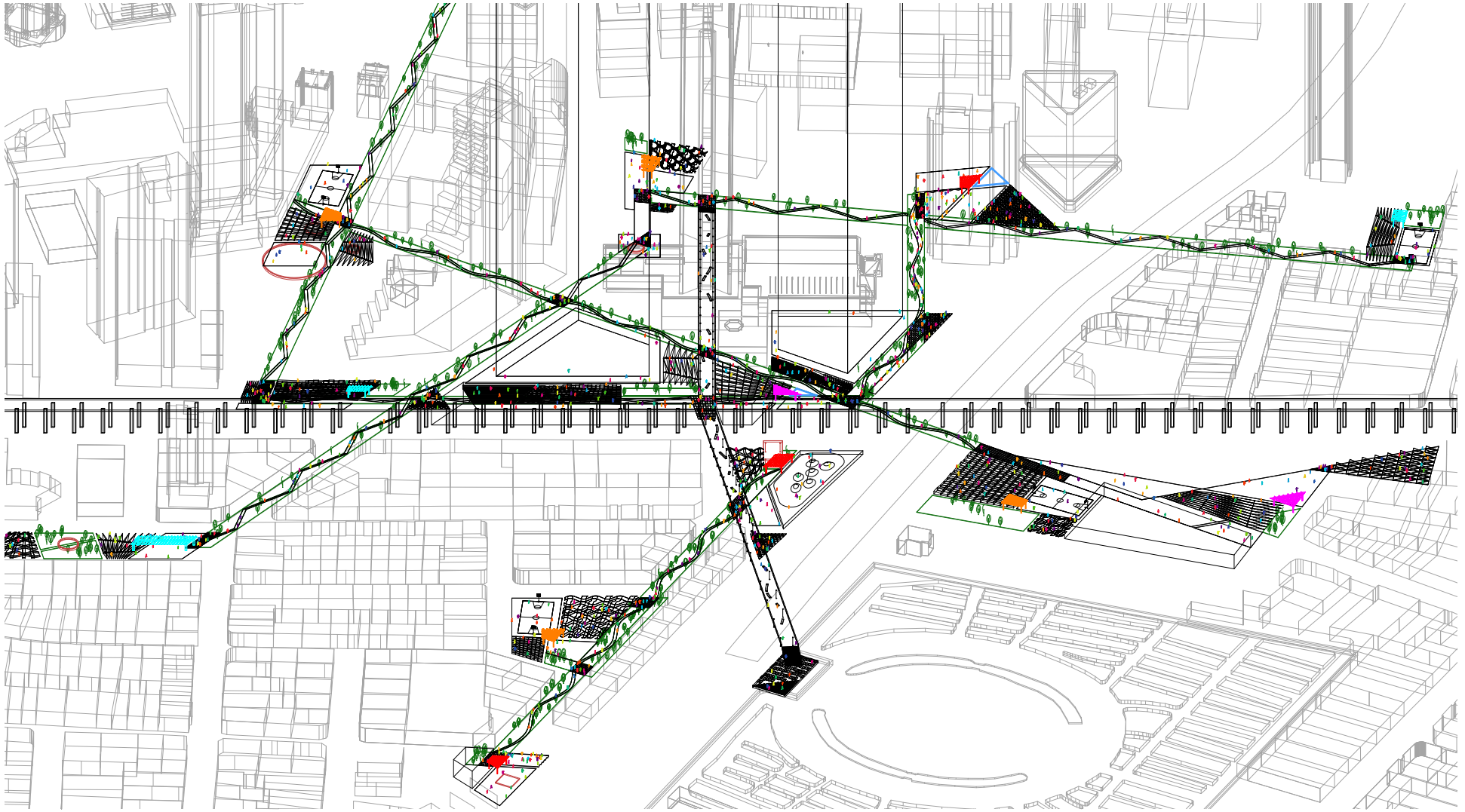


2.5D Playgrounds for Bogota

Stimulate Playful Actions in Public Spaces by Redesigning
Ground Surfaces into a Constellation of 2.5D Architectural Compositions

Yayun Liu

Method and Analysis
P5 Presentation
30/06/2017

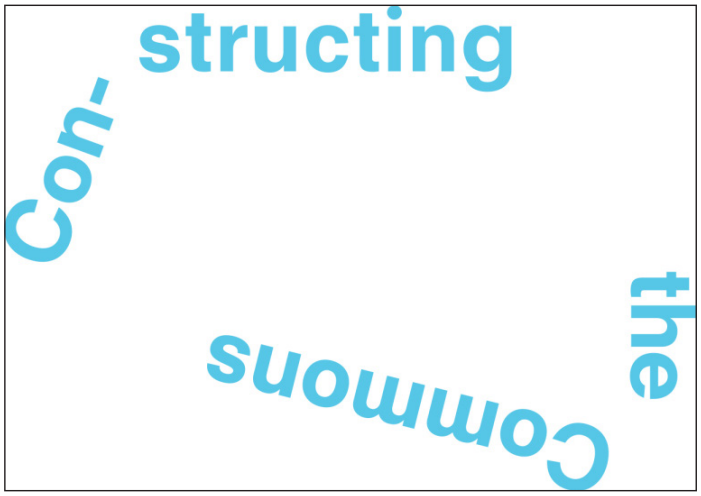
Contents

1 Background 001
2 Problem 013
3 Implantation 027
4 Configuration 043
5 Form 053
6 Reflection 137

Background | Segregation

Constructing the Commons in Bogota
Bogota Location
Urban Topography
Segregation

Constructing the Commons in Bogota



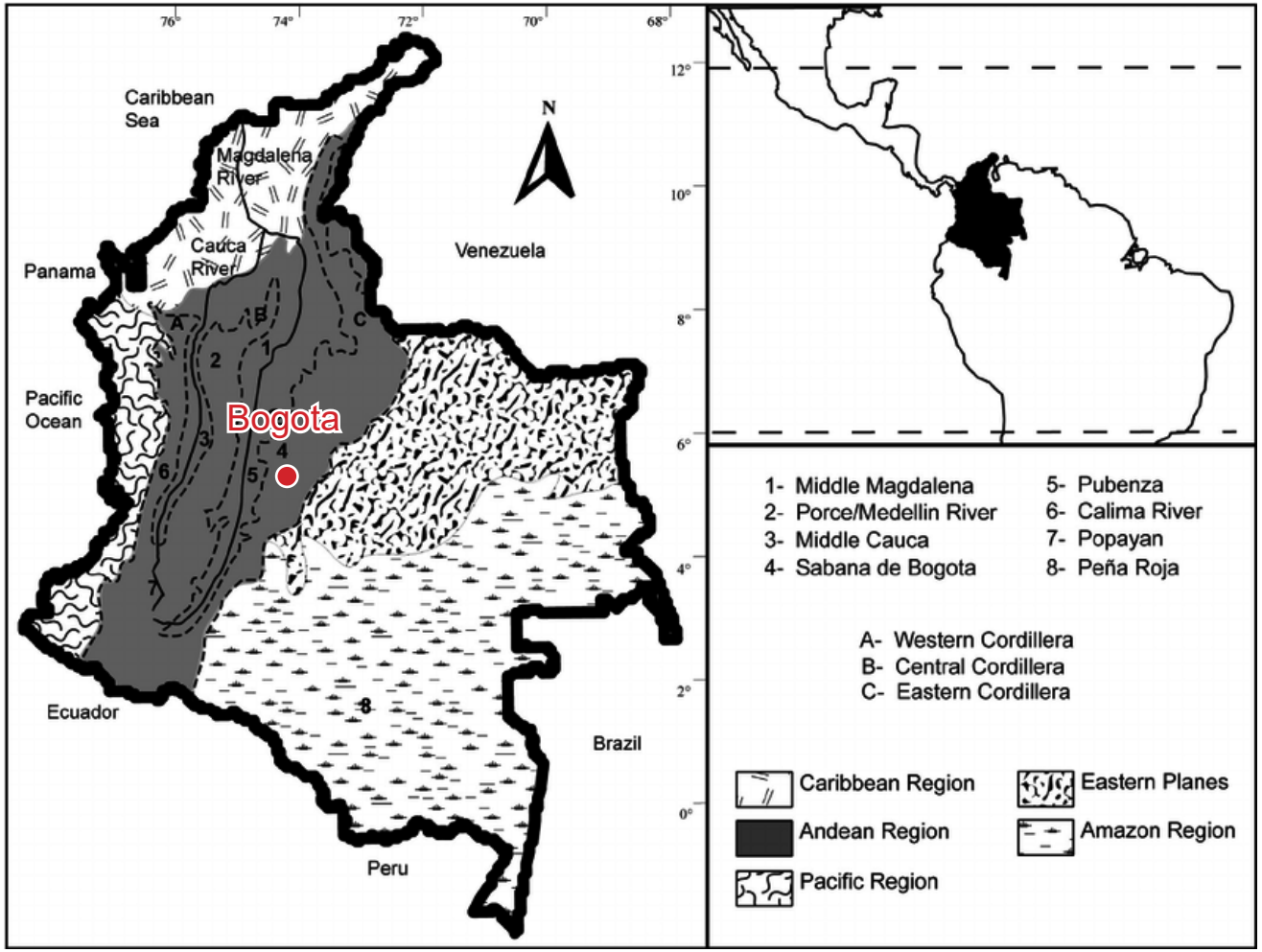
Constructing the Commons + Architectural Positions + Transcultural Methods and Positions

- Architectural and Urban figures
- Commoning procedure

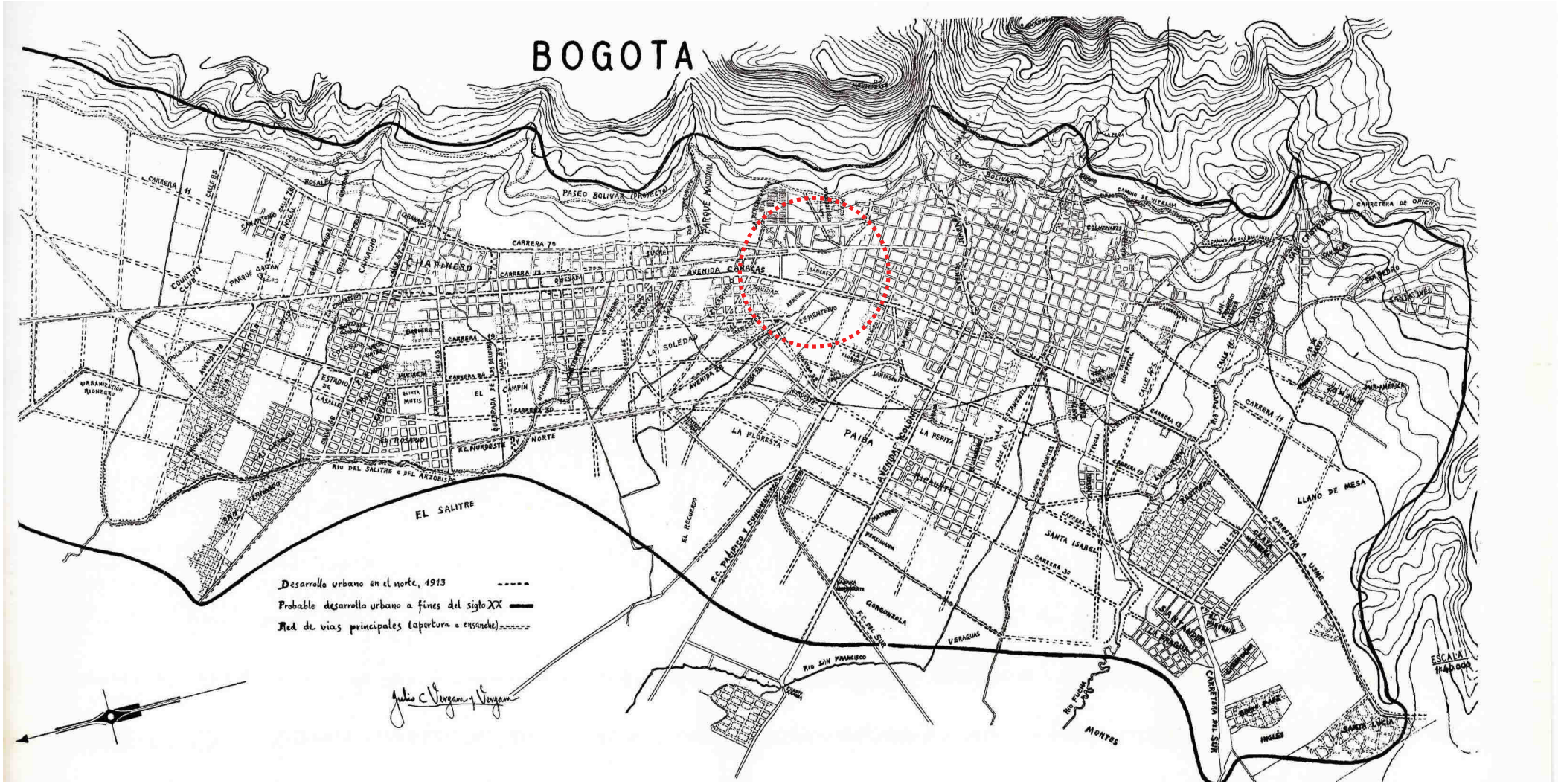
- Alternative strategies to "strong counter-forms"
- Punctual architectural intervention

- Adjust existing analytical methods
- Resonate with transcultural urban condition

Bogota Location



Urban Topography

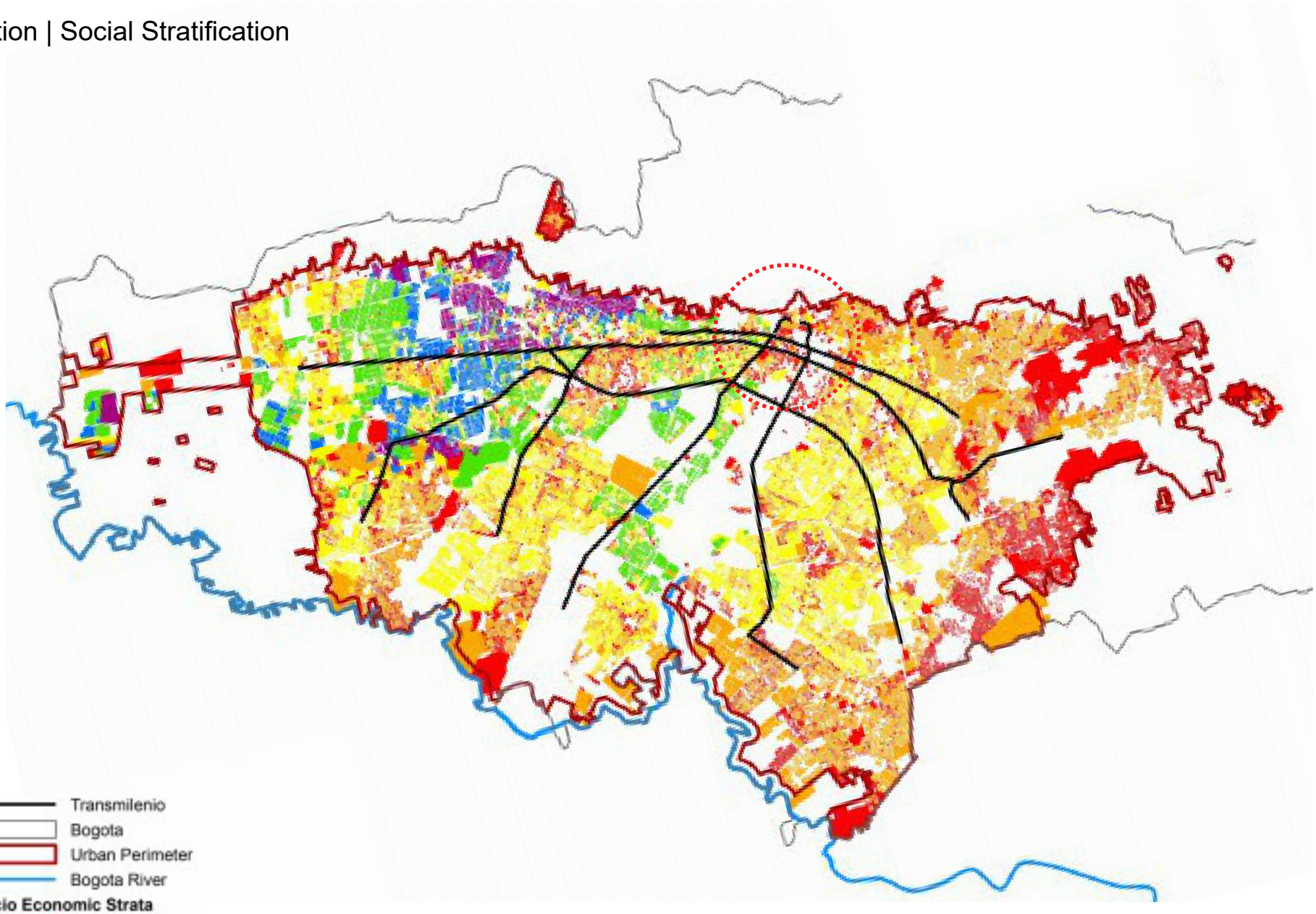


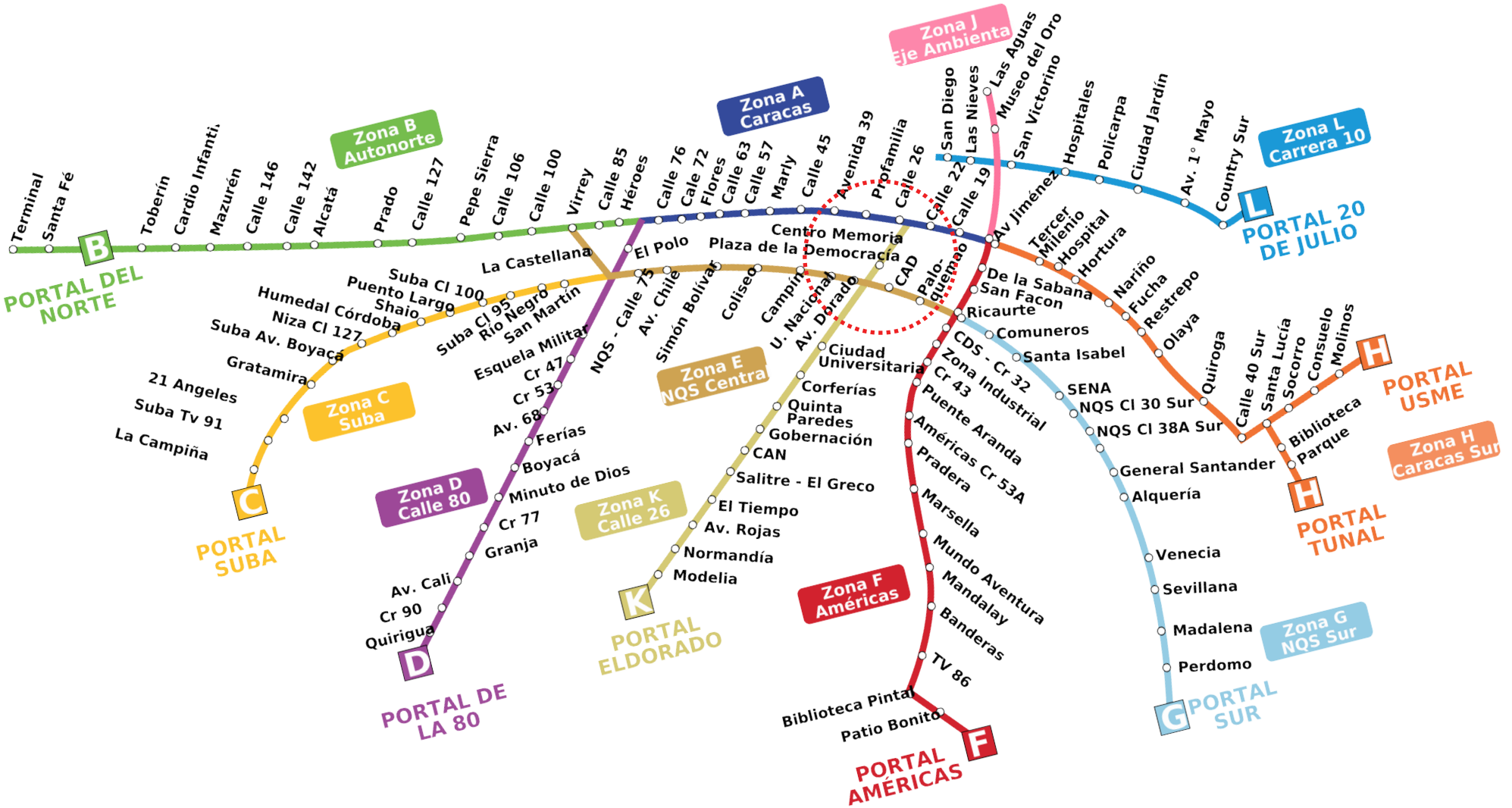
Altitude | 2600 m above sea level
Climate | Subtropical Highland Climate
East | Monserrate Mountain Range
West | Bogota River

West

East

Segregation | Social Stratification





Bogota Transmilenio map

Segregation | Transportation

Ciclovia

Transmilenio

Metro, 2022-

Segregation | Architecture in History

Buritaca (Ciudad Perdida) – 800 A.D.

Maloca, Amazon region

Before 1500: Pre-Colombian

Barichara, founded 1705

1500 -1810: Colonial

Capitolio Nacional – Thomas Reed, 1876 – 1926

1810 -1890: Republican

Palacio España, Bogotá – 1926

1890 -1930: Neo-Colonial

Seguros Bolivar, Bogotá – Cuéllar Serrano Gómez, 1956

1930 -1960: Modernist

Residencias El Polo, Bogotá – Guillermo Bermúdez and Rogelio Salmona, 1958

1960 -1990: Salmona Era

Segregation | Architecture Nowadays

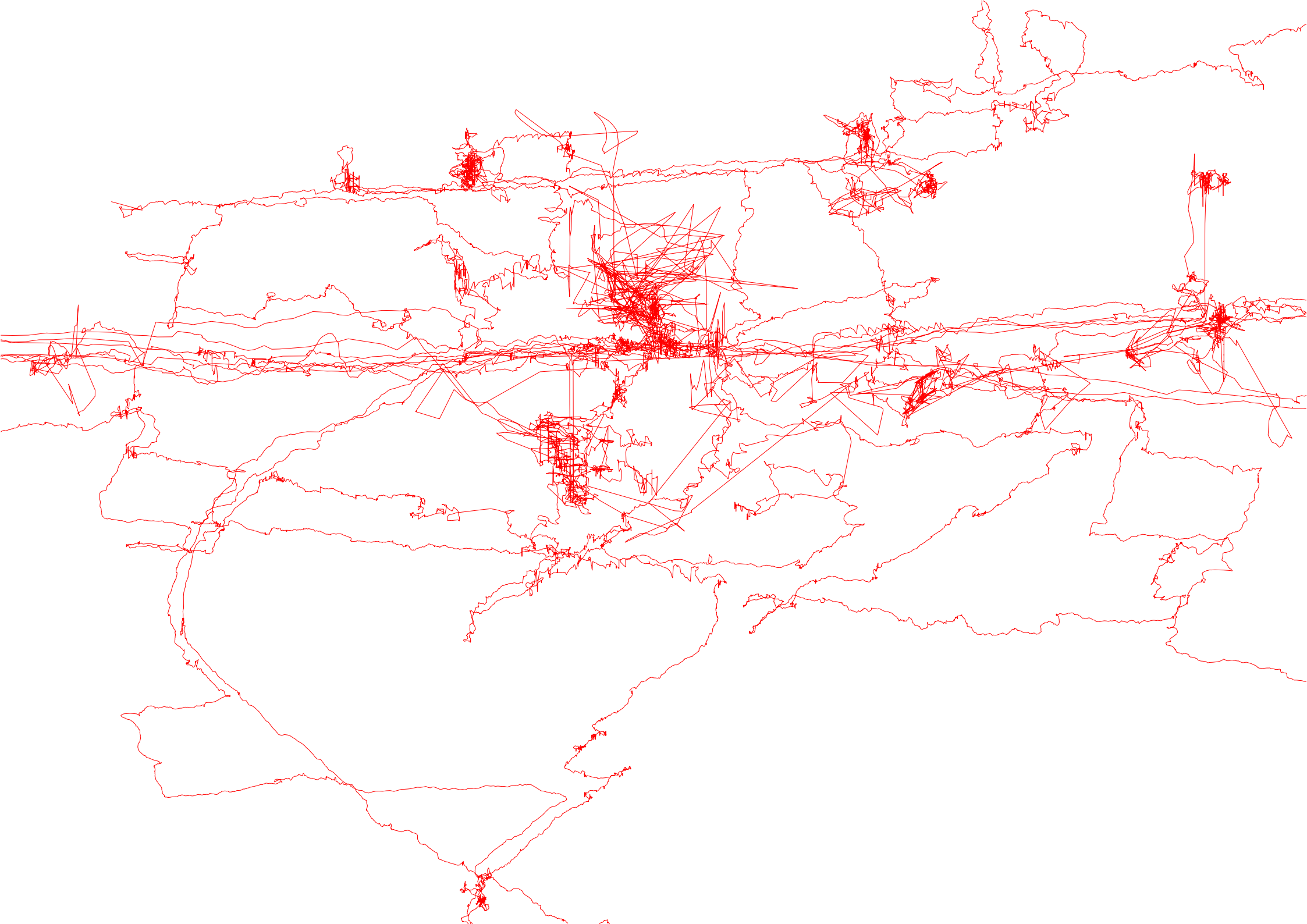
1 | 1610: Saint James Monastery
2 | 1874: National Museum of Colombia
3 | 1883: Centennial Park
4 | 1910: Indepencence Park
5 | 1950: Extension of 10th Avenue
6 | 1965: Bavaria Complex
7 | 1970: Independence Park Housing Project
8 | 1982: International Center

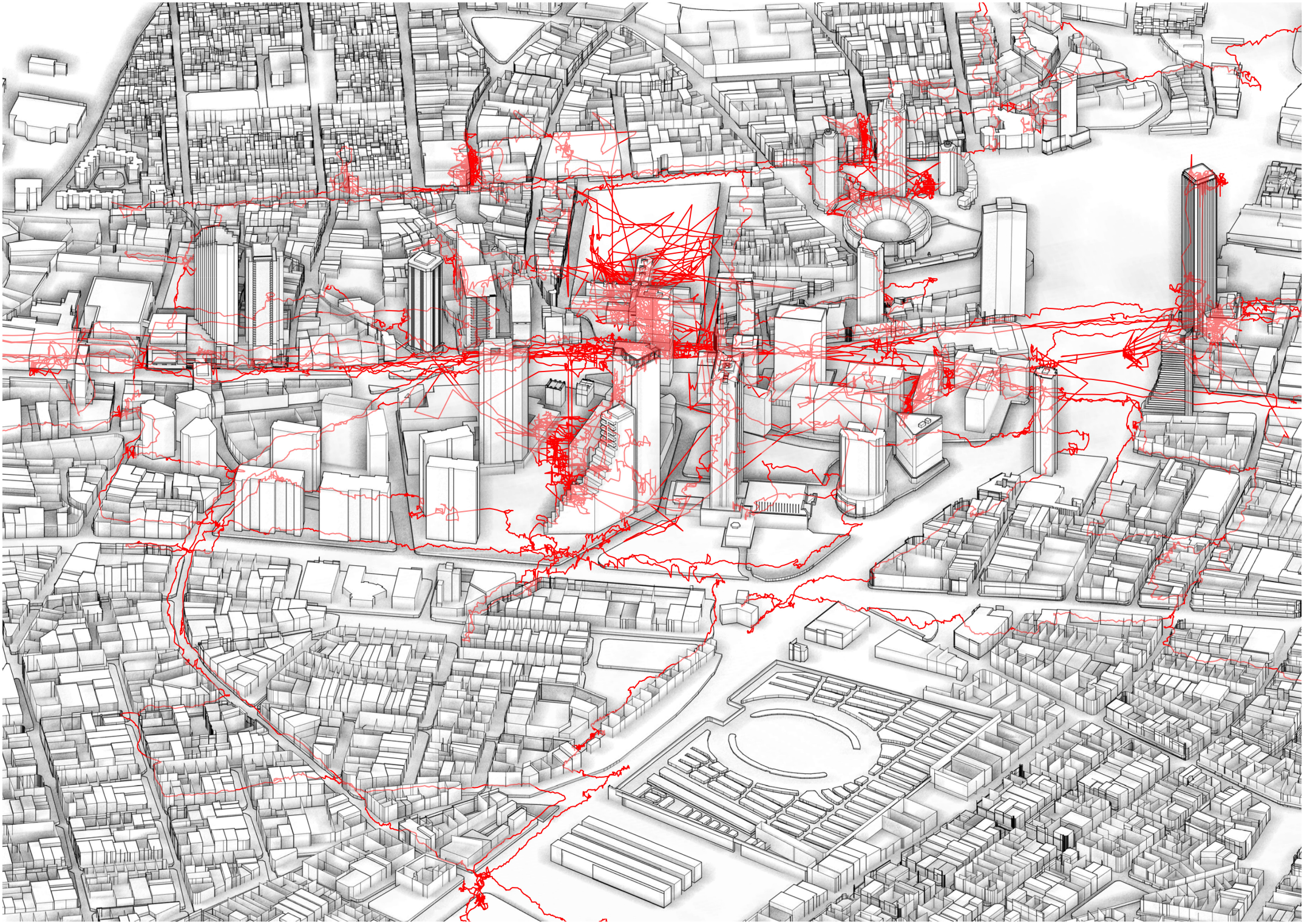
Torres Atrio, 2019
Richard Rogers, Giancarlo Mazzanti

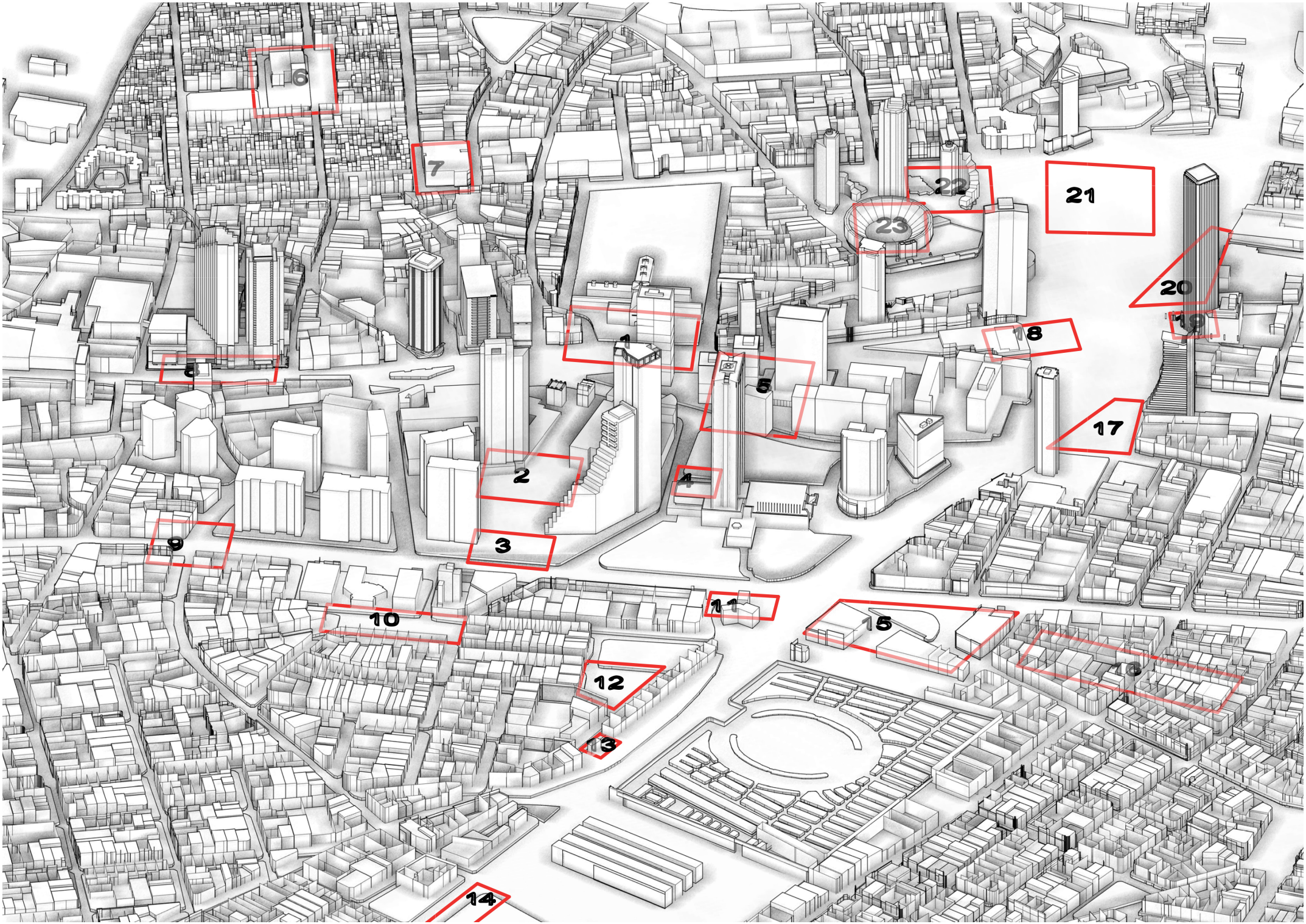
Bogota, what a segregated city...
What can be an alternative design strategy that results in more punctual architectural interventions?

Problem | Mismatch

Dérive in the City
Problem Statement
Research Question



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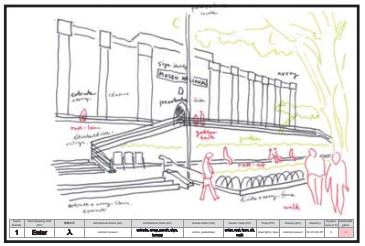
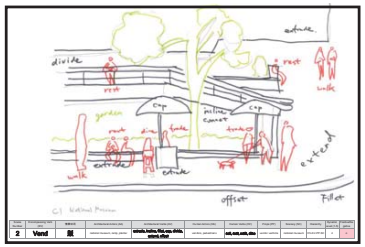
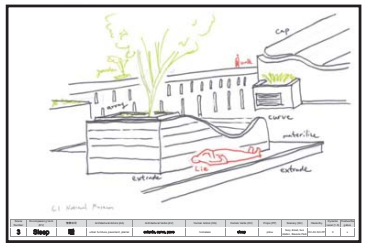
Todos
CCI Cam de Comercio Internacional



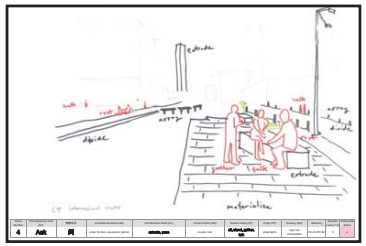
Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
1	Enter	入			entrance, leave,						



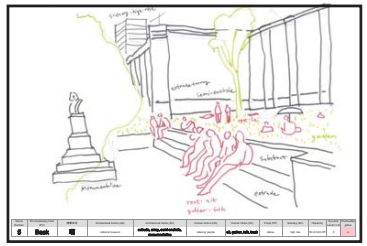
Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
2	Vend	贩									



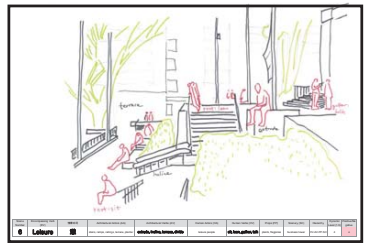
Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
3	Stop	停									



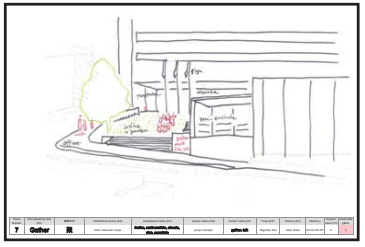
Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
4	Ask	问									



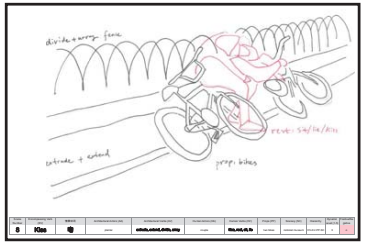
Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
5	Bask	晒									



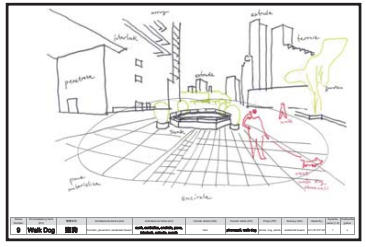
Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
6	Leisure	闲									



Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
7	Gather	聚									

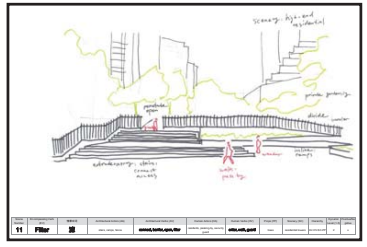


Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
8	Kiss	吻									

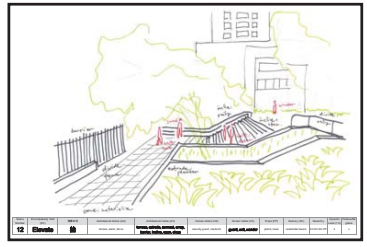


Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
9	Walk Dog	遛狗									

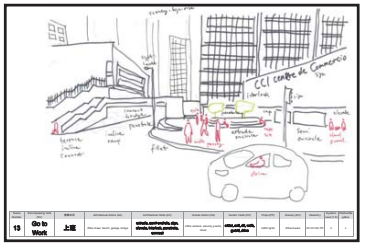
Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
10	Work in Over	下班									



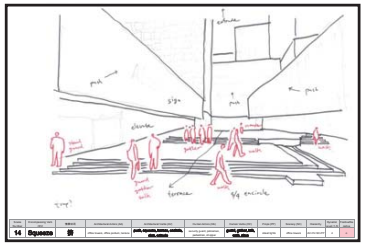
Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
11	Filter	滤									



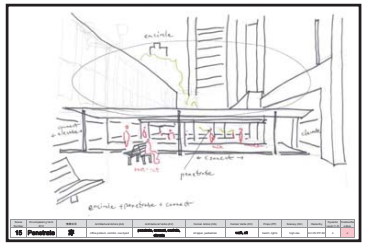
Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
12	Elevate	抬									



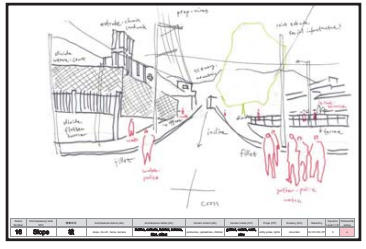
Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
13	Go to Work	上班									



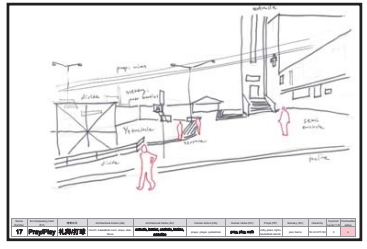
Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
14	Squeeze	挤									



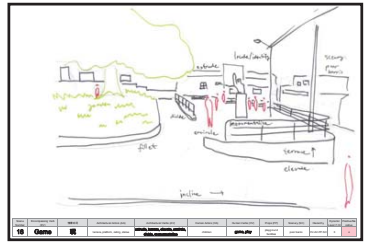
Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
15	Penetrate	穿									



Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
16	Slope	坡									

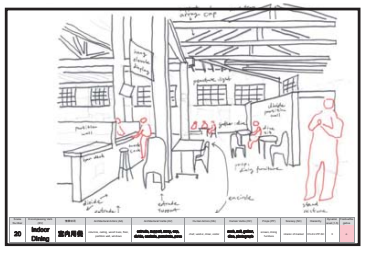


Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
17	PrayPlay	礼拜打球									

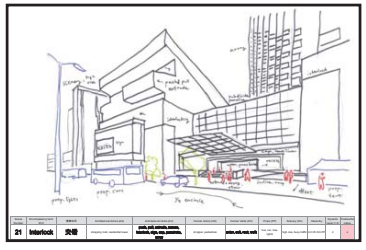


Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
18	Game	玩									

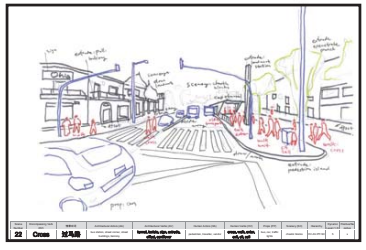
Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
19	Outdoor Dining	室外用餐									



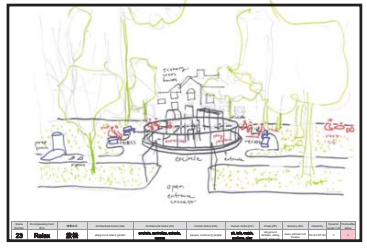
Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
20	Indoor Dining	室内用餐									



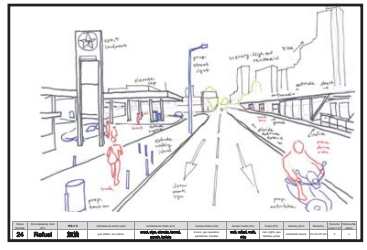
Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
21	Interlock	交往									



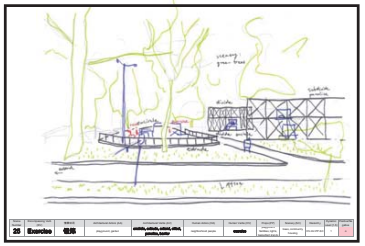
Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
22	Cross	过马路									



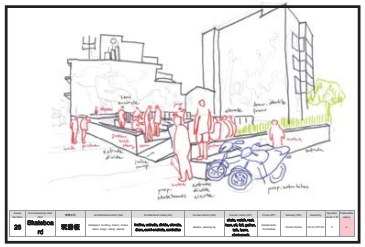
Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
23	Relax	放松									



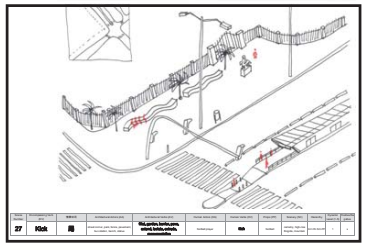
Number	Word(Eng.)	单词名称	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
24	Rehab	康复									



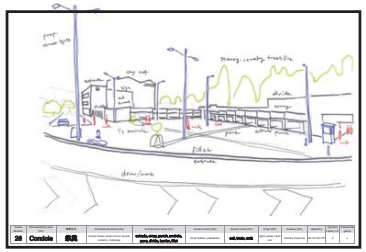
Number	Word(Eng.)	锻炼	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
25	Exercise	锻炼									



Number	Word(Eng.)	滑板社	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
26	Skateboard	滑板社									

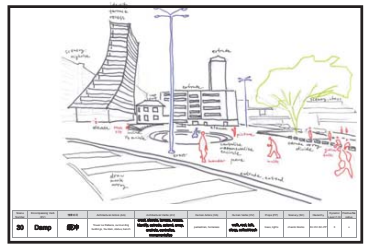


Number	Word(Eng.)	踢	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
27	Kick	踢									

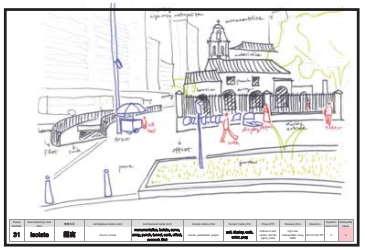


Number	Word(Eng.)	安慰	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
28	Console	安慰									

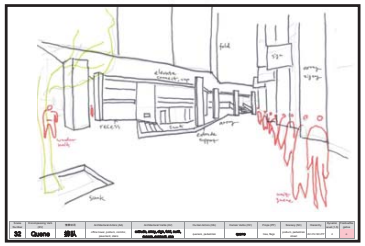
Number	Word(Eng.)	娼	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
29	Prostitute	娼									



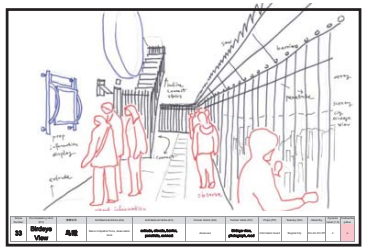
Number	Word(Eng.)	潮湿	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
30	Damp	潮湿									



