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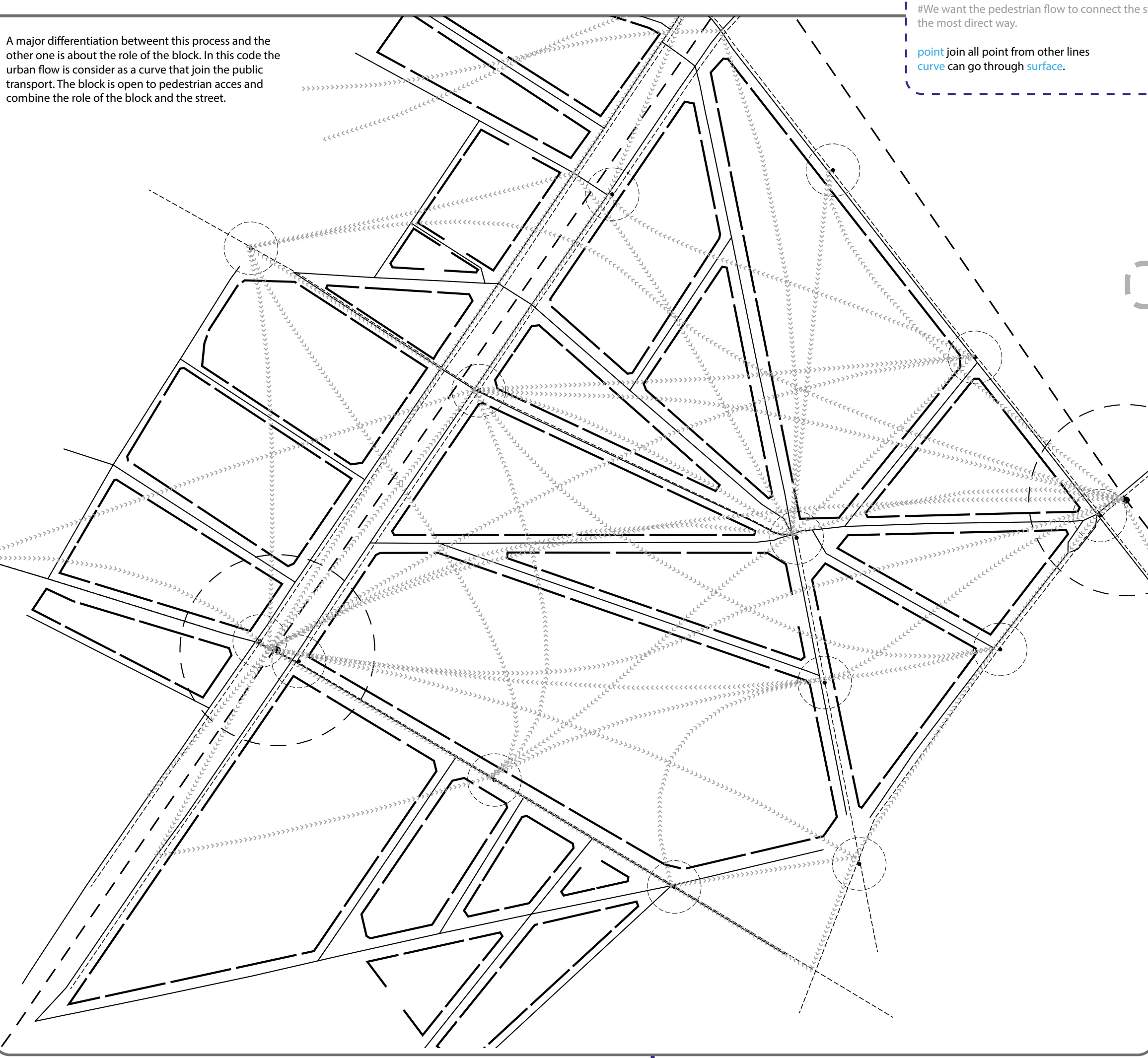
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Data input

