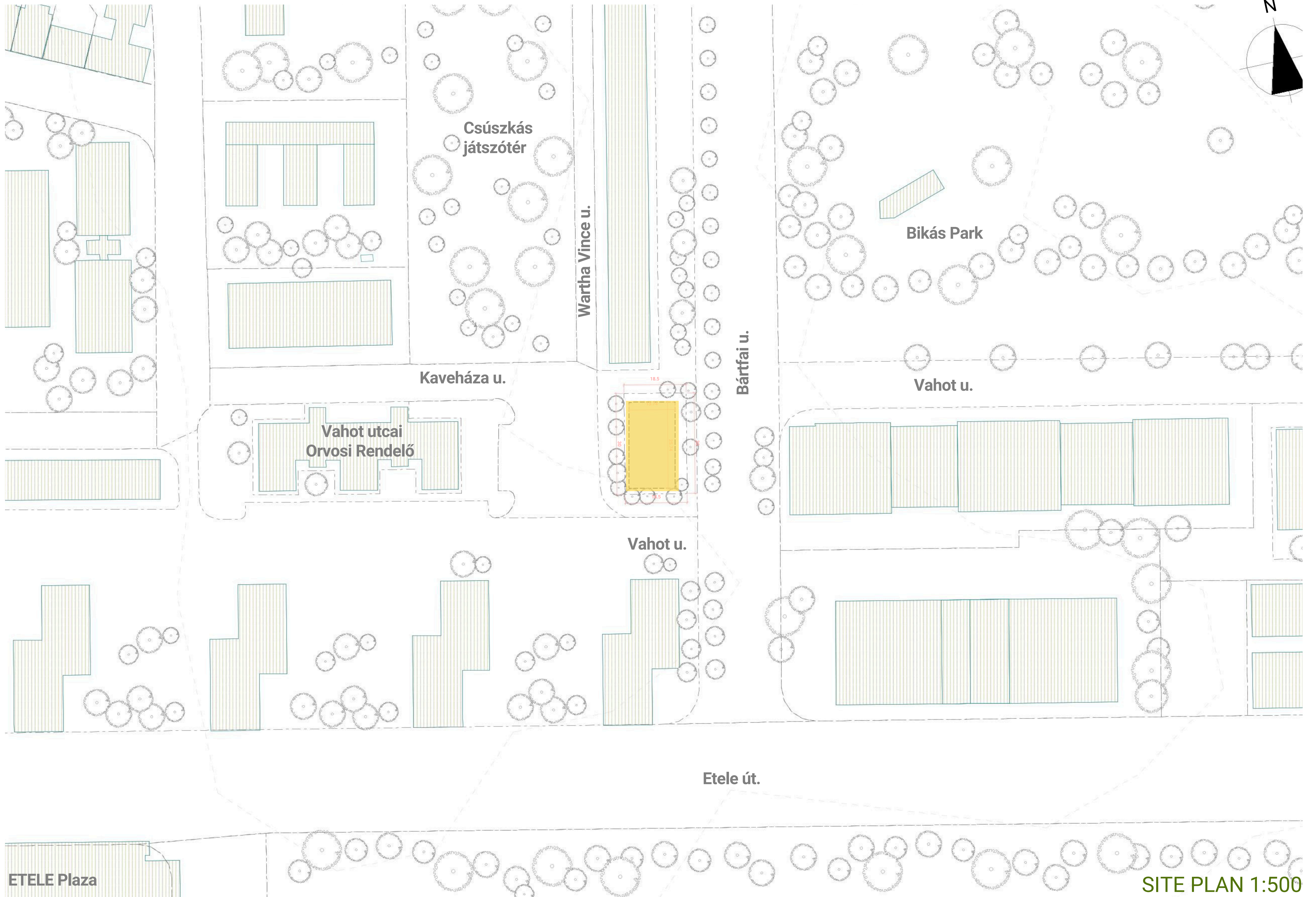
Vehicle Roads



Pedestrian access



Land Use regulation



Csúszkás játszótér

Bikás Park

Wartha Vince u.

Bártfai u.

Kaveháza u.

Vahot u.

Vahot utcai Orvosi Rendelő

Vahot u.

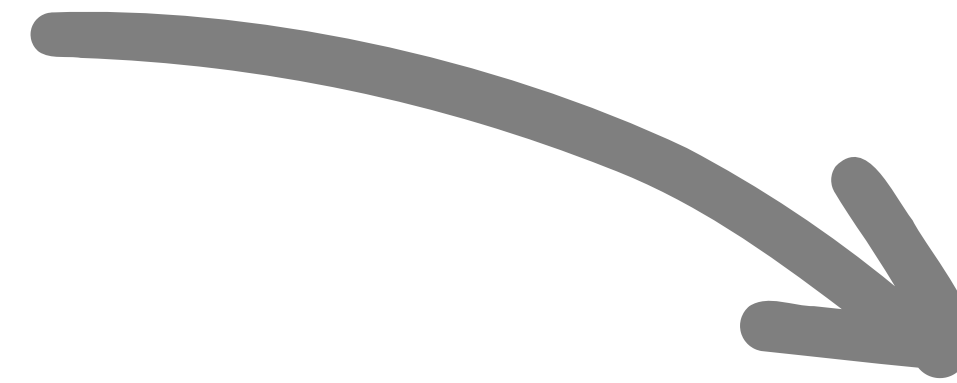
Etele út.