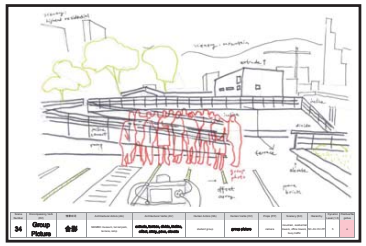
Number	Word(Eng.)	隔离	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
31	Isolate	隔离									



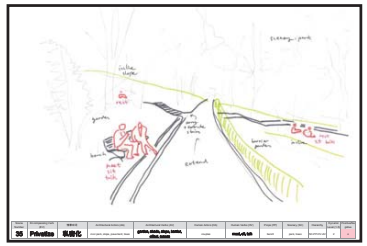
Number	Word(Eng.)	排队	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
32	Queue	排队									



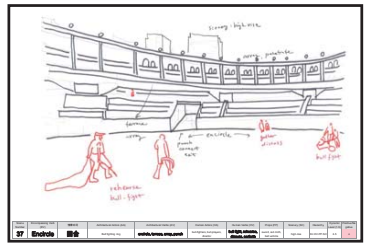
Number	Word(Eng.)	从侧	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
33	Sideyard View	从侧									



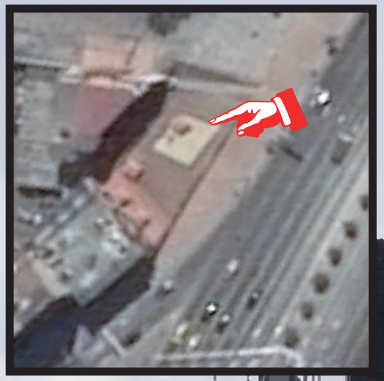
Number	Word(Eng.)	合影	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
34	Group Picture	合影									



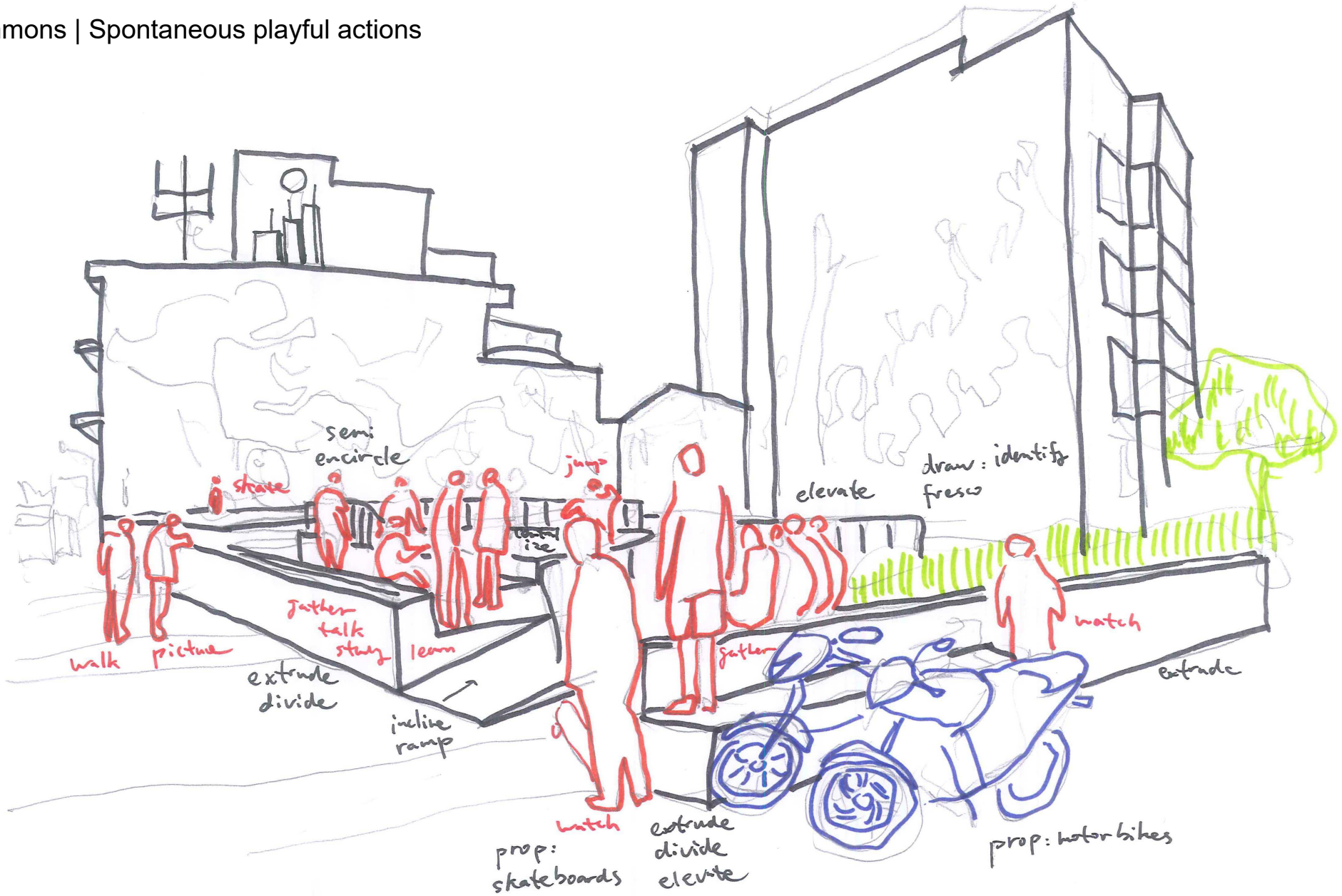
Number	Word(Eng.)	私密化	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
35	Privatize	私密化									



Number	Word(Eng.)	围合	Architectural Action (Eng.)	Architectural Action (Chi.)	Human Actions (Eng.)	Human Actions (Chi.)	Things (Eng.)	Relativity (Eng.)	Relativity	Application	Confirmed
37	Encircle	围合									

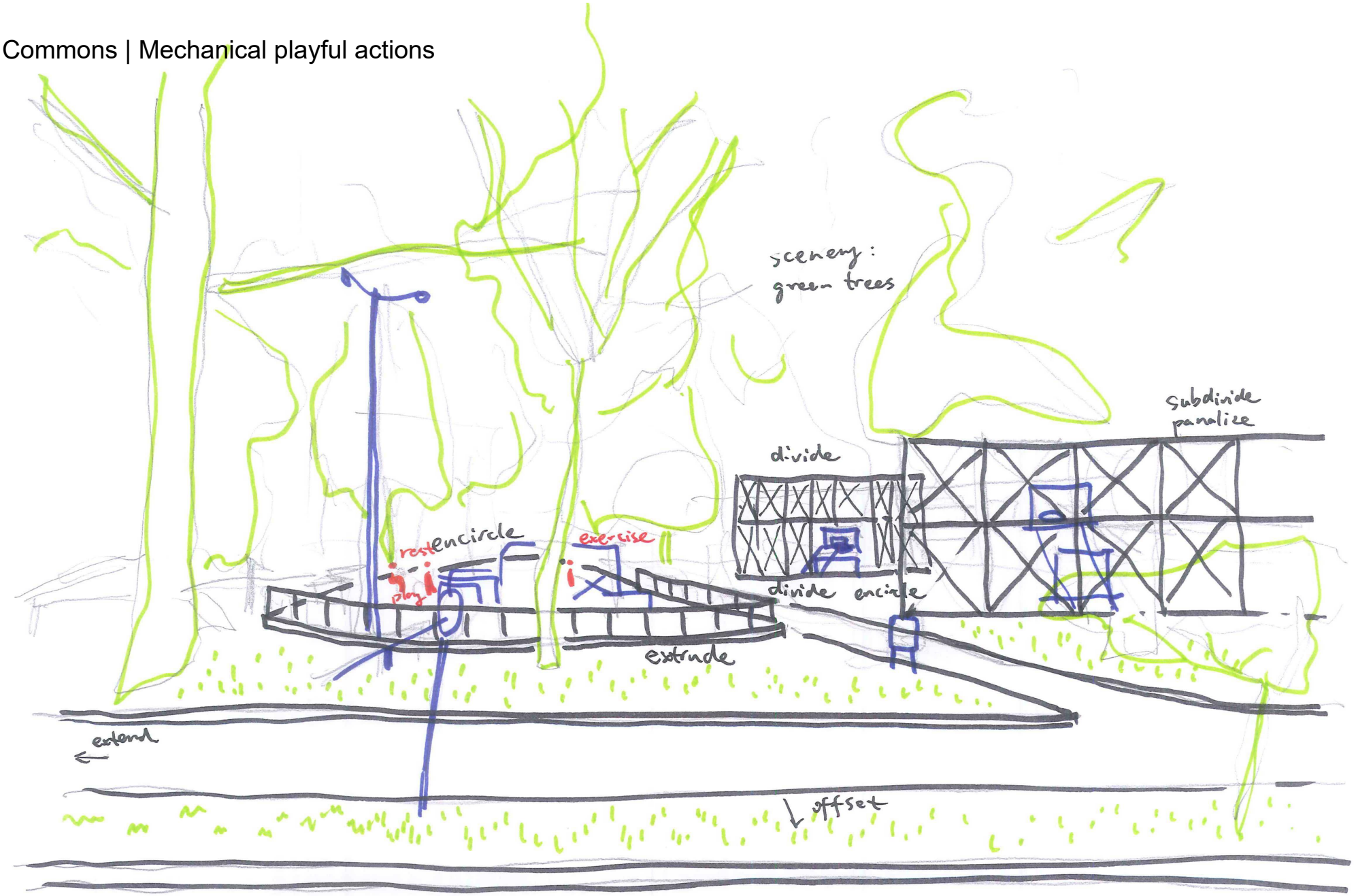


Strong Commons | Spontaneous playful actions



Scene Number	Encompassing Verb (EV)	情景动词	Architectural Actors (AA)	Architectural Verbs (AV)	Human Actors (HA)	Human Verbs (HV)	Props (PP)	Scenery (SC)	Hierarchy	Dynamic Level (1-5)	Positive/Negative
26	Skateboard	玩滑板	skatepark, building, fresco, ramps, stairs, stage, railing, planter	**incline, extrude, divide, elevate, draw, semi-encircle, centralize**	skaters, passing-by	**skate, watch, rest, lean, sit, fall, gather, talk, learn, photograph**	skateboards, motorbikes	chaotic blocks	HV-AV-PP-SC	5	o

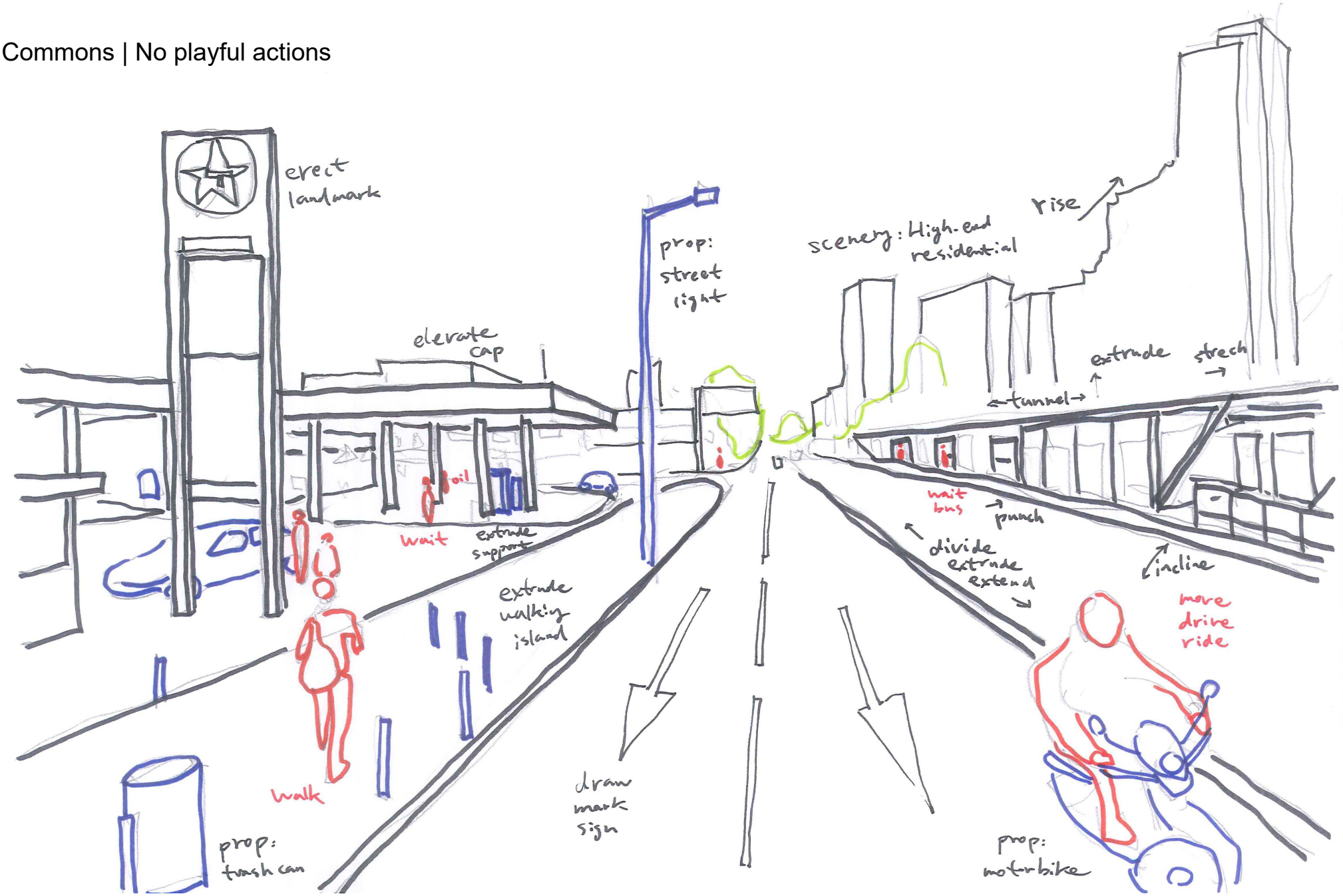
Normal Commons | Mechanical playful actions



Scene Number	Encompassing Verb (EV)	情景动词	Architectural Actors (AA)	Architectural Verbs (AV)	Human Actors (HA)	Human Verbs (HV)	Props (PP)	Scenery (SC)	Hierarchy	Dynamic Level (1-5)	Positive/Negative
25	Exercise	锻炼	playground, garden	**encircle, extrude, extend, offset, panelize, barrier**	neighborhood people	**exercise**	playground facilities, lights, basketball stands	trees, community housing	HV-AV-PP-SC	1	o

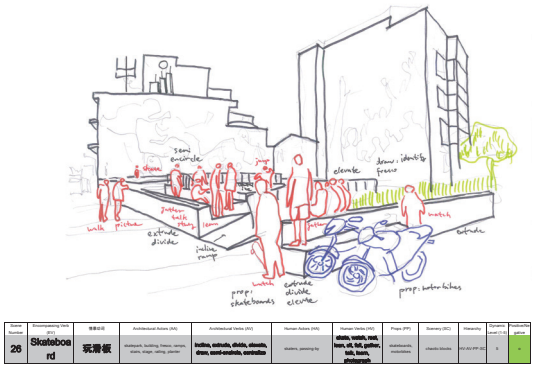
LAVADO
AUTO-GAS
Ak. 14

Weak Commons | No playful actions



Scene Number	Encompassing Verb (EV)	情景动词	Architectural Actors (AA)	Architectural Verbs (AV)	Human Actors (HA)	Human Verbs (HV)	Props (PP)	Scenery (SC)	Hierarchy	Dynamic Level (1-5)	Positive/Negative
24	Refuel	加油	gas station, bus staion	**erect, sign, elevate, tunnel, punch, isolate**	drivers, gas operators, pedestrian, traveller	**wait, refuel, walk, ride**	cars, lights, gas facilities, poles	residential towers	HV-AV-PP-SC	3	x

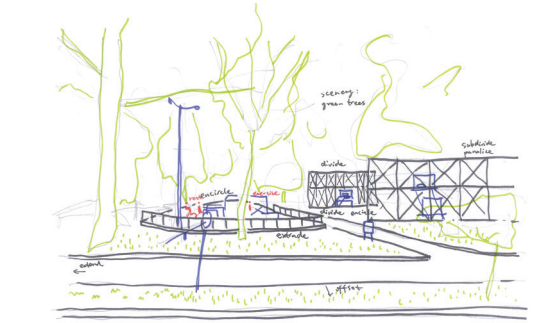
Summary | 3 Types of Commons



Scene Number	Encompassing Verb (EV)	情景总结	Architectural Actors (AA)	Architectural Verbs (AV)	Human Actors (HA)	Human Verbs (HV)	Props (PP)	Scenery (SC)	Hierarchy	Dynamic level (1-5)	Productive gallon
26	Skateboard	玩滑板	skateparts, building, fresco, canopy, stairs, stage, ceiling, planter	incline, extrude, divide, elevate, draw, semi-encircle, centralize	skaters, passing by	skate, watch, rest, lean, sit, fall, gallon, talk, learn, skateparts	skateboards, motorbikes	chaotic blocks	HV/AV/PP/SC	3	+

a. Strong Commons | Spontaneous playful actions

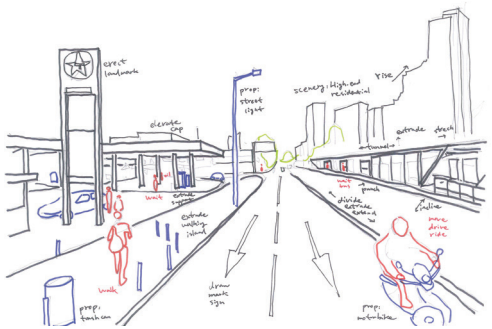
Architectural and urban actors stimulate spontaneous playful actions performed by human actors, thus the spaces and social activities are intertwined with each other that a playful commonality is established.



Scene Number	Encompassing Verb (EV)	情景总结	Architectural Actors (AA)	Architectural Verbs (AV)	Human Actors (HA)	Human Verbs (HV)	Props (PP)	Scenery (SC)	Hierarchy	Dynamic level (1-5)	Productive gallon
25	Exercise	锻炼	playground, garden	encircle, extrude, extend, offset, parallel, barrier	neighbourhood people	exercise	playground facilities, tights, basketball stands	trees, community housing	HV/AV/PP/SC	1	+

b. Normal Commons | Mechanical playful actions

In normal urban parks there are some playground equipments, and they do bring some playful actions, however the players have to follow the mechanical function of the equipments.



Scene Number	Encompassing Verb (EV)	情景总结	Architectural Actors (AA)	Architectural Verbs (AV)	Human Actors (HA)	Human Verbs (HV)	Props (PP)	Scenery (SC)	Hierarchy	Dynamic level (1-5)	Productive gallon
24	Refuel	加油	gas station, box station	erect, sign, elevate, tunnel, punch, tackle	drivers, gas operators, pedestrian, traveller	wait, refuel, walk, ride	cars, lights, gas facilities, poles	residential towers	HV/AV/PP/SC	3	+

c. Weak Commons | No playful actions

Spatial Quality is too poor to bring people together, let along stimulating playful actions.

Rapid development has claimed a lot of public spaces from the city, consequently the rest public spaces have become fragmental leftovers. Many of them remain boring, chaotic, hidden, negative spaces where few people would go; the “commons” become weak.

Problem Statement

There is a mismatch between spontaneous “playful actions” in Bogota citizens’ daily lives and the poor boring leftover public spaces.

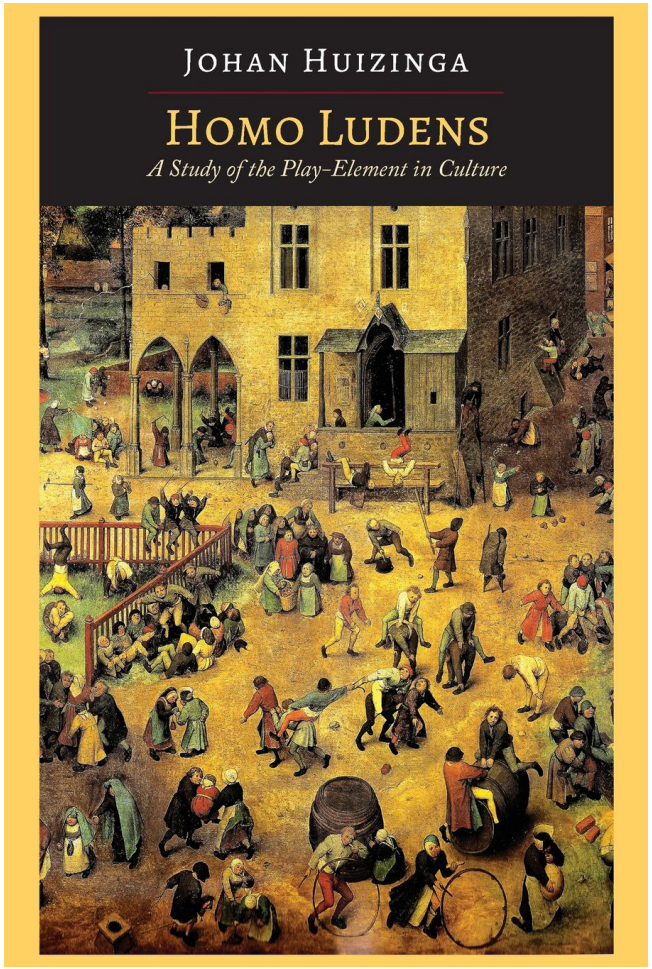
Research Question

How to construct the commons with the power of play?
How to reactivate the leftover public spaces in central Bogota by architectural interventions that stimulate playful actions?

Implantation | “Playful Abstraction”

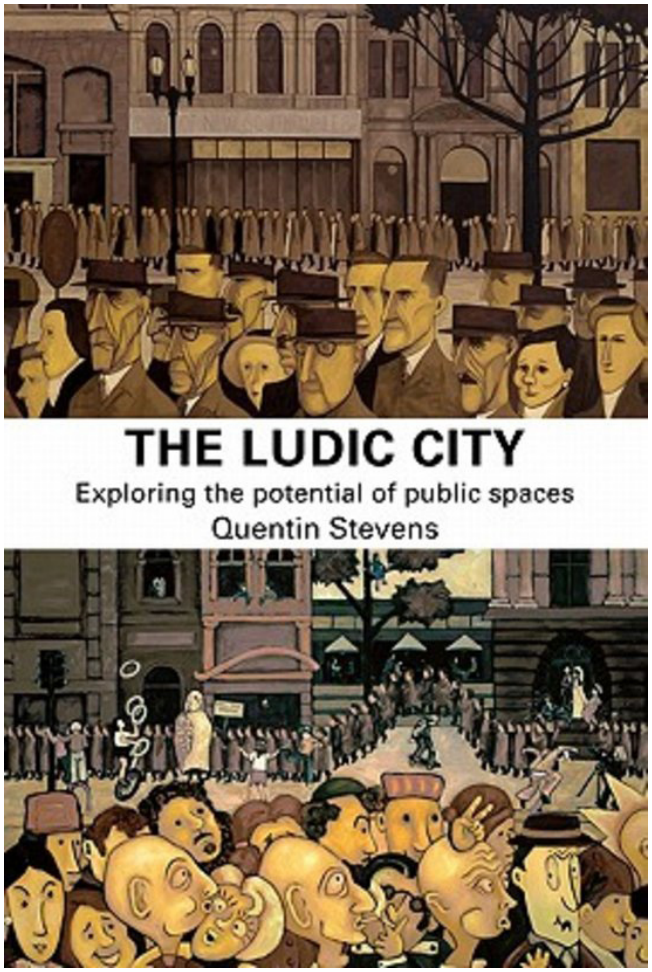
Theoretical Reference
Playfulness and Abstraction
“Playful Abstraction” as a Commonality
Simplicity and Implicity of Ground Surface
Architectural Position

Theoretical Reference | Homo Ludens, Johan Huizinga



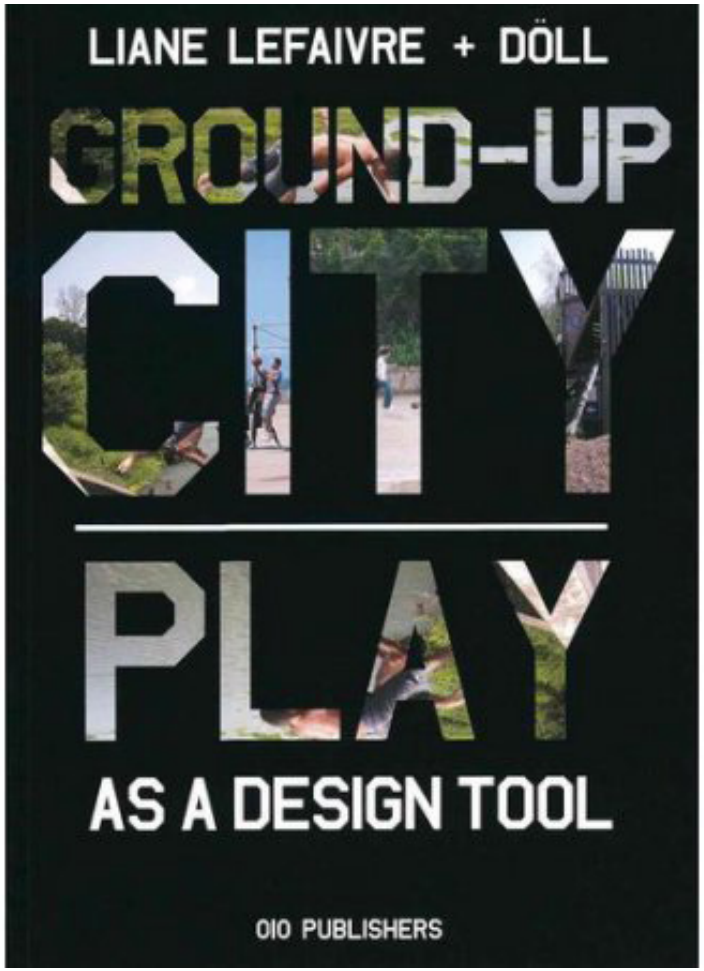
“Play” might be the origin of many aspects in human culture, such as law, war, knowledge, poetry, art, etc. Johan Huizinga emphasizes the importance of play element in human culture by naming the human species “Homo Ludens” (man the player) instead of “Homo Sapiens” (wise man) or “Homo Faber” (man the maker).

Theoretical Reference | The Ludic City, Quentin Stevens



“Play is an important but largely neglected aspect of people’s experience of urban society and urban space…Play reveals the potentials that public spaces offer.”

Quentin Stevens describes the play activity as :
- non-instrumental,
- unpredictable/contingent,
- controversial expenditures of time and energy
- an escape from instrumental social relationships/everyday serious routine

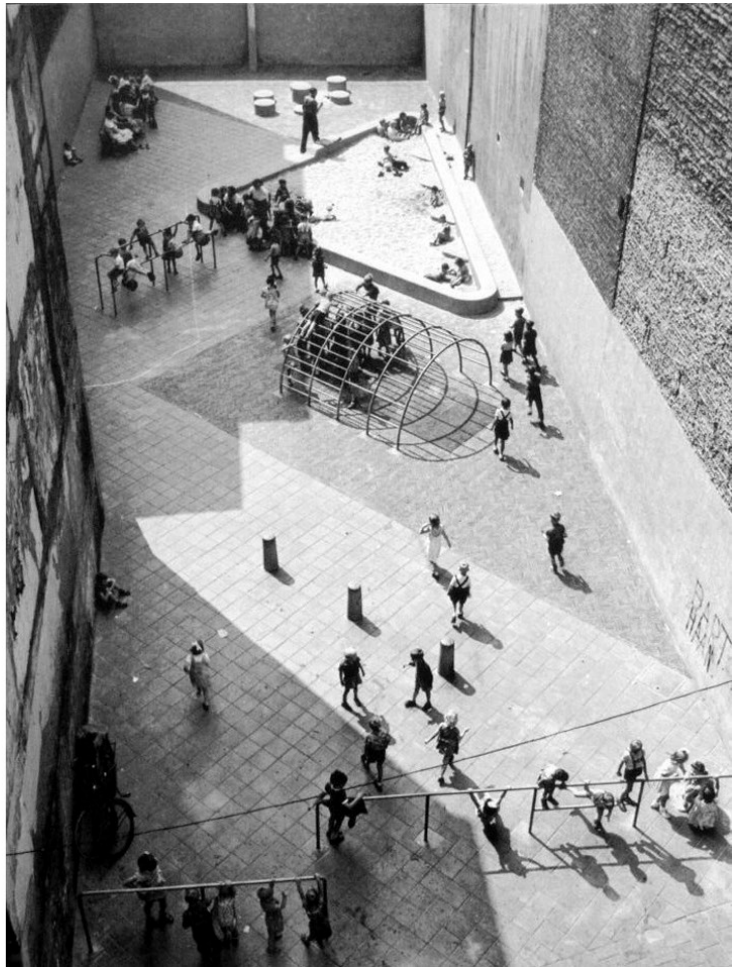


P - **Polycentric**, playgrounds become a network system instead of a single big one;
I - **Interstitial**, playgrounds fit into leftover/in-between spaces instead of cleared area;
P - **Participatory**, playgrounds result from dialogue with users of a particular site.

Theoretical Reference | “Leaf-tree/house-city diagram”, Aldo van Eyck

The relationship between an individual and the bigger system it belongs to should be like leaf and tree:
“tree is leaf and leaf is tree / a tree is a tree but it is also a huge leaf / a leaf is a leaf but it is also a tiny tree”.

Theoretical Reference | Amsterdam Playgrounds, Aldo van Eyck



- In-Between, “Ich und du”, design as means for creating relations between people rather than as goals in itself;
- Site specific/Path-based design, design has to respond to unique situations, to improvise;
- Surface intervention like the snow: when snow falls, the city is taken over by children and becomes a big playground.

What makes a difference between Aldo van Eyck’s playgrounds and “normal” ones?

Playfulness and Abstraction | Comparison

Aldo van Eyck's Playground

First Search Result of
"Playground" on Google

Abstract	-	Representational
Modest Simplicity & Elegance	-	Excessive ingredients
Care about ground surface	-	Obsessed in objects
Spontaneously Suggest playful actions	-	Mechanically Define playful actions
Site specific	-	Detached from context
Include different users and activities	-	Exclude other users and activies
Strong Commons	-	Weak Commons

“Playful Abstraction” as a Commonality

“Playful Abstraction” is an abstract realm drawn away from practical matters and representational qualities, in which people share as a common resource to engage rejoicing themselves.

Play (v.)

Old English | ***plegan, plegian***
“move rapidly, occupy or busy oneself, exercise; frolic; make sport of, mock; perform music,”

West Germanic | ***plegan***
“occupy oneself about”

Old Saxon | ***plegan***
“vouch for, take charge of,”

Old Frisian | ***plega***
“tend to,”

Middle Dutch | ***pleyen***
“to rejoice, be glad,”

German | ***pflegen***
“take care of, cultivate”,

Proto-Indo-European root | ***dlegh-***
“to engage oneself,”

Abstract (adj.)

Latin ***abstractus***
“drawn away,”

Latin past participle of ***abstrahere***
“to drag away, detach, pull away, divert;”

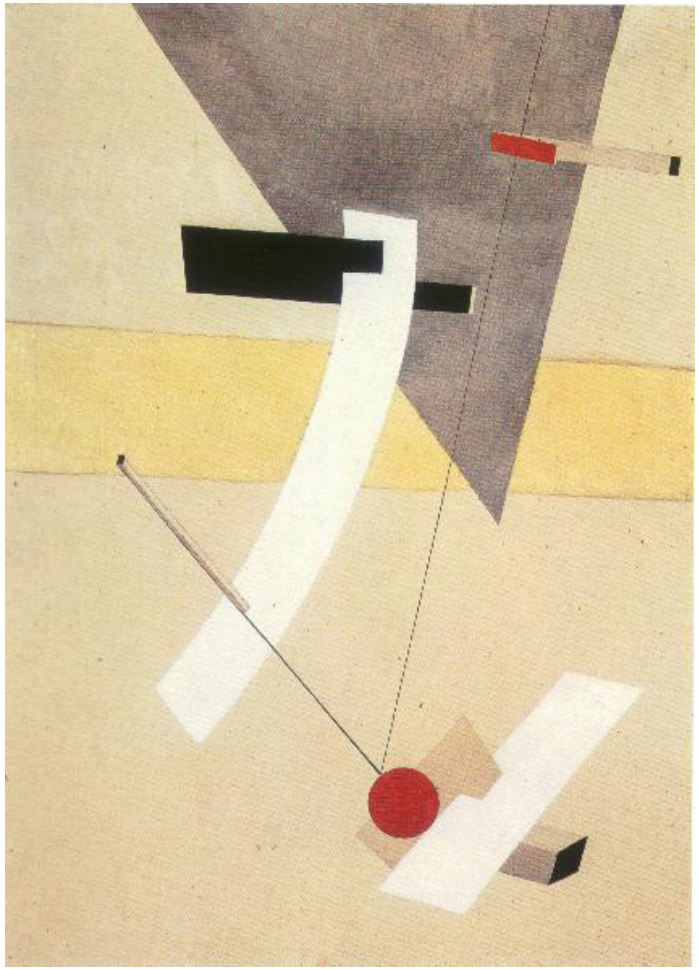
also figuratively, from assimilated form of ***ab*** “off, away from” (see ab-) + ***trahere*** “to draw,”

from Proto-Indo-European root ***tragh-***
“to draw, drag, move”

in philosophy,
“withdrawn or separated from material objects or practical matters”

In the fine arts,
“characterized by lack of representational qualities”

source: www.etymonline.com

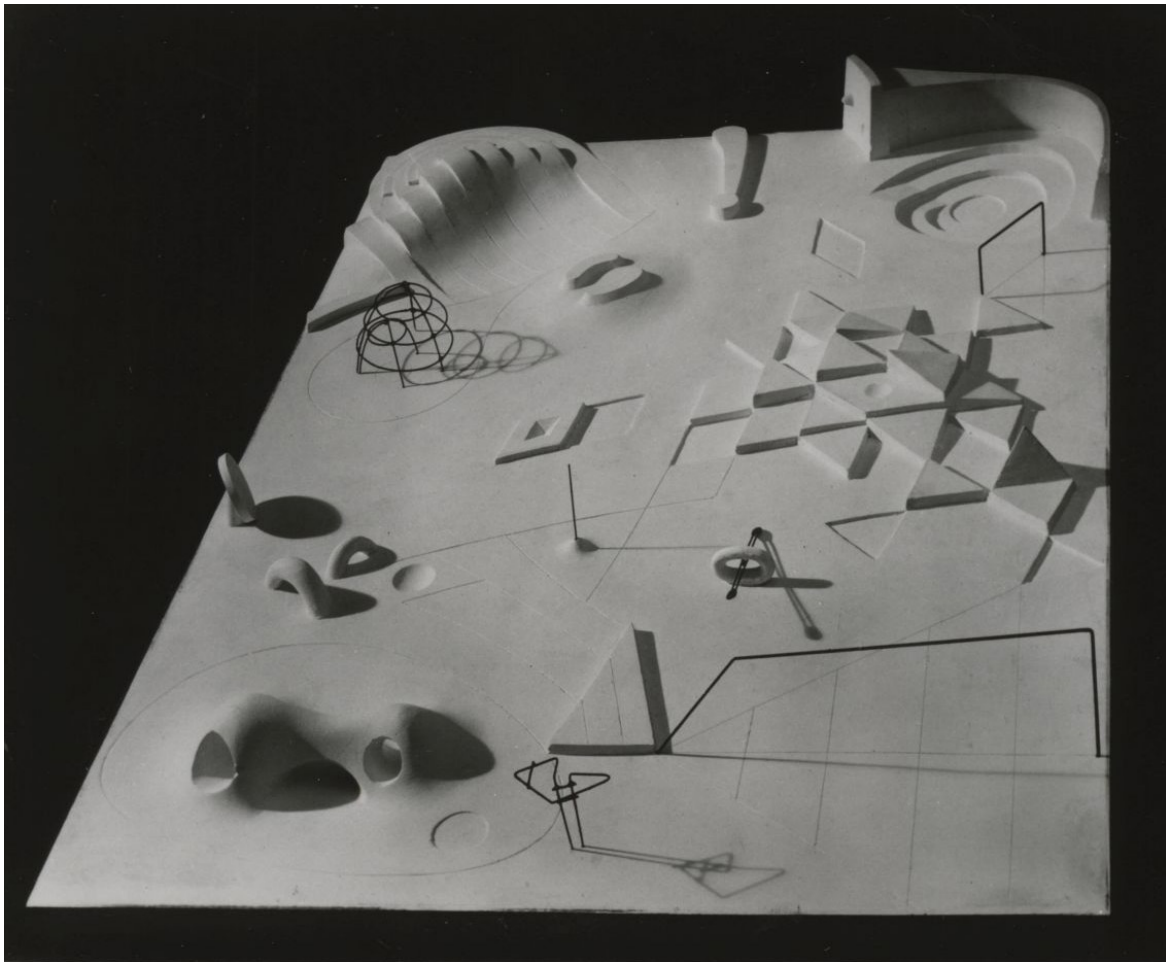


Point, Curve, Surface Composition

Proun 12E
El Lissitzky , 1923

The Vague Edge

Untitled
Mark Rothko, 1968



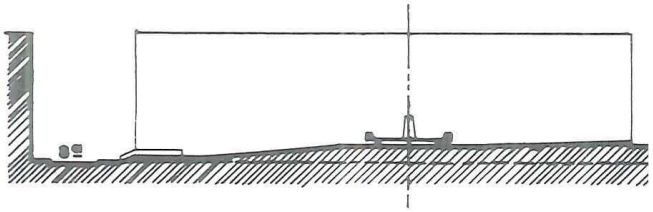
Geometry Collage and Space in-between

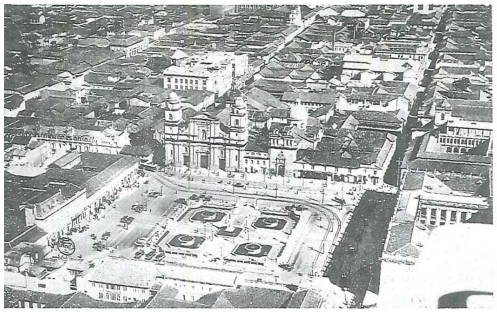
Playground for UN Building, New York
Isamu Noguchi, 1952

Undulating Surface

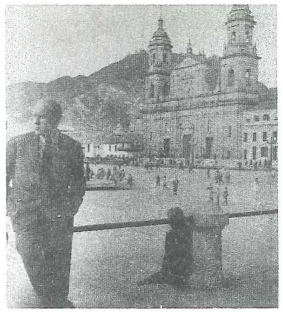
Landhausplatz, Innsbruck, Austria
LAAC Architekten and Stiefel Kramer Architecture, 2010

Simplicity and Implicity | Bogota Precedents





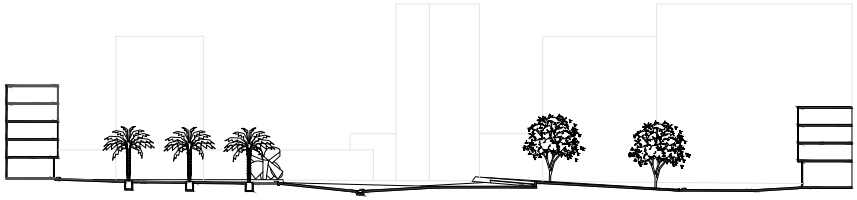
Plaza de Bolívar. Foto Scadta, (1930)

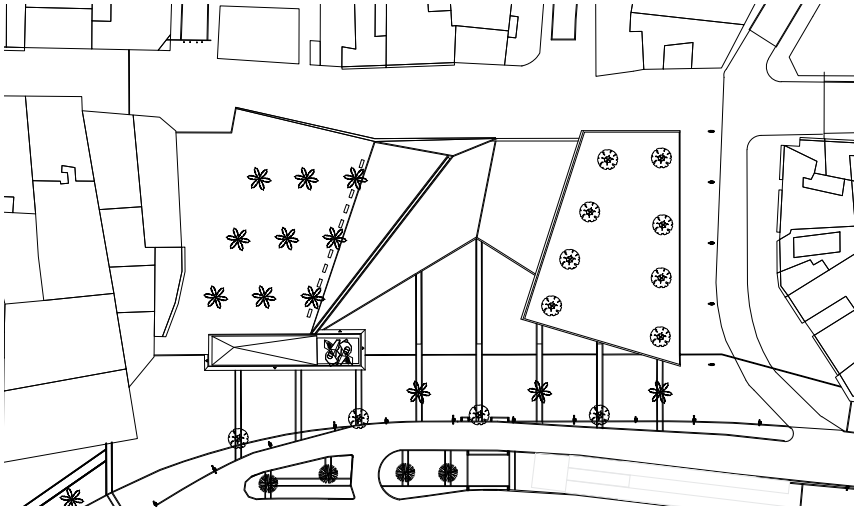


Fernando Martínez en la Plaza de Bolívar.

Folding Surfaces

Plaza de Bolivar in 1930/1960,
Fernando Martinez





Folding Surfaces / Changing Materials

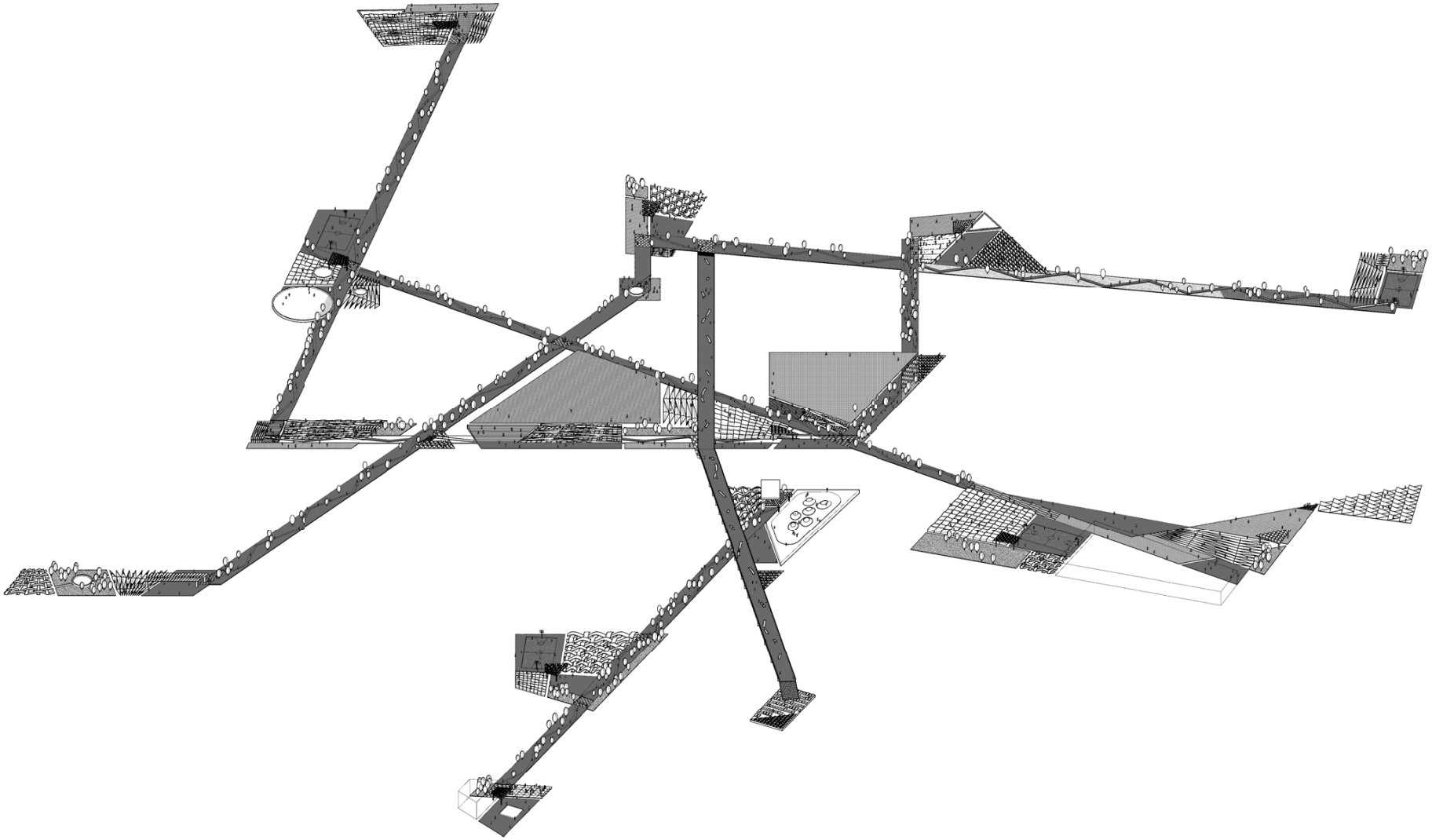
Plaza de San Victorino in 1998/2000,
Lorenzo Castro

Architectural Position

Stimulate playful actions in public spaces by redesigning the ground surface into a constellation of 2.5D architectural compositions.