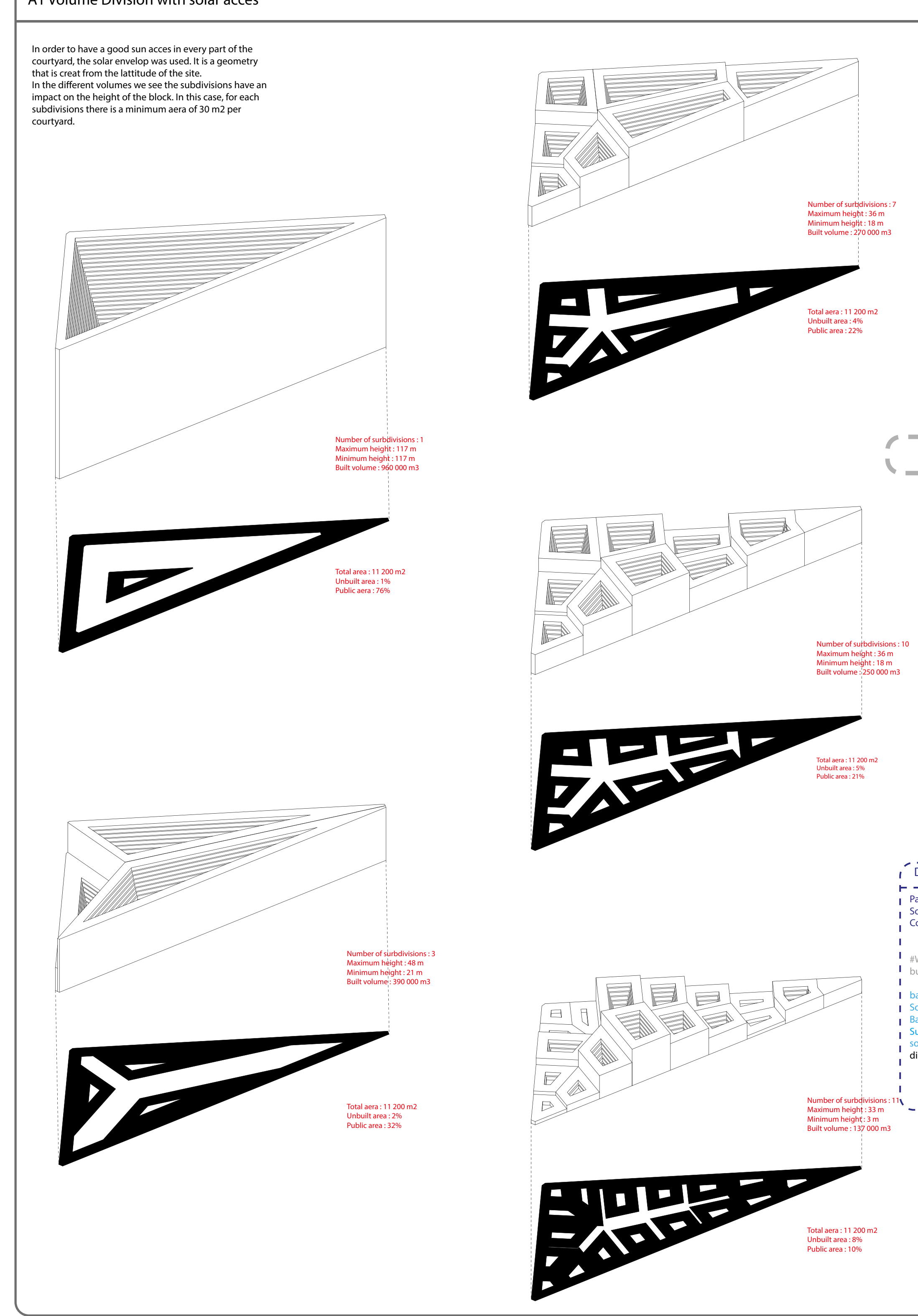
- Pedestrian flow as **curve**
- Public Transport station as **point**
- Block as **surface**

#We want the pedestrian flow to connect the station the most direct way.

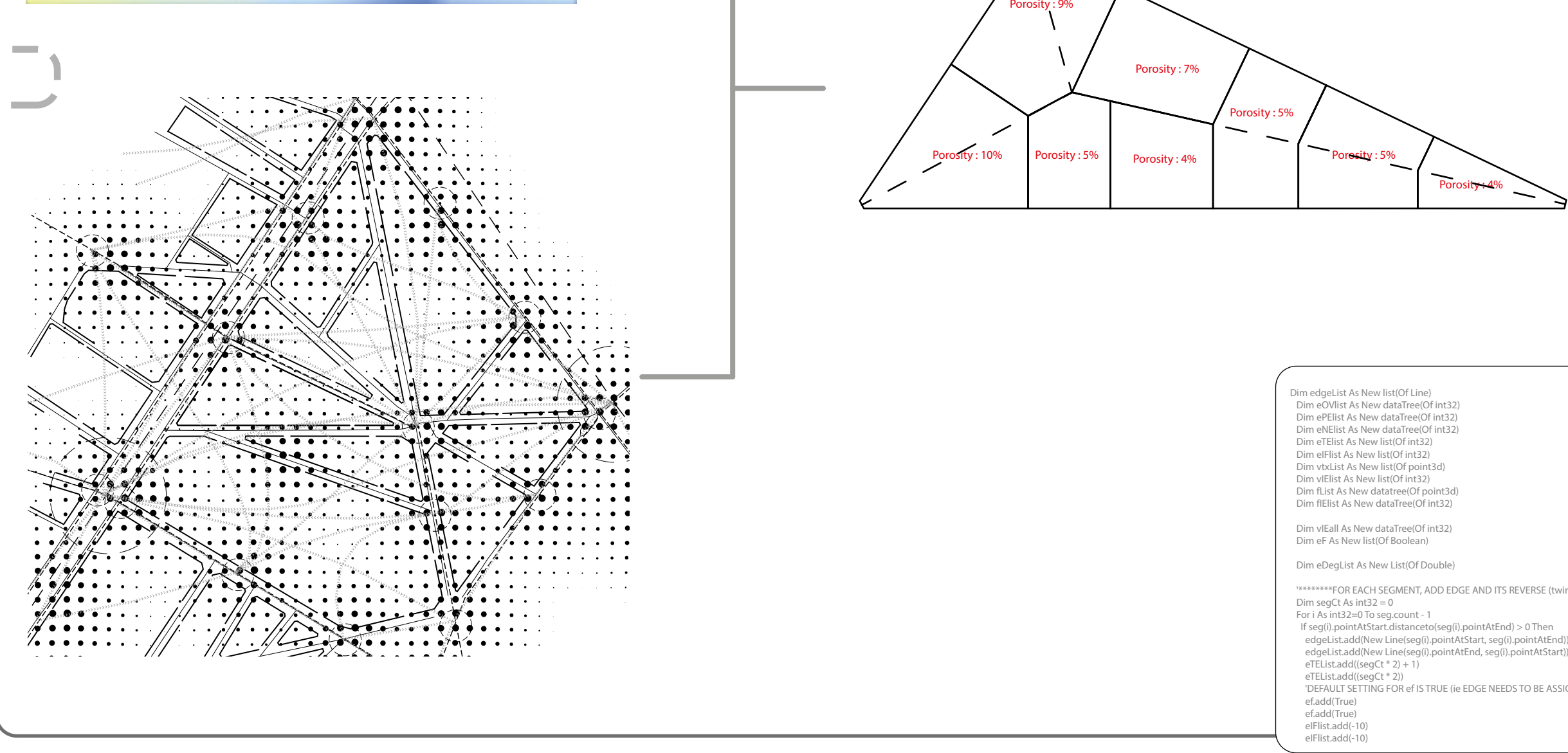
- point** join all point from other lines
- curve** can go through **surface**.