ETELE Plaza

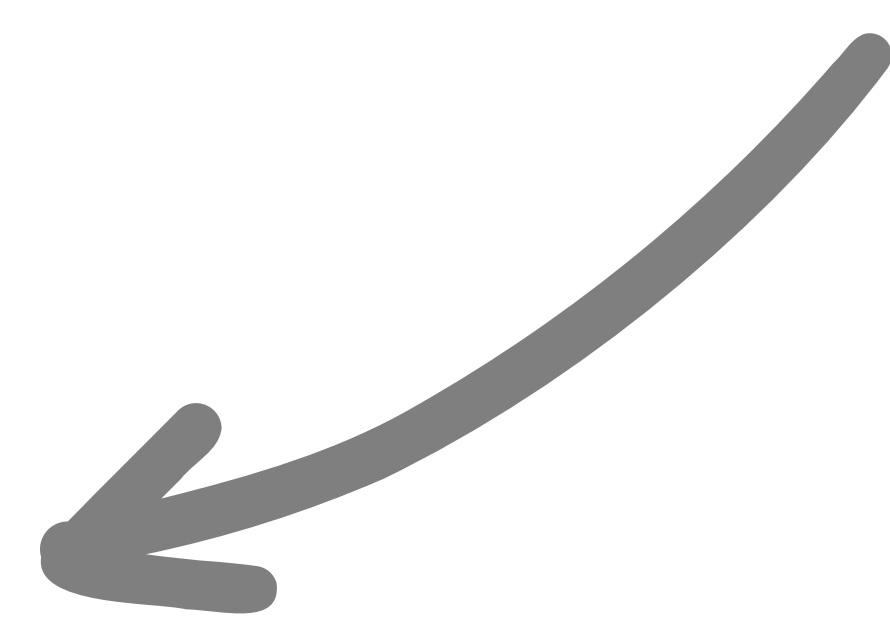
SITE PLAN 1:500



MOHU ZERO WASTE INITIATIVES

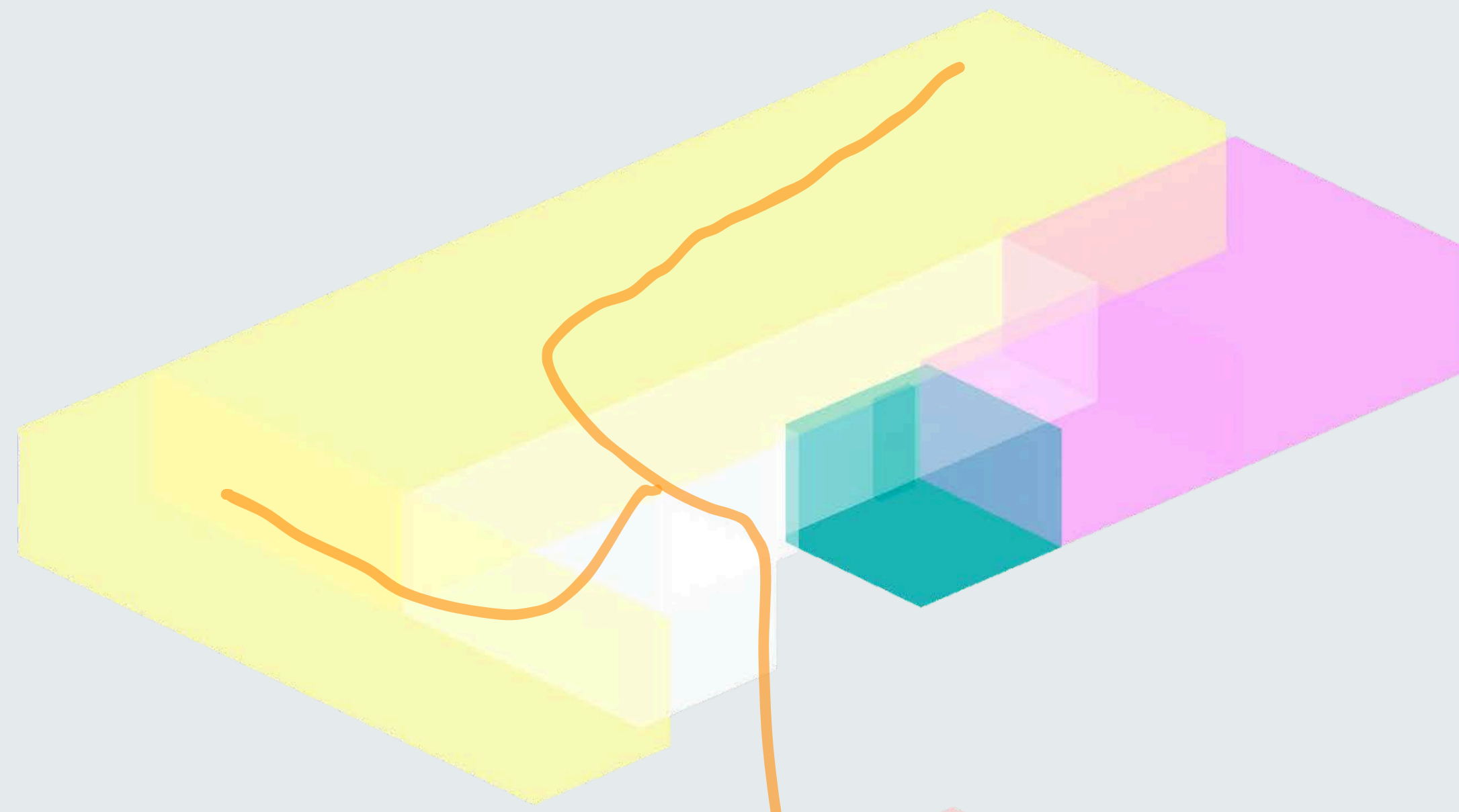


KELENFÖLD LHEs

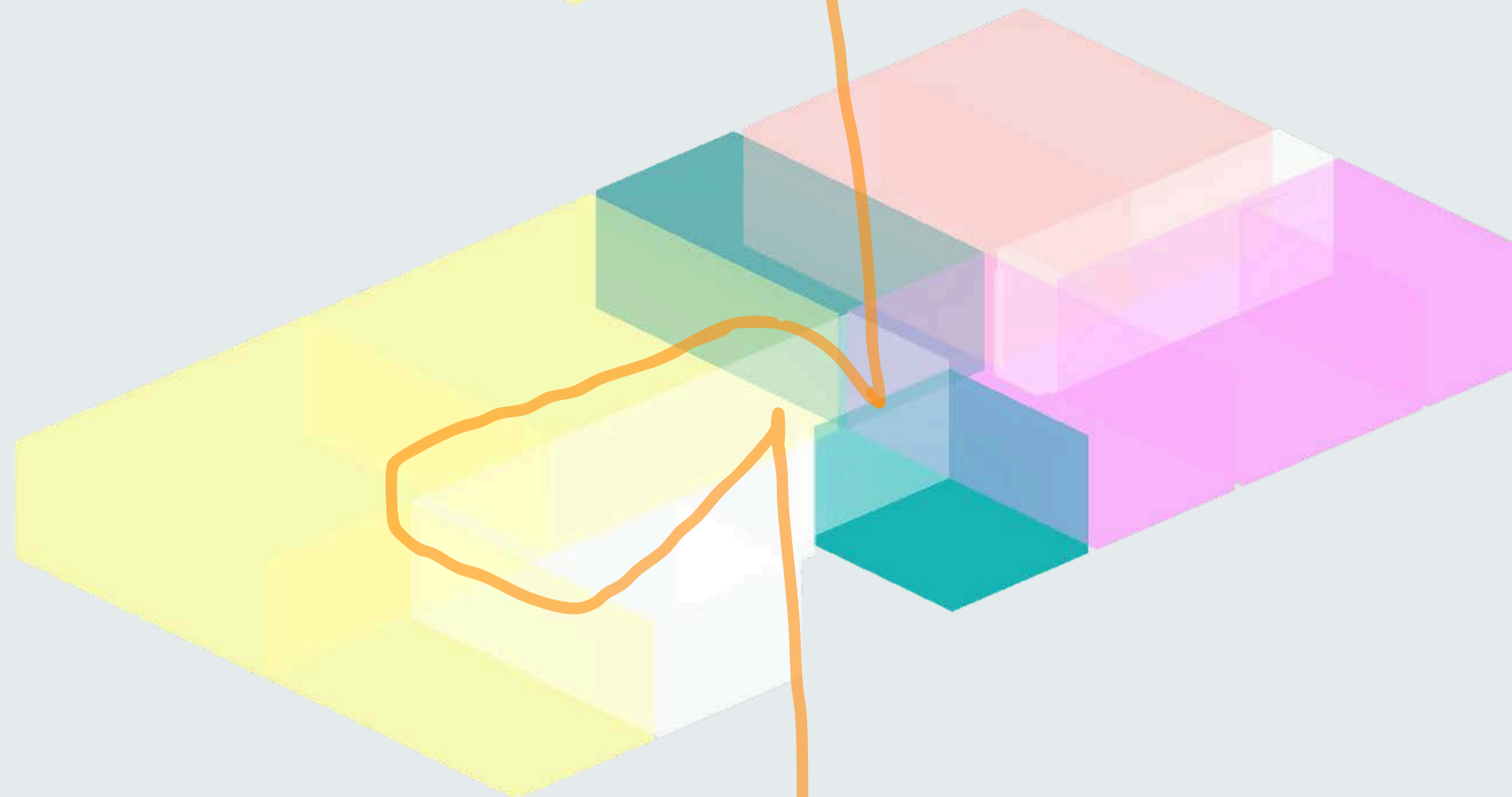


REUSE ABANDONED
BUILDING

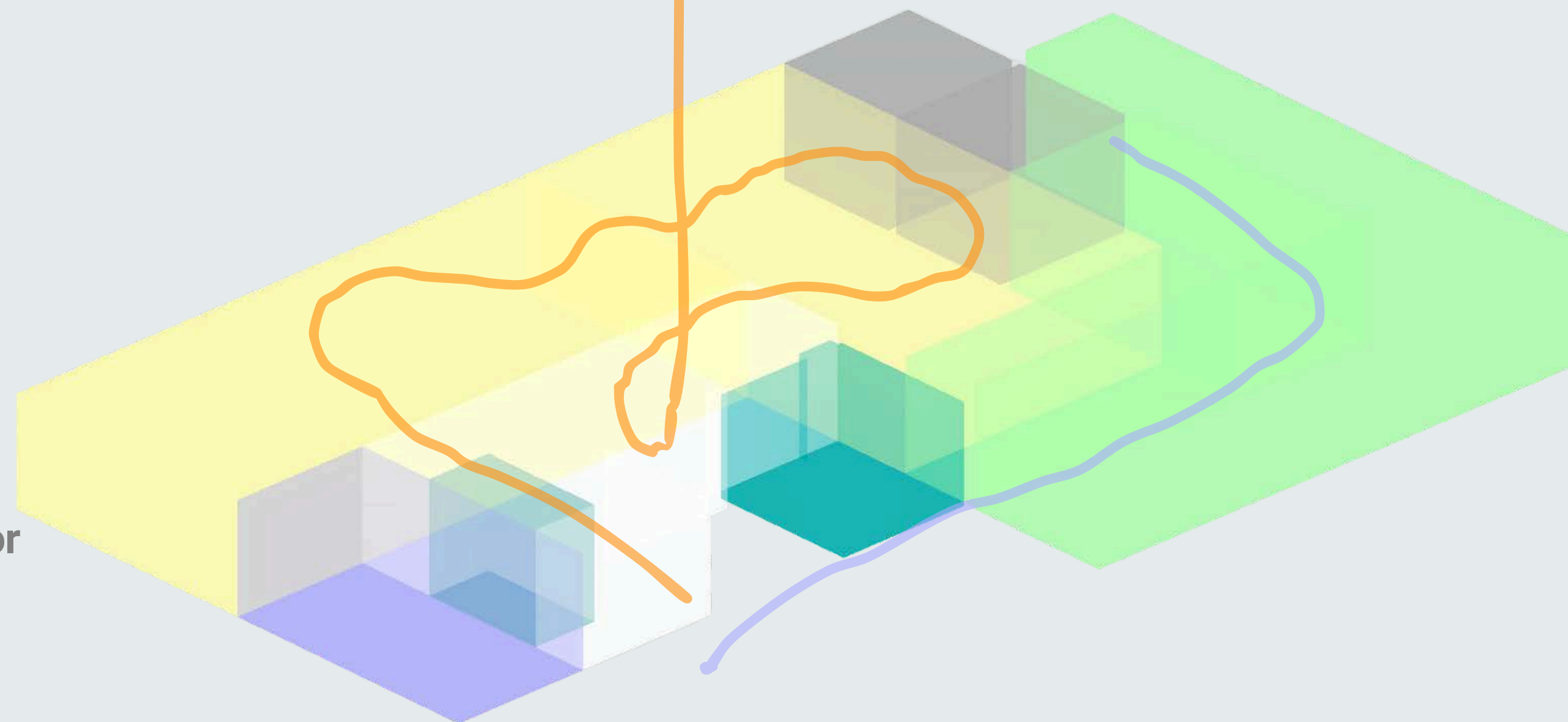
2nd Floor



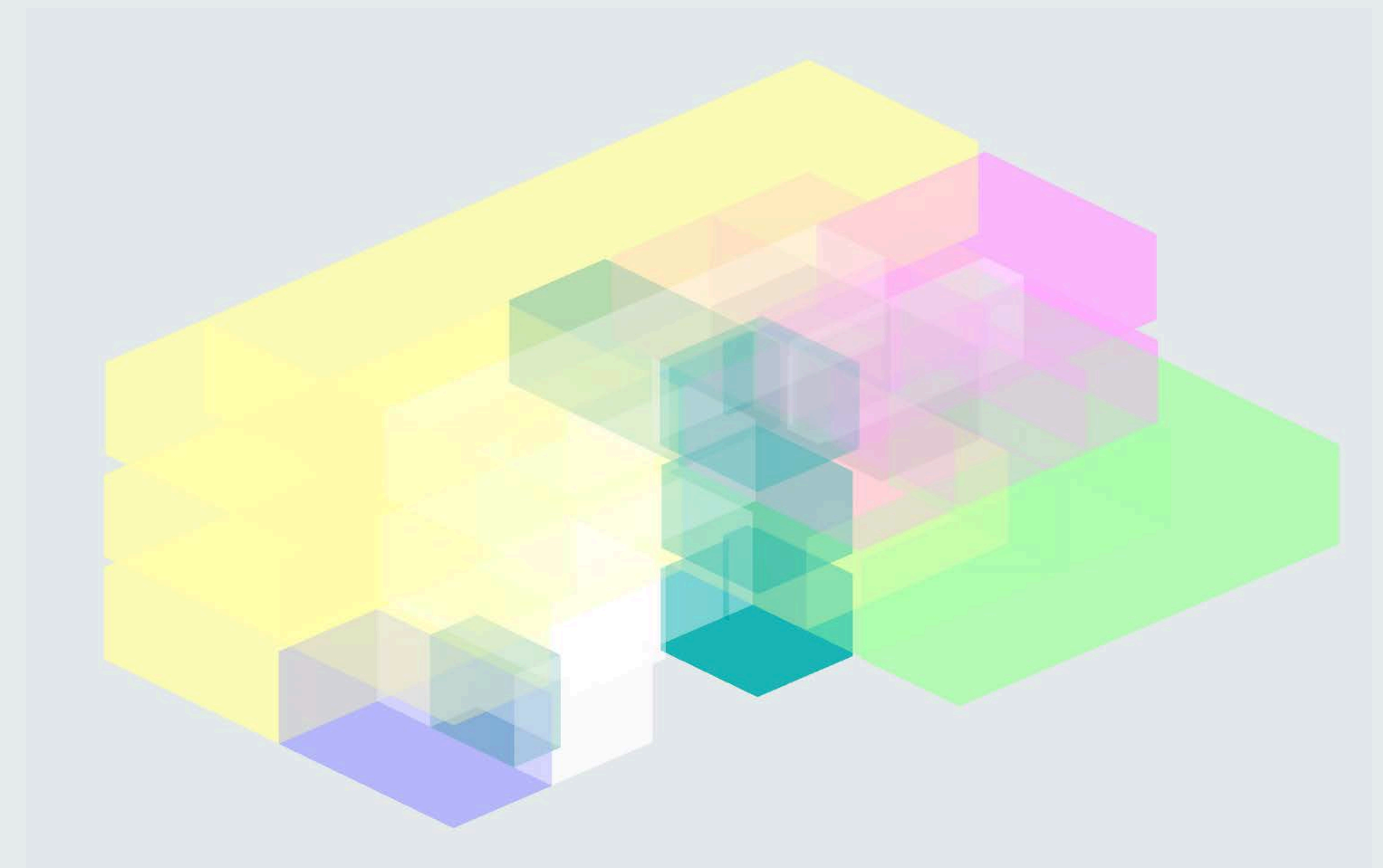
1st Floor



Ground Floor



Zone	
Zone Name	Calculated Area
Ground Floor	
Circular shop	25,87
Collect garden	105,15
Collection point	26,19
Gathering Hall	39,84
General Waste Exhibition	84,39
MOHU Exhibition	100,60
MOHU Report	9,45
Mech/Elec	26,43
Reception	3,94
Toilet	18,51
	440,37 m²
1st Floor	
Business	51,08
Drop/ take	27,57
Fabrics WS	51,12
Furnitures WS	53,20
Hallway	50,13
Kitchenette	27,64
Office	59,77
Office Lounge	25,54
Toilet	12,81
	358,86 m²
2nd Floor	
Community Hub	149,19
Hallway	46,52
Lecture	36,33
Lounge	83,07
Pre-school zone	20,88
Toilet	12,88
	348,87 m²
	1 148,10 m²