“2.5D” refers to an abstract composition of the ground surface, including composing different ground materials on the planer dimension (2D), and create minor vertical level difference by sinking, elevating, folding and undulating (0.5D).

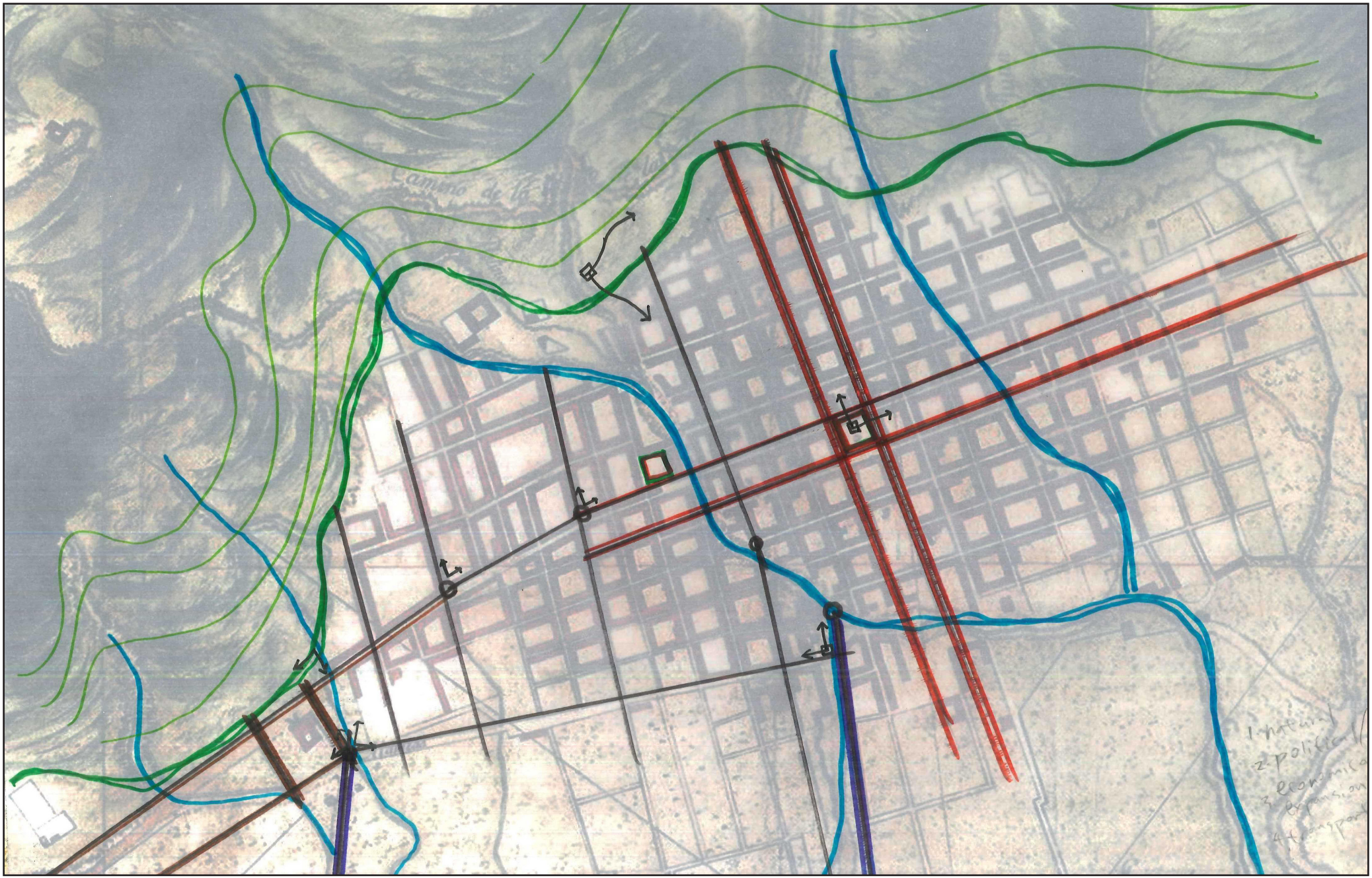
These 2.5D compositions are site-specific, meaning each of them should be a unique match with its context. Yet they share a similar architectural language, so that citizens will be able to recongnize that they belong to a polycentric network of playgrounds.



Configuration | Constellation of Public Spaces

Map Urban Axes
Locate Interventions
Pedestrain Connections

Map Urban Axes | Topographical Factors

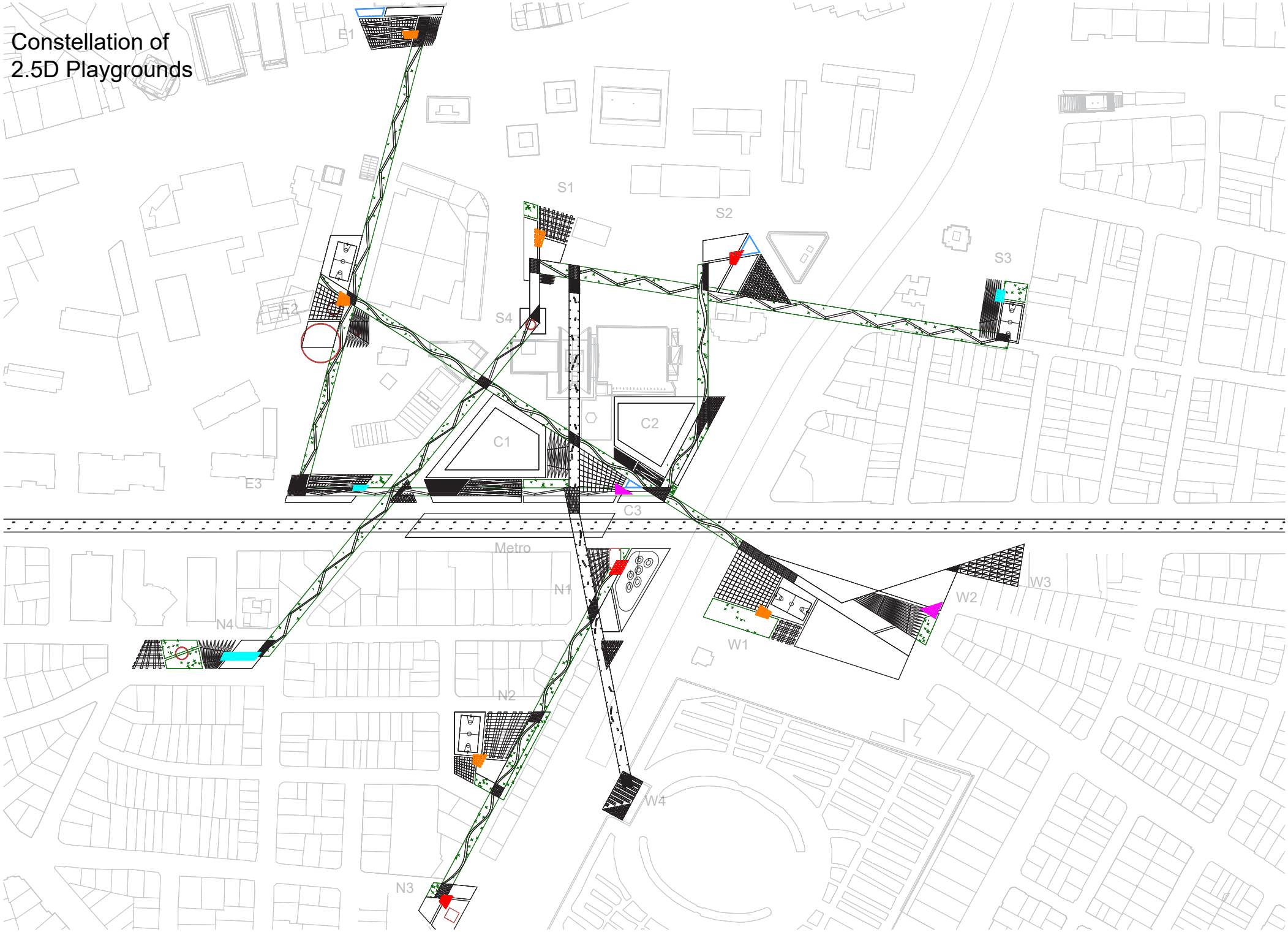


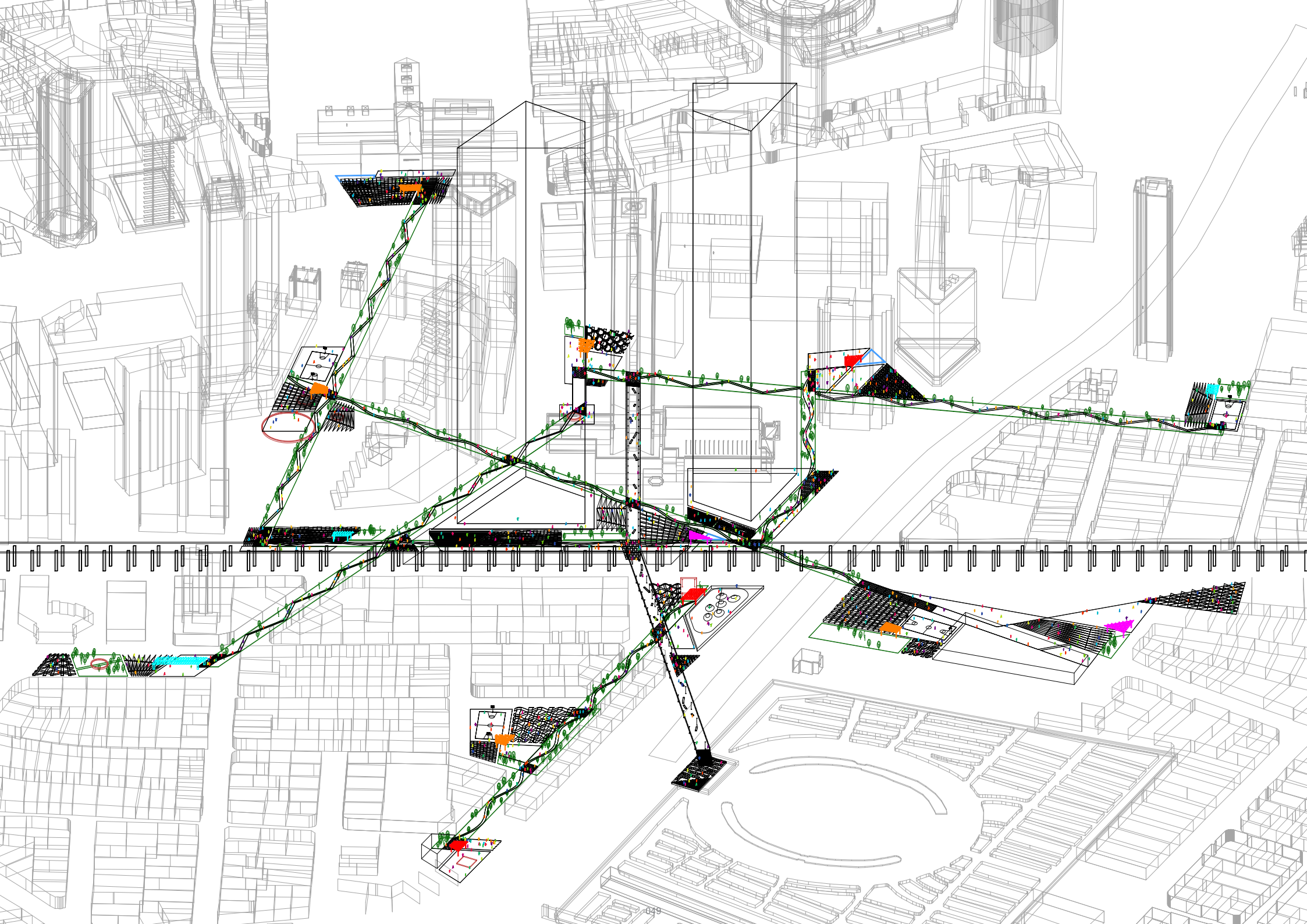
Map Urban Axes | Central Bogota Area

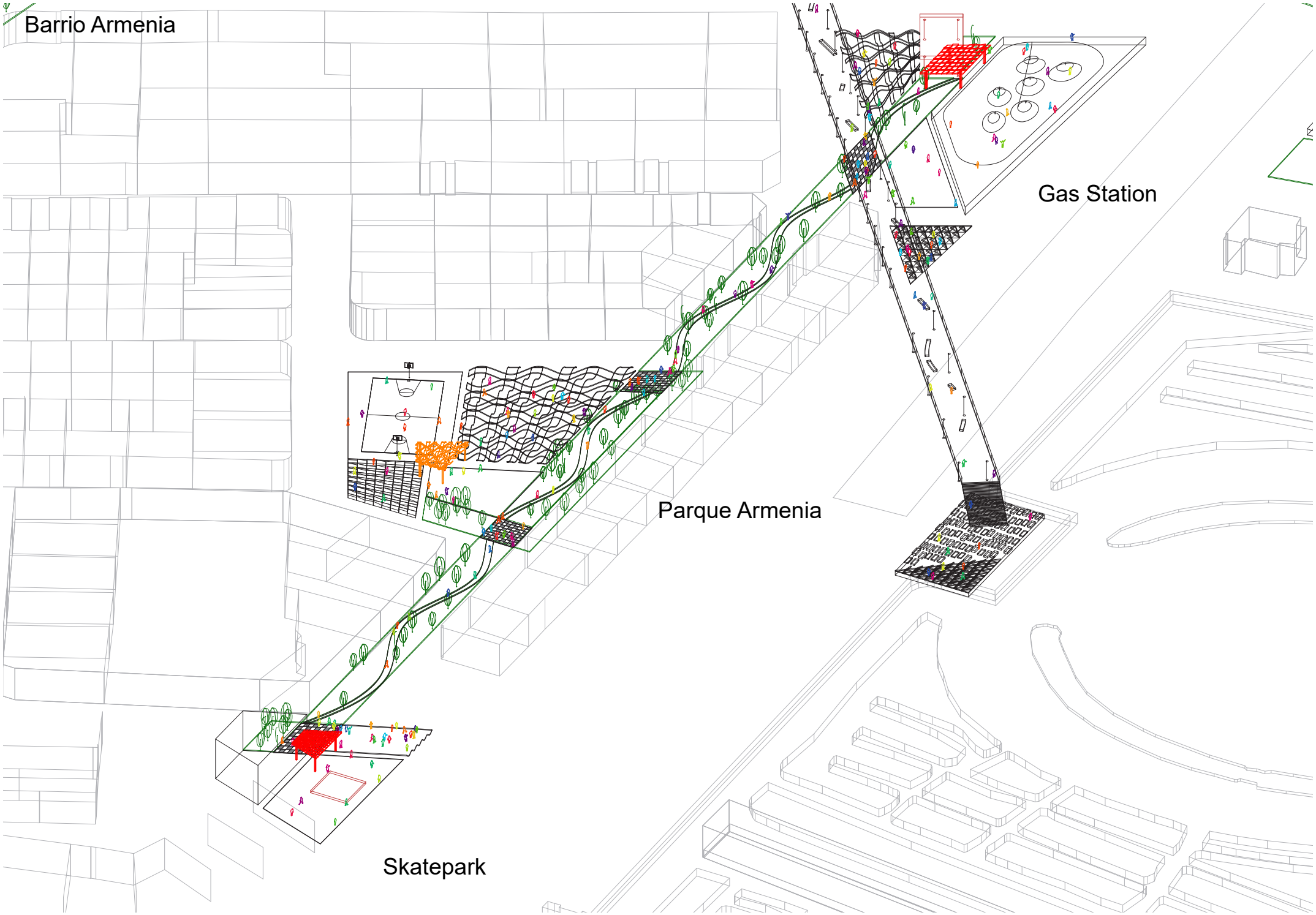
Map Urban Axes | Central Bogota Area

Map Urban Axes | Central Bogota Area

Constellation of
2.5D Playgrounds

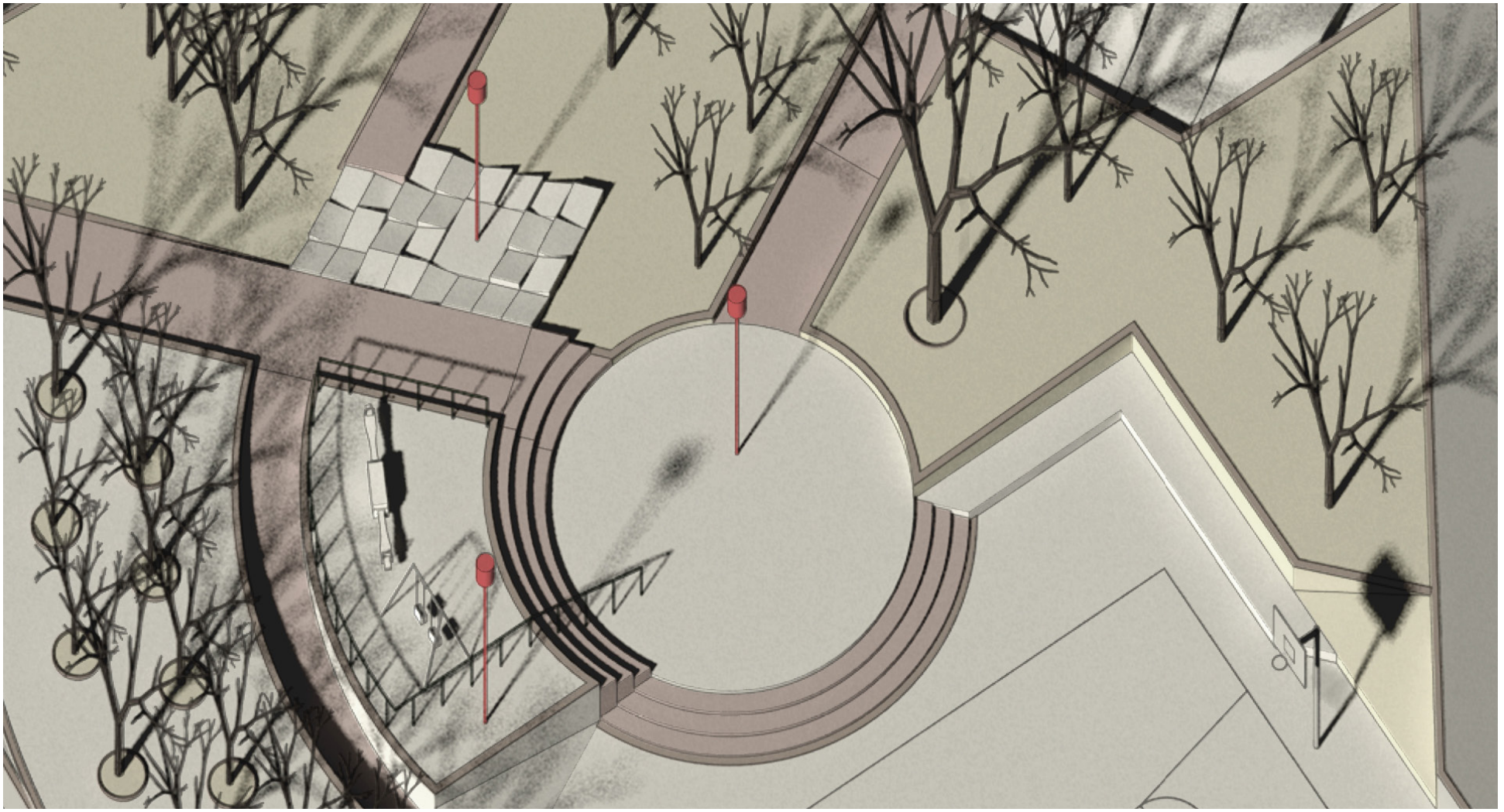





Barrio Armenia
Gas Station
Parque Armenia
Skatepark

Barrio Armenia
Gas Station
Parque Armenia
Skatepark

However, the “constellation” remains on the urban design strategy level.
How do the individual playgrounds look like,
taking the three sites in Barrio Armenia as examples?

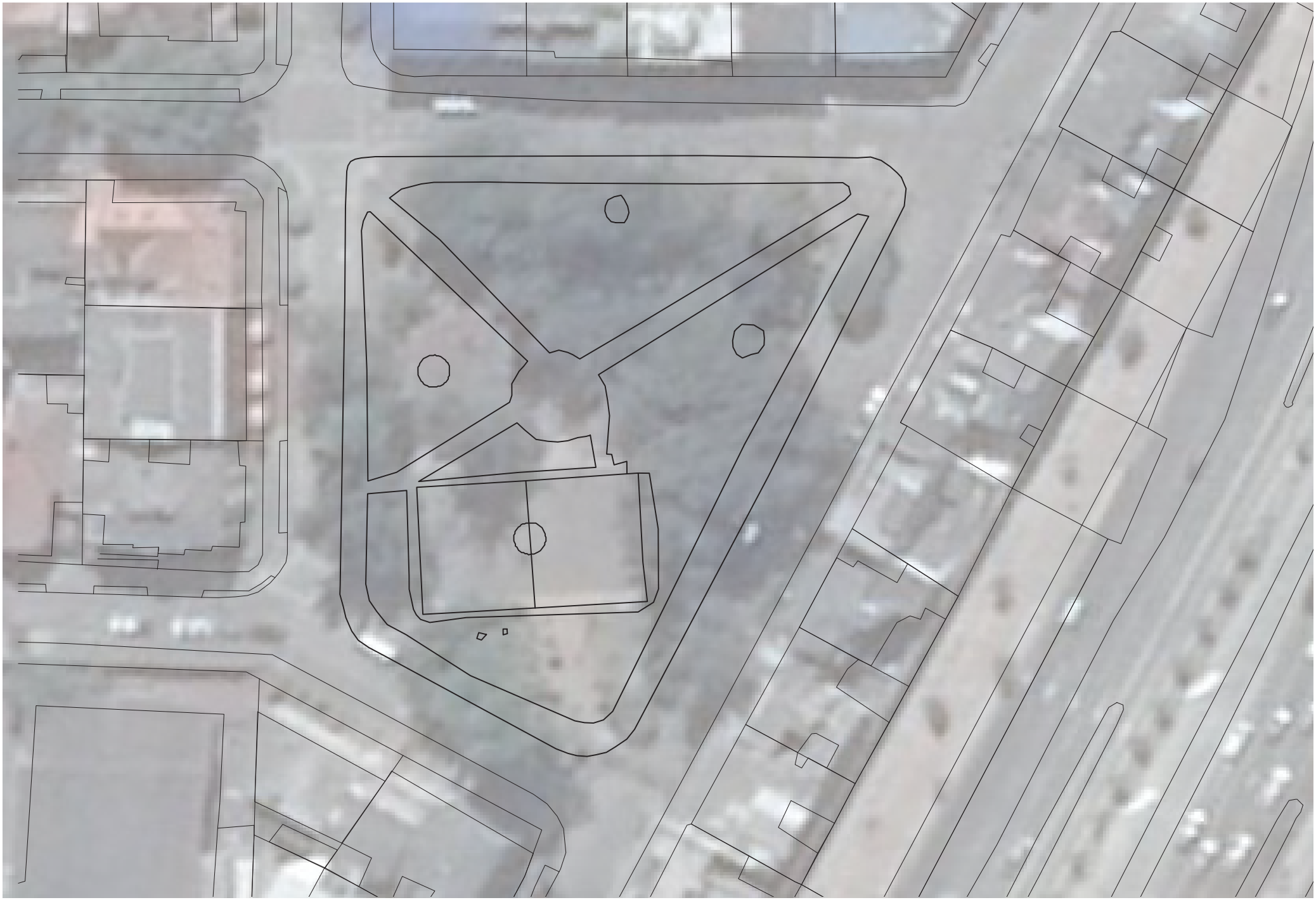


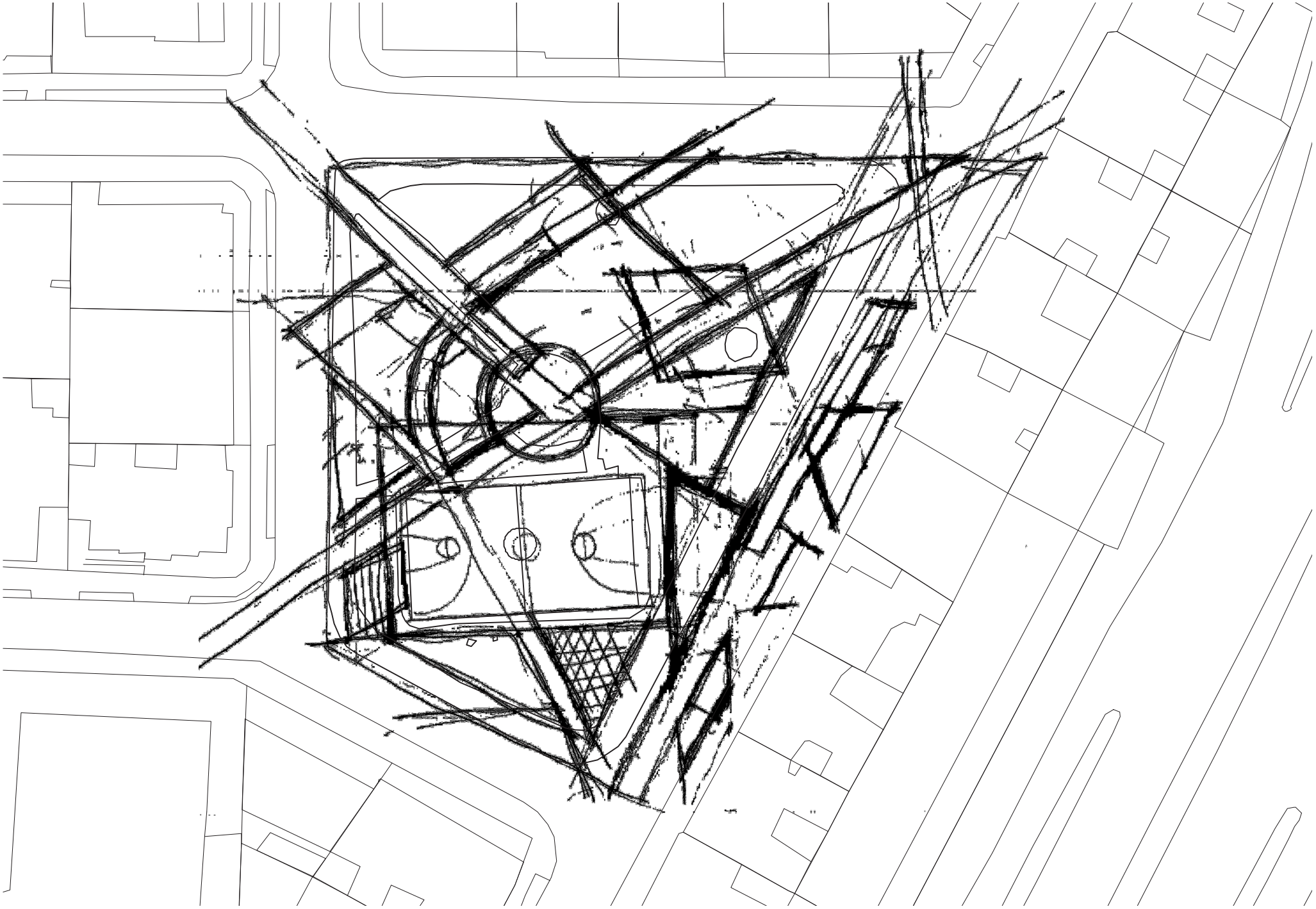
Form | 2.5D Composition

Existing Situation
Extract Elements
2D Composition
2.5D Composition
Material Composition
Add-on Playful Surfaces