In order to have a good sun access in every part of the courtyard, the solar envelop was used. It is a geometry that is created from the latitude of the site. In the different volumes we see the subdivisions have an impact on the height of the block. In this case, for each subdivisions there is a minimum area of 30 m<sup>2</sup> per courtyard.

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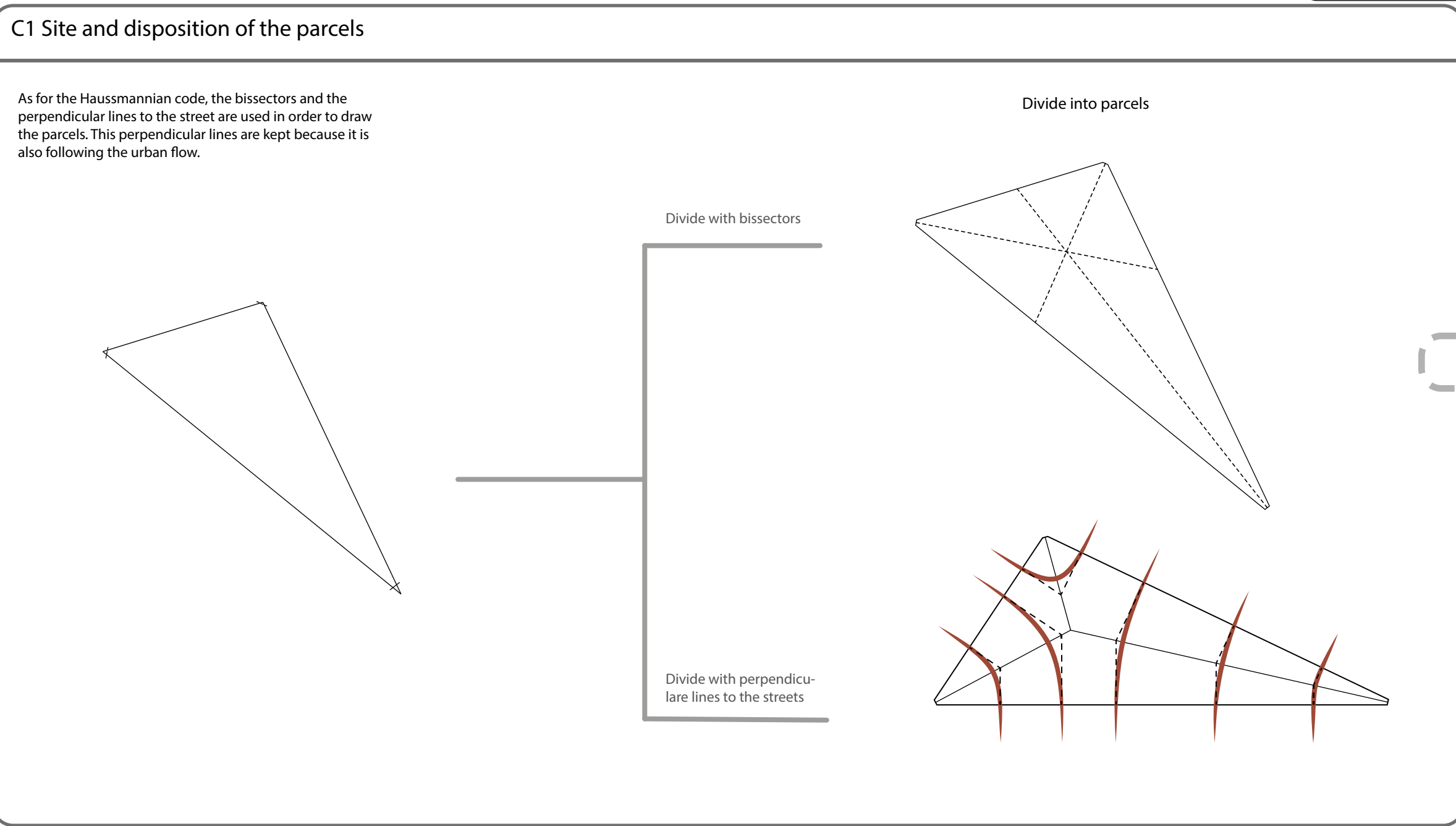


Porosity inside the block is given by the analysis of the different urban flow. The block reacted to the need of the public space or access to the outside. Each parcel got its porosity.