Sorting Collection point



Workshop



Report



Hallways



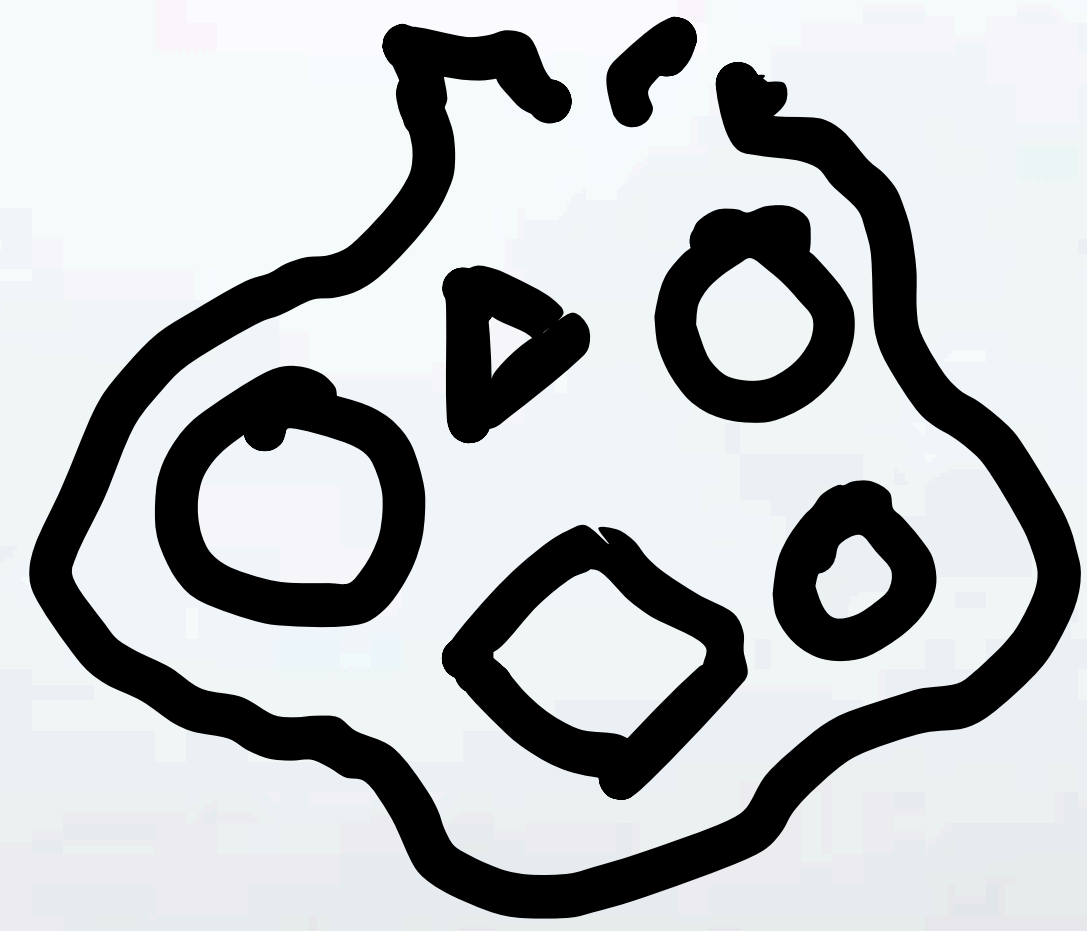