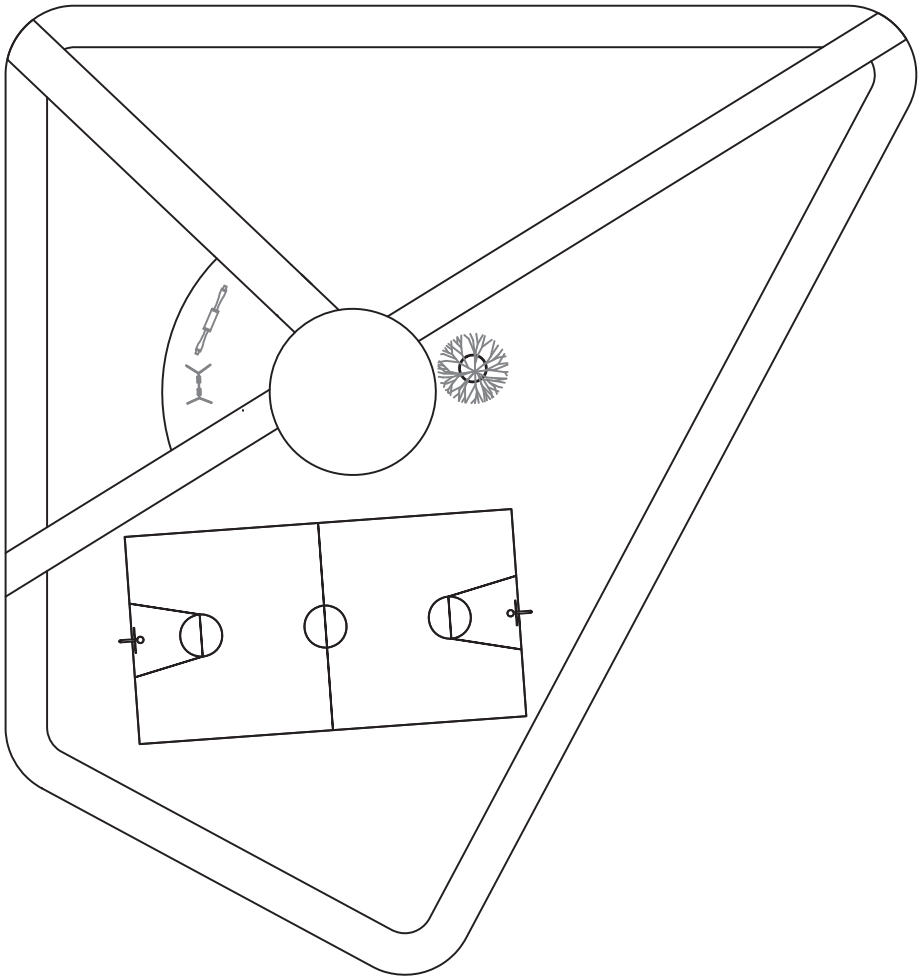
Parque Armenia

Parque Armenia | Existing Situation

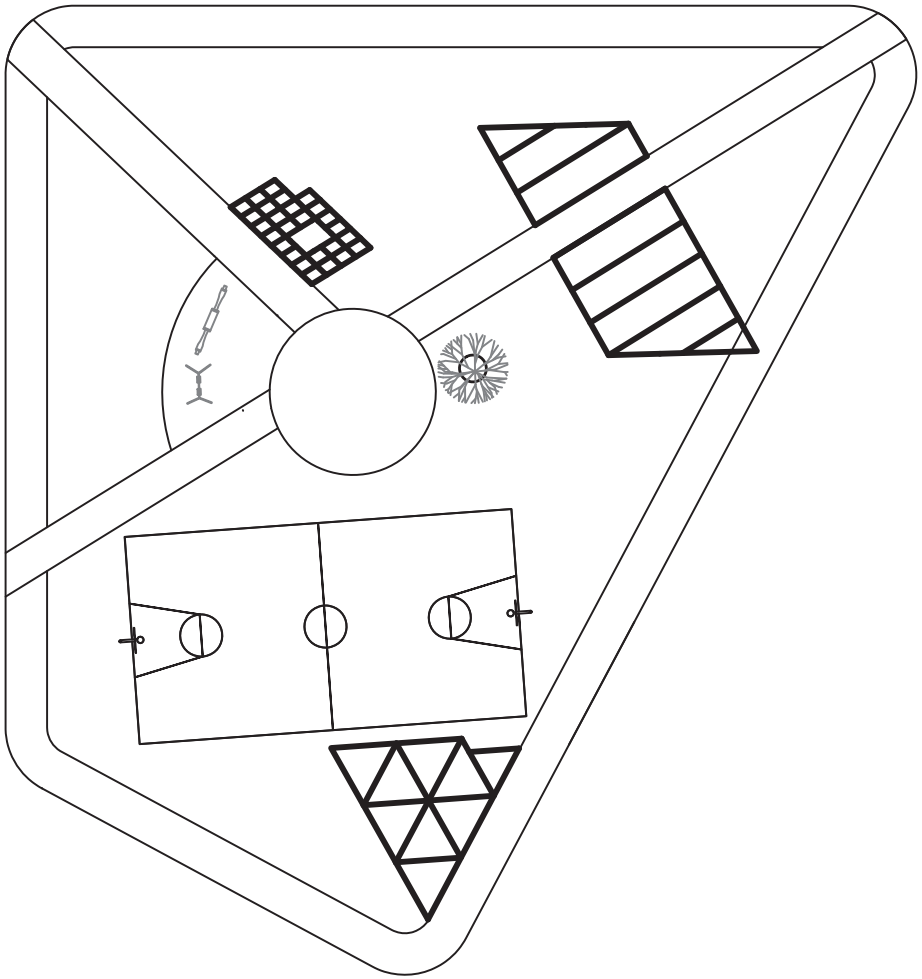




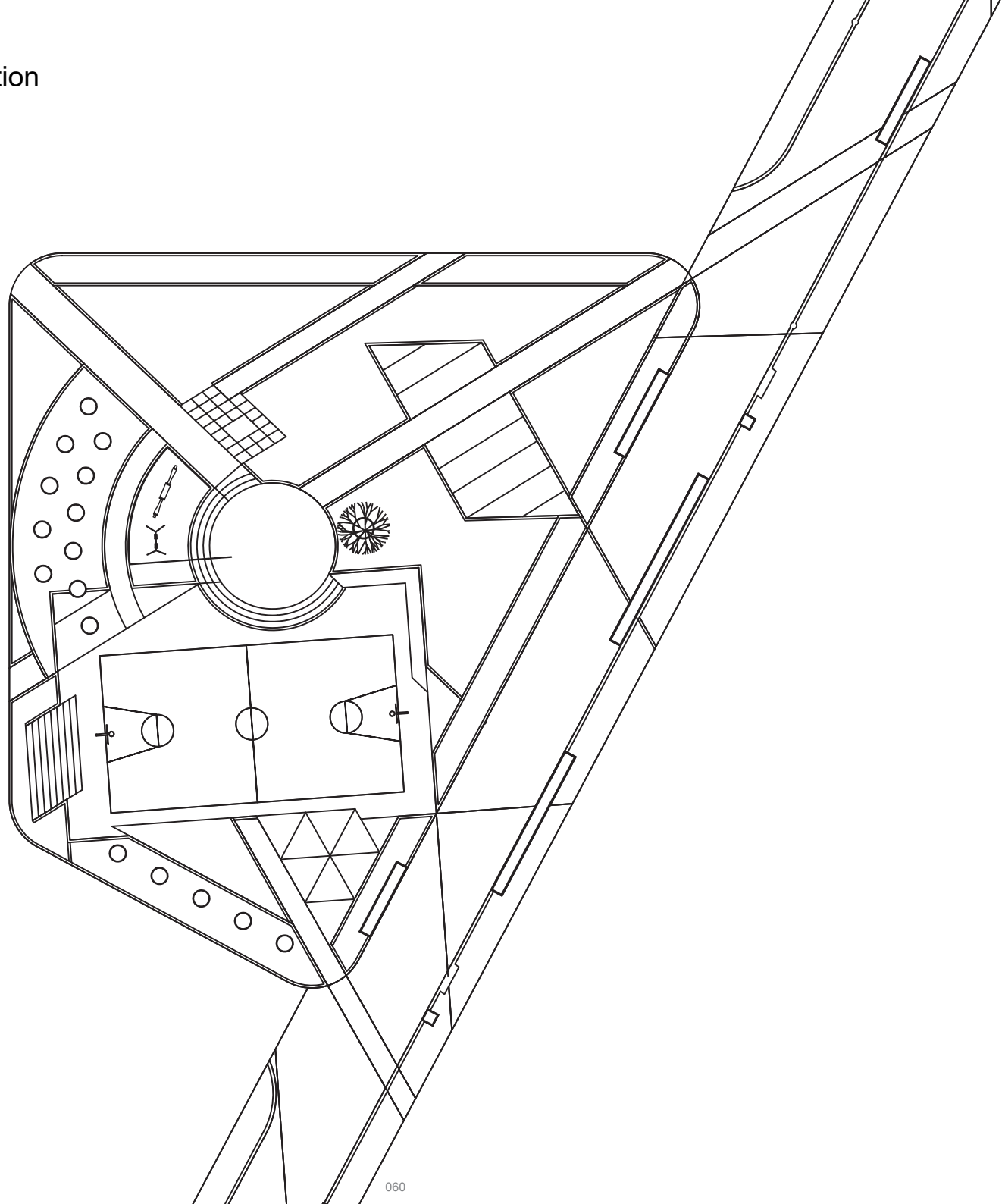
Parque Armenia | Extract Elements



Parque Armenia | Add-on Playful Surfaces

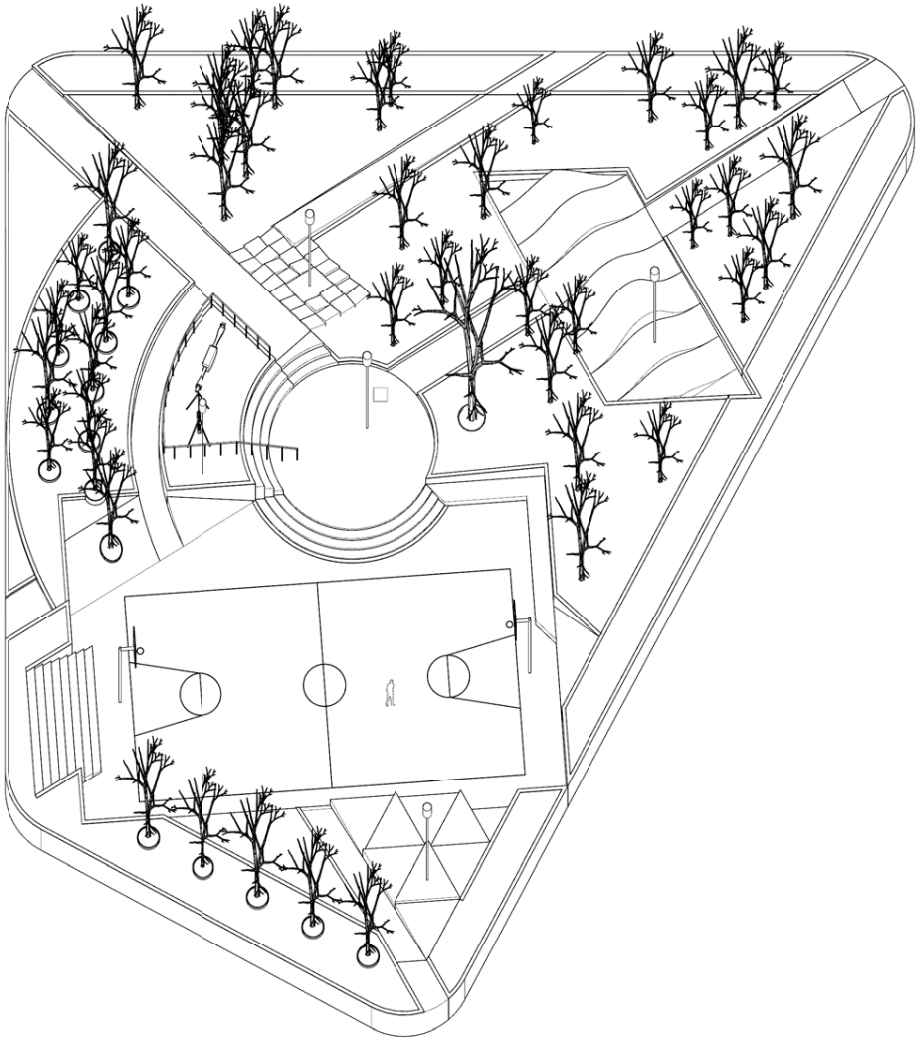


Parque Armenia | 2D Composition

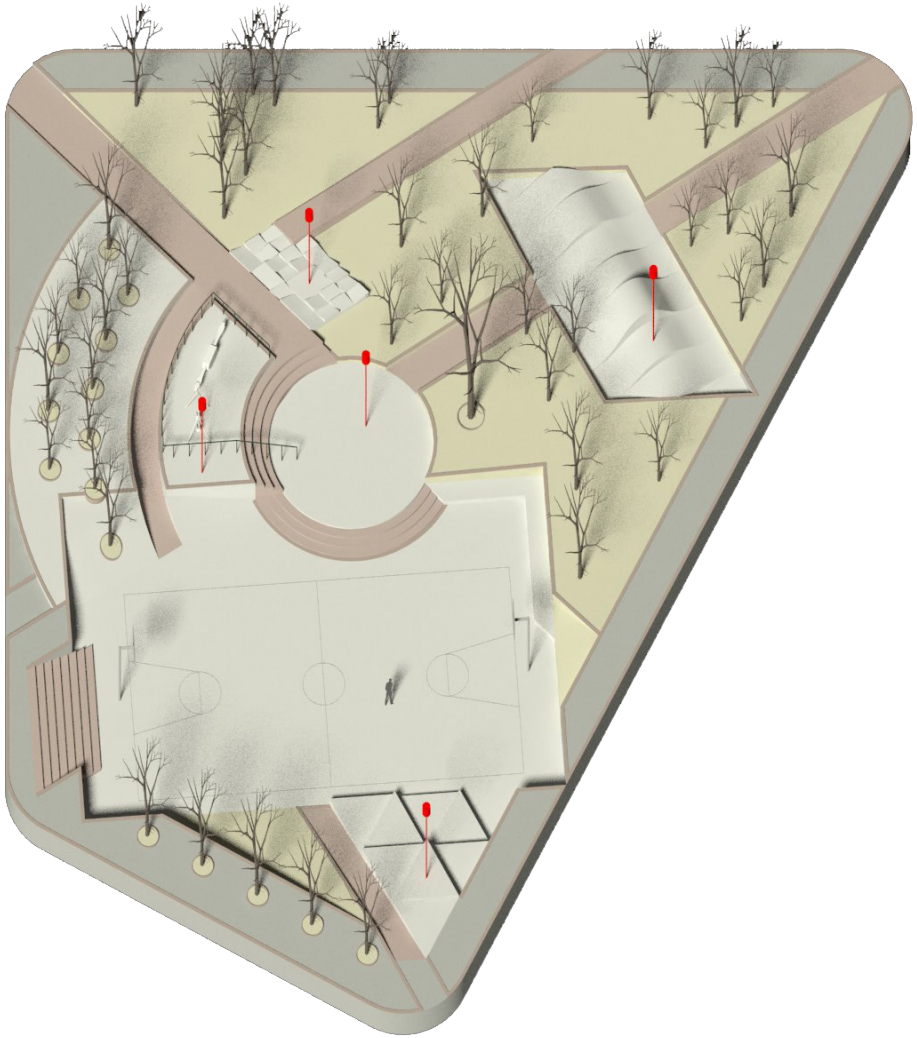


Parque Armenia | 2.5D Composition

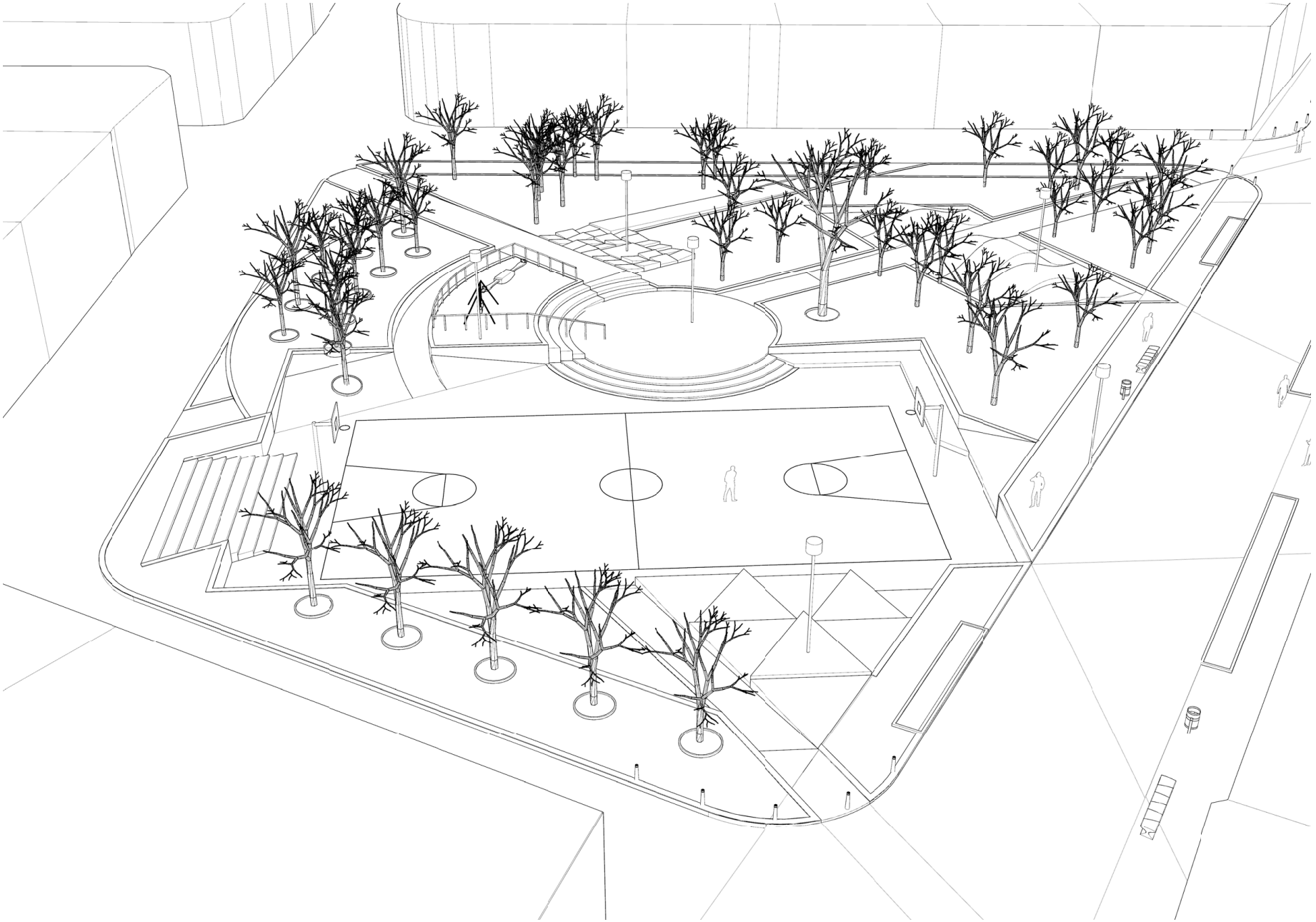
Parque Armenia | 2.5D Composition



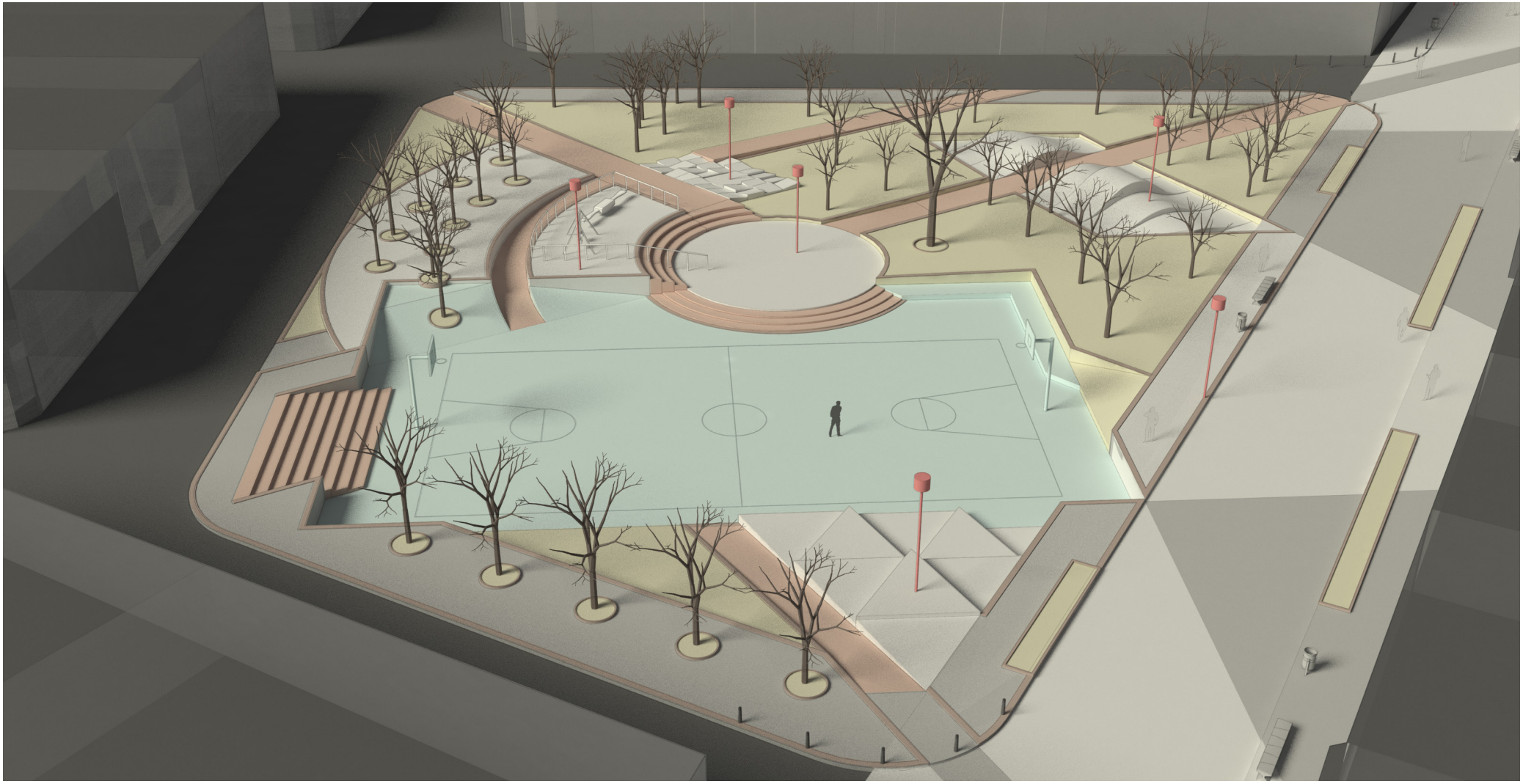
Parque Armenia | Material Composition



Parque Armenia | 2.5D Composition

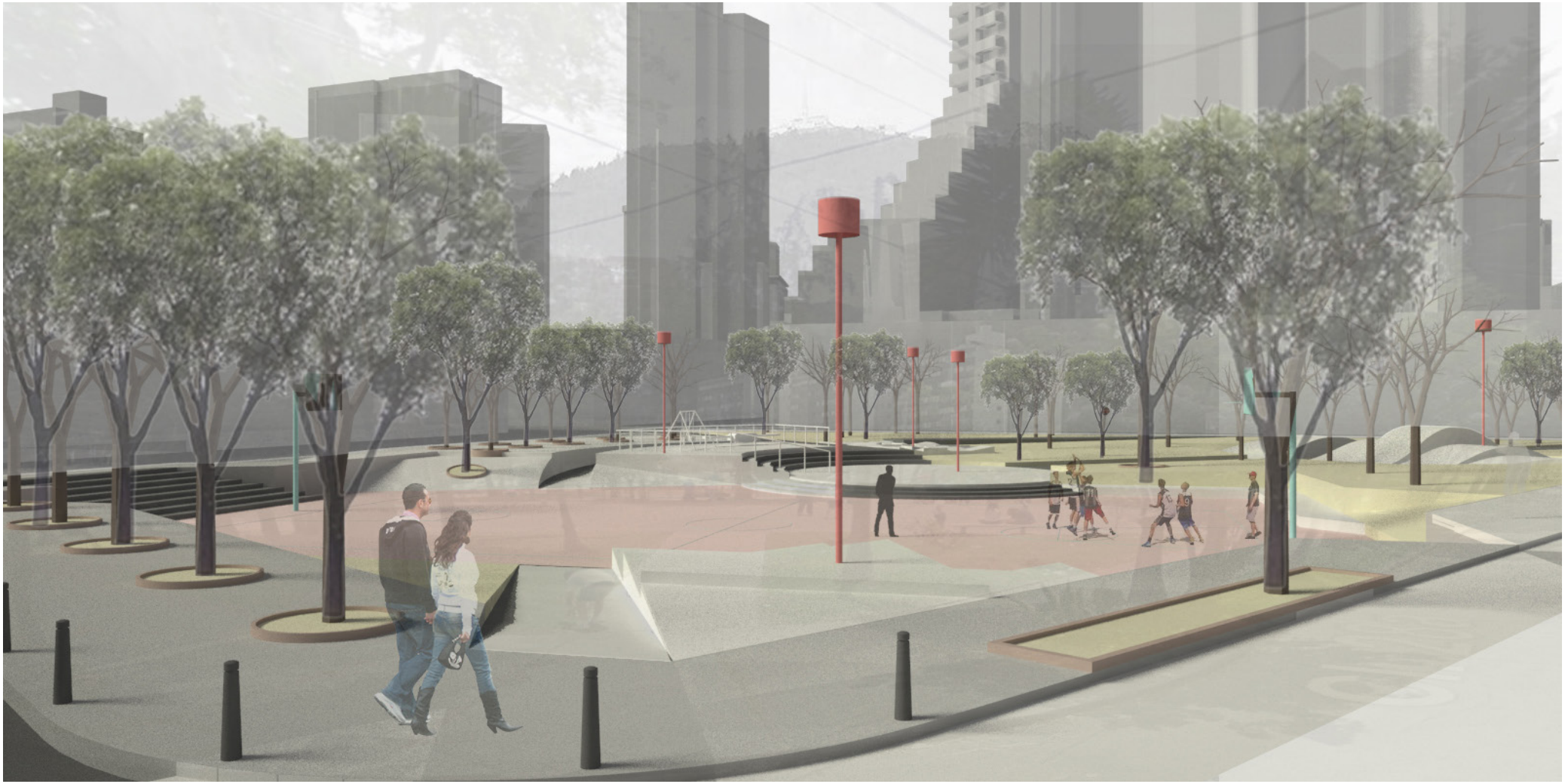


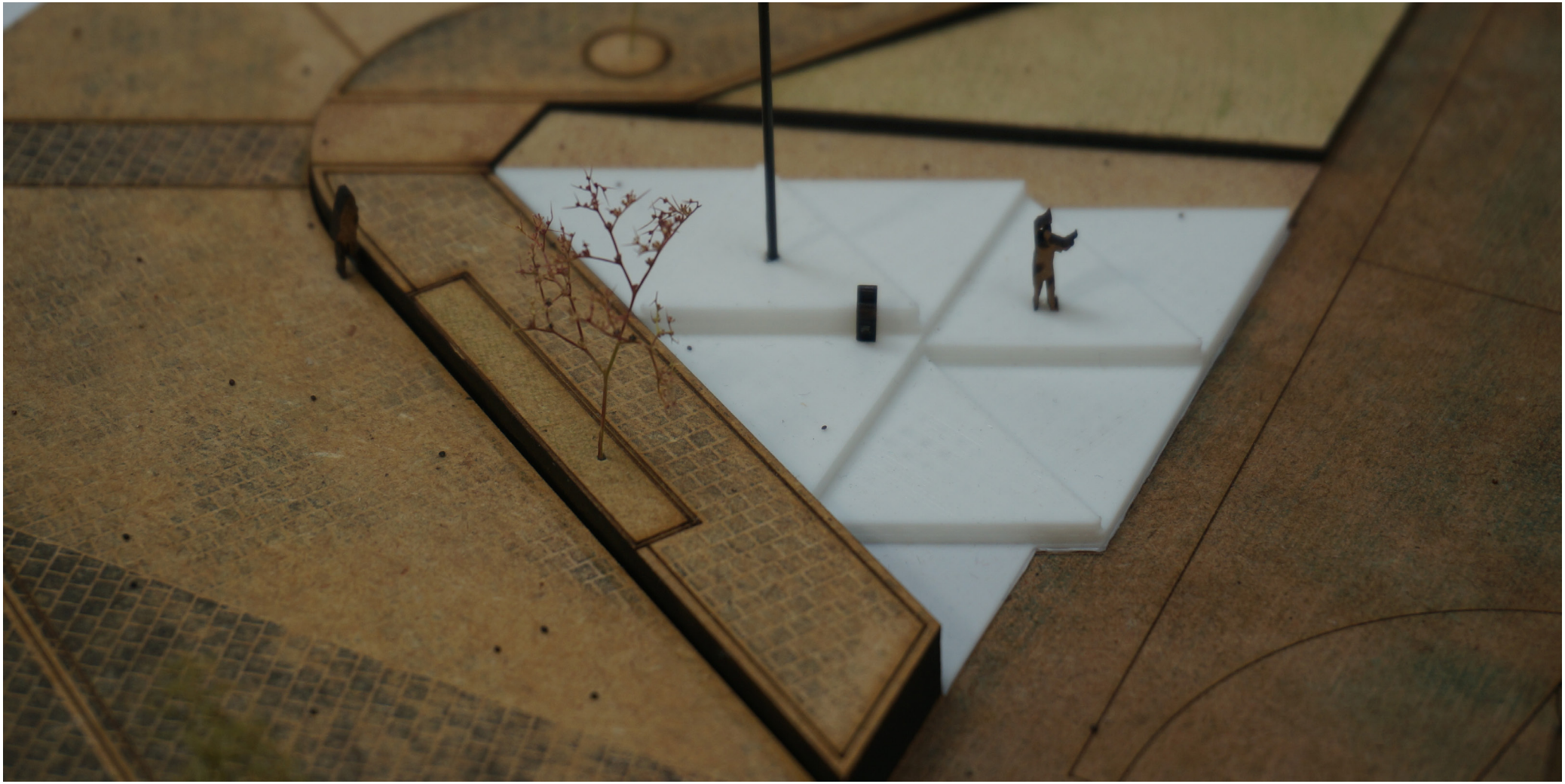
Parque Armenia | Material Composition

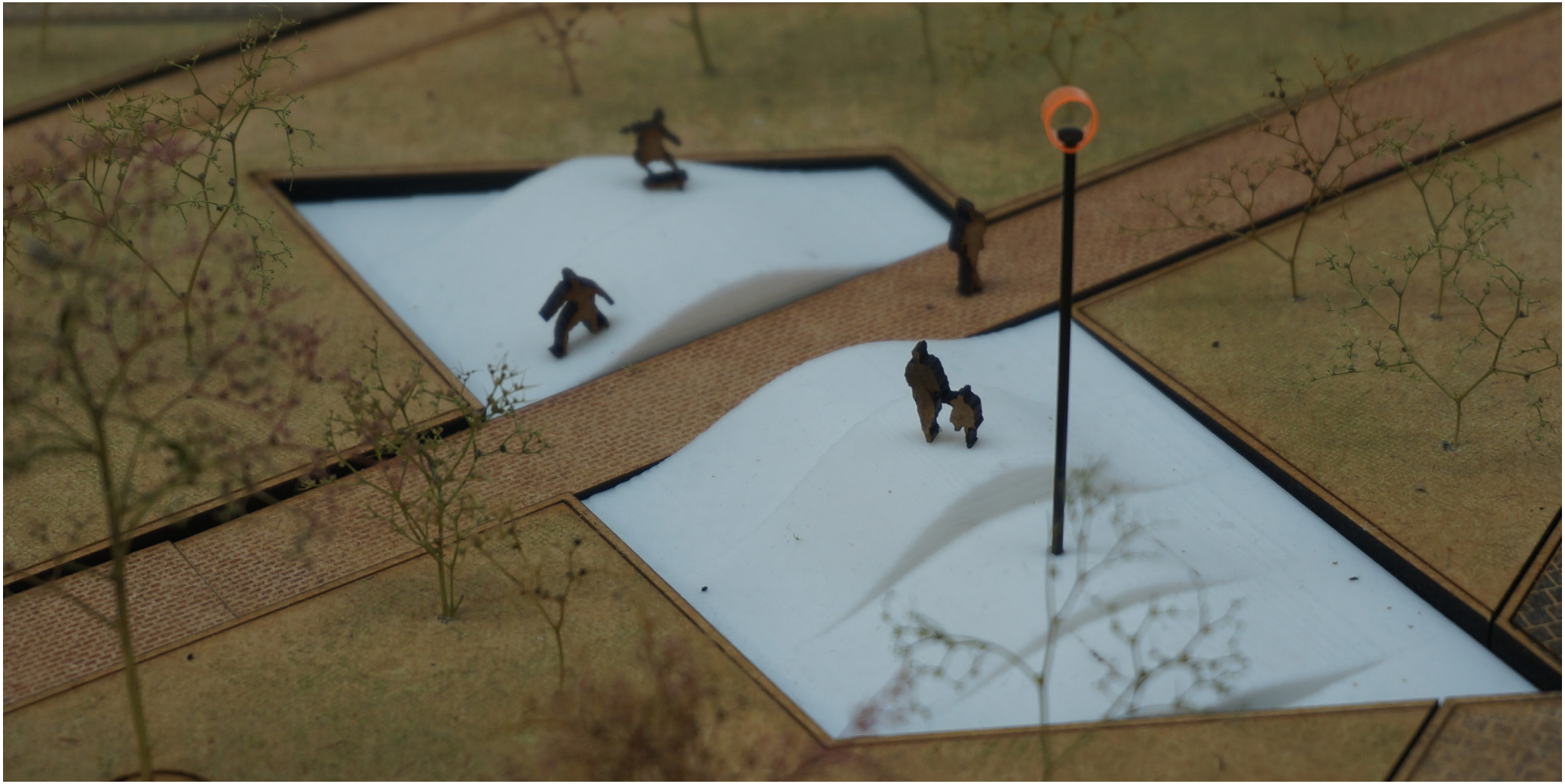


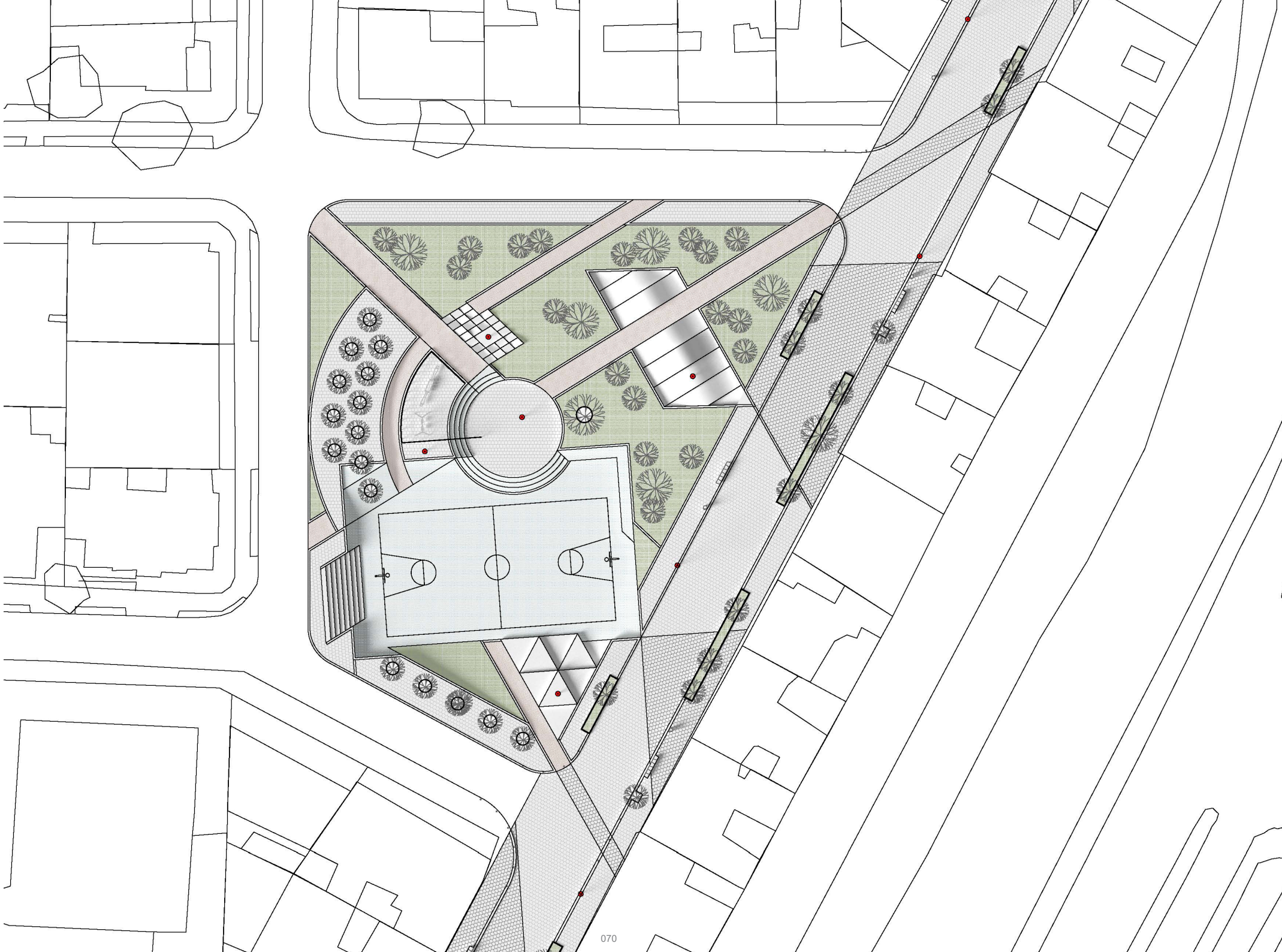
Parque Armenia | Before

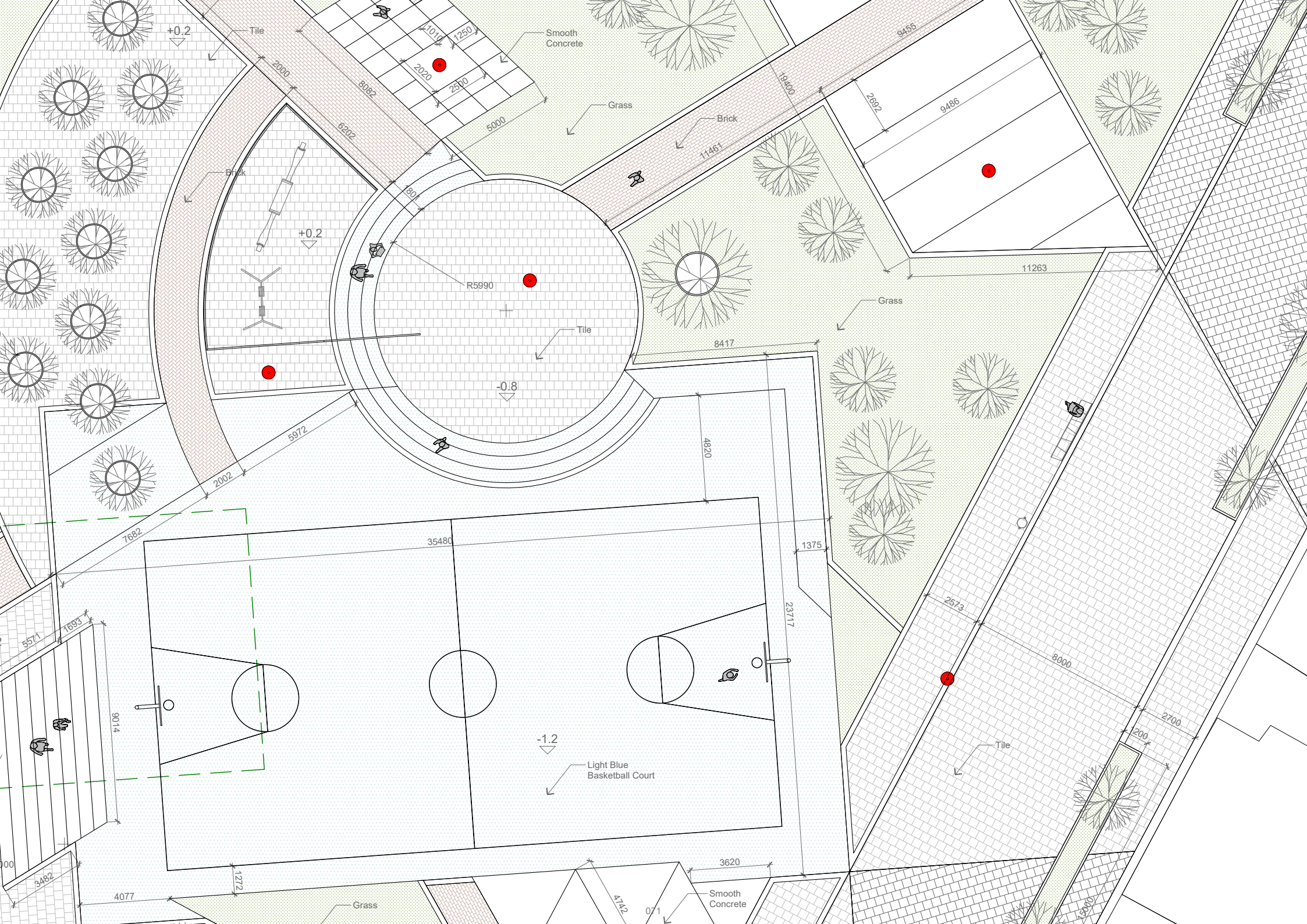
Parque Armenia | After

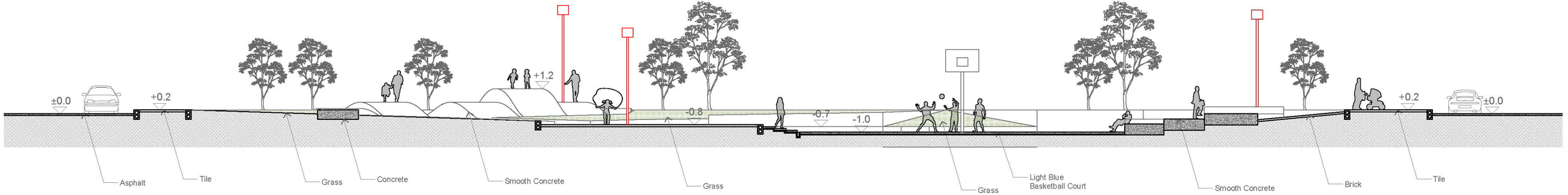




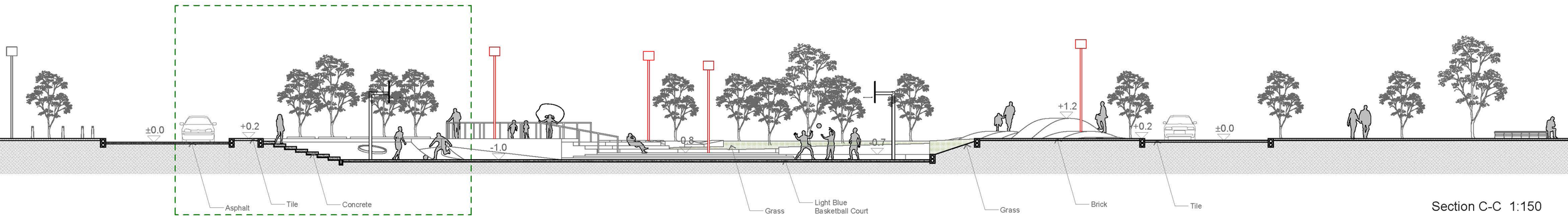




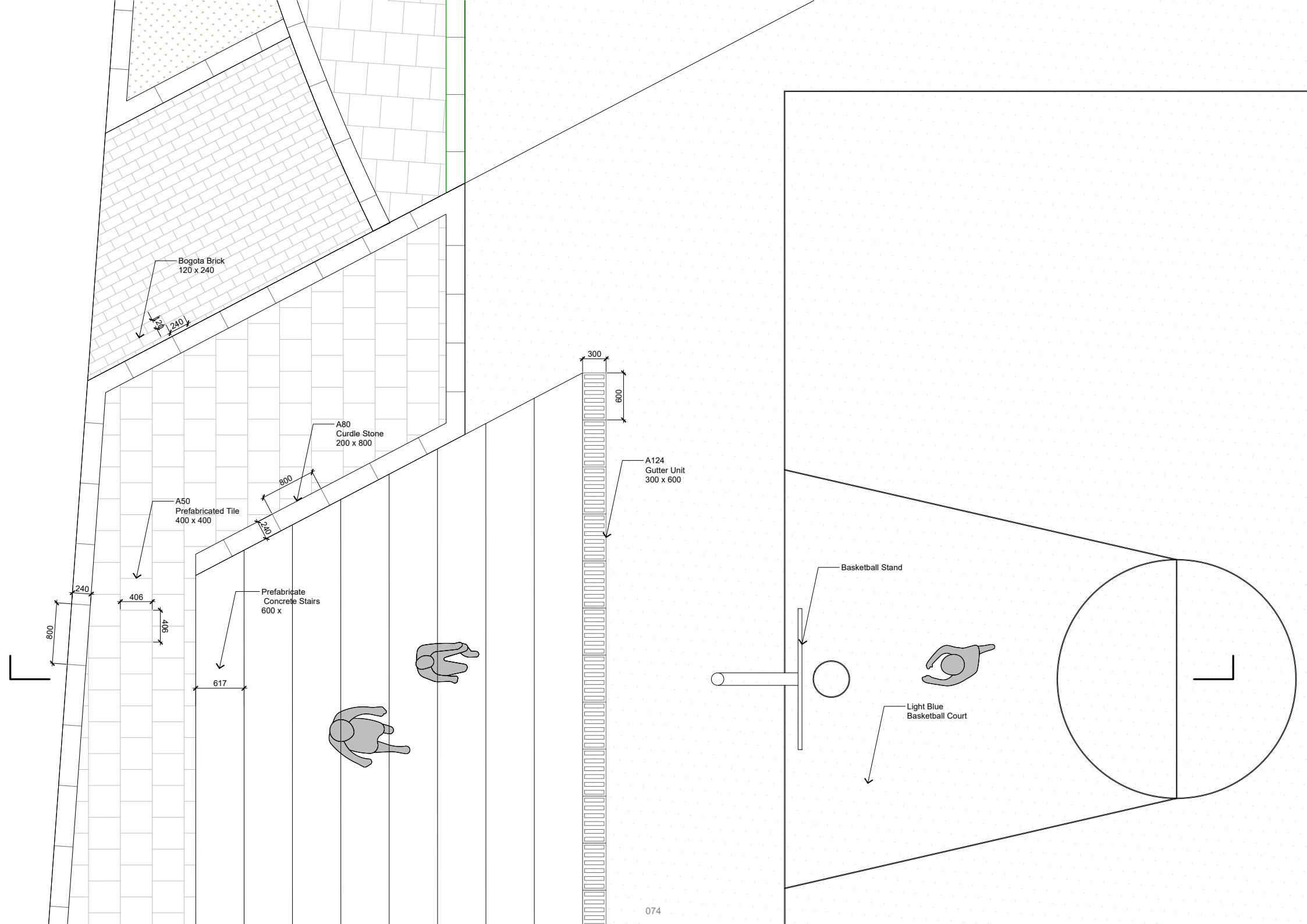

+0.2
Tile
2000
8082
5202
1010
1250
2020
2500
5000
Smooth
Concrete
Grass
Brick
9456
19400
11461
2692
9486
Brick
801
+0.2
R5990
Tile
11263
Grass
8417
-0.8
5972
2002
4820
7682
35480
1375
23717
2573
8000
2700
200
Tile
5571
1693
9014
-1.2
Light Blue
Basketball Court
3482
4077
1272
3620
4742
071
Grass
Smooth
Concrete

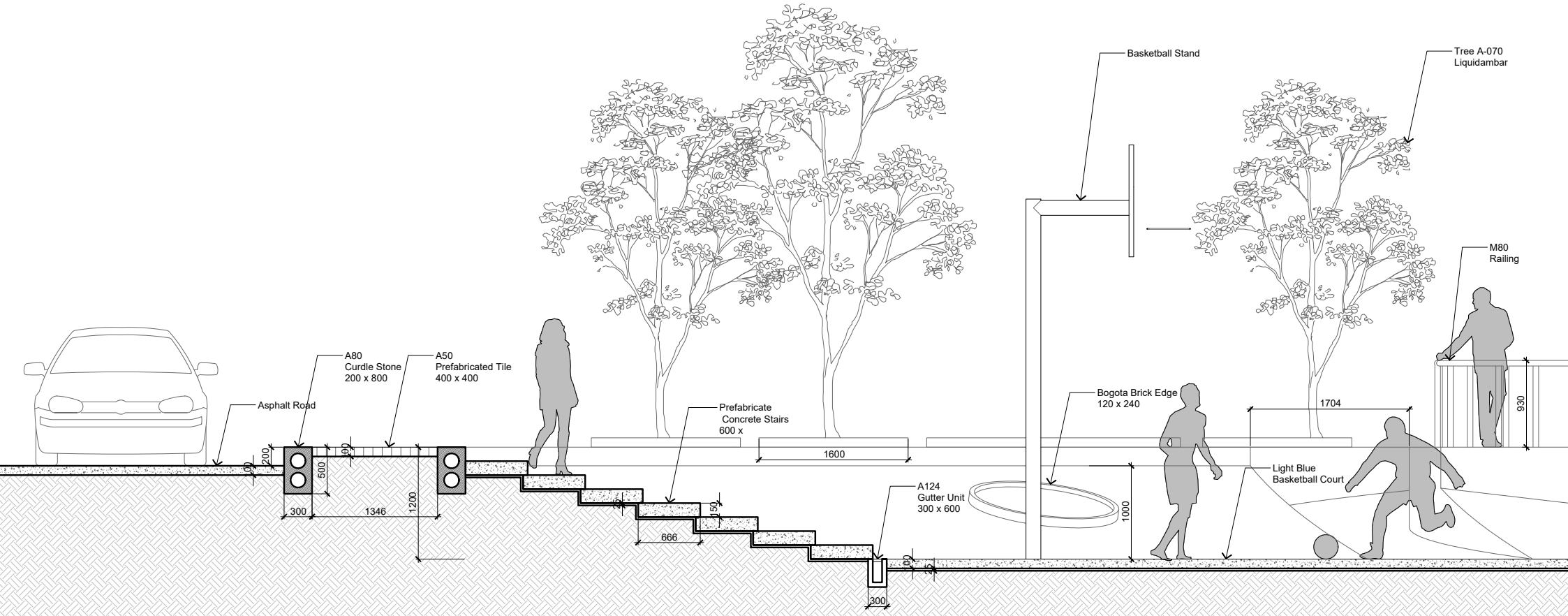


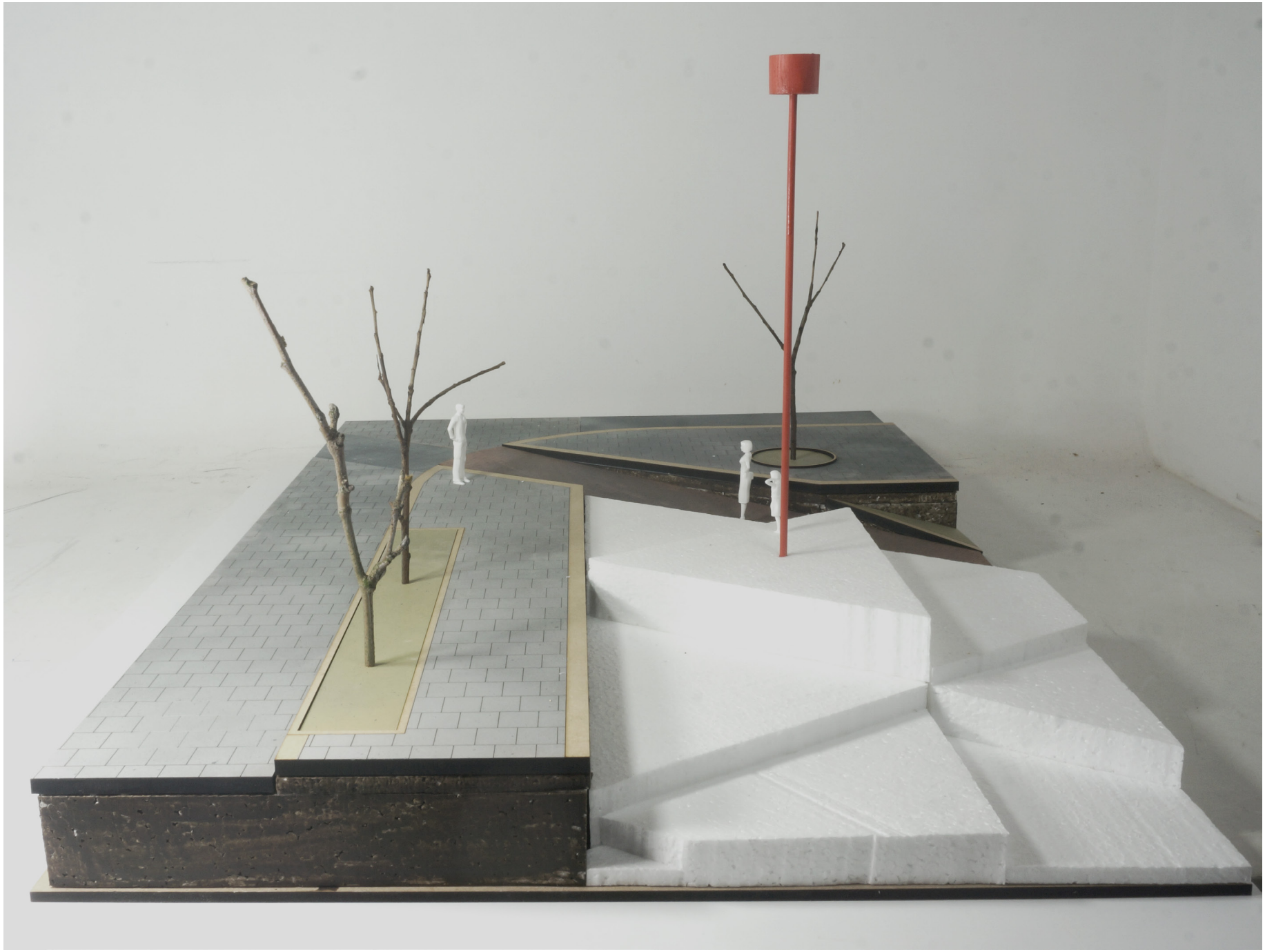
Section D-D 1:150



Section C-C 1:150

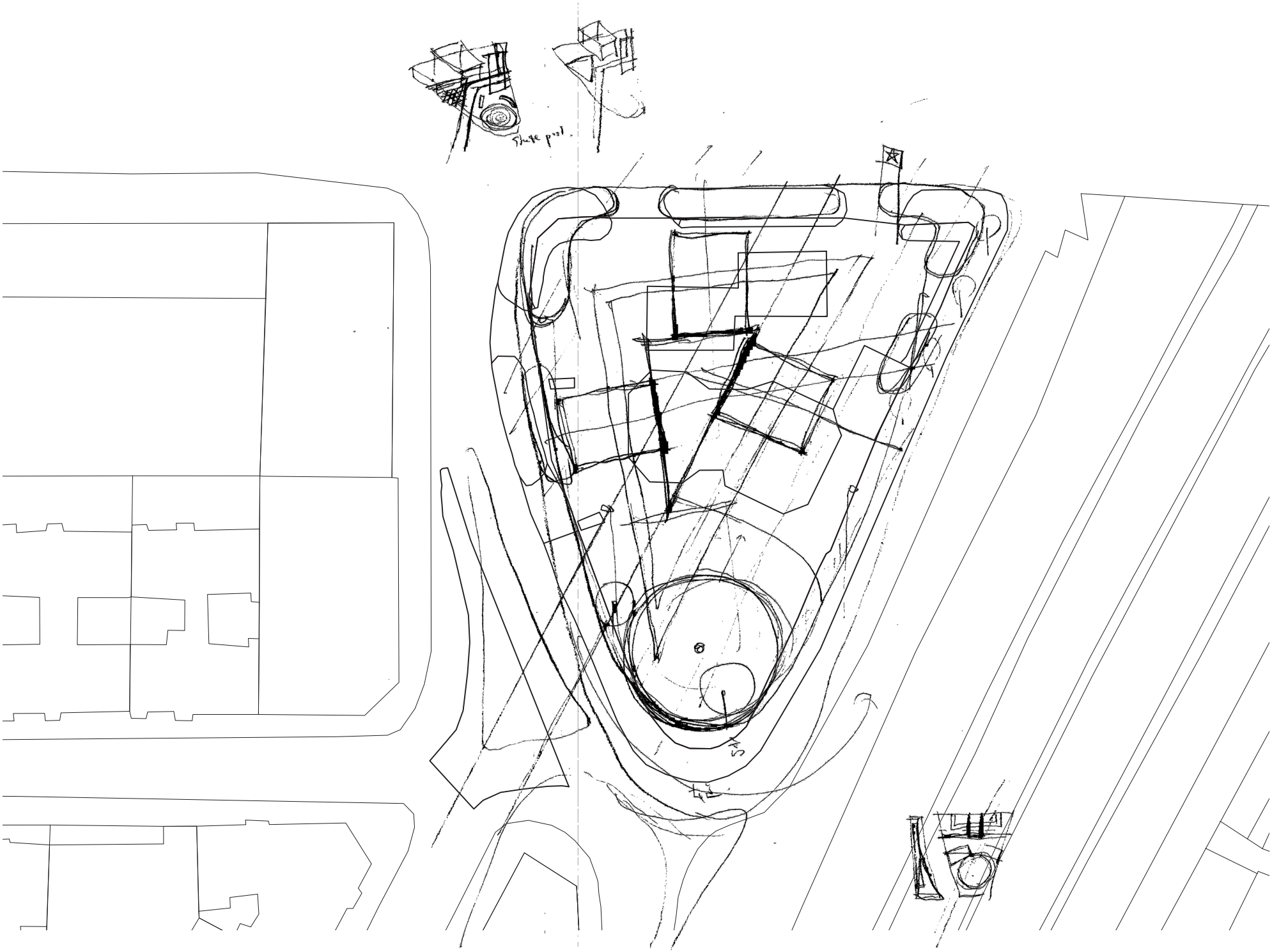

Bogota Brick
120 x 240
120
240
300
600
A80
Curdle Stone
200 x 800
800
240
A124
Gutter Unit
300 x 600
A50
Prefabricated Tile
400 x 400
240
406
406
800
Prefabricate
Concrete Stairs
600 x
617
Basketball Stand
Light Blue
Basketball Court


Basketball Stand
Tree A-070
Liquidambar
M80
Railing
A80
Curdle Stone
200 x 800
A50
Prefabricated Tile
400 x 400
Asphalt Road
Prefabricate
Concrete Stairs
600 x
Bogota Brick Edge
120 x 240
A124
Gutter Unit
300 x 600
Light Blue
Basketball Court
1600
1704
930
1000
666
300
1346
1200
500
200
100
150