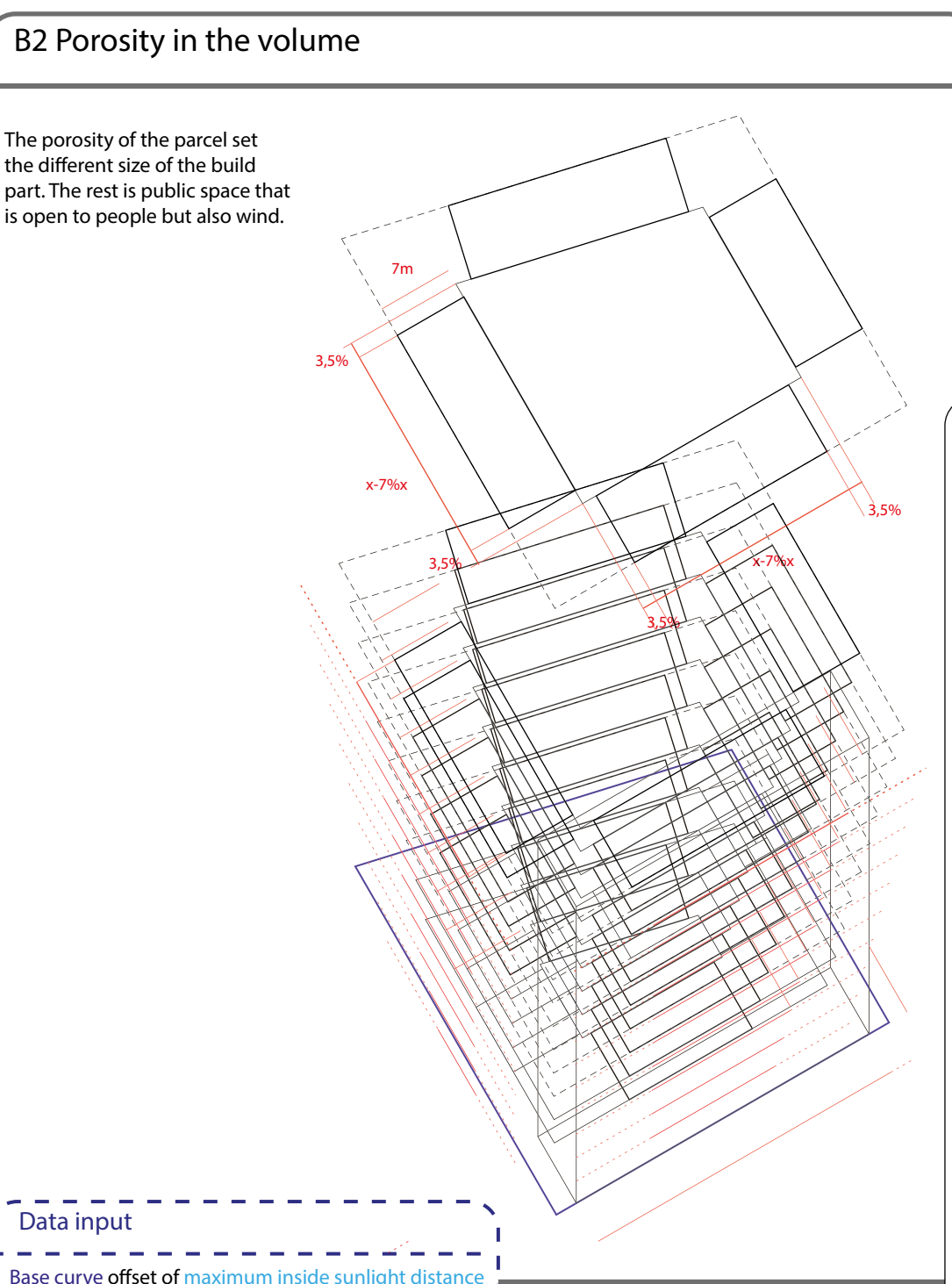
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**Data input**

Base curve offset of **maximum inside sunlight distance**  
**mLsd = 7 meter** (code base)  
Offset gave new curve  
Explode curve into four segments  
Point distant of **x%** of end point of the curve  
Point distant of **x%** of start point of the curve  
Repeat action for base curve  
Join points

Divide with bissectors

Divide with perpendicular lines to the streets

Street width = 25 m  
Building height = 19 m  
200%HC = 1600 m  
Parallel area = 1600 m<sup>2</sup>