Drop off

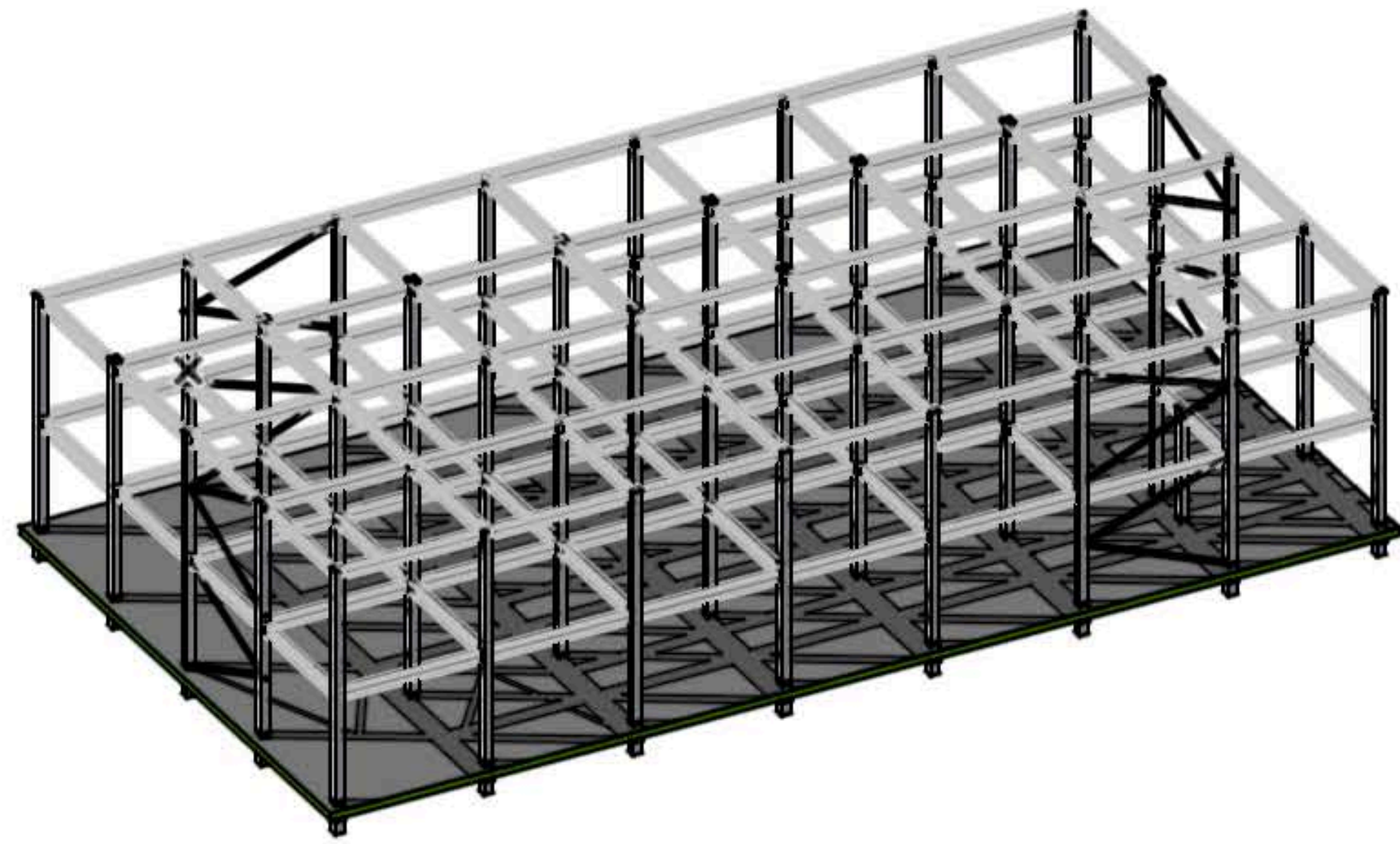


Outdoor garden

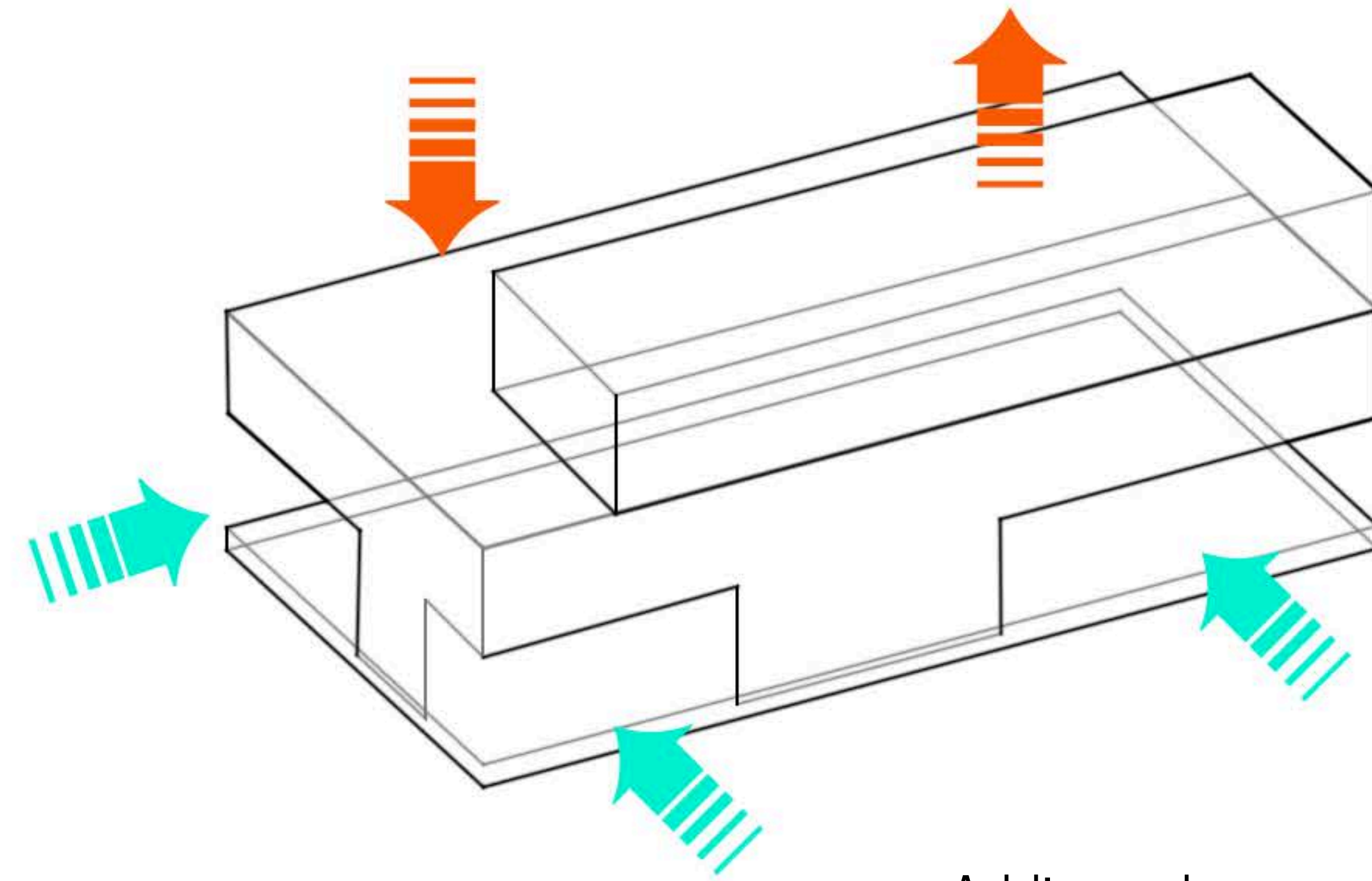