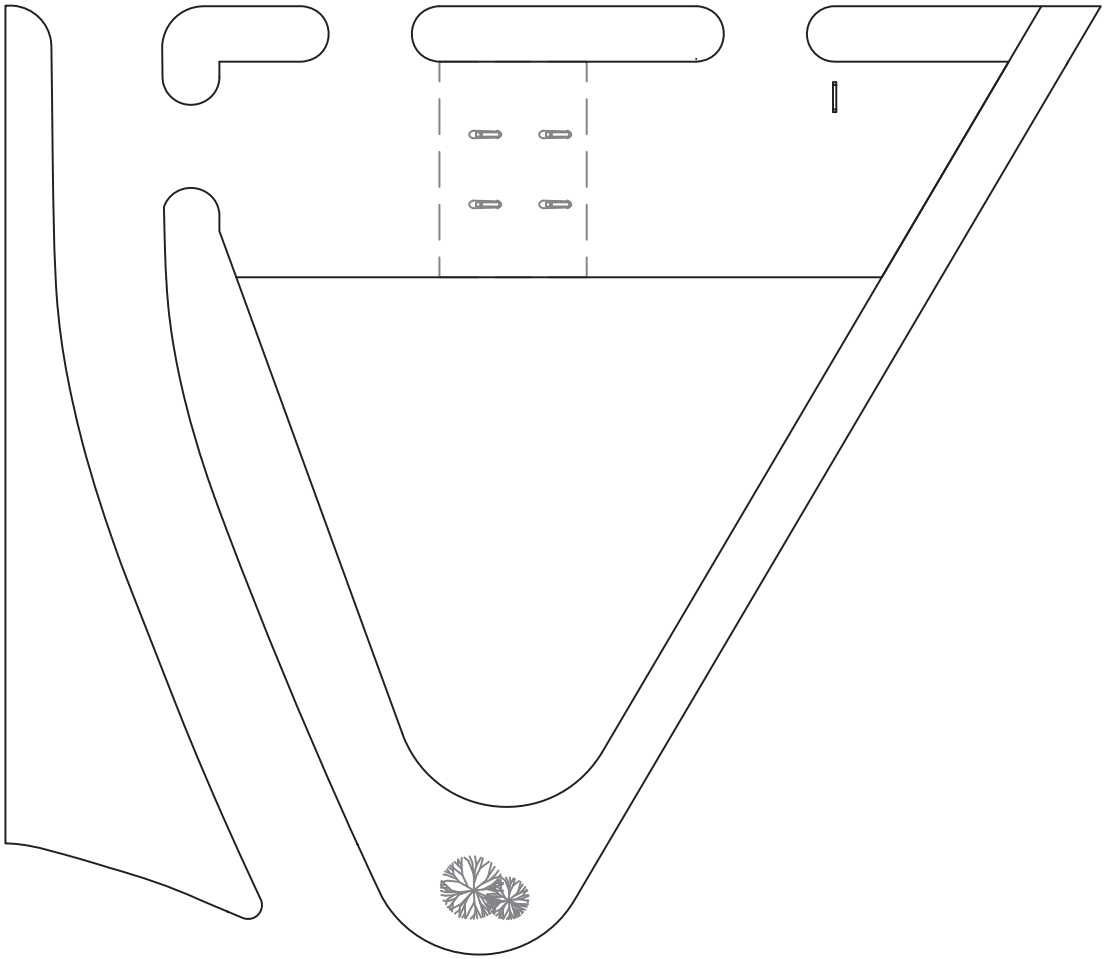


Gas Station

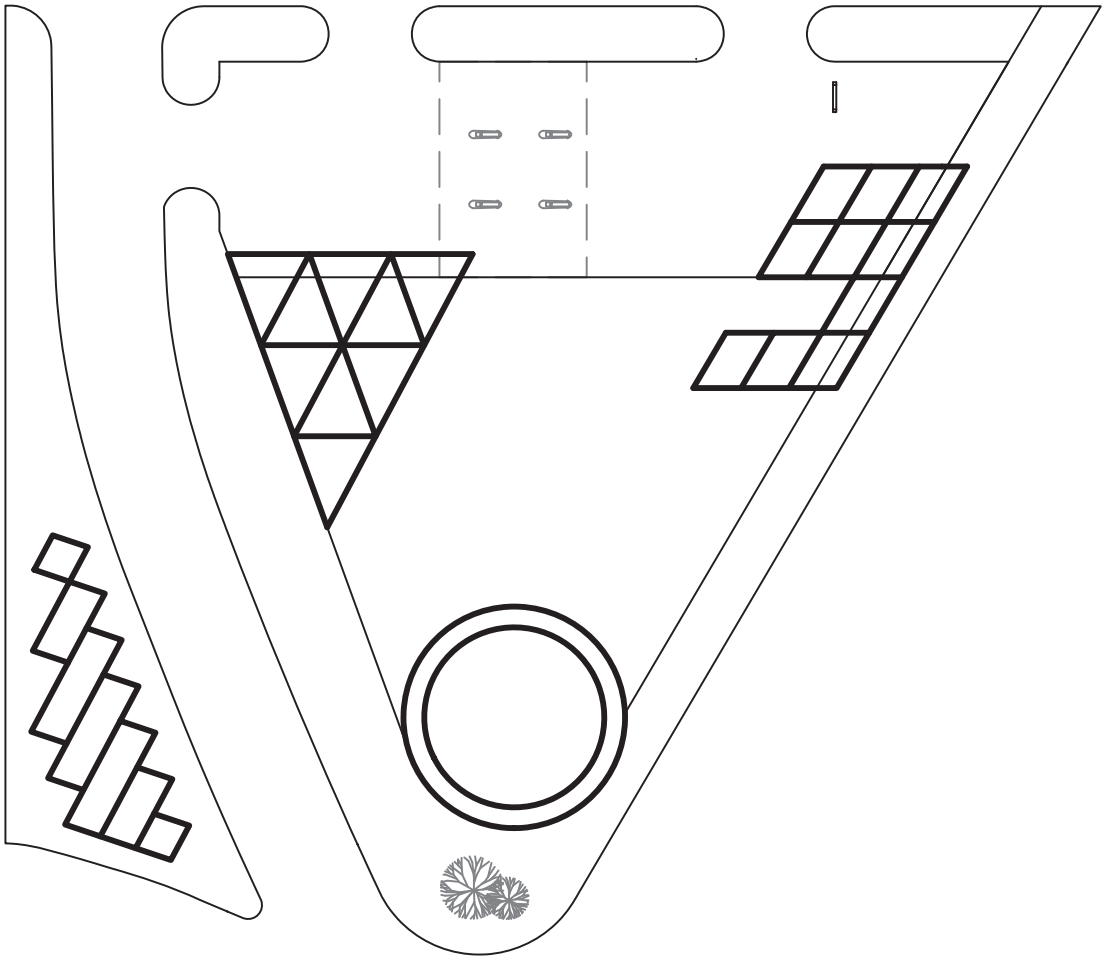
Gas Station | Existing Situation


Skate park

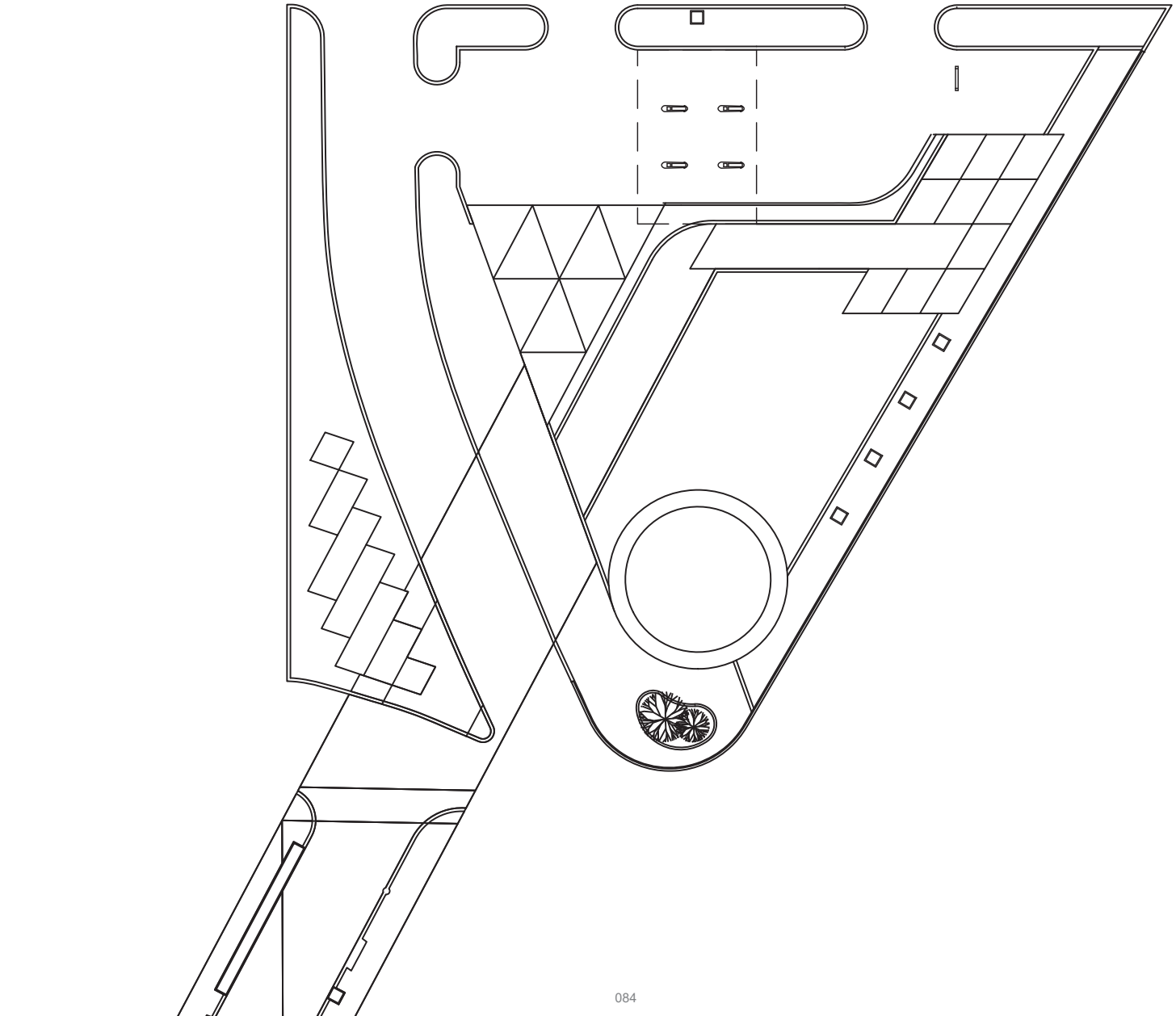
Gas Station | Extract Elements



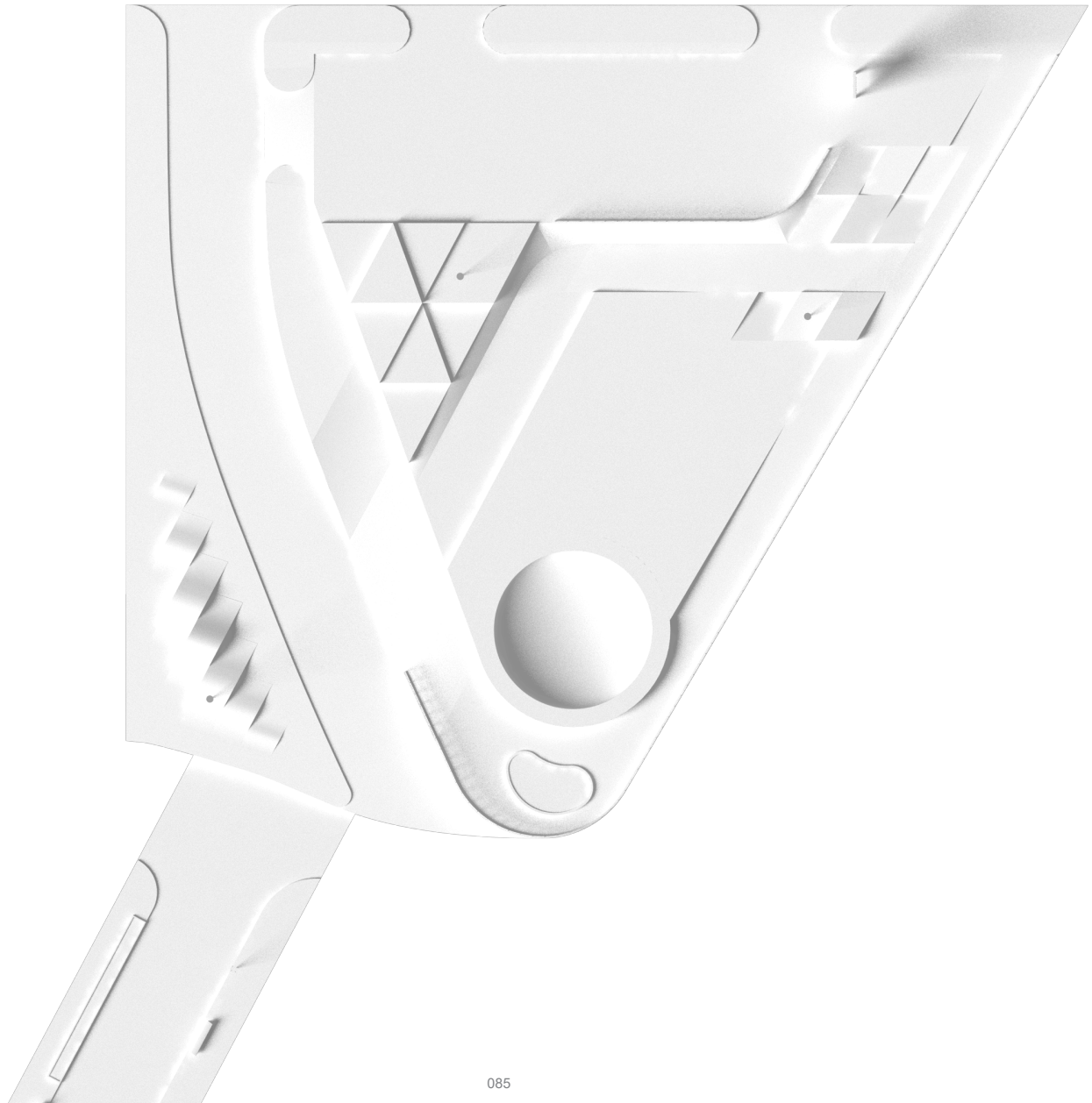
Gas Station | Add-on Playful Surfaces



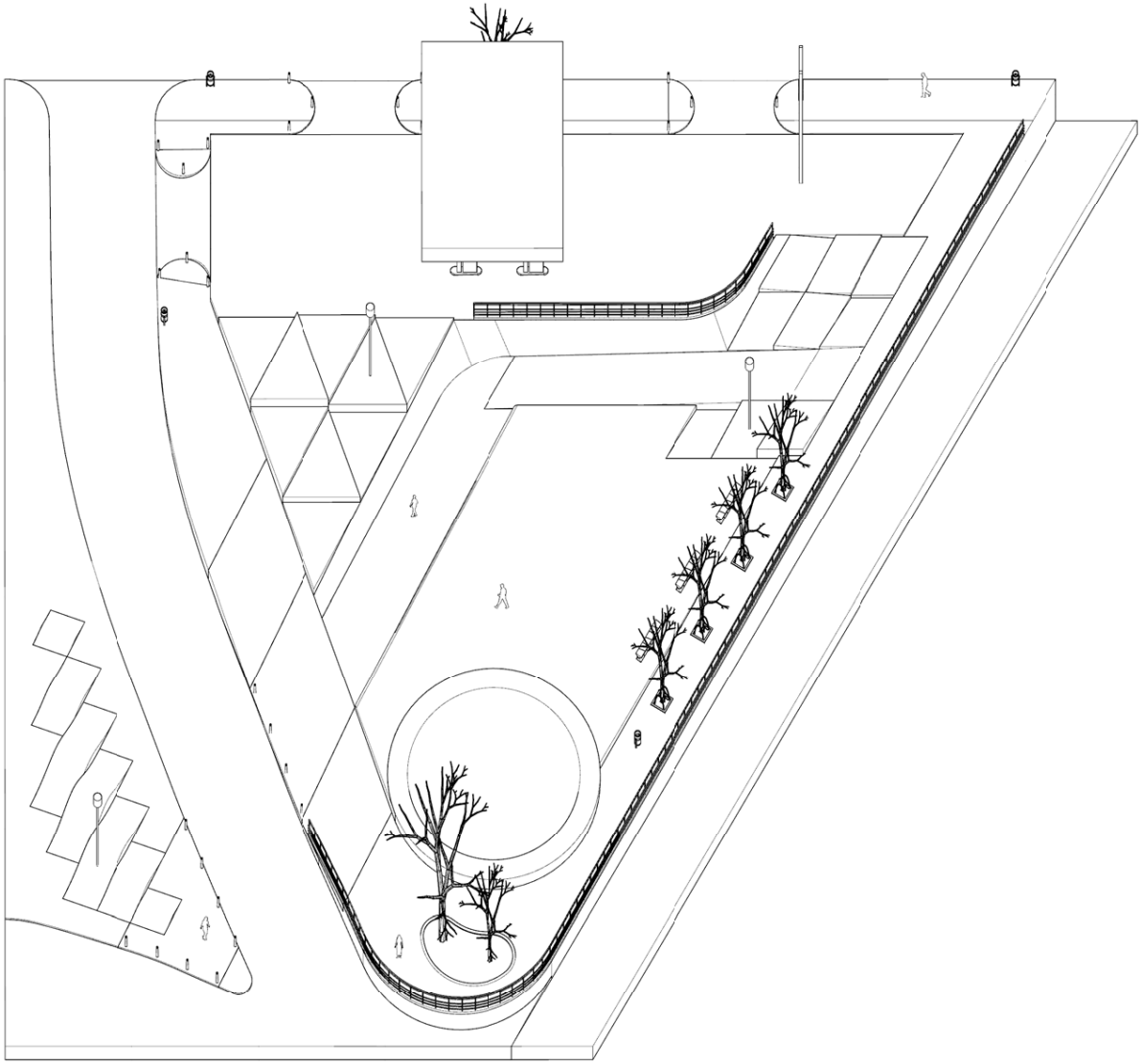
Gas Station | 2D Composition



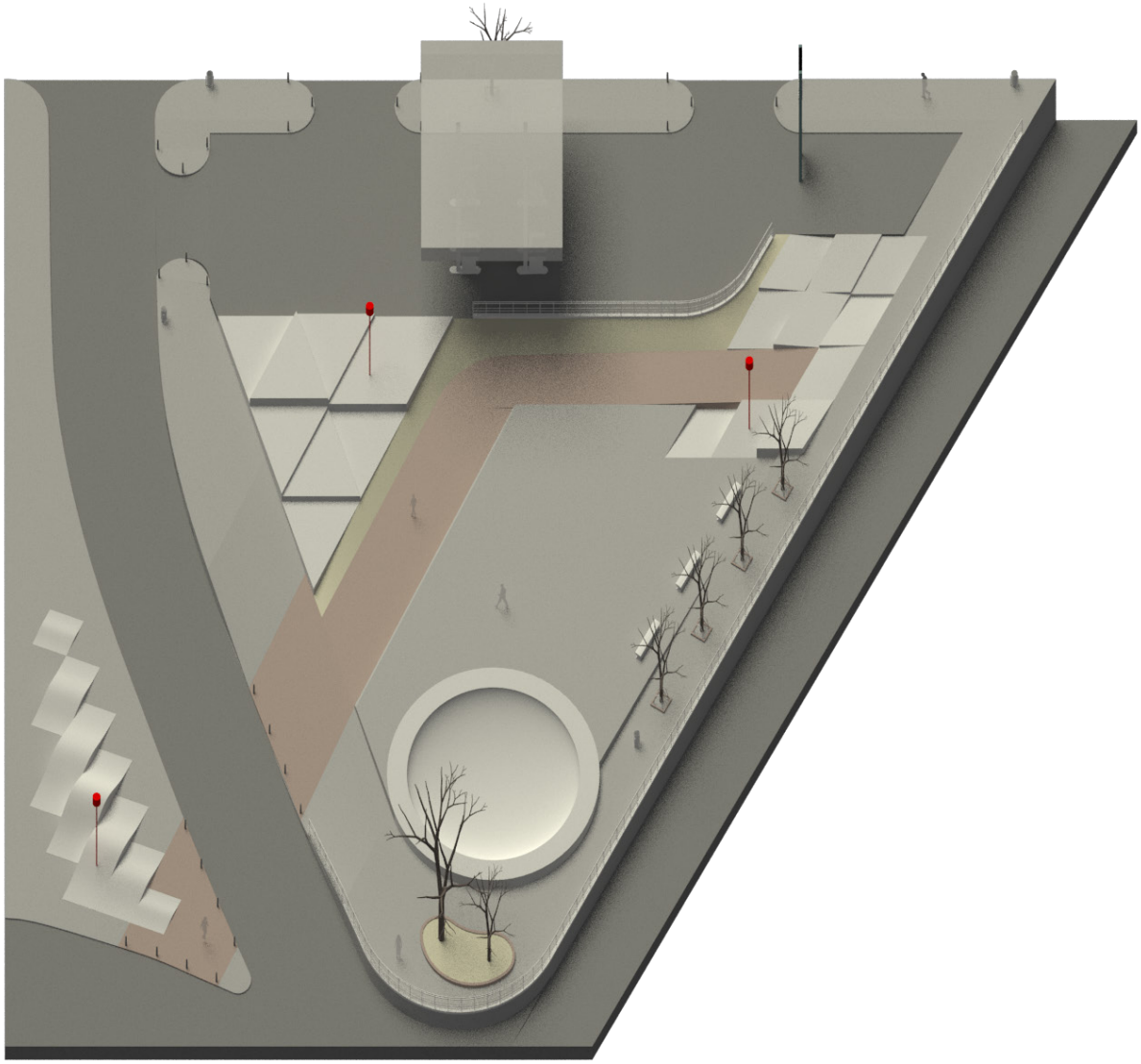
Gas Station | 2.5D Composition



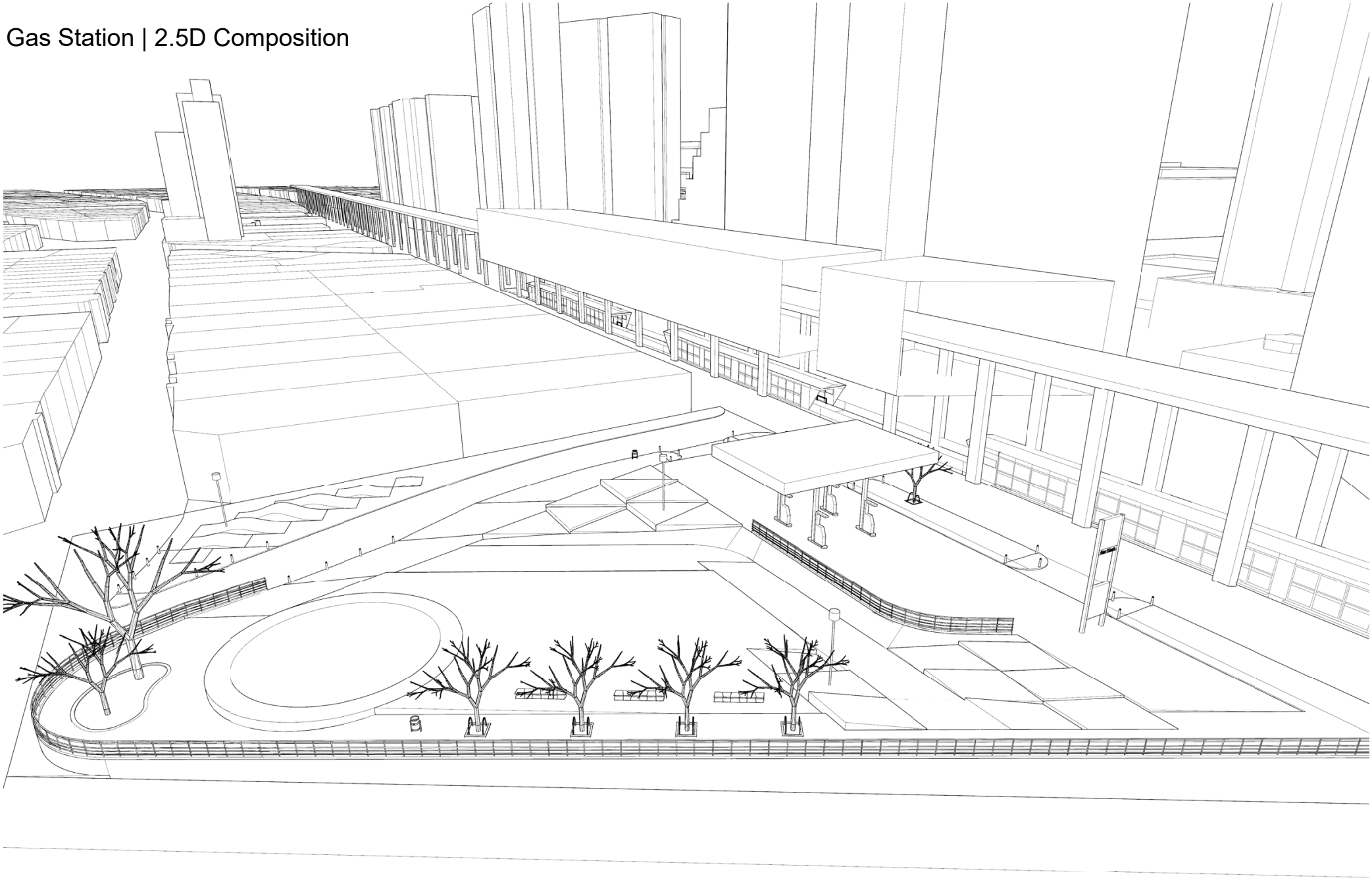
Gas Station | 2.5D Composition



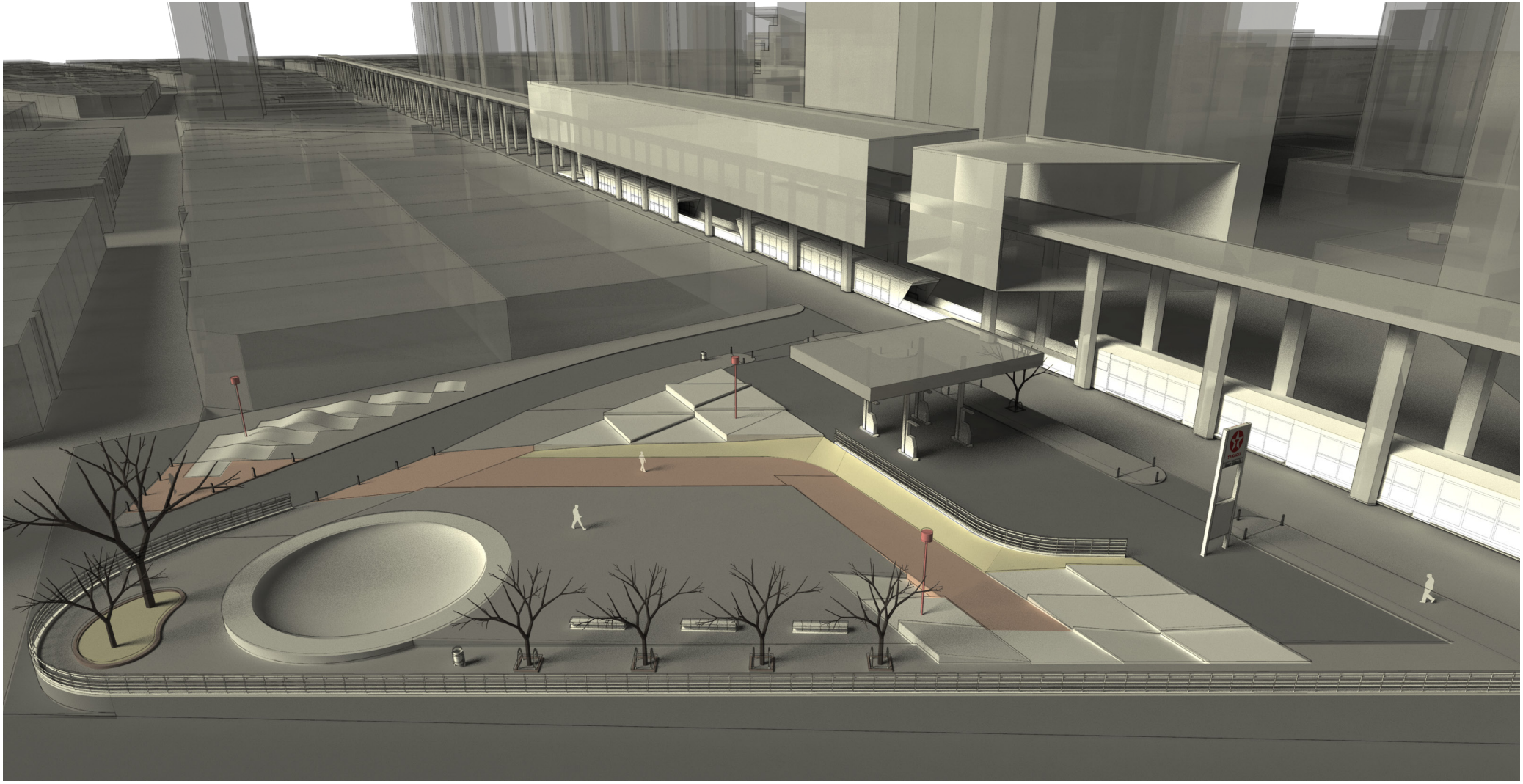
Gas Station | Material Composition



Gas Station | 2.5D Composition

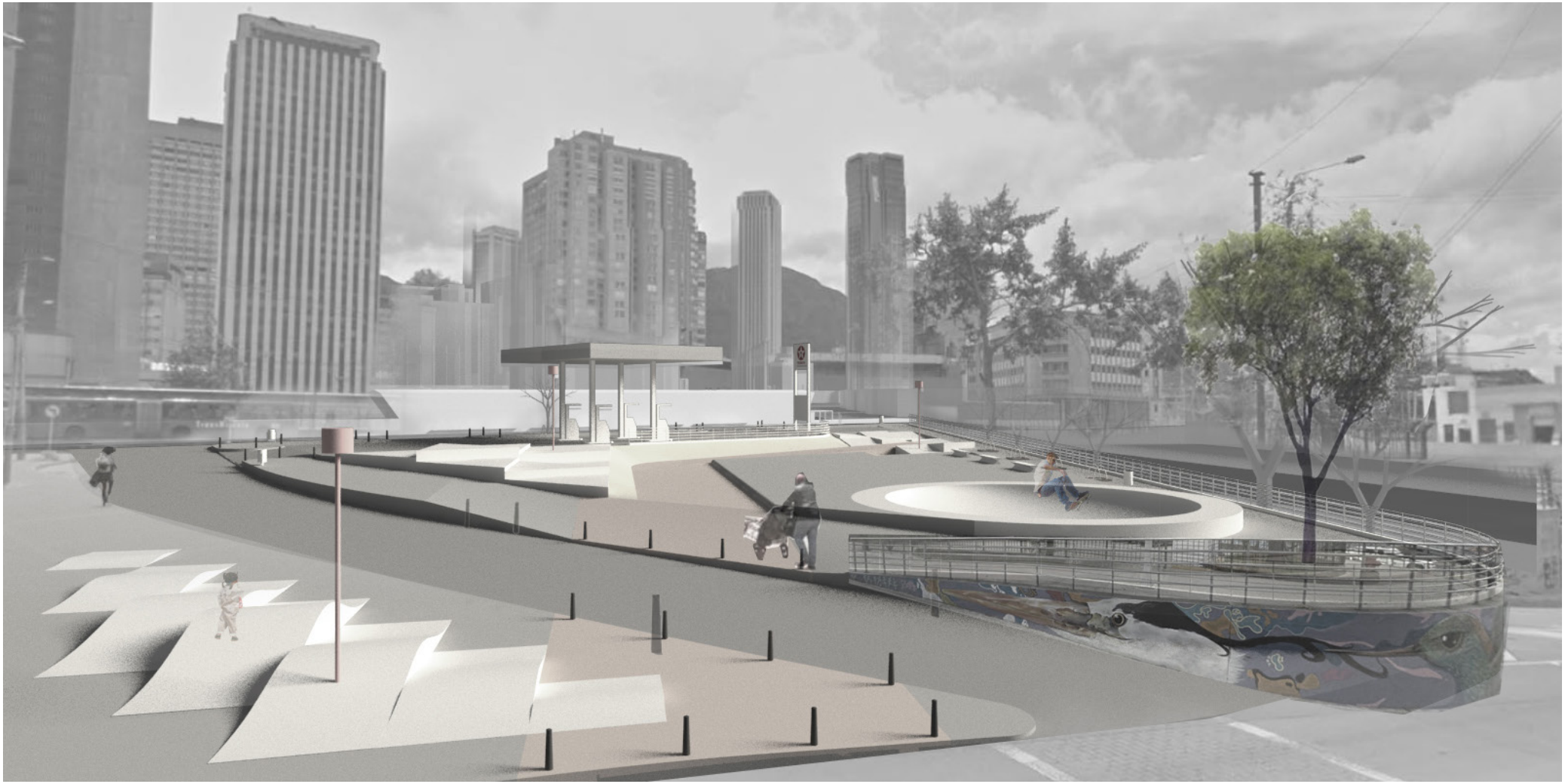


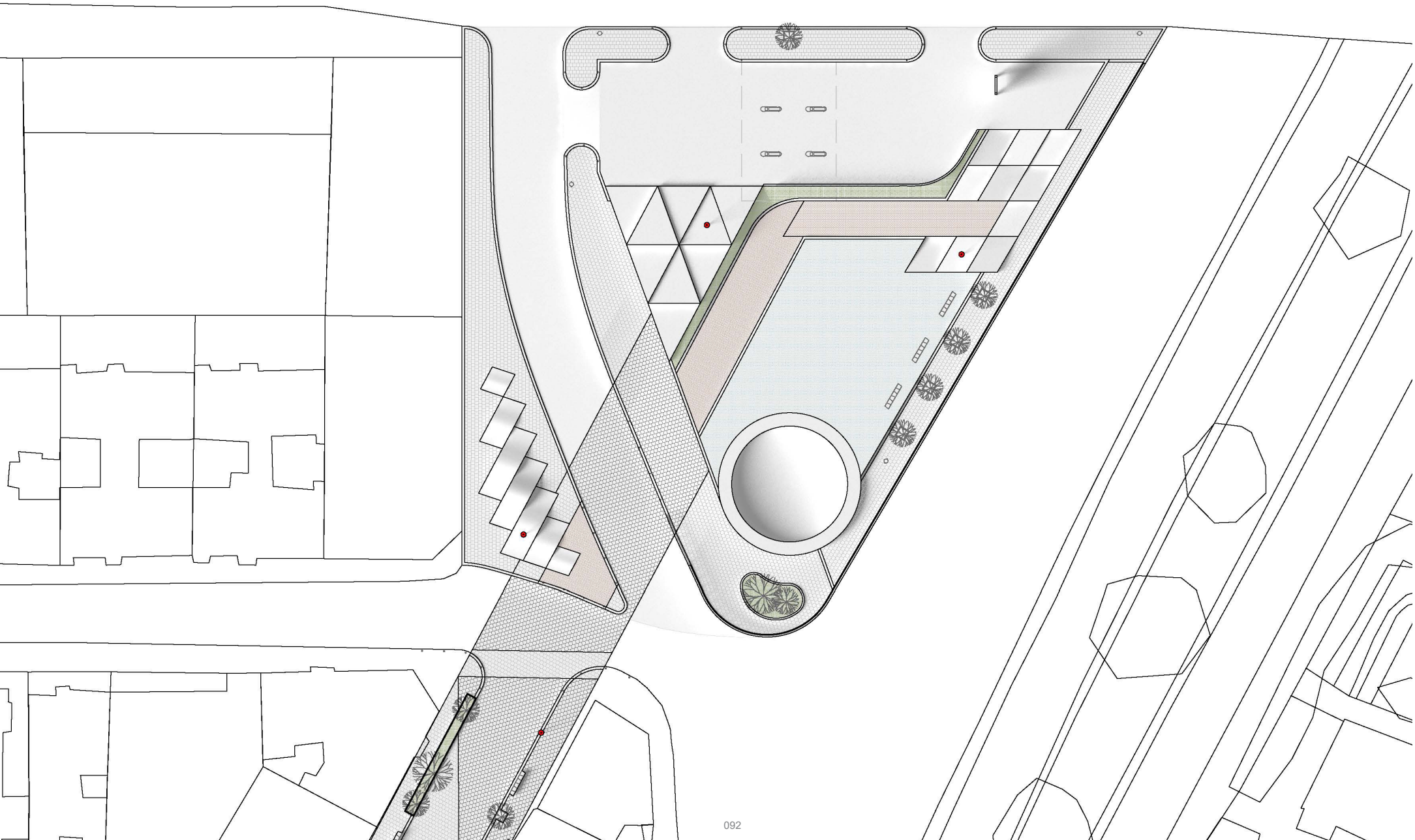
Gas Station | Material Composition

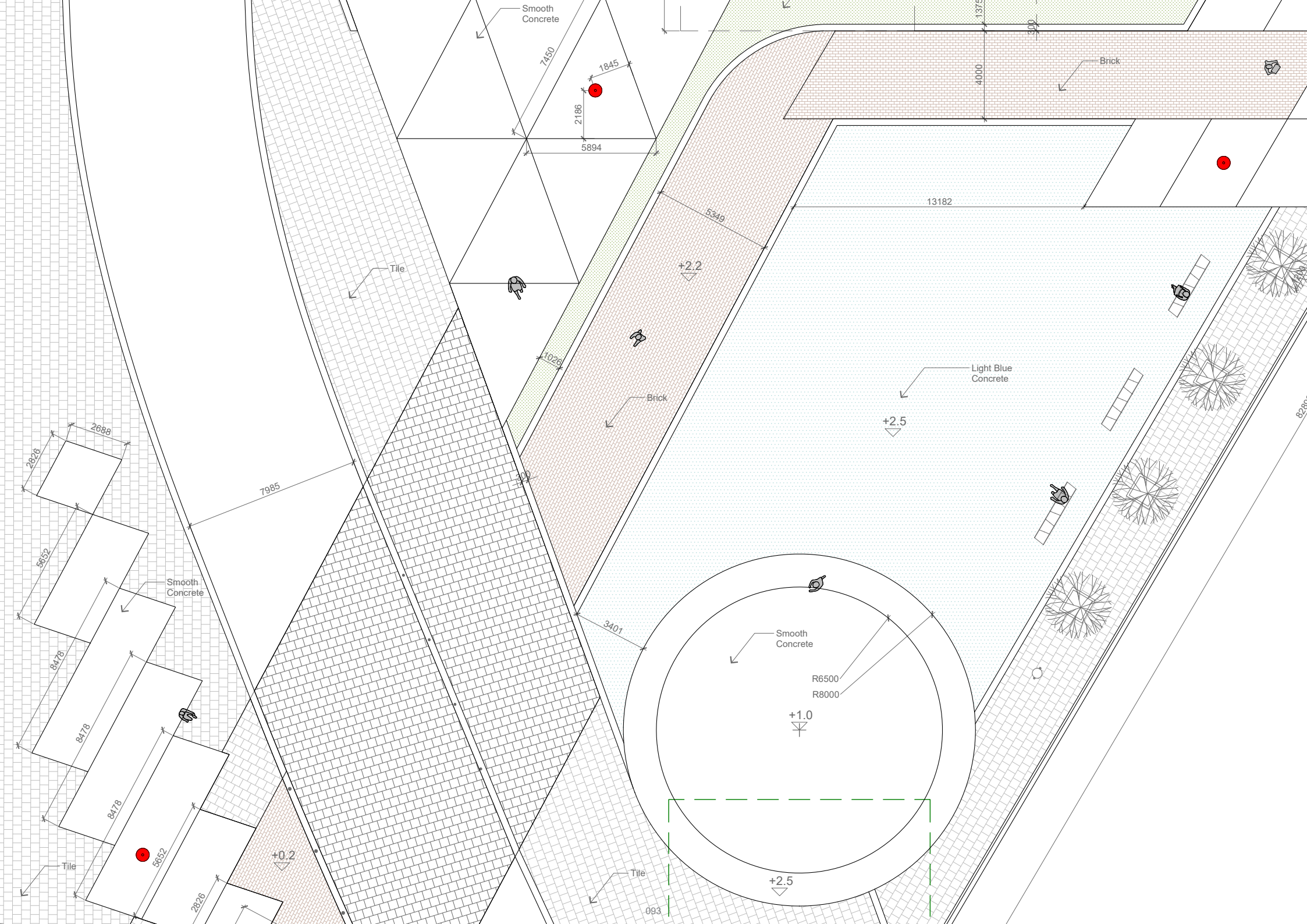


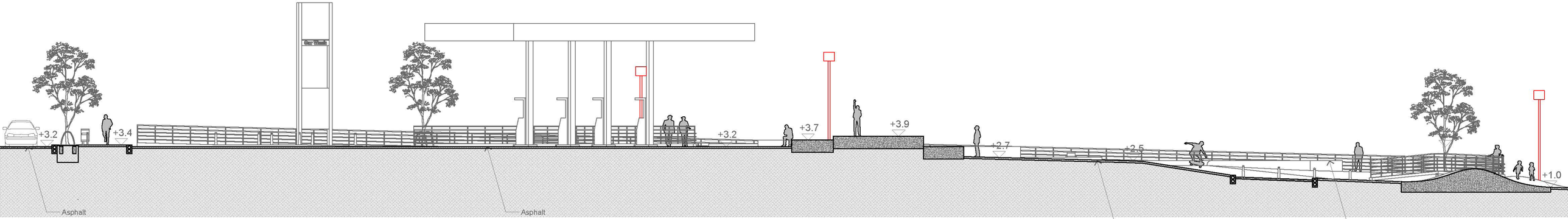
Gas Station | Before

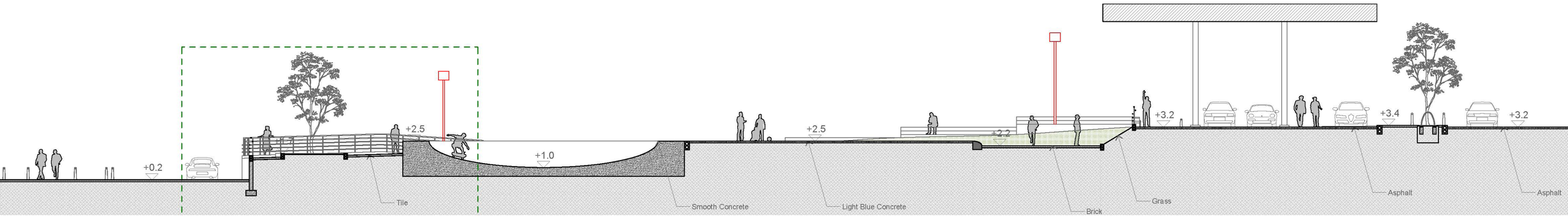
Gas Station | After

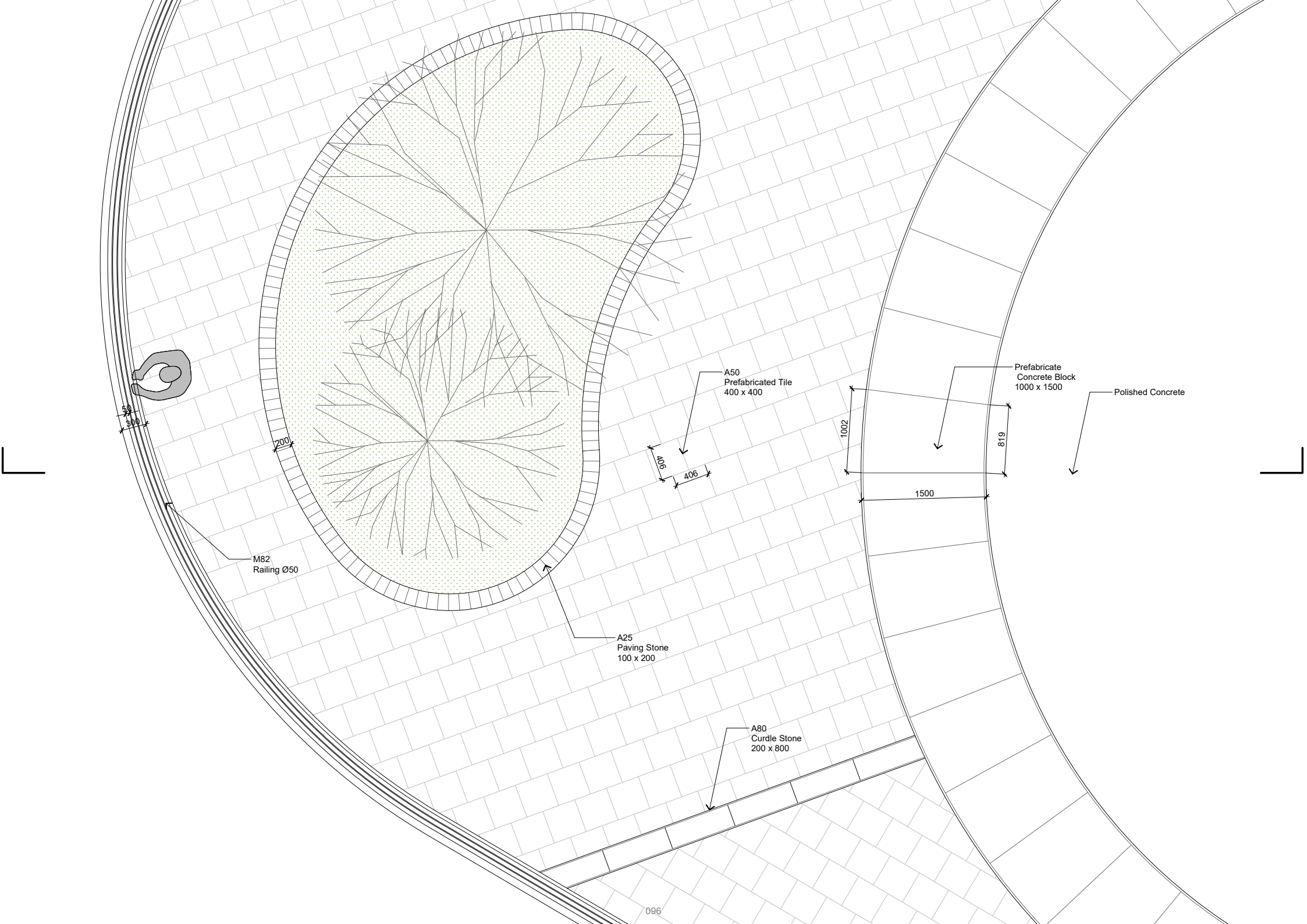


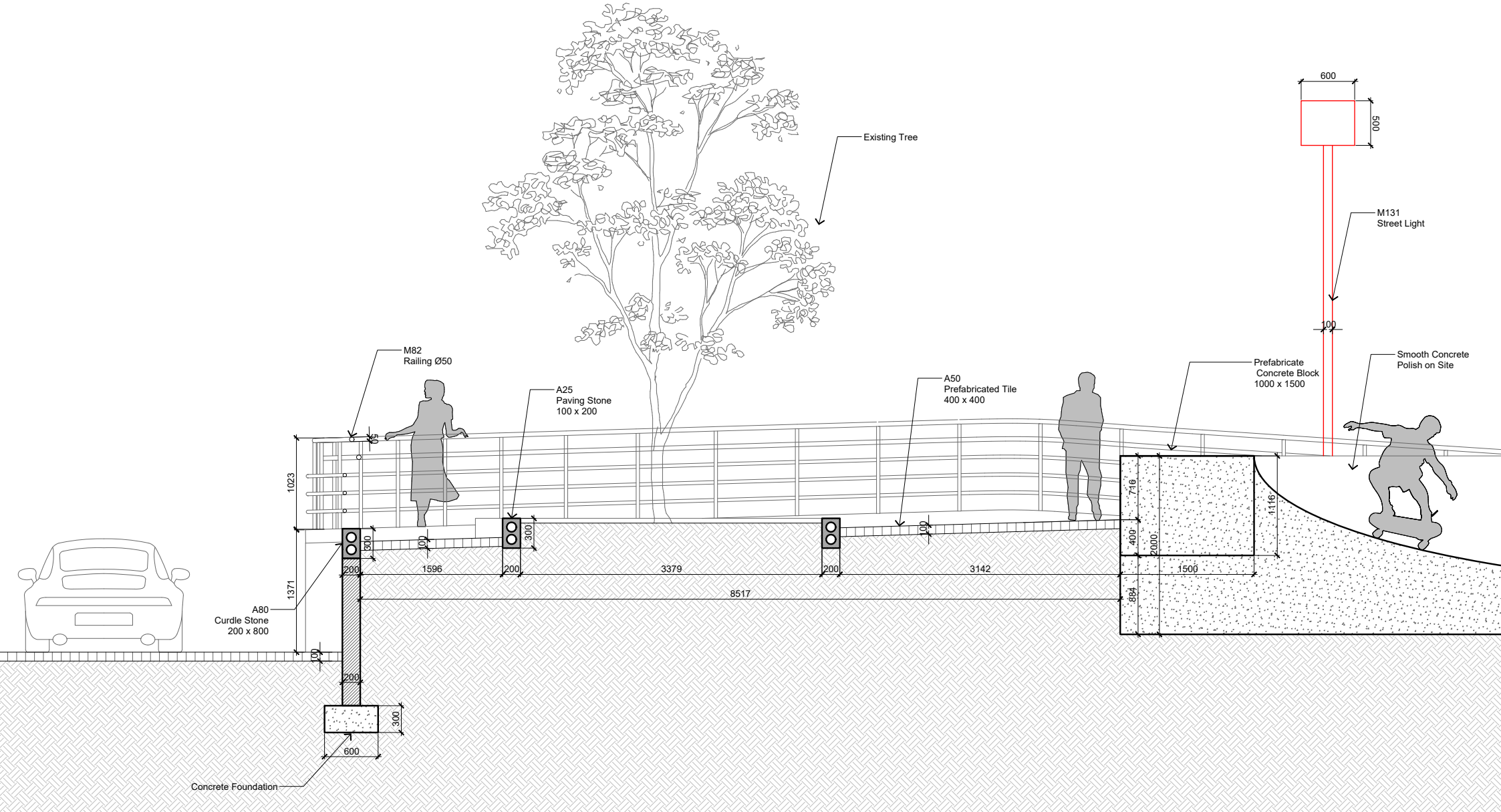



Smooth Concrete
7450
1845
2186
5894
Brick
4000
13182
5349
Tile
+2.2
1026
Brick
Light Blue Concrete
+2.5
2688
2826
7985
300
5652
Smooth Concrete
8478
8478
8478
3401
Smooth Concrete
R6500
R8000
+1.0
+0.2
Tile
5652
2826
+2.5
Tile
093