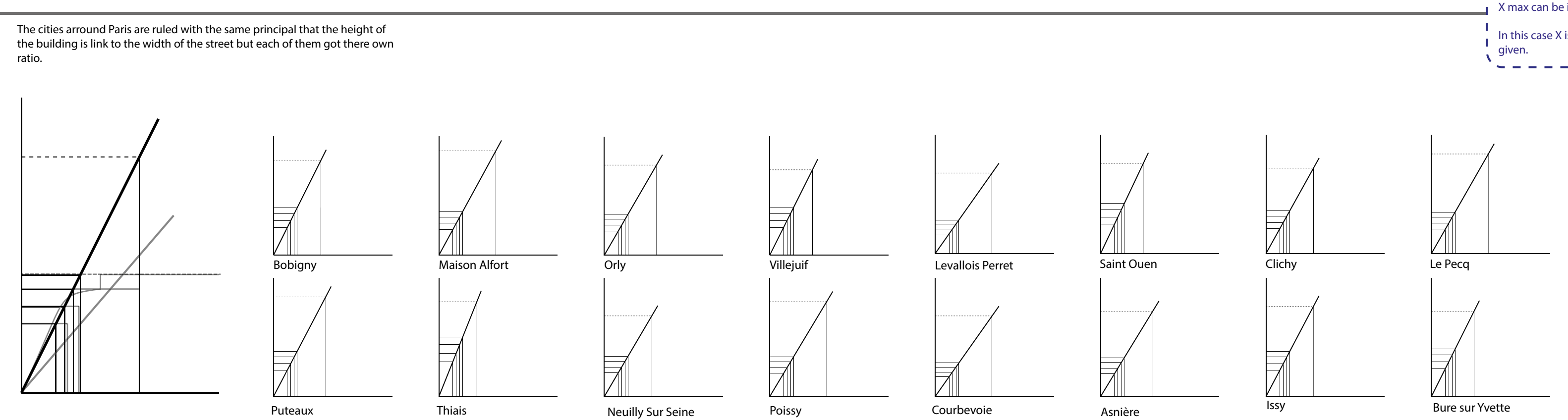
Street width = 17 m  
Building height = 20 m  
Parallel area = 1225 m<sup>2</sup>

Street width = 13 m  
Building height = 21 m  
1600 m  
Parallel area = 1320 m<sup>2</sup>

Street width : 25 m  
Building Height : 28 m  
2025 m<sup>2</sup> of Parcel area = 1600 m<sup>2</sup>