Workshop

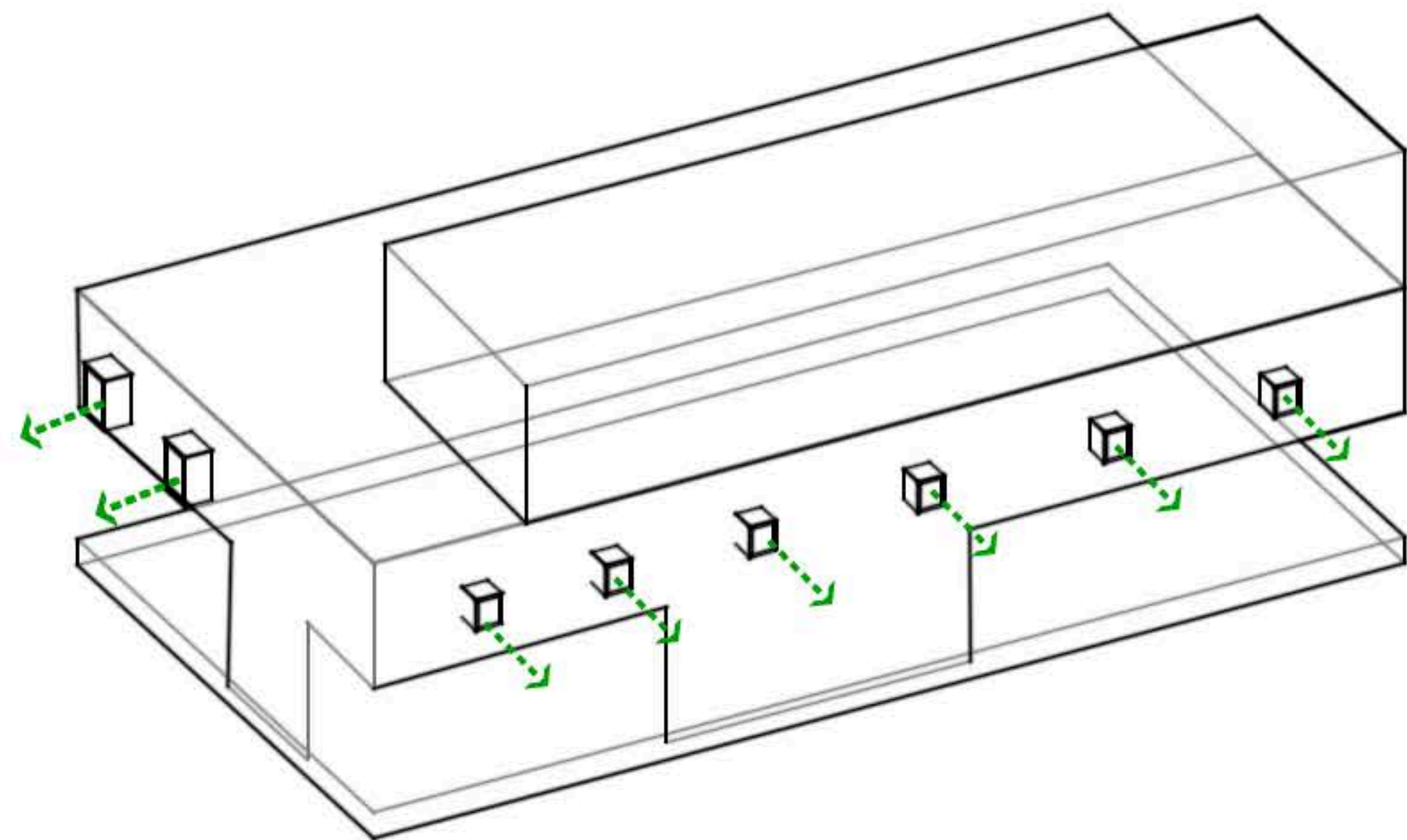




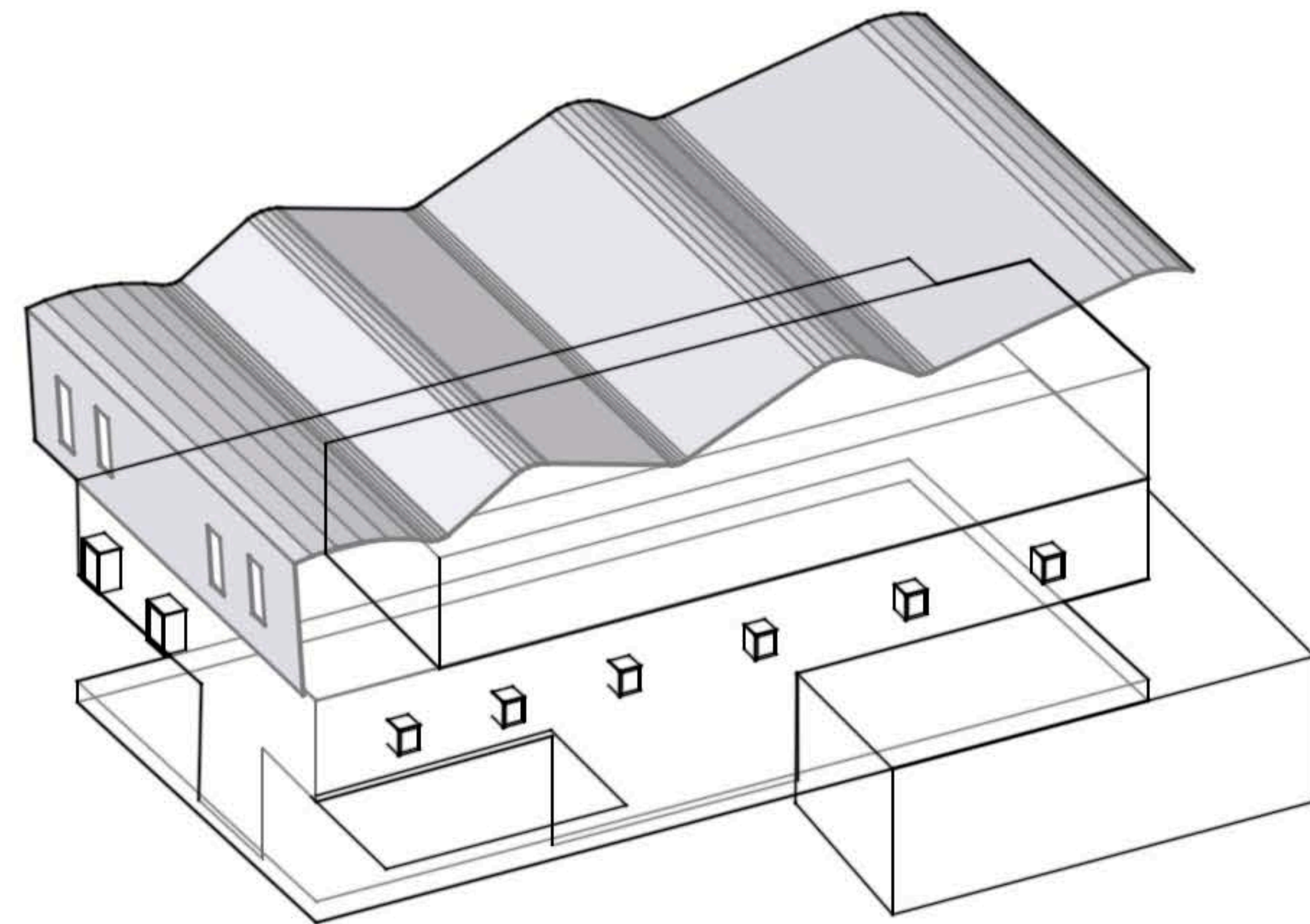
Existing steel frames



Adding volumes, openings



Adding protrusions



Roof curves, more mass