+3.2
+3.4
+3.2
+3.7
+3.9
+2.7
+2.5
+1.0
Asphalt
Asphalt
Light Blue Concrete
Smooth Concrete

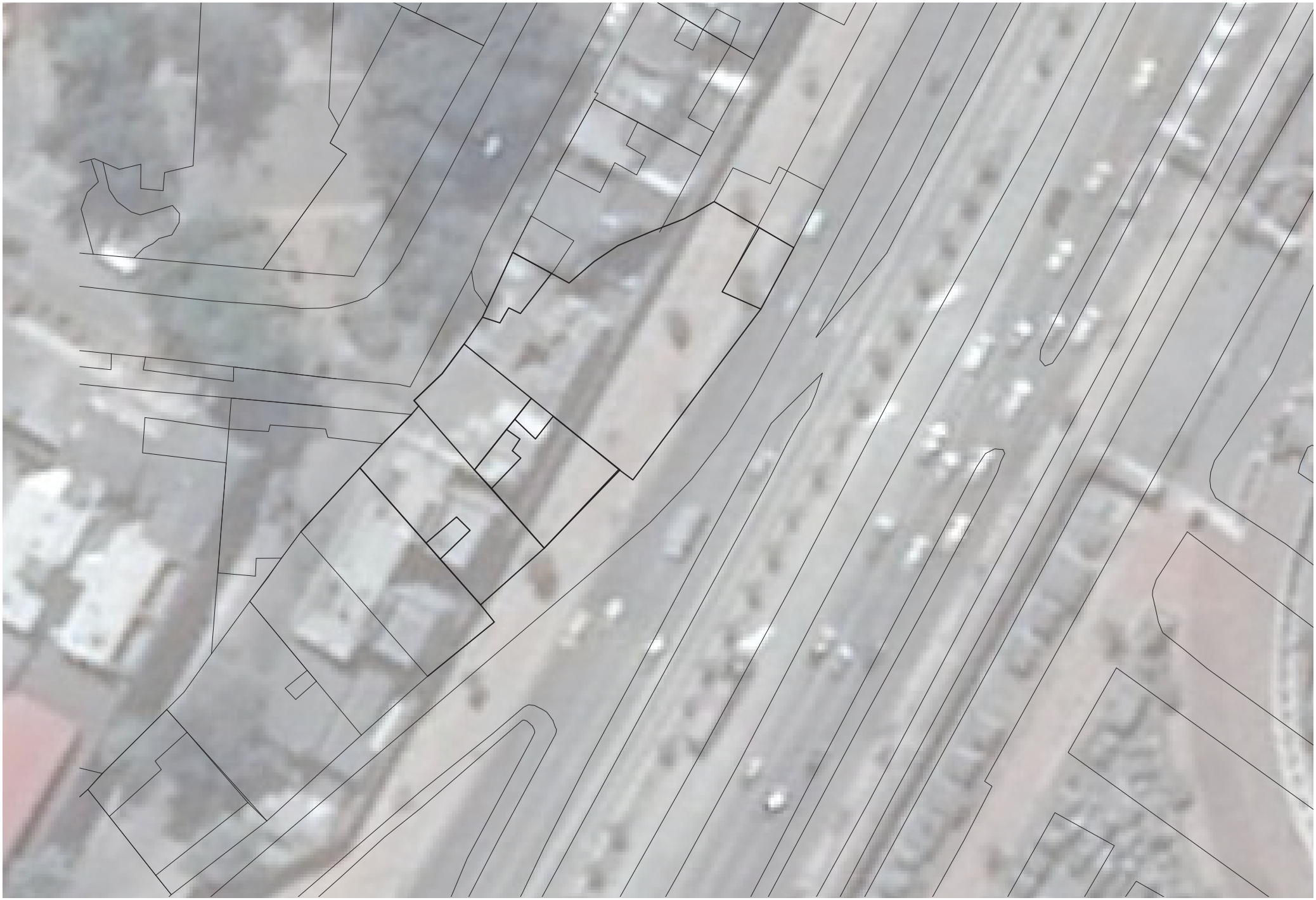

+0.2
+2.5
+1.0
+2.5
+2.2
+3.2
+3.4
+3.2
Tile
Smooth Concrete
Light Blue Concrete
Brick
Grass
Asphalt
Asphalt

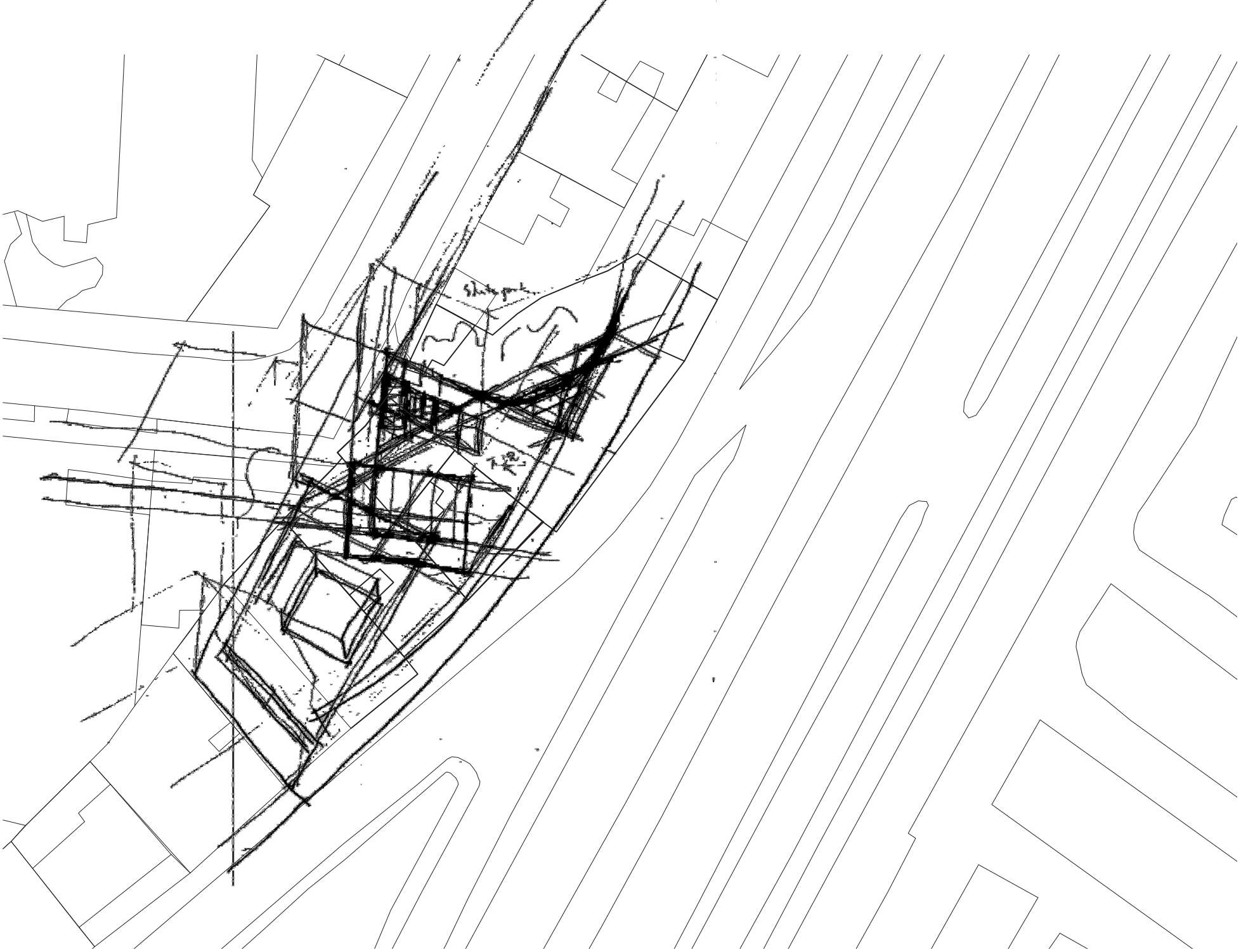

50
300
200
M82
Railing Ø50
A50
Prefabricated Tile
400 x 400
406
406
A25
Paving Stone
100 x 200
A80
Curdle Stone
200 x 800
Prefabricate
Concrete Block
1000 x 1500
Polished Concrete
1002
819
1500


Existing Tree
600
500
M131
Street Light
100
M82
Railing Ø50
A25
Paving Stone
100 x 200
A50
Prefabricated Tile
400 x 400
Prefabricate
Concrete Block
1000 x 1500
Smooth Concrete
Polish on Site
1023
45
300
100
300
100
716
1116
400
2000
200
1596
200
3379
200
3142
1500
8517
884
1371
A80
Curdle Stone
200 x 800
100
200
300
600
Concrete Foundation