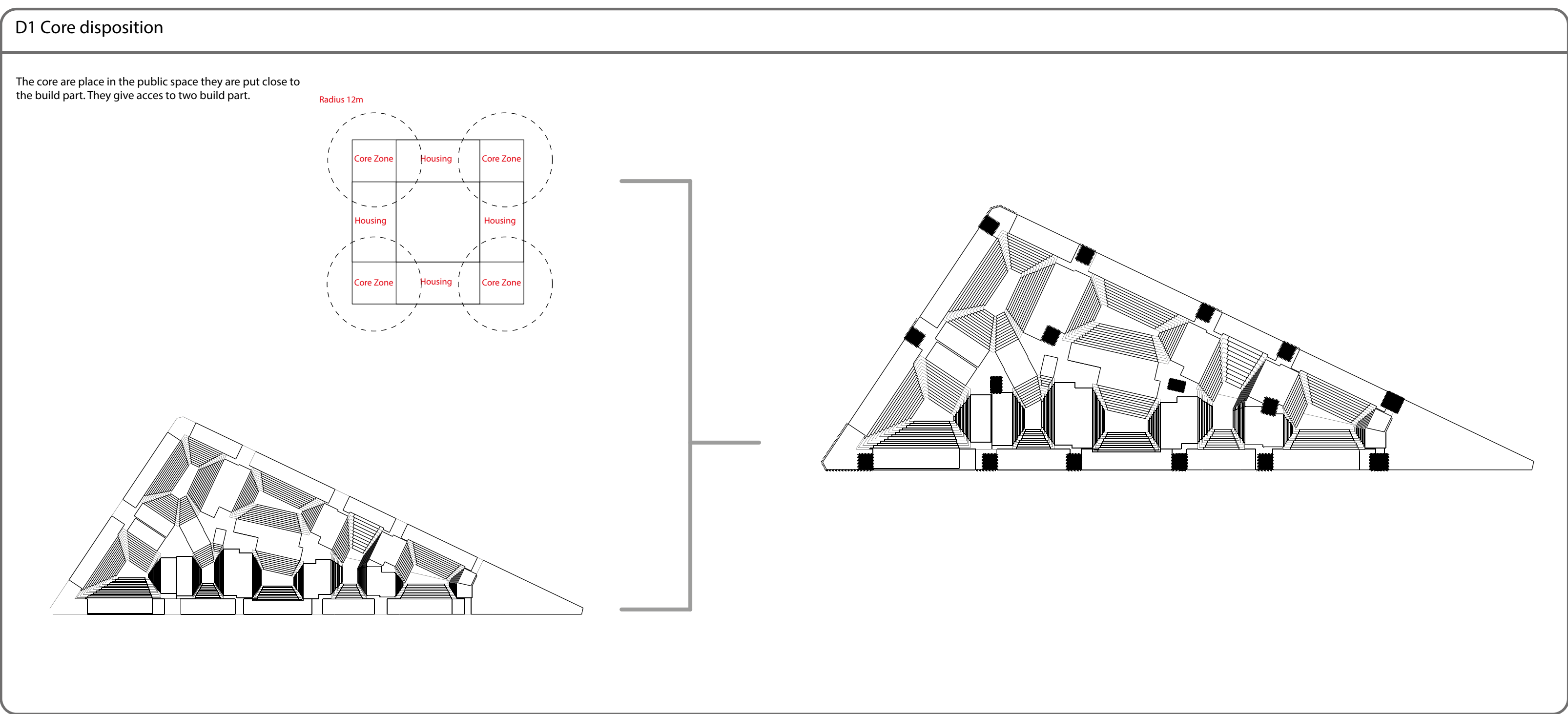
Steel  
Bulb  
Curve

The cities around Paris are ruled with the same principal that the height of the building is link to the width of the street but each of them got there own ratio.