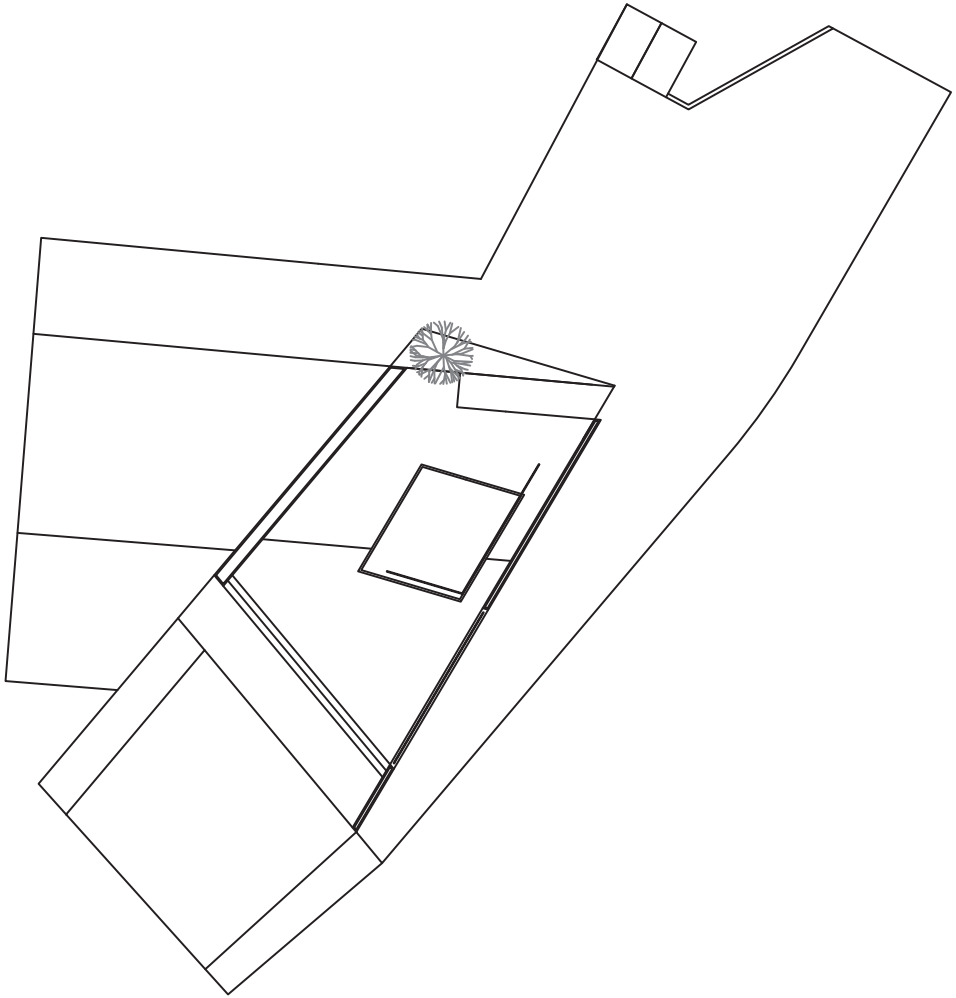
Skatepark

Skatepark | Existing Situation

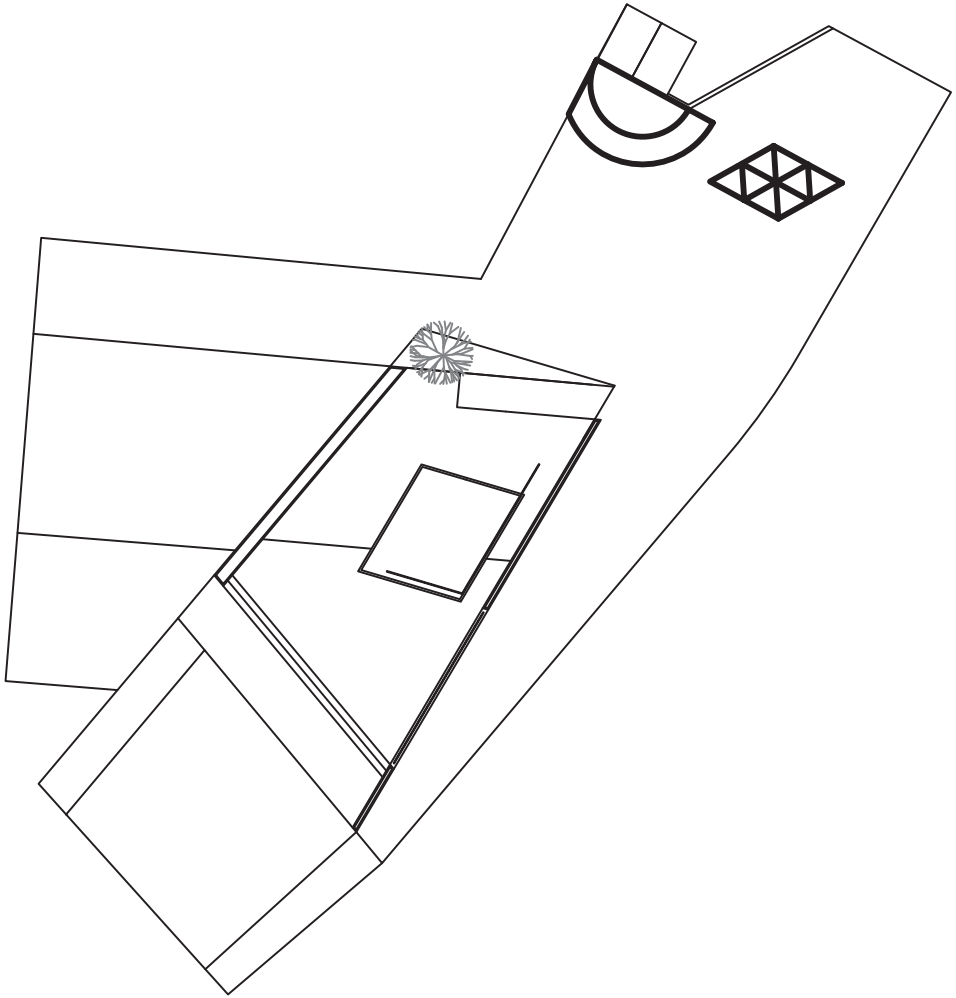




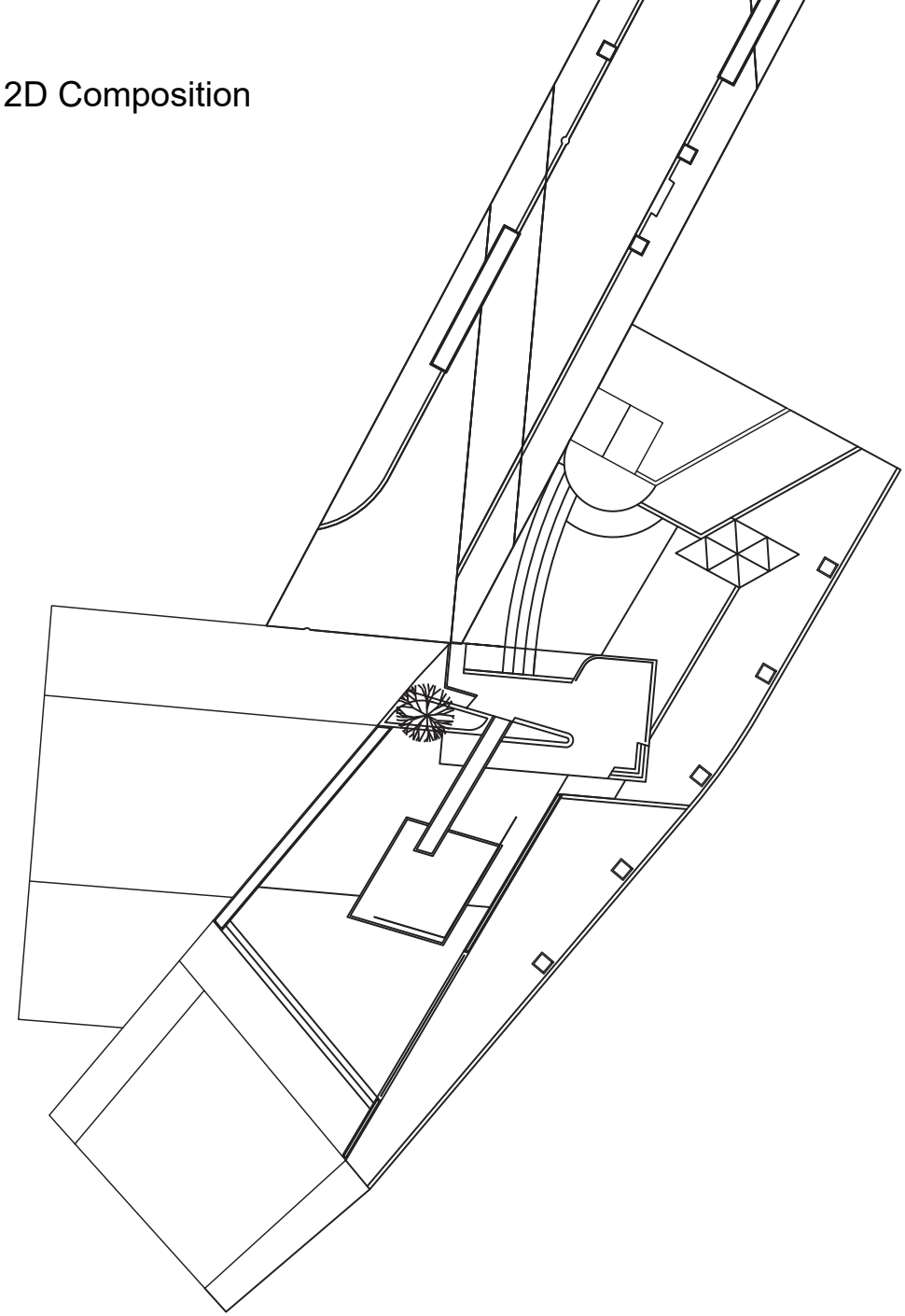
Skatepark | Extract Elements



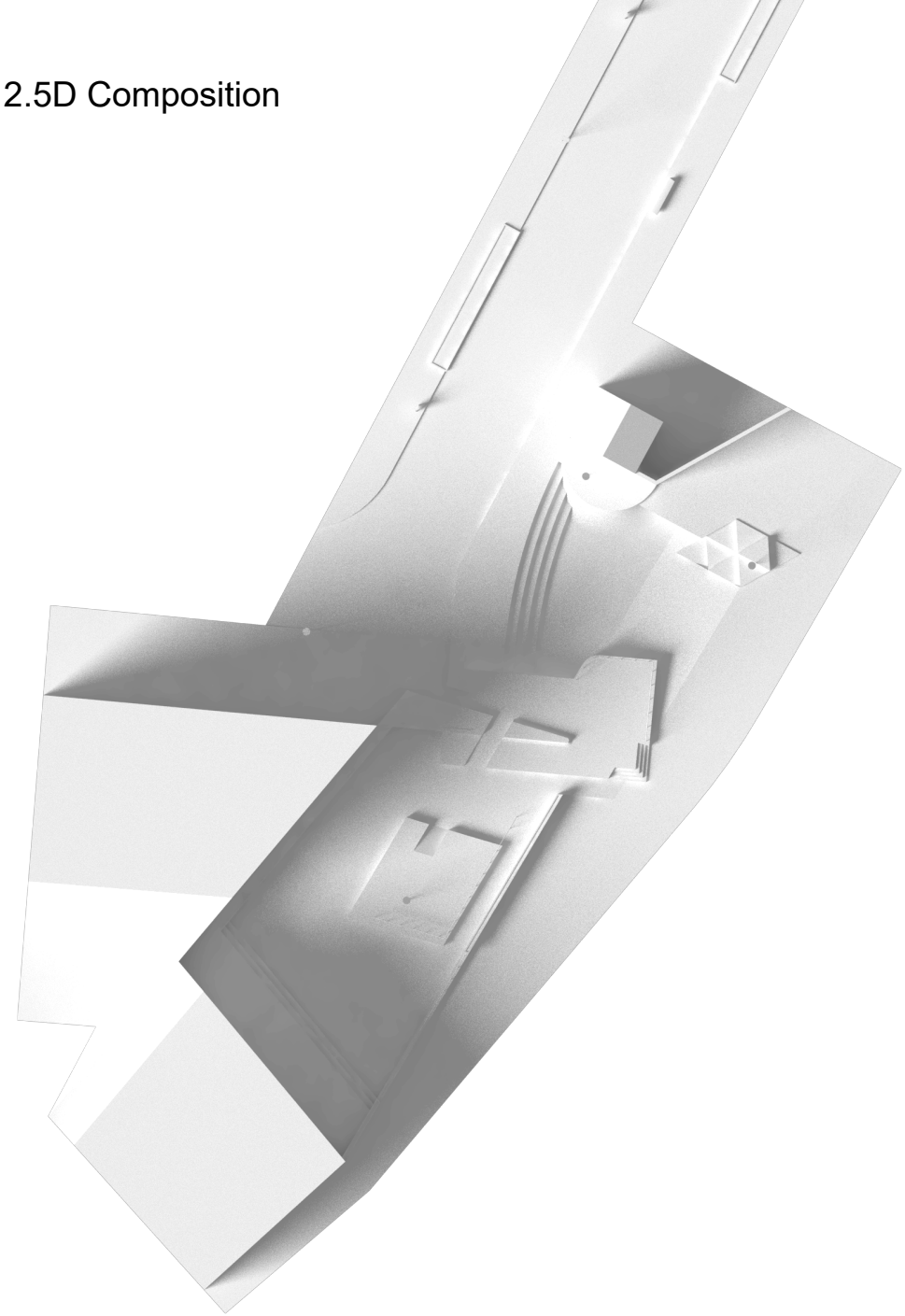
Skatepark | Add-on Playful Surfaces



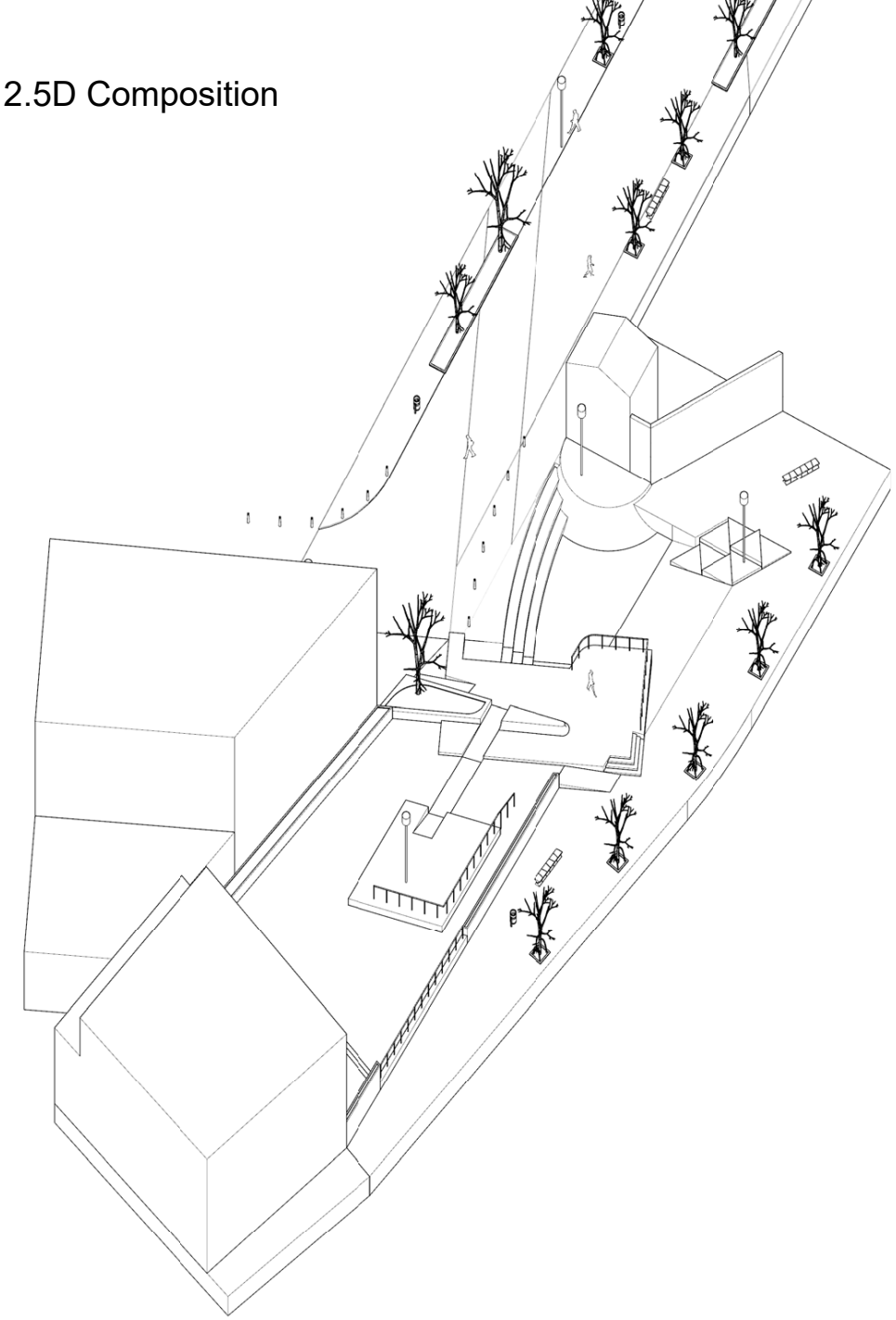
Skatepark | 2D Composition



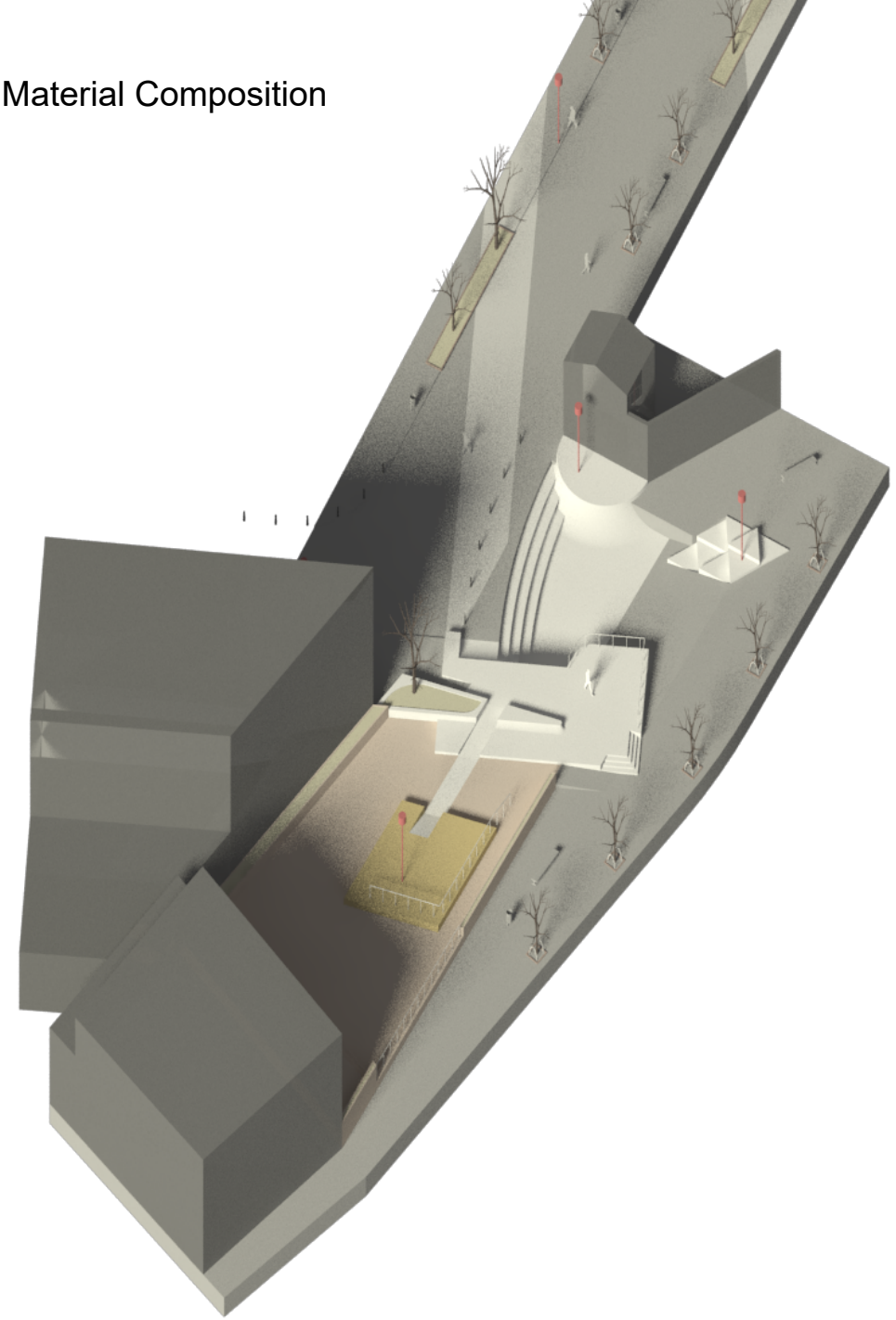
Skatepark | 2.5D Composition



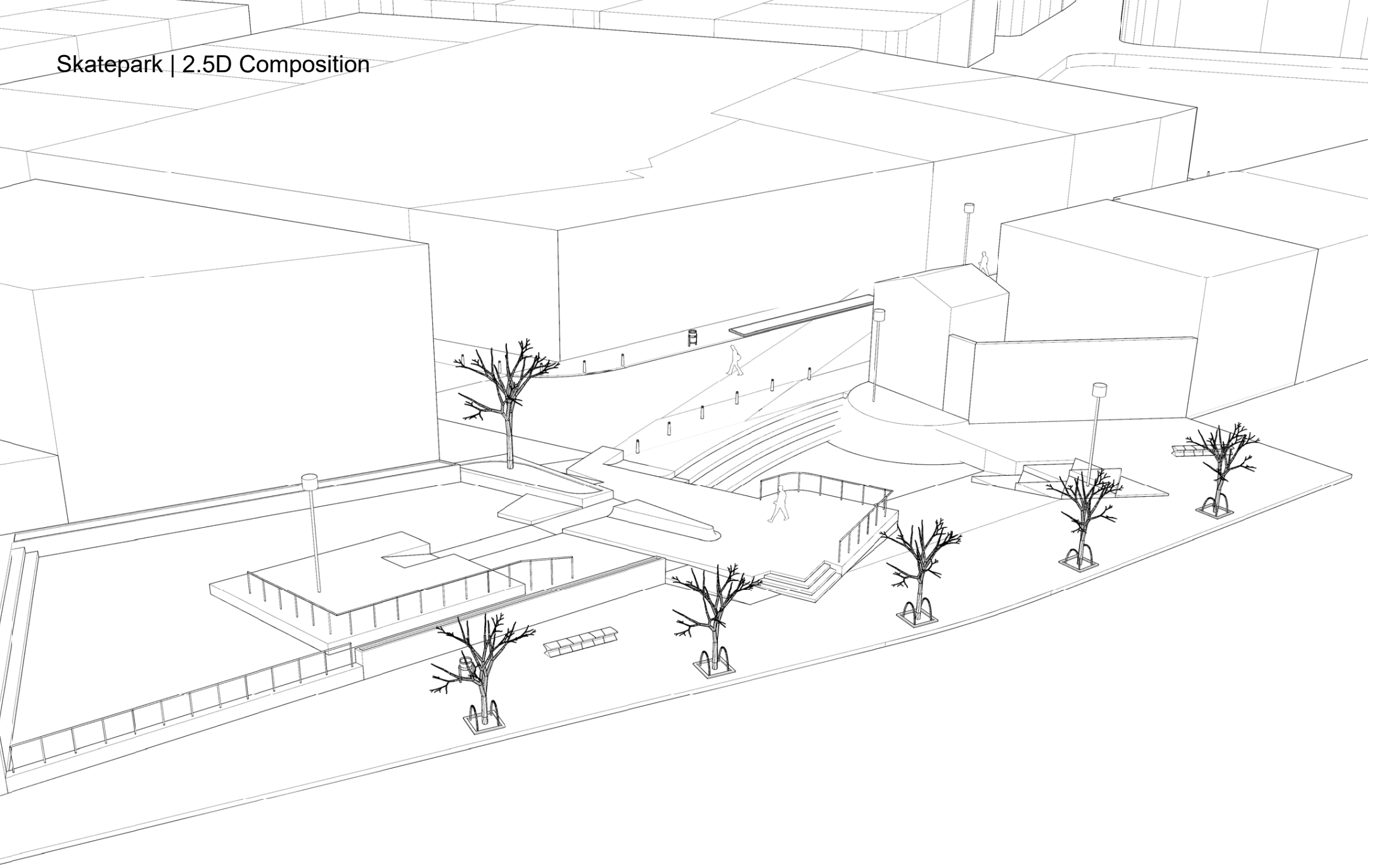
Skatepark | 2.5D Composition



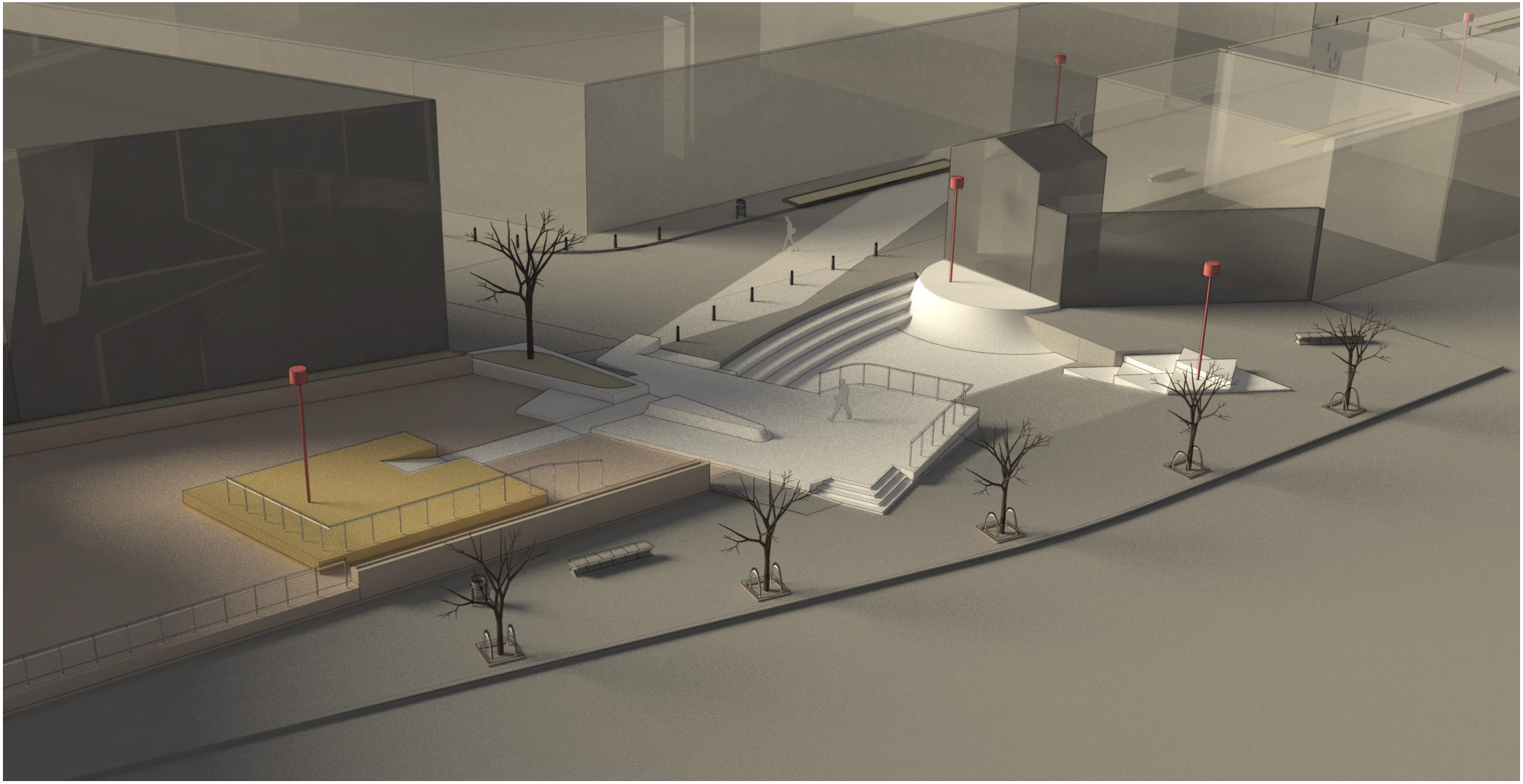
Skatepark | Material Composition



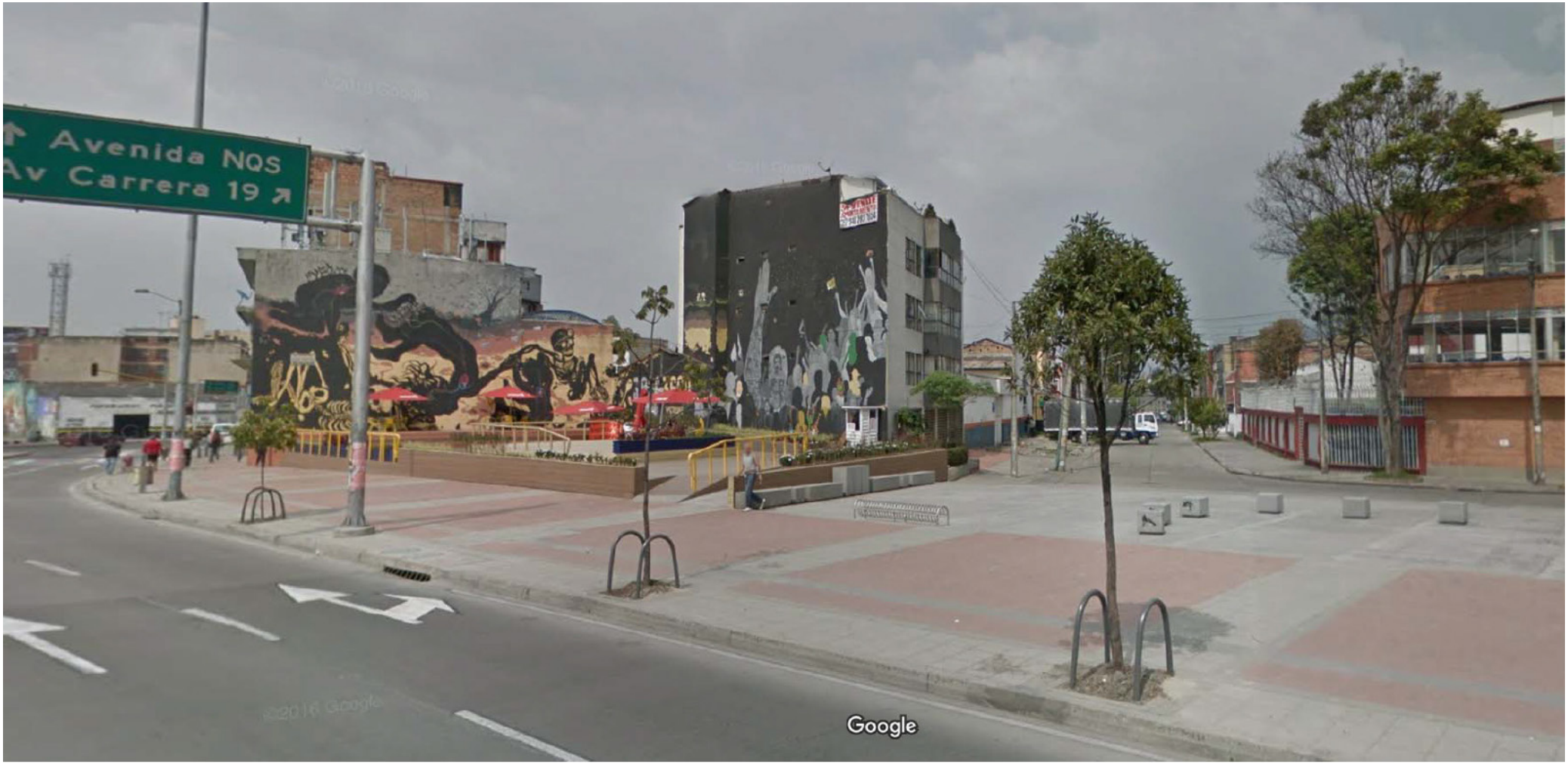
Skatepark | 2.5D Composition



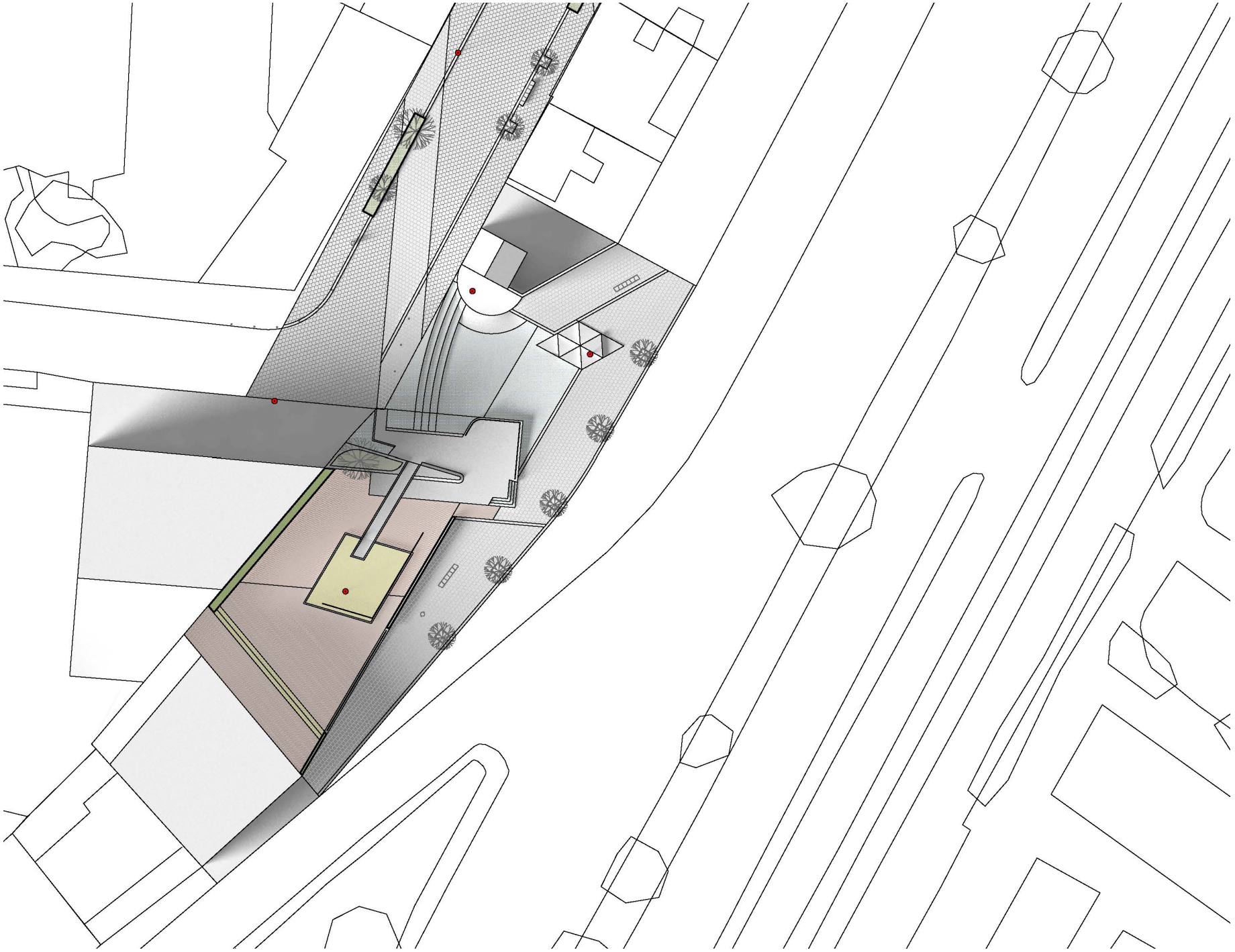
Skatepark | Material Composition

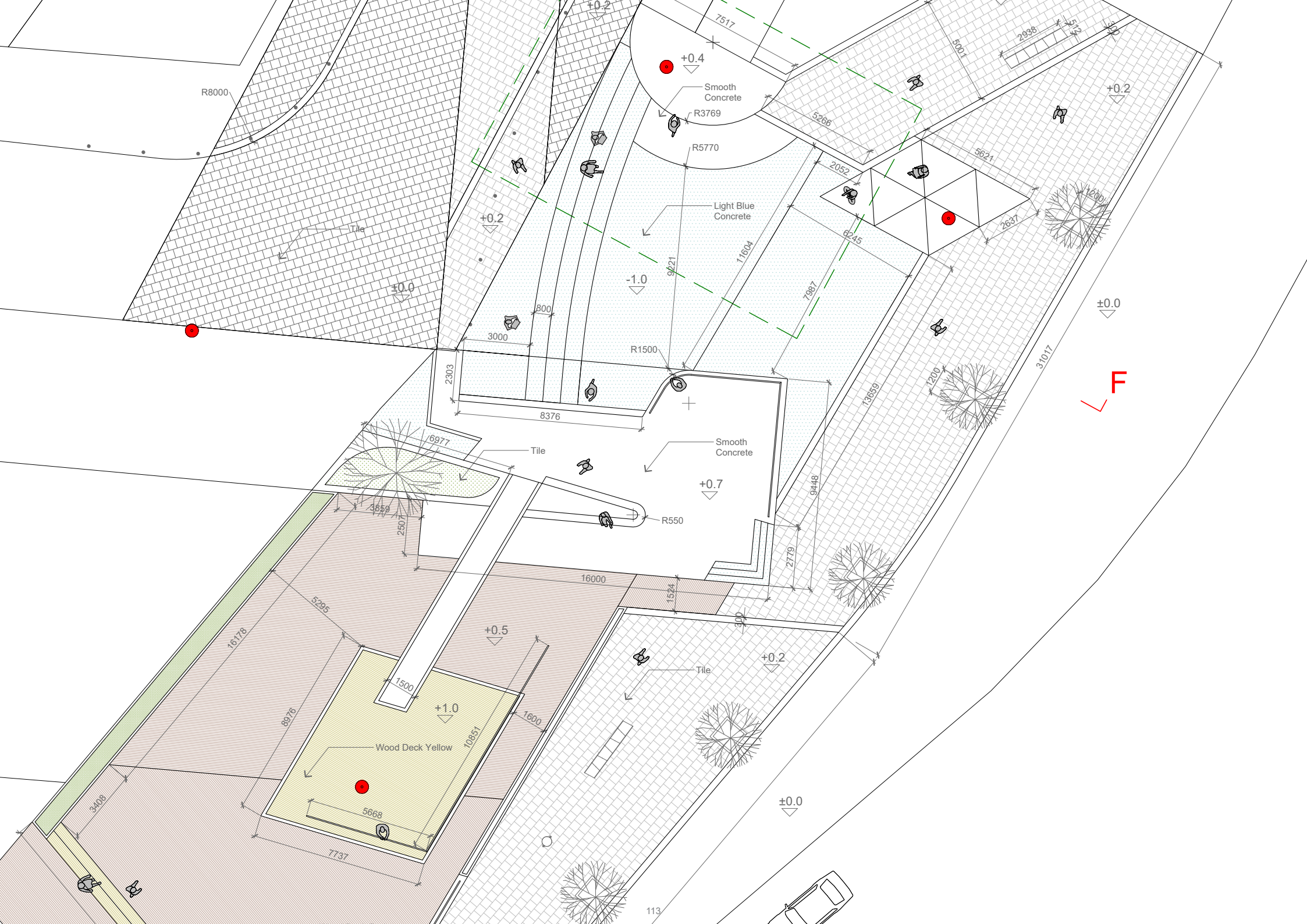


Skatepark | Before

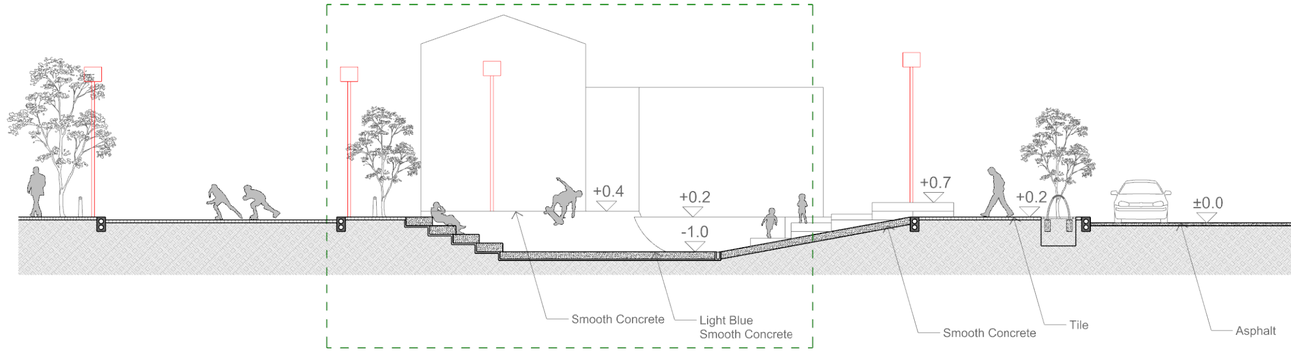


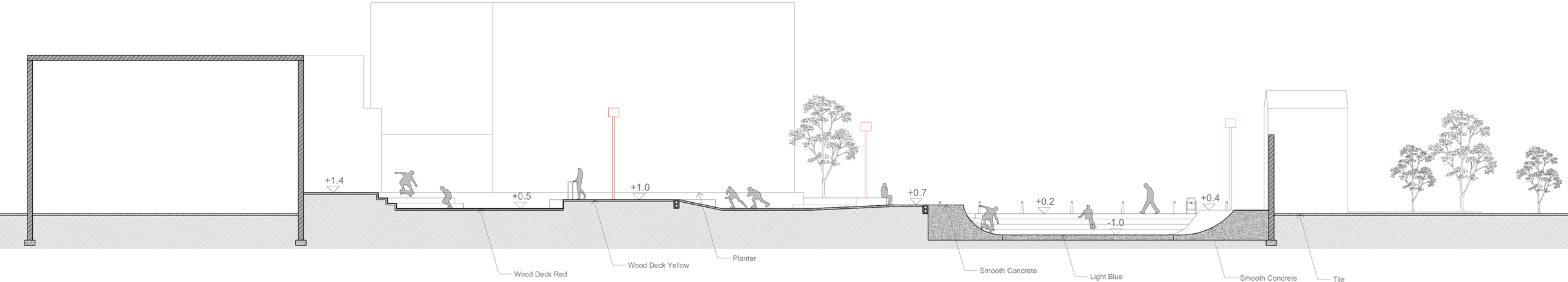
Skatepark | After

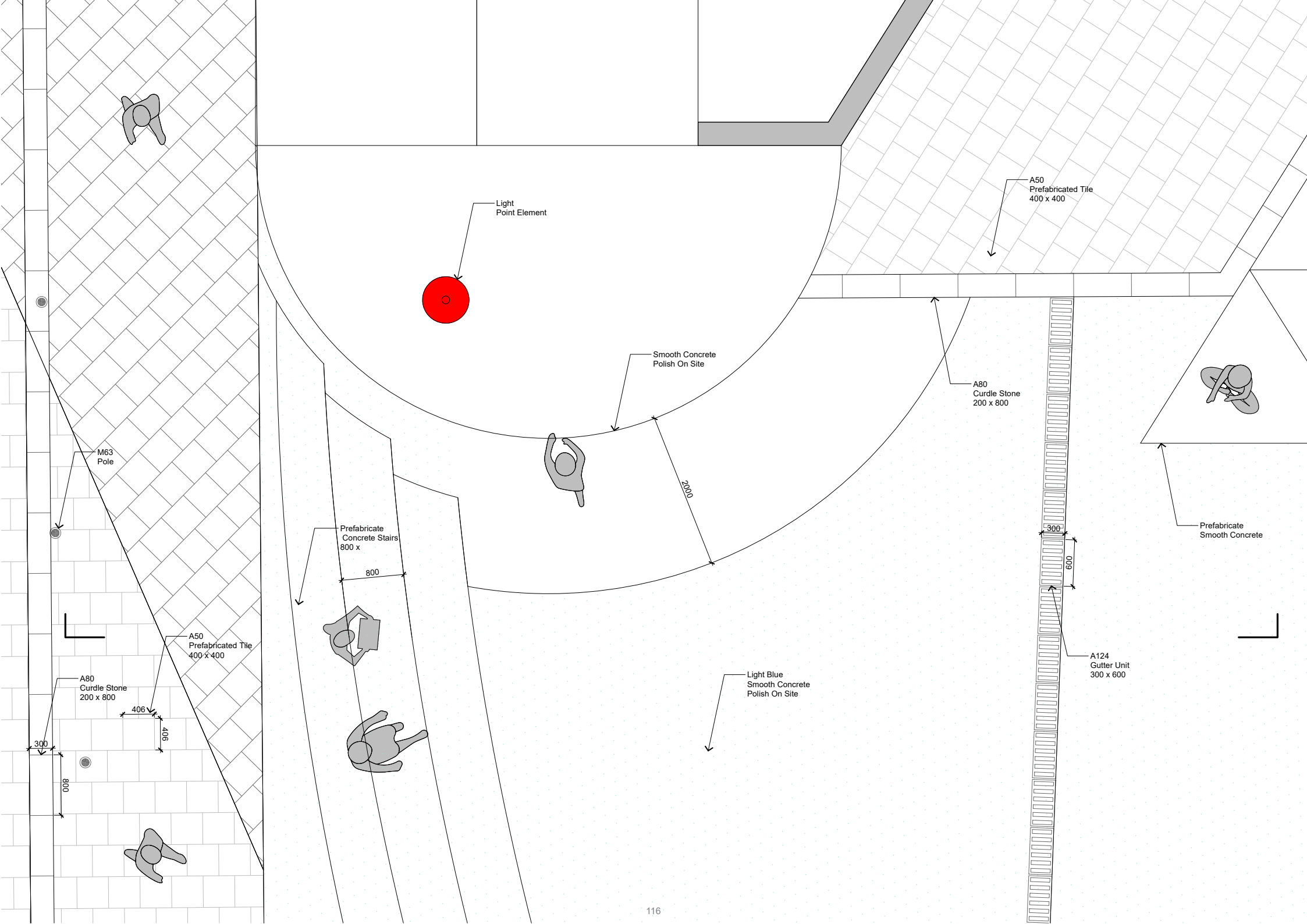


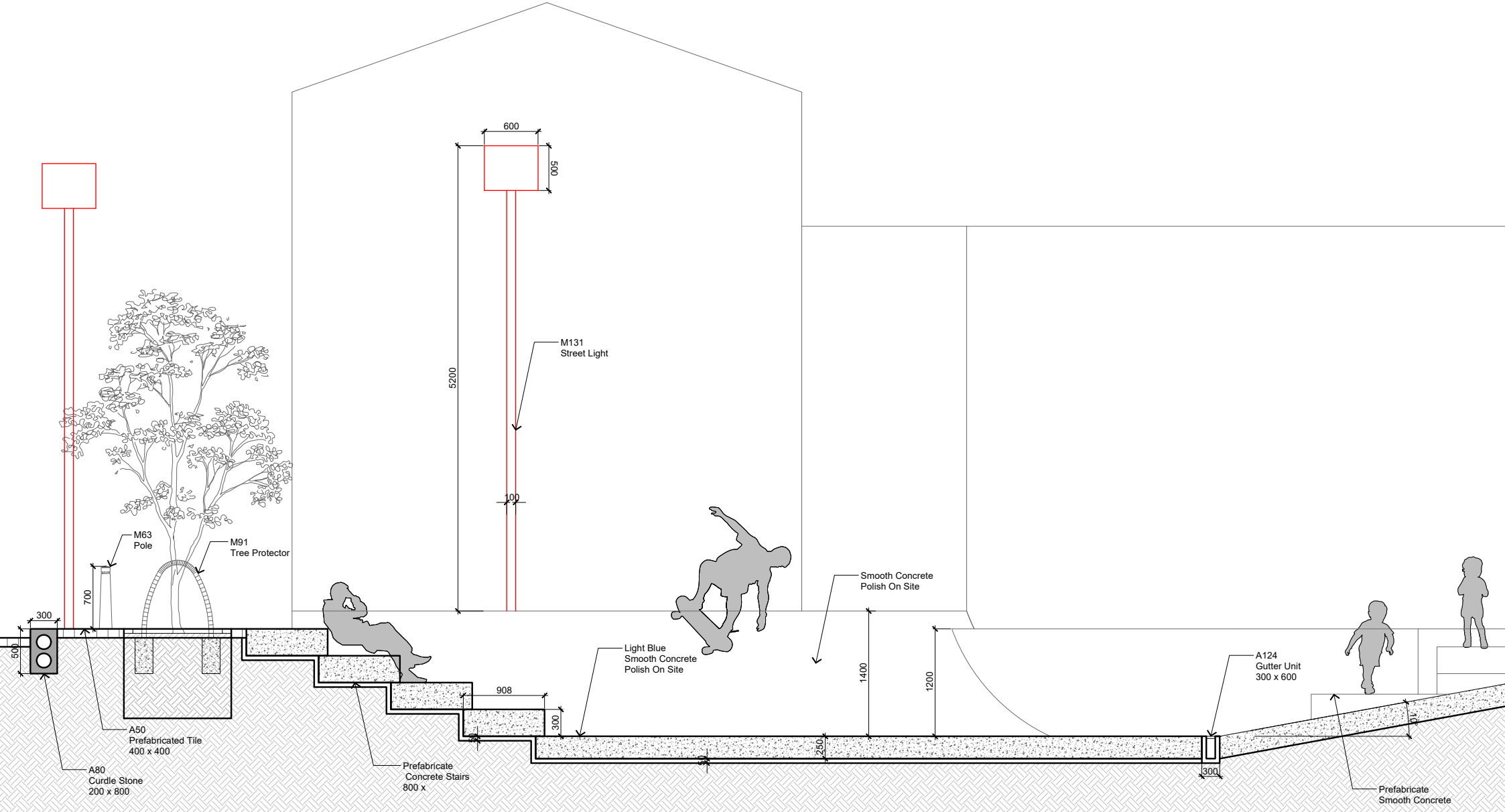


+0.2
7517
+0.4
Smooth Concrete
R3769
R5770
R8000
5001
2938
512
300
+0.2
5266
5621
2052
Light Blue Concrete
+0.2
Tile
1200
2637
6245
11604
9221
-1.0
7987
±0.0
800
3000
R1500
±0.0
2303
8376
13659
1200
31017
F
6977
Tile
Smooth Concrete
+0.7
9448
3859
2507
R550
2779
16000
1524
5295
300
16178
+0.5
+0.2
Tile
1500
+1.0
1600
8976
10851
Wood Deck Yellow
3408
5668
7737
±0.0
113


+0.4
+0.2
-1.0
+0.7
+0.2
±0.0
Smooth Concrete
Light Blue
Smooth Concrete
Smooth Concrete
Tile
Asphalt


+1.4
+0.5
+1.0
+0.7
+0.2
+0.4
-1.0
Wood Deck Red
Wood Deck Yellow
Planter
Smooth Concrete
Light Blue
Smooth Concrete
Smooth Concrete
Tile


Light
Point Element
A50
Prefabricated Tile
400 x 400
Smooth Concrete
Polish On Site
A80
Curdle Stone
200 x 800
2000
M63
Pole
Prefabricate
Concrete Stairs
800 x
800
300
600
Prefabricate
Smooth Concrete
A124
Gutter Unit
300 x 600
A50
Prefabricated Tile
400 x 400
A80
Curdle Stone
200 x 800
406
406
300
800
Light Blue
Smooth Concrete
Polish On Site


600
500
5200
M131
Street Light
100
M63
Pole
M91
Tree Protector
700
300
500
Smooth Concrete
Polish On Site
Light Blue
Smooth Concrete
Polish On Site
1400
1200
A124
Gutter Unit
300 x 600
908
300
50
250
50
300
A50
Prefabricated Tile
400 x 400
A80
Curdle Stone
200 x 800
Prefabricate
Concrete Stairs
800 x
Prefabricate
Smooth Concrete

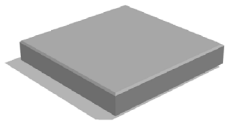
Add-on Playful Surfaces Manual
(Bogota Urban Design Manual Extentsion)

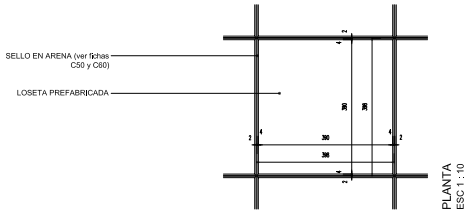
Cartilla de Andenes

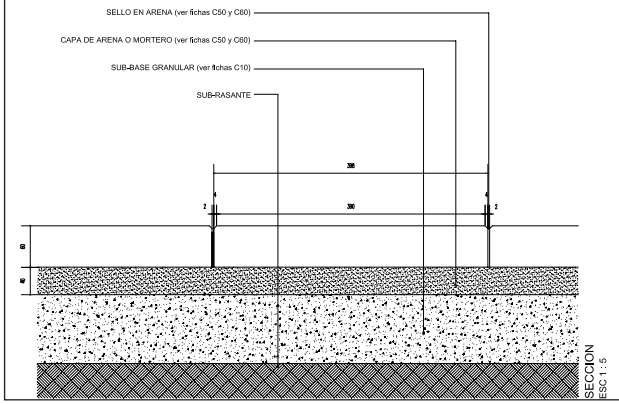
A Elementos prefabricados

Secretaría Distrital de Planeación
Taller del Espacio Público

Loseta Prefabricada 400 X 400 A 50







Descripción

Pieza prefabricada en concreto de 5 MPa de módulo de rotura a 28 días. Se instala sobre una capa de arena o mortero (cuando se emplee una base rígida), con sello de arena entre las juntas. Puede ser bicapa, con un espesor mínimo de 8 mm para la capa superficial.

Dimensiones nominales

400mm x 400mm x 60mm

Dimensiones estándar

398mm x 398mm x 60mm

Junta estándar

2mm

Mantenimiento

Reinstalar si la base falla. Reemplazar en caso de rotura.

Desarrollado por

Taller del Espacio Público - SDP

Características físicas y mecánicas

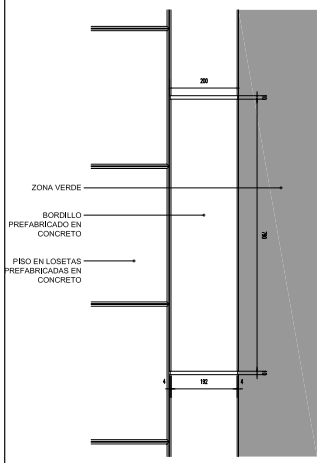
NORMA NTC: 4 992 Losetas de concreto para pavimentos.
ENSAYO SEGUN LA NTC: 5 147. Efectuado sobre el material en estado saturado y superficialmente seco.
Desgaste: Max. 23mm.
ENSAYO SEGUN LA NTC: 5 129. Efectuado en superficie natural en estado húmedo.
Número de fricción en áreas peatonales: Min. 35.
Número de fricción en áreas vehiculares: Min. 45.
PESO APROXIMADO: 23,04 kg
MEDIDAS EN: milímetros
TIPO DE TRAFICO: Peatonal y vehicular hasta 35 000 ejes C2 G de 8,2t en el periodo de diseño del pavimento (20 años).

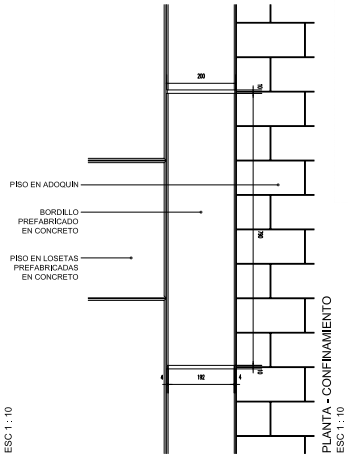
Cartilla de Andenes

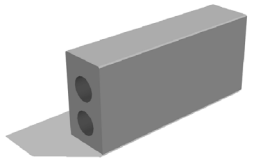
A Elementos prefabricados

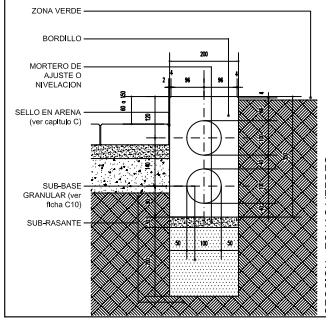
Secretaría Distrital de Planeación
Taller del Espacio Público

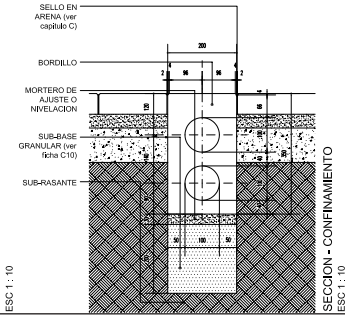
Bordillo prefabricado Tipo A A 80











Descripción

Pieza alfgerada prefabricada en concreto de 4 MPa de módulo de rotura a 28 días, con acabado liso. Se instala sobre una capa de mortero de nivelación con proporción 1:4, con juntas de 1 centímetro de espesor en mortero 1:3; sirve como confinamiento para cambios de material, o sobresaliendo hasta quince centímetros respecto al piso para conformar bordes en zonas verdes.

Dimensiones nominales

800mm x 200mm x 350mm

Dimensiones estándar

790mm x 200mm x 350mm

Junta estándar

10mm

Mantenimiento

Reinstalar si la base falla. Reemplazar en caso de rotura.

Desarrollado por

Taller del Espacio Público - SDP

Características físicas y mecánicas

NORMA NTC: 4 109 Bordillos, cunetas y topellantas de concreto.
PESO APROXIMADO: 101,28 kg
MEDIDAS EN: milímetros

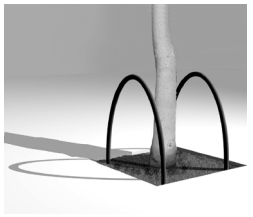
Cartilla de Mobiliario Urbano

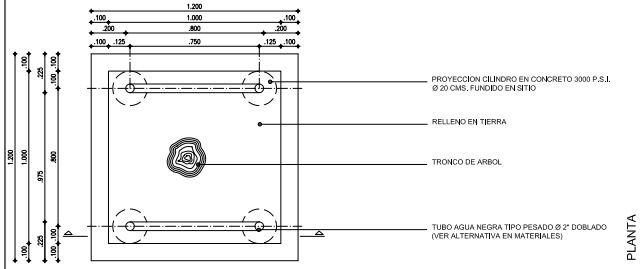
A Elementos de mobiliario

Secretaría Distrital de Planeación
Taller del Espacio Público

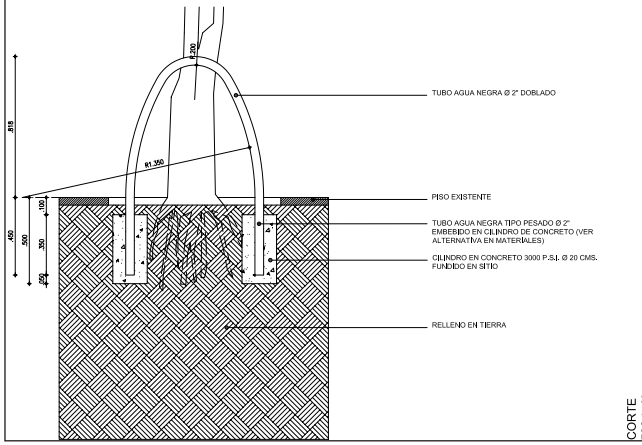
Protector de árbol de dos tubos

M 91





PLANTA
ESC 1 : 20



CORTE
ESC 1 : 20

Descripción

Es una pieza que busca proteger los árboles de más de tres metros de altura de cualquier posible impacto o de que se apoyen elementos sobre su tronco.

Materiales

Tubo metálico doblado de 2".
Alternativa Estructura maciza en polipropileno original reforzado con fibra de vidrio, protector UV y retardante de llama.

Acabados

Pintura electrostática verde RAL 6028.
En caso de ubicarse en alamedas o en andenes donde existan otros elementos de mobiliario debe ser de color gris RAL 7010.
En la alternativa en polipropileno, el color debe igualar el requerido para el tubo metálico según el caso.

Mantenimiento

Se debe revisar el estado de la pintura cada año.
Si presenta abolladuras severas deberá ser reemplazado.

Instalación

Los tubos se embeben 35 cms. en cilindros de concreto de diámetro 20 cms. fundidos en sitio.

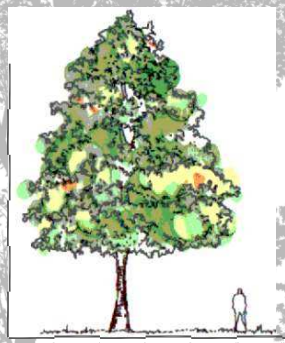
Anotaciones

NOTA 1: El corte que se haga en el piso existente para embeber el elemento se debe hacer con cortadora de disco y debe ser de forma rectangular o cuadrada. El acabado de piso del área afectada debe reponerse con el mismo material de acabado de cada sitio y continuando las texturas o entramados existentes.

NOTA 2: Para todos los elementos metálicos pintura electrostática color gris texturizado RAL 7010.

Diana Wiesner Arquitectura y Paisaje

F 200



NOMBRE CIENTIFICO
(Sinónimo/autor)

Liquidambar styraciflua
L.

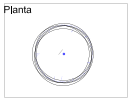
NOMBRE(S) COMUN(ES)

Liquidambar (Colombia), Estoraque
Ocozotl (México), Sweet Gum

ORIGEN

Texas (USA)

Planta



REFERENTE HISTORICO / LITERARIO

Jean Jaques Gruenwill en El Perfume, maceró a fuego lento tres hojas del árbol de la China, extrayendo la esencia del Estoraque

Fuente: Guía de árboles, Santa Fe de Bogotá (1)

DIVISION
Espermatofita

SUBDIVISION
Anglosperma

CLASE
Dicotiledónea

ORDEN

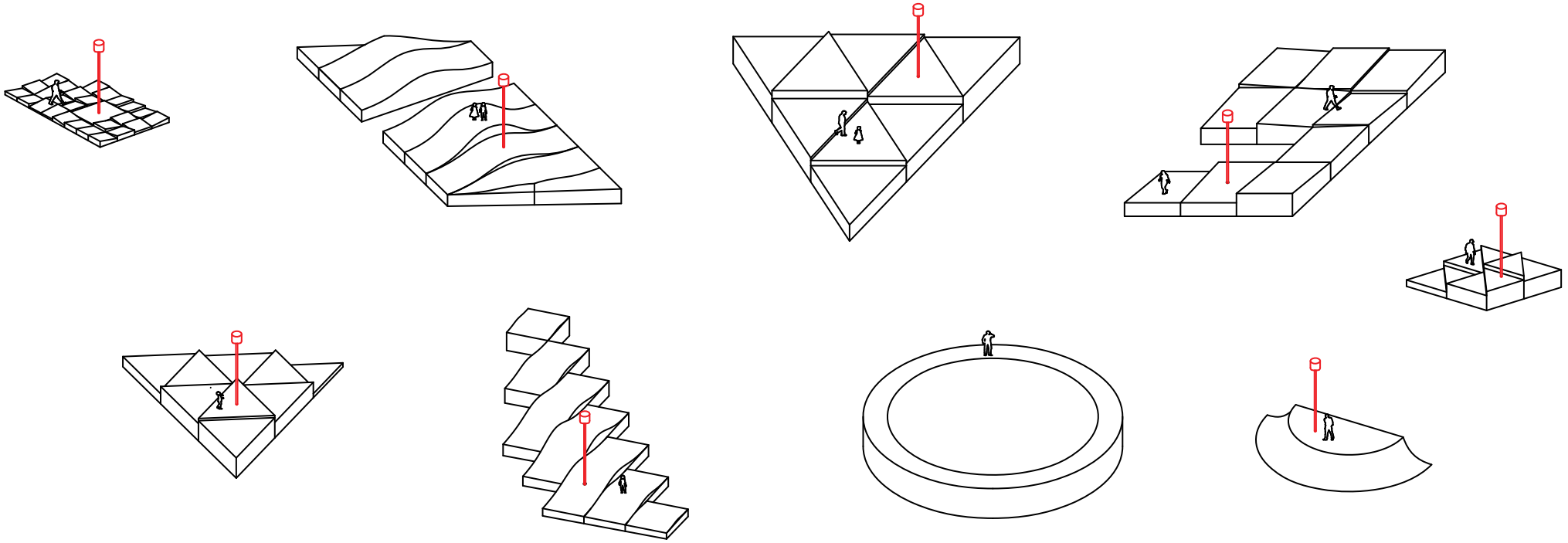
FAMILIA
Hamamelidaceae

GENERO
Liquidambar

ESPECIE
Liquidambar styraciflua

Tomado del "Manual Verde"
JARDIN BOTANICO DE BOGOTA "JOSE CELESTINO MUTIS"

IDENTIFICACION
1 de 3



Playful
- Stimulate unpredictable, spontaneous playful actions
- Escape from instrumental serious routine

Abstract
- Draw away from practical matters
- Articulate the abstract geometric composition

Commonality
- Add-on architectural and urban figures that citizens recognize as a constellation
- Commoning procedure that users find their own way to play

P 01

Undulating Rectangles

Description

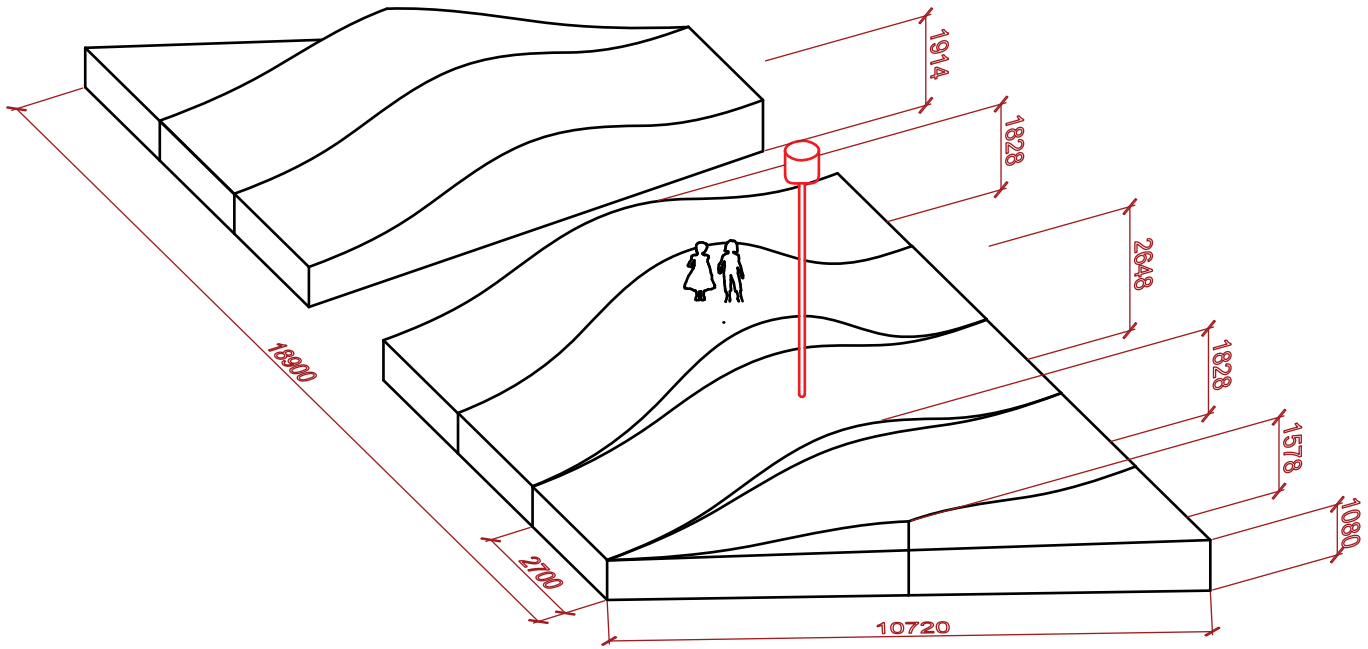
A series of long concrete blocks with undulating top surfaces and various heights

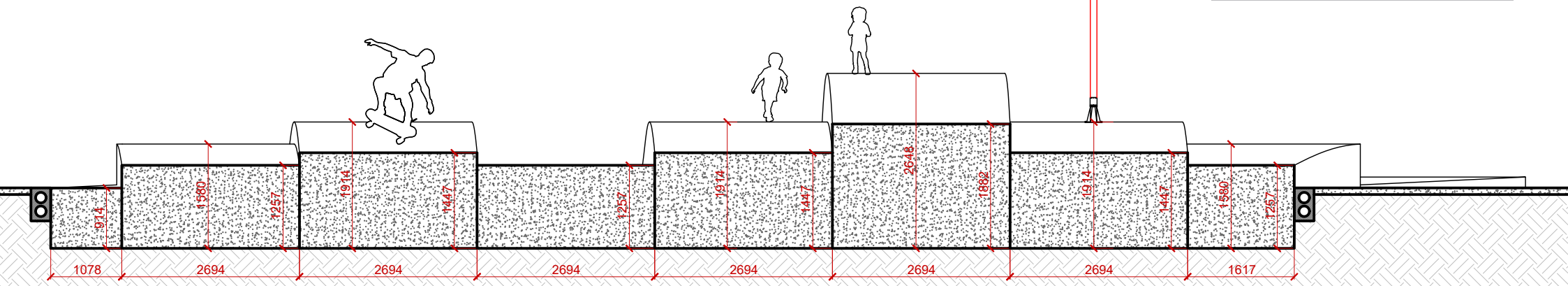
Material

Smooth Concrete

Installation

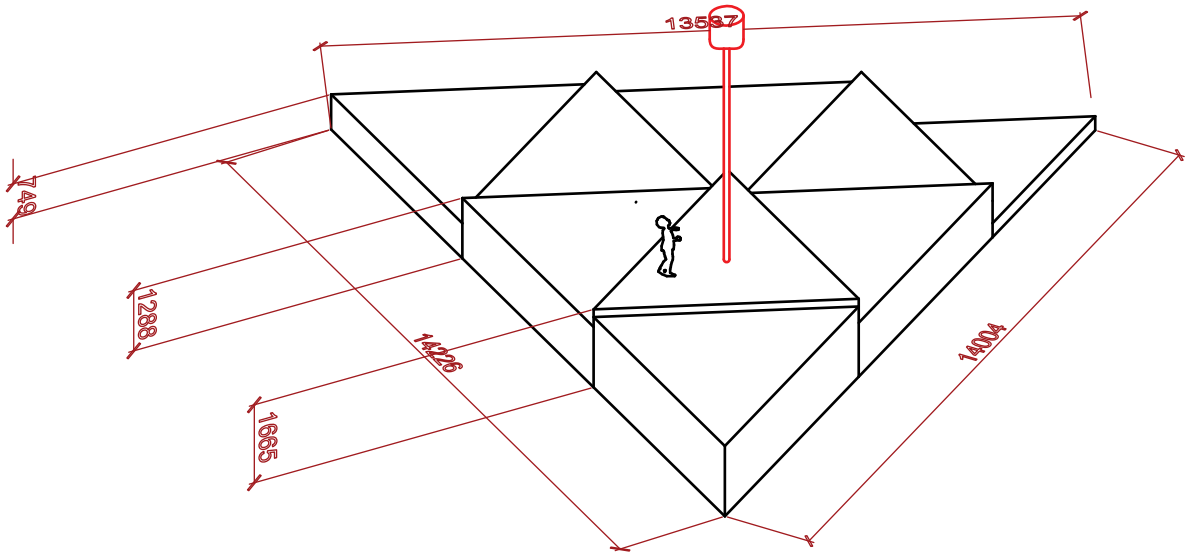
Prefabricate individual pieces in factory, or cast on site then polish until smooth finishing surface