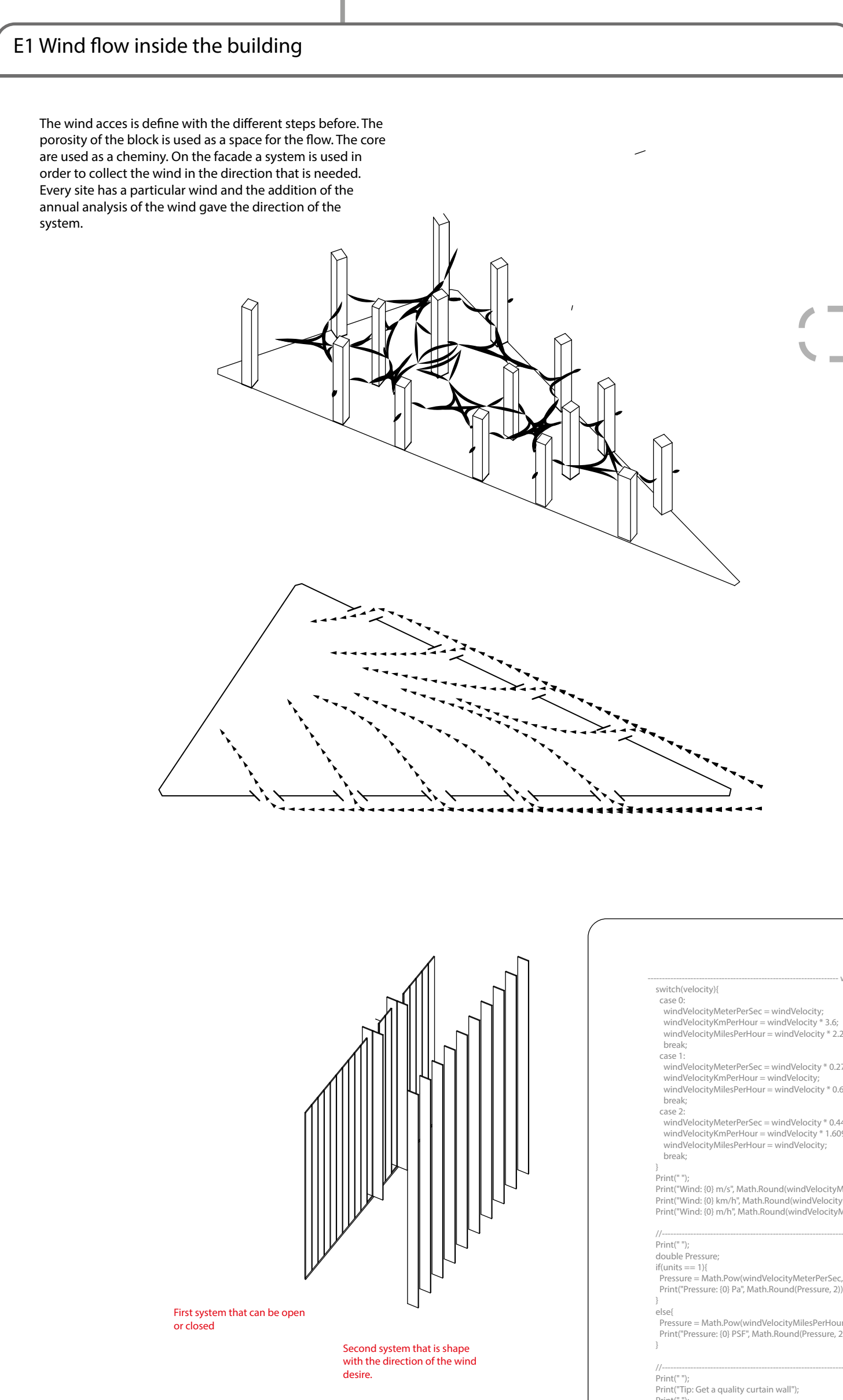
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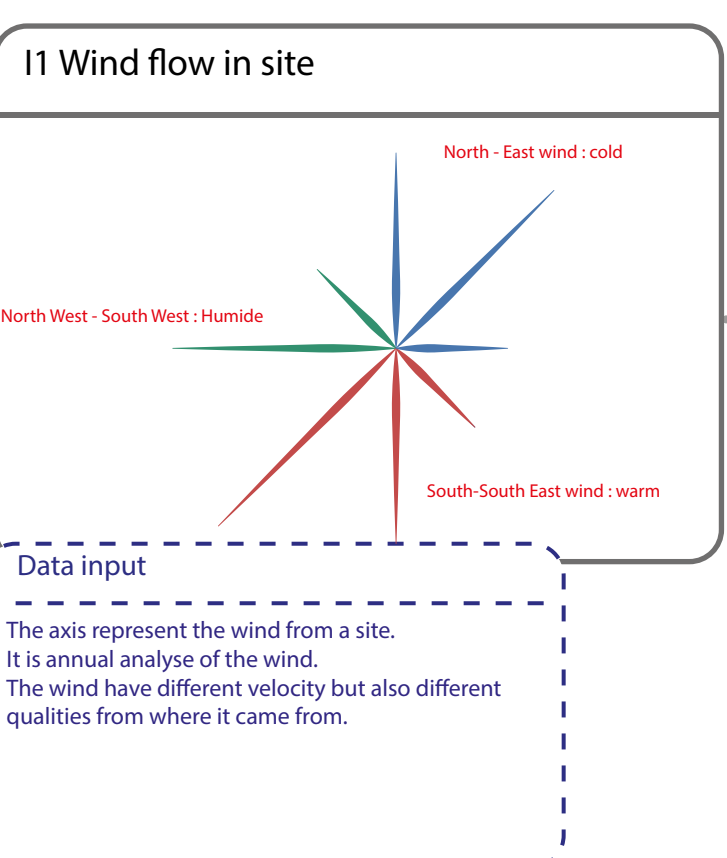
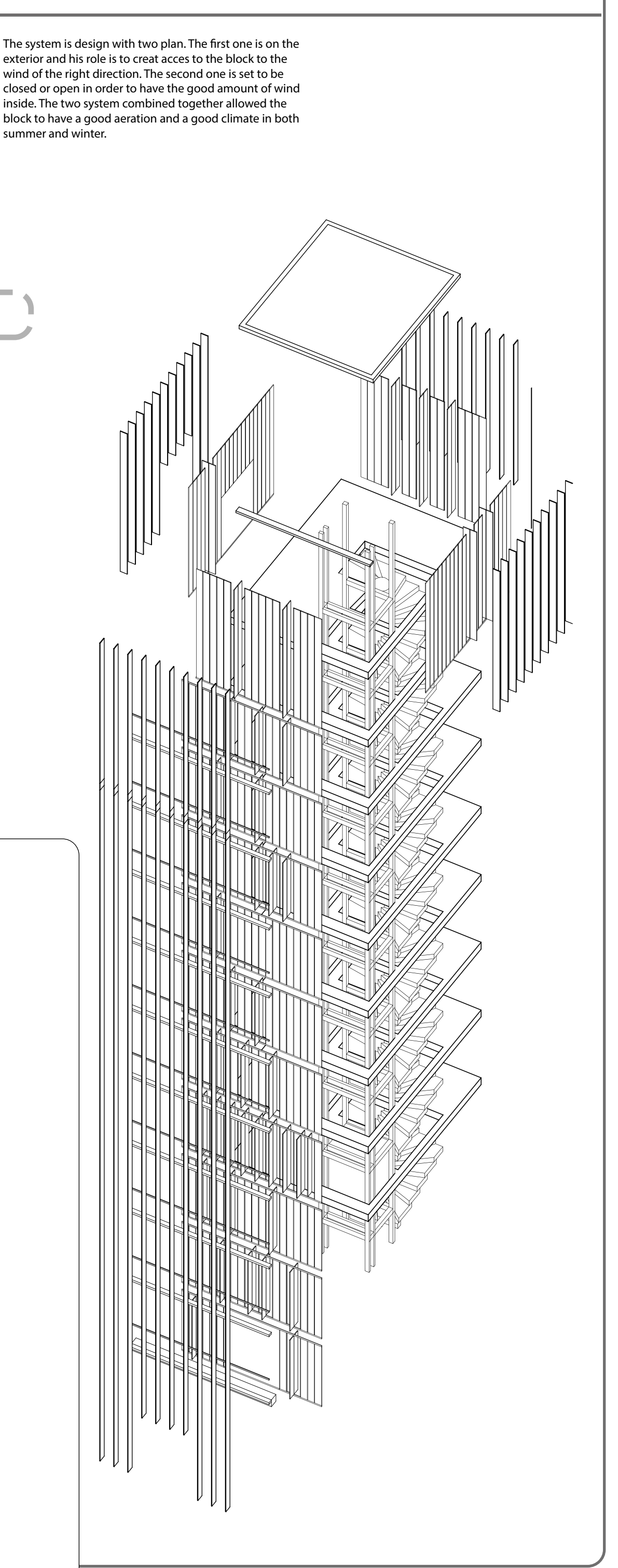
The wind access is defined with the different steps before. The porosity of the block is used as a space for the flow. The corners are used as a chimney. On the facade a system is used in order to collect the wind in the direction that is needed. Every site has a particular wind and the addition of the annual analysis of the wind gave the direction of the system.

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The system is design with two plan. The first one is on the exterior and his role is to creat acces to the block to the wind of the right direction. The second one is set to be closed or open in order to have the good amount of win inside. The two system combined together allowed the block to have a good aeration and a good climate in both summer and winter.

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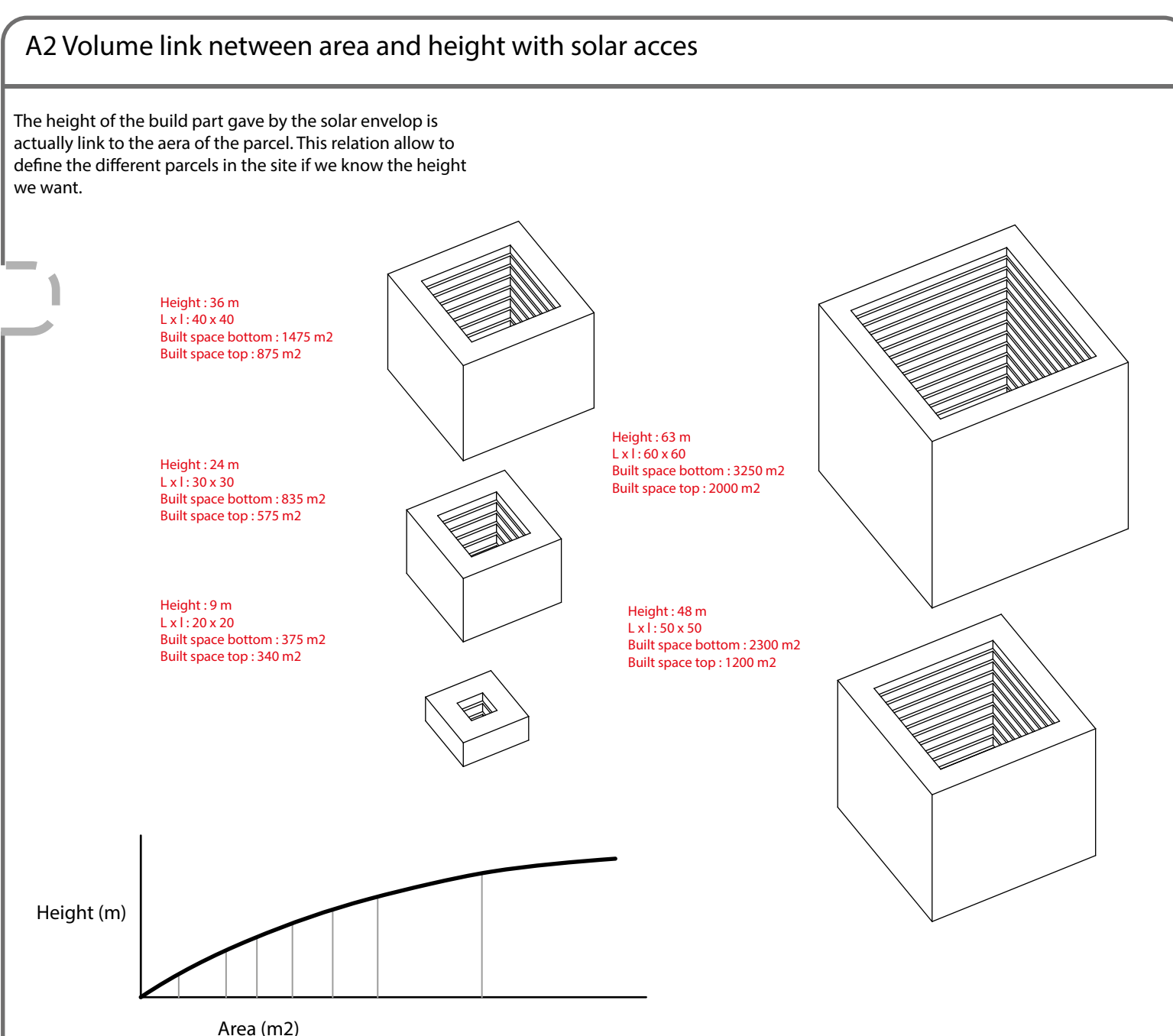


**Data input**

The axis represent the wind from a site.  
It is annual analyse of the wind.  
The wind have different velocity but also different qualities from where it came from.

Height (m)

The height of the build part gave by the solar envelop is actually link to the area of the parcel. This relation allow define the different parcels in the site if we know the height we want.



**Data input**

- Parcels as **base curve**
- Solar envelop as **limit of the extrusion**
- Courtyard as **minimum surface** on level 0

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Base curve create a surface from boundaries  
Surface and solar envelope intersect and create the solid surface which is extrude by 3 meters in z direction

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The Hausmannian Morphogenesis  
William Dodin  
Jeffrey Huang / Jean-Louis Scarbozzini / Peter Ostryer / Frederic Kim