P 02

Stepping Triangles



Description

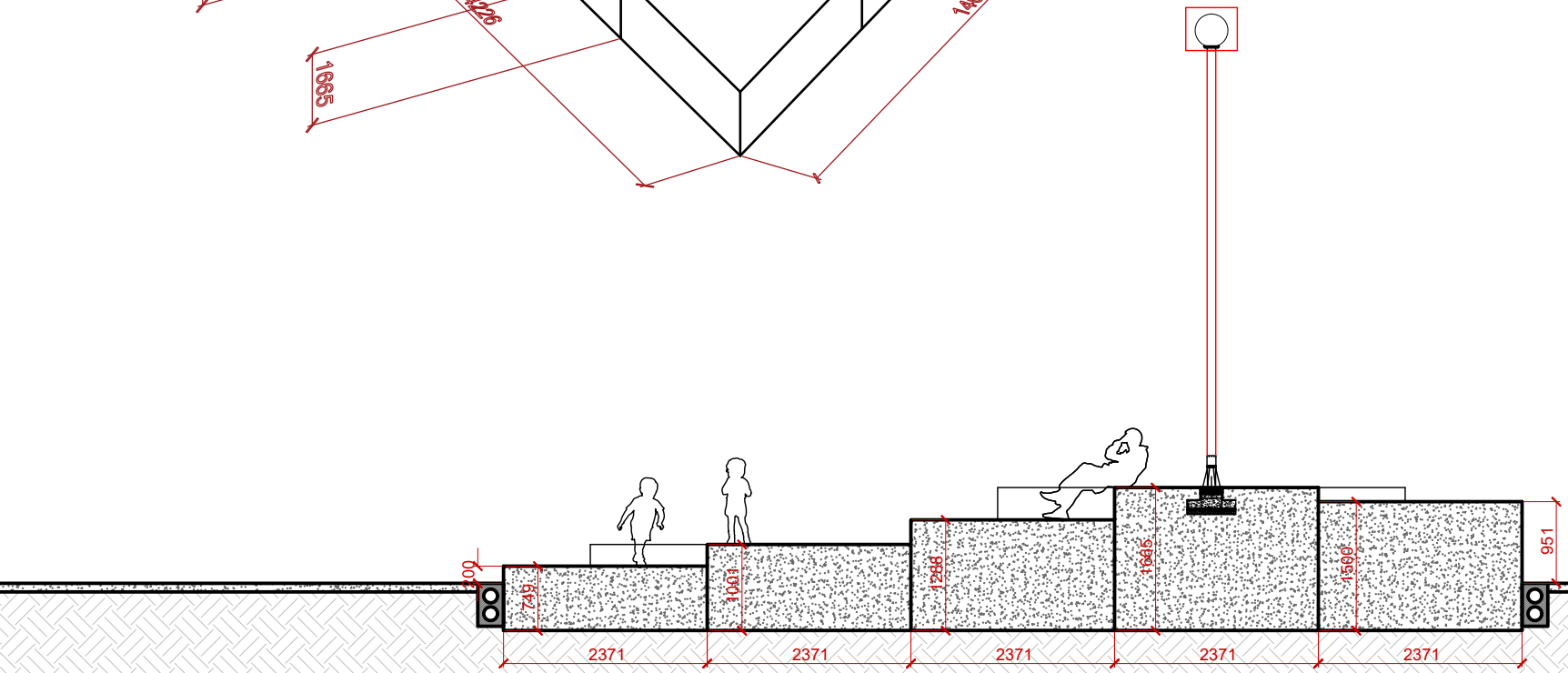
A series of triangle concrete blocks with various heights and form a big terrace

Material

Smooth Concrete

Installation

Prefabricate individual pieces in factory, or cast on site then polish until smooth finishing surface



P 03

Inclining Parallelograms

Description

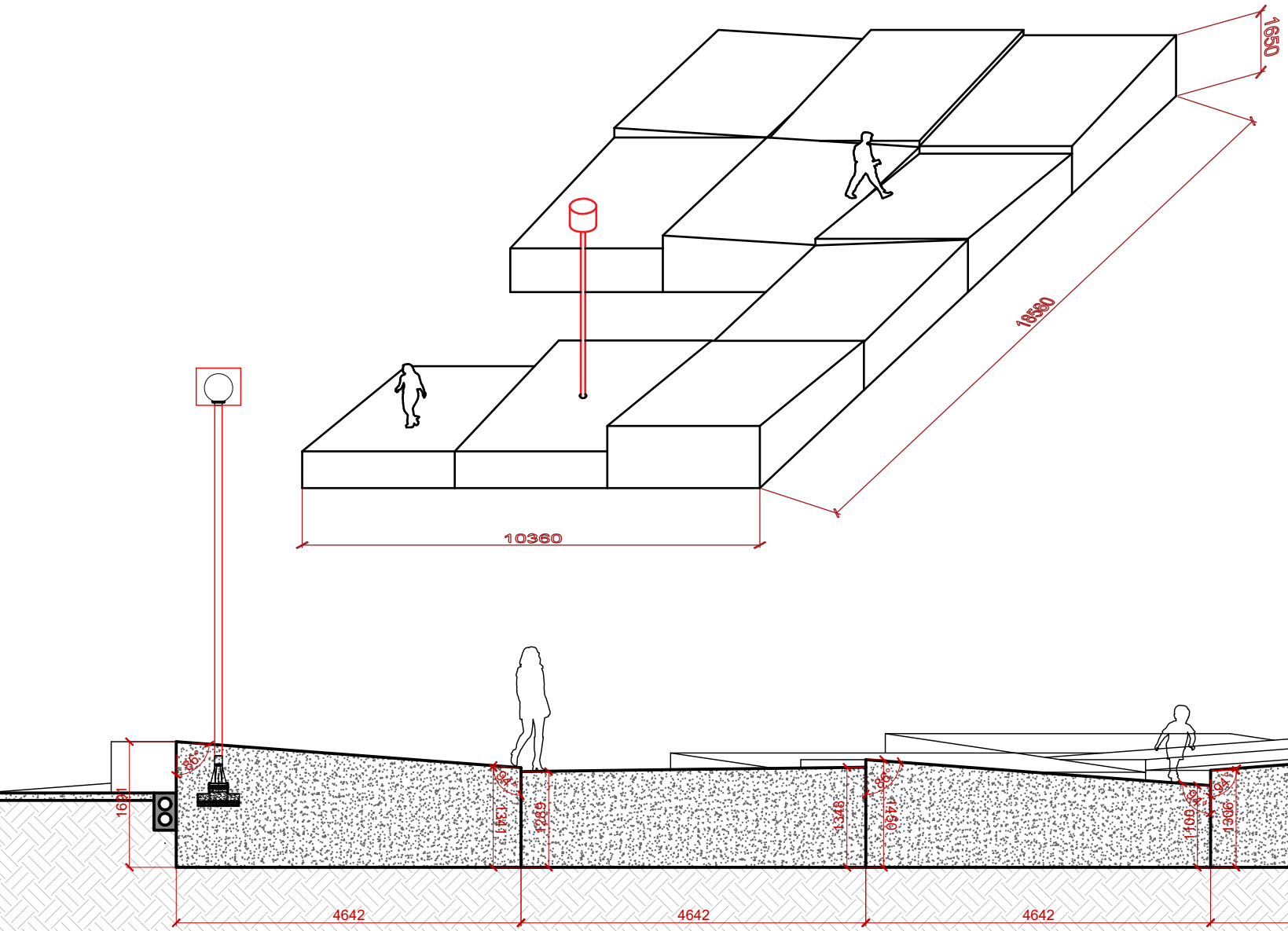
A series of parallelogram concrete blocks with 6-degree-inclining top surface in diffrent directions

Material

Smooth Concrete

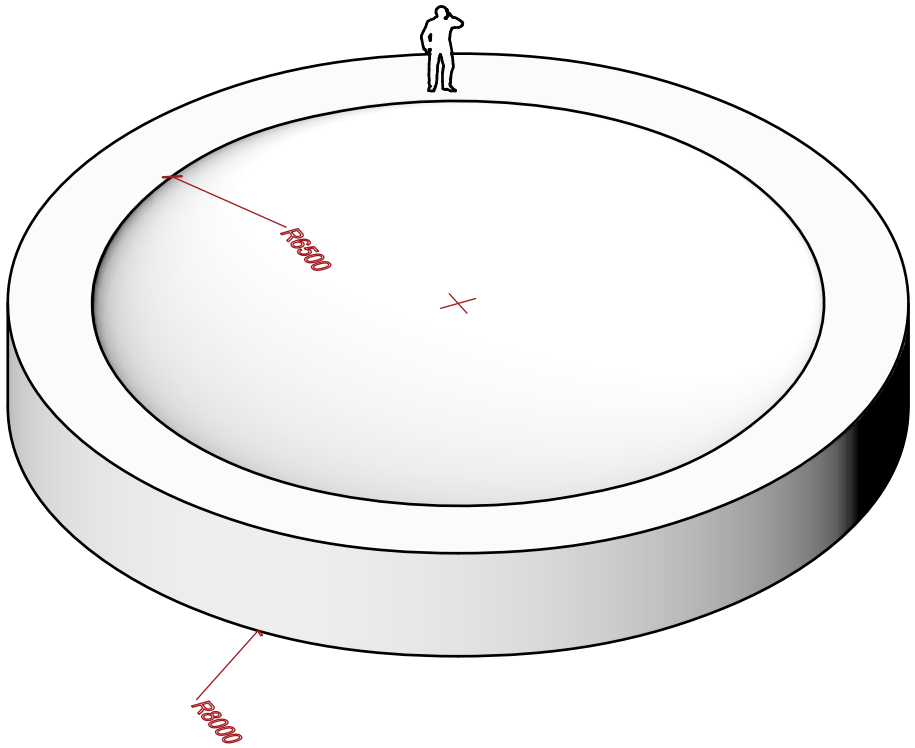
Installation

Prefabricate individual pieces in factory, or cast on site then polish until smooth finishing surface



P 04

Sunken Circle



Description

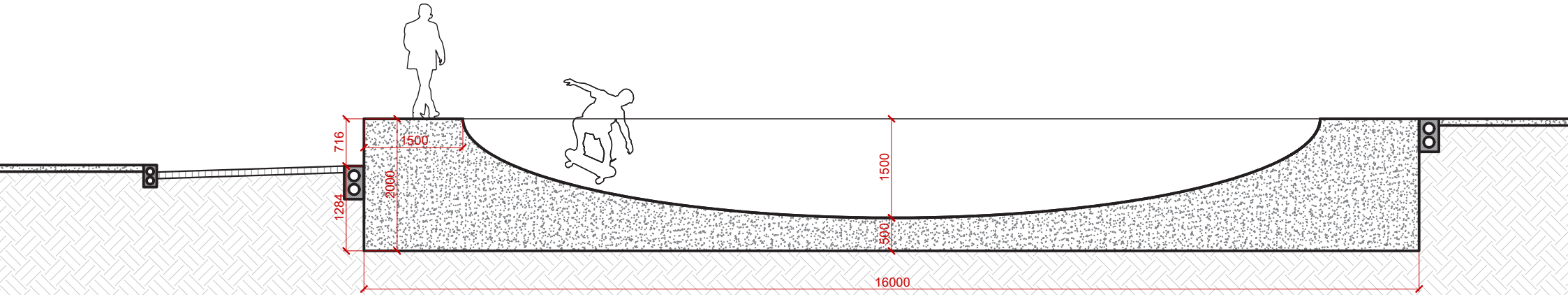
A big circular concrete block with a shallow sunken pool in the middle

Material

Smooth Concrete

Installation

Prefabricate fragmental pieces in factory, or cast on site then polish until smooth finishing surface



P 05

Truncated Cone

Description

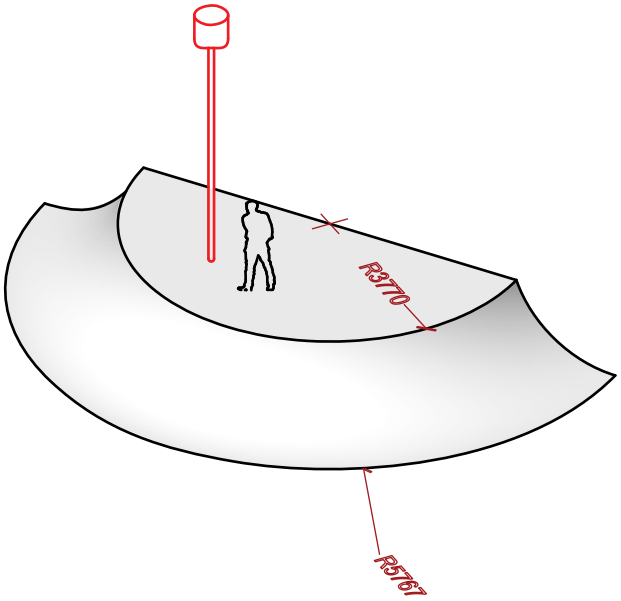
A big truncated-cone-shape concrete block with a smooth surface merging into the flat ground level

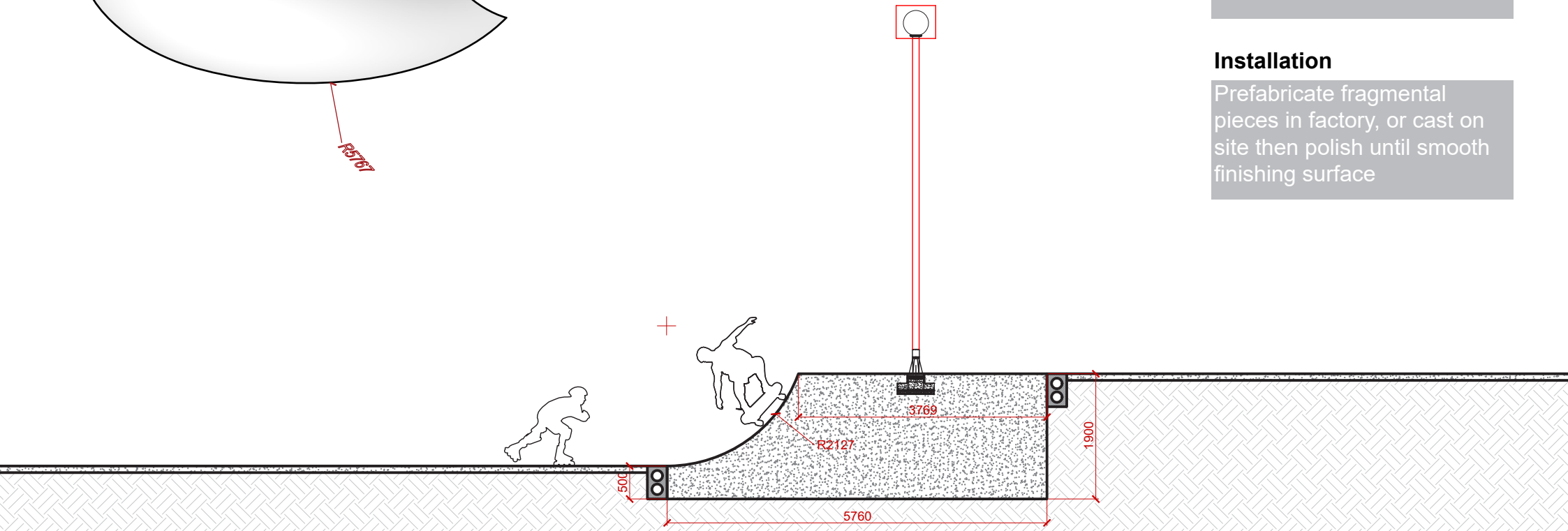
Material

Smooth Concrete

Installation

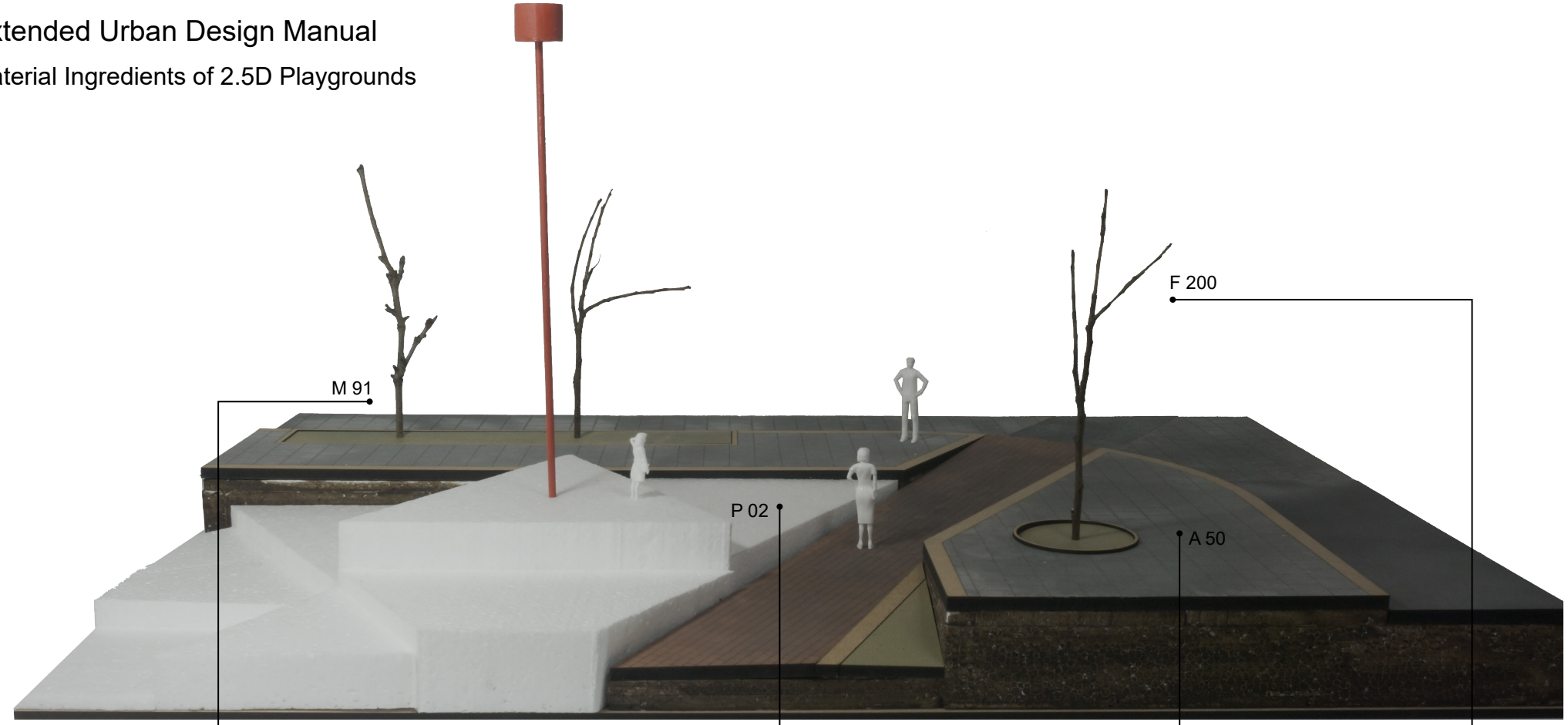
Prefabricate fragmental pieces in factory, or cast on site then polish until smooth finishing surface

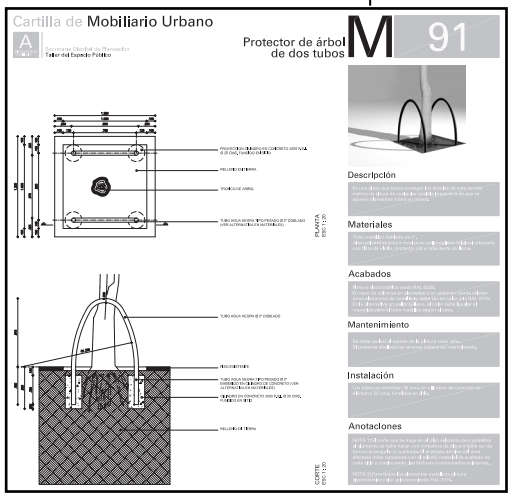


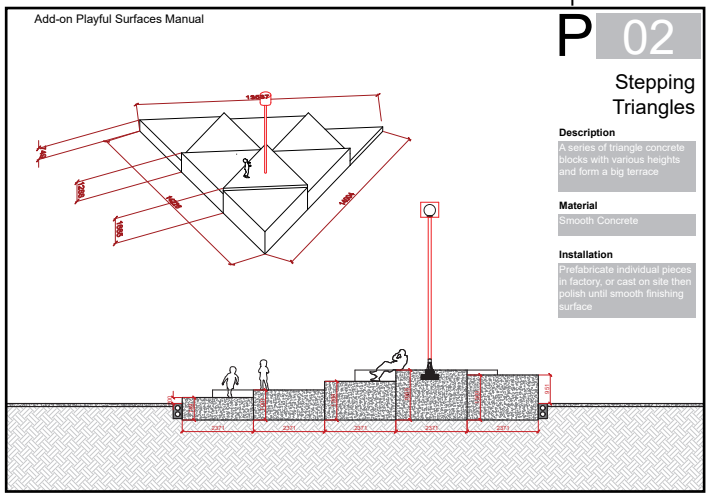


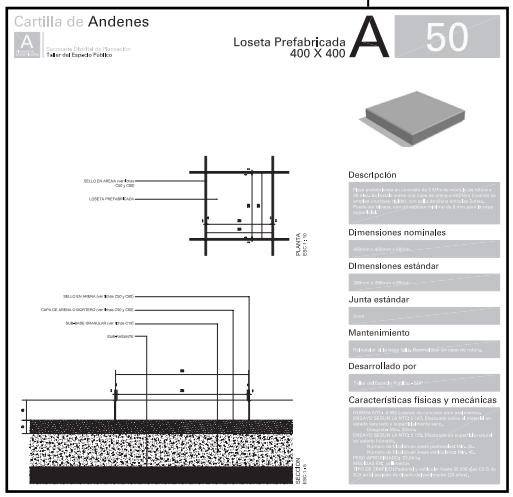
Extended Urban Design Manual

Material Ingredients of 2.5D Playgrounds



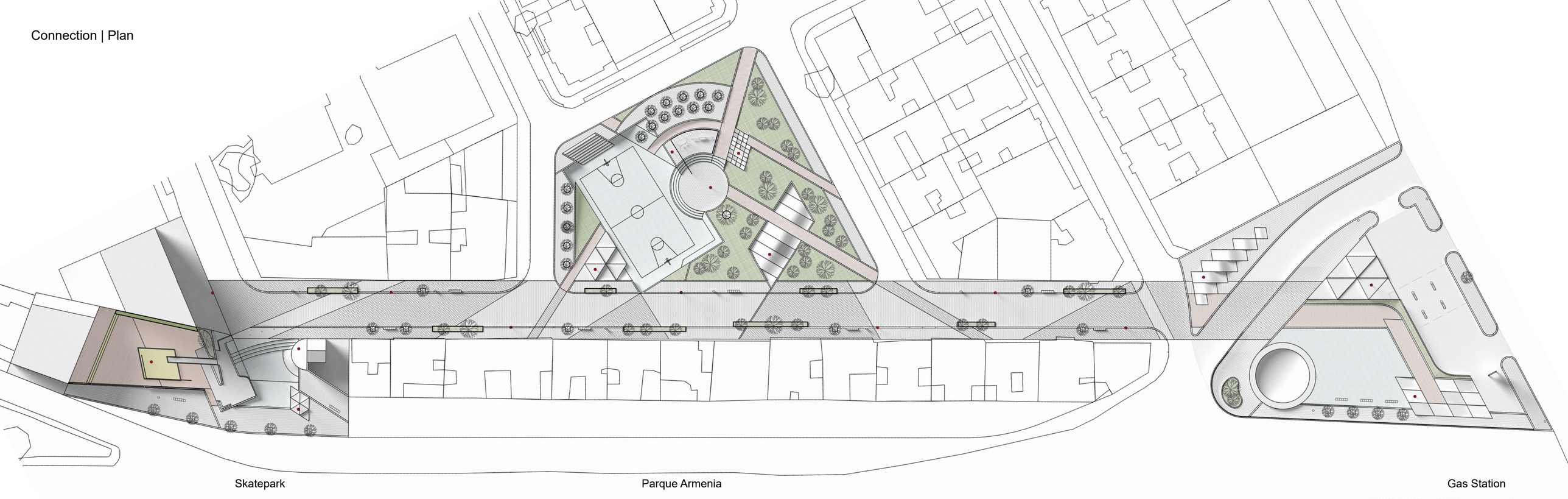




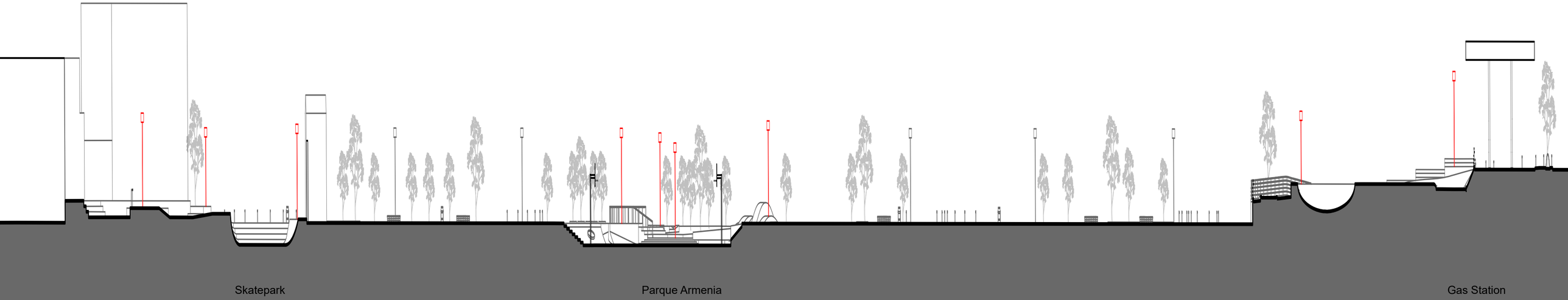


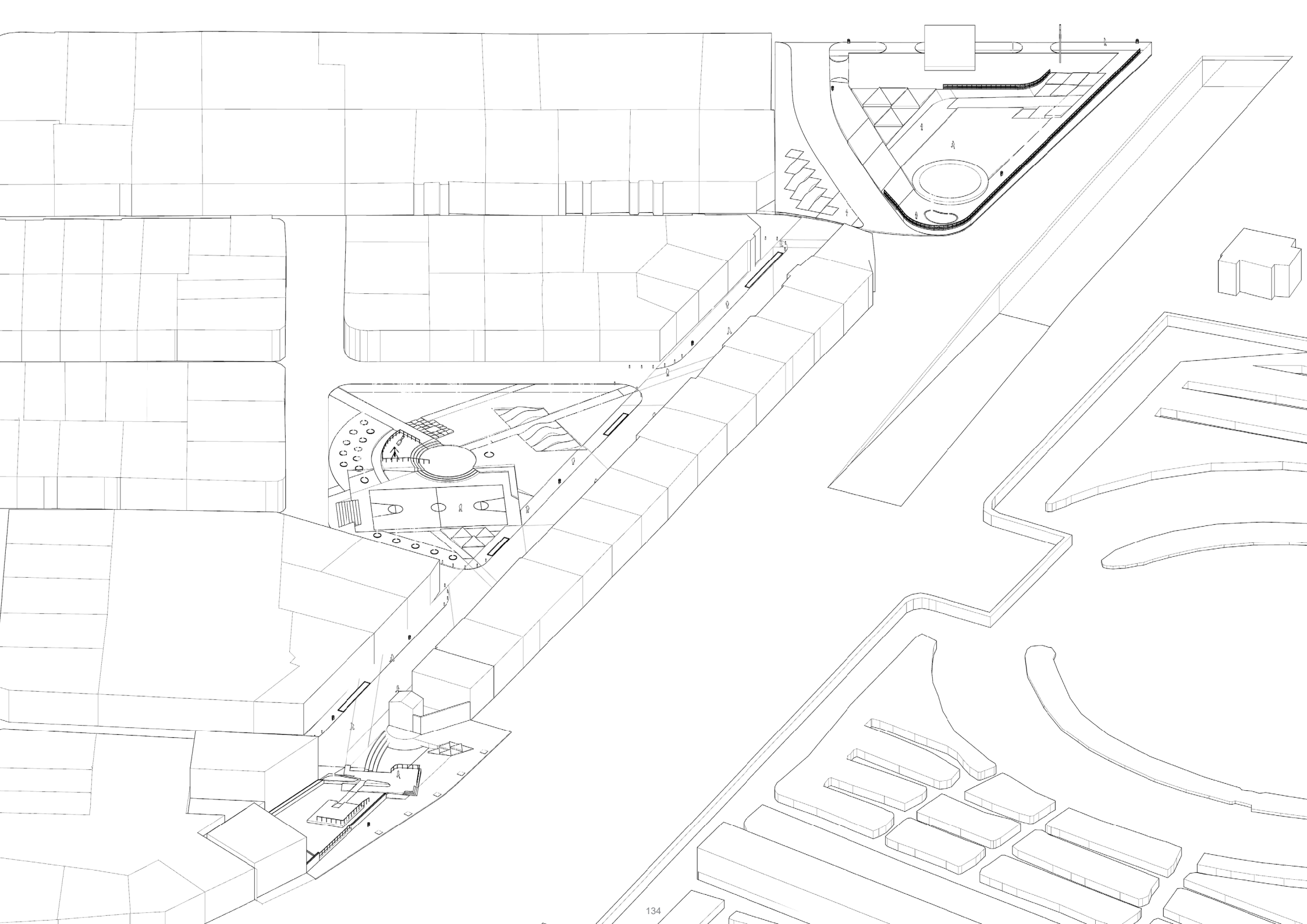
Pedestrian Connection

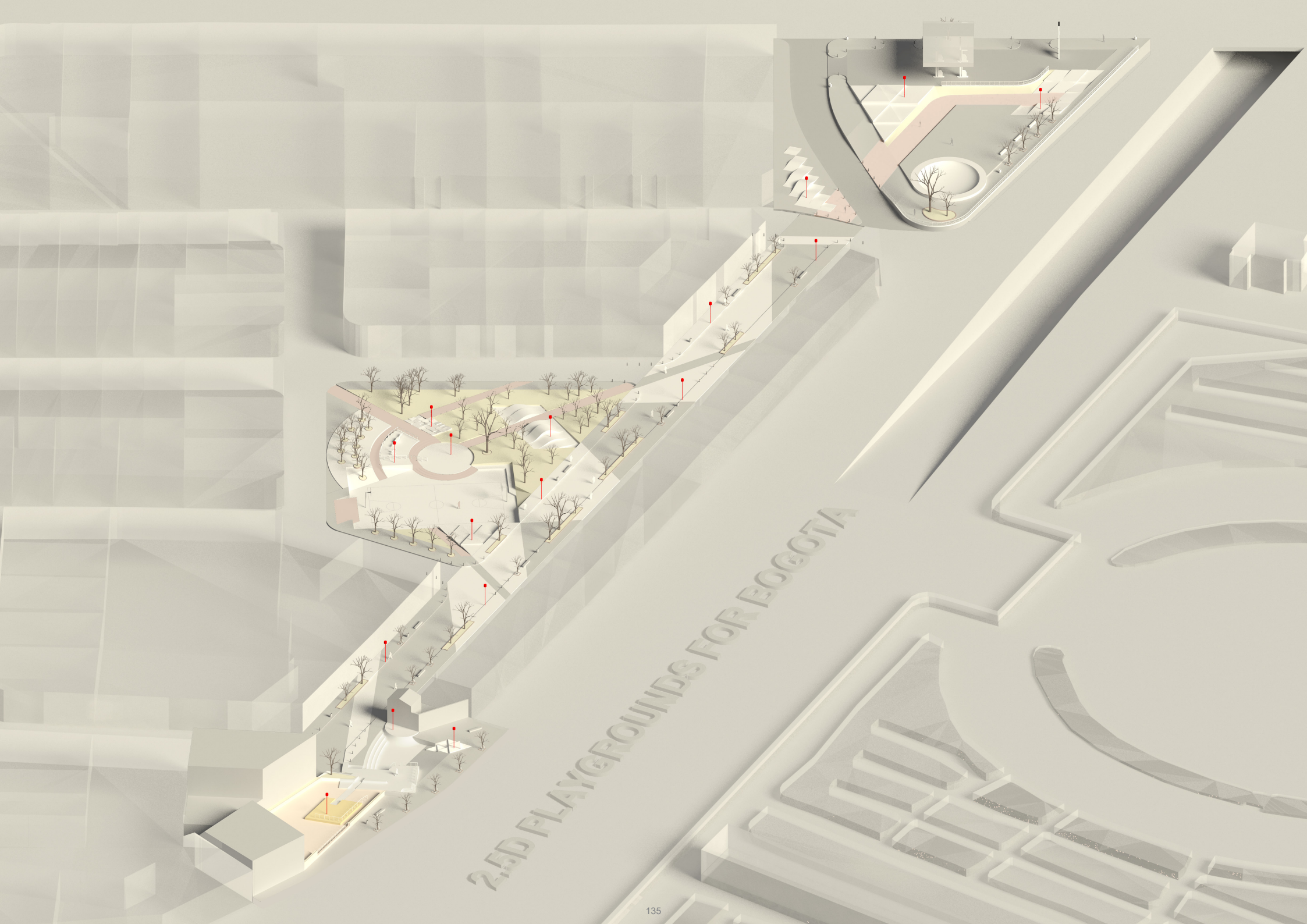
Connection | Plan

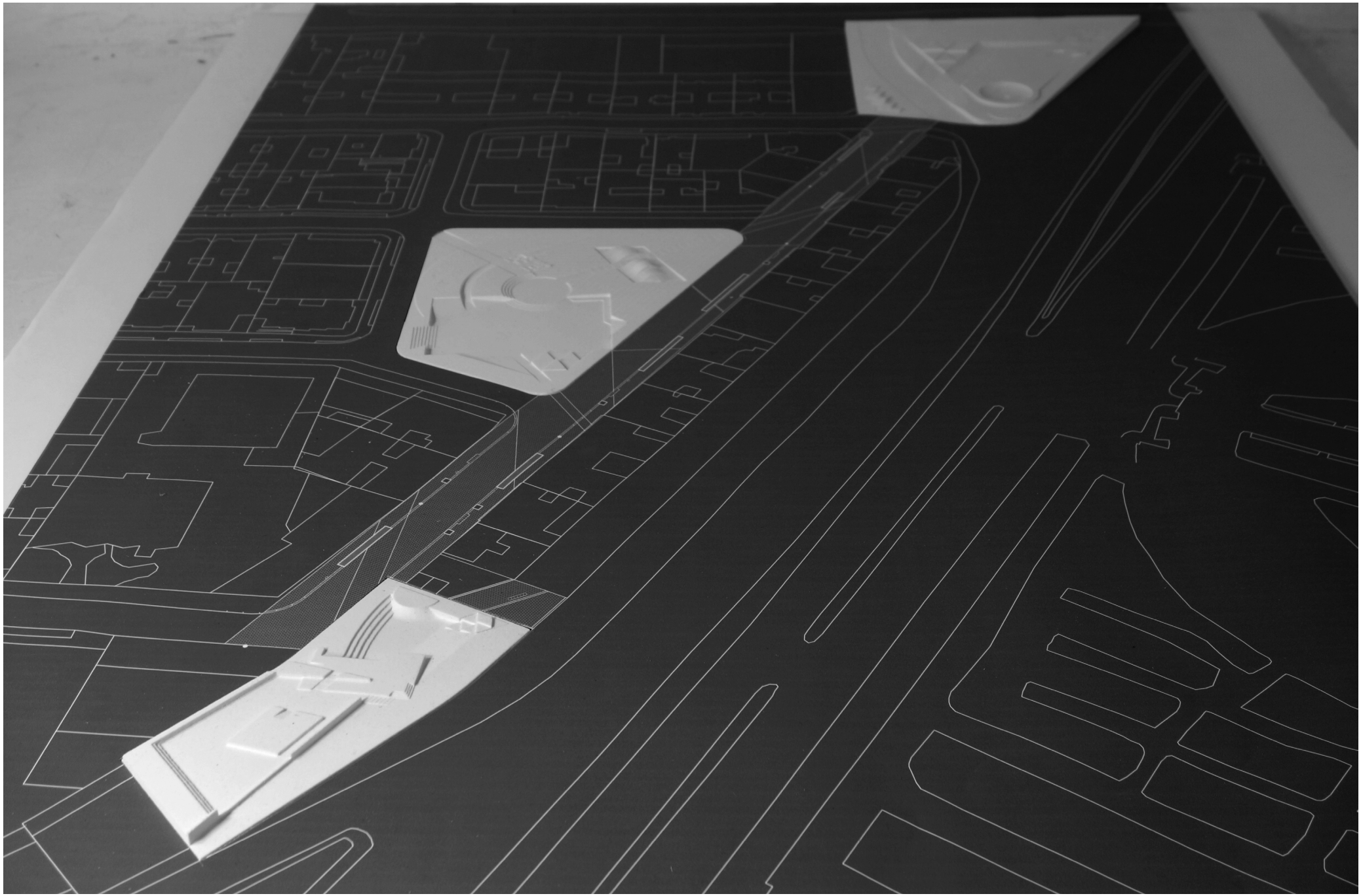


Connection | Section (vertical dim x3)





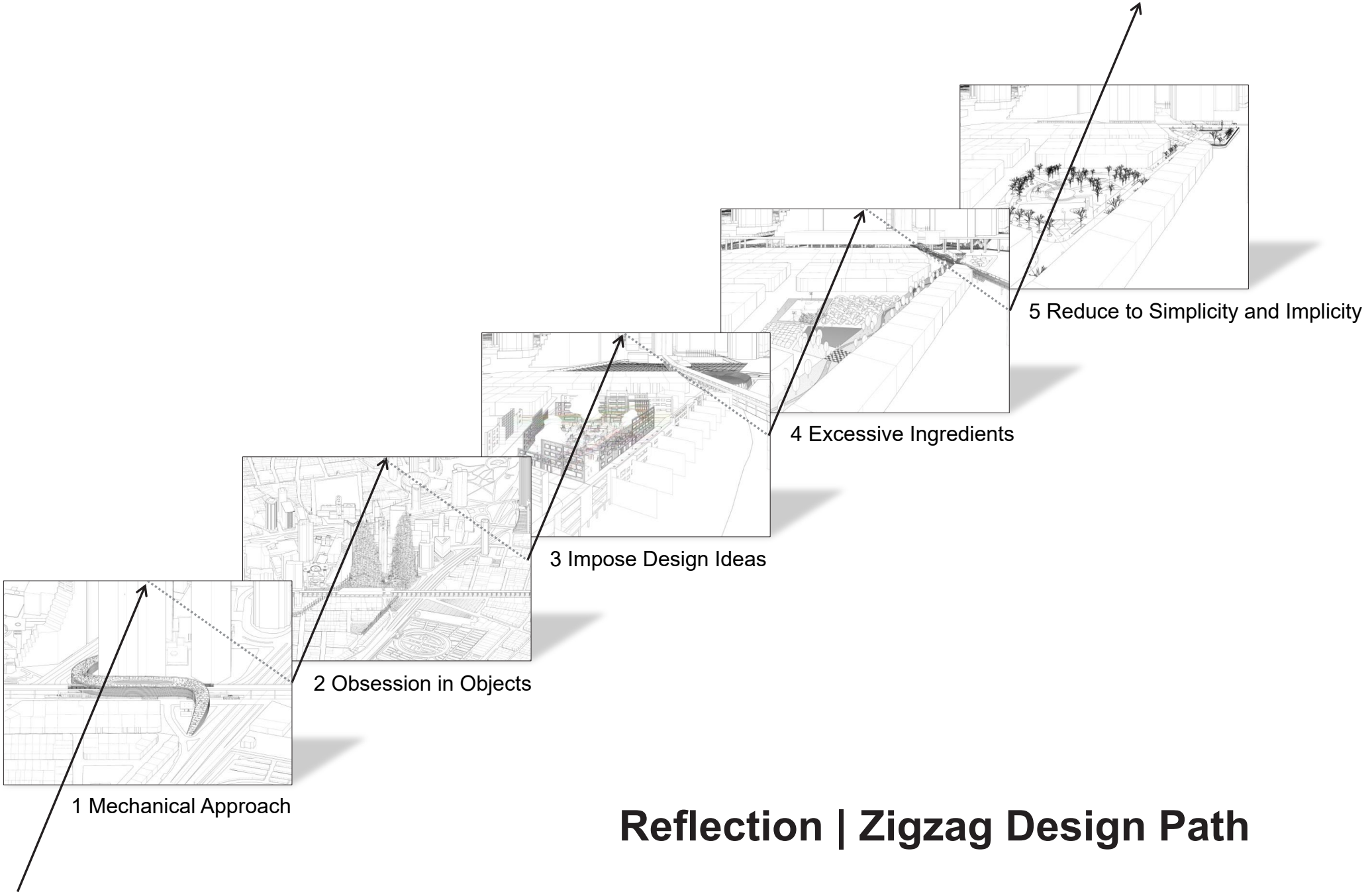

2.5D PLAYGROUNDS FOR BOGOTA



After such series of interventions, I expect that some boring, leftover and fragmental public spaces in central Bogota area will be reactivated by a constellation of exciting “2.5D playgrounds”.

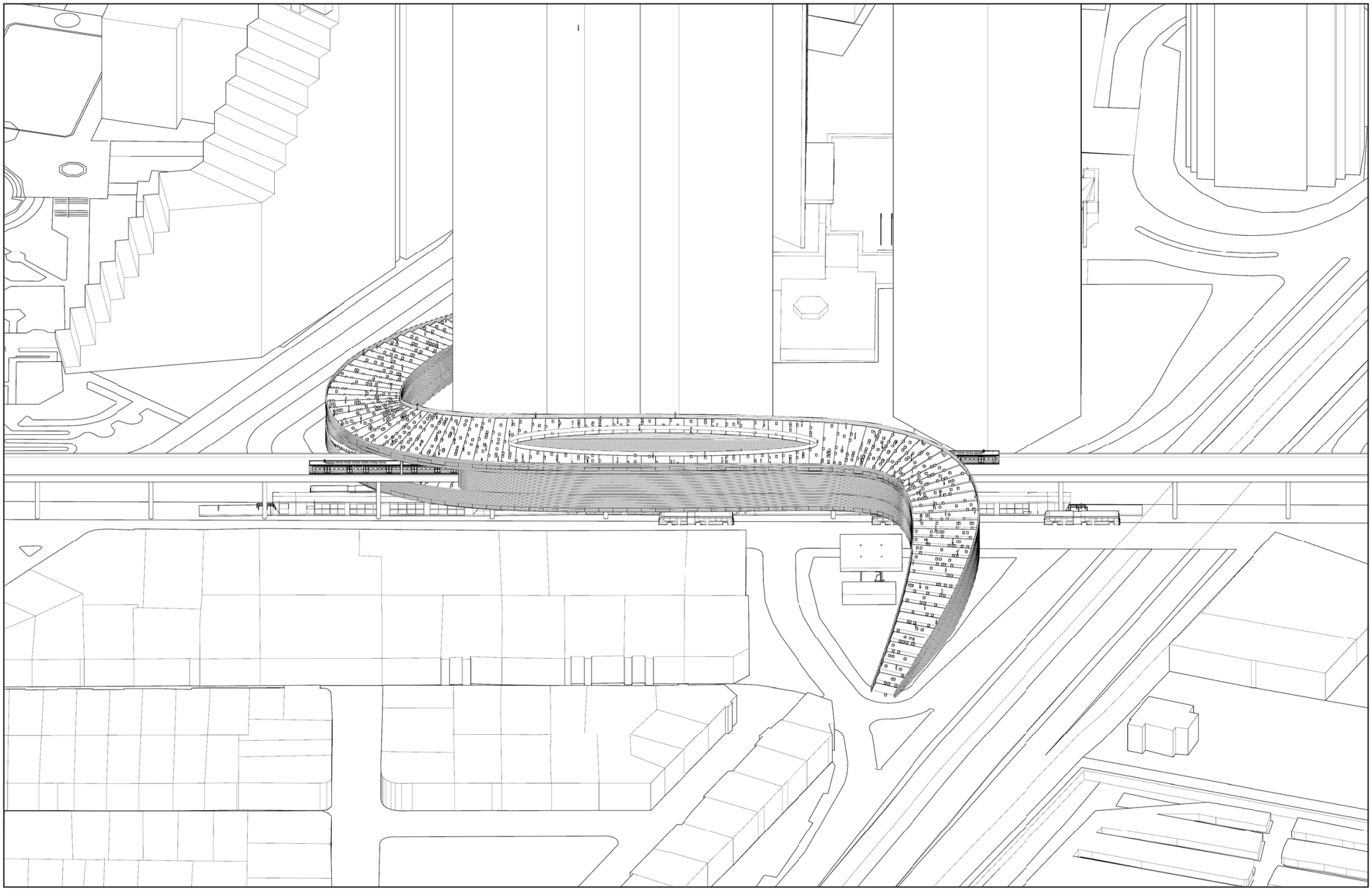
These playgrounds should be unconventional as the playful quality is achieved by manipulating the ground surface instead of adding playful objects. Yet they are humble as the minor level difference and usage of familiar materials enable them to merge into the local context.

I expect that these “2.5D playgrounds” will bring Bogota citizens together, stimulate their playful actions, and enable them to recognize the scattered playgrounds as a constellation of “playful commons”.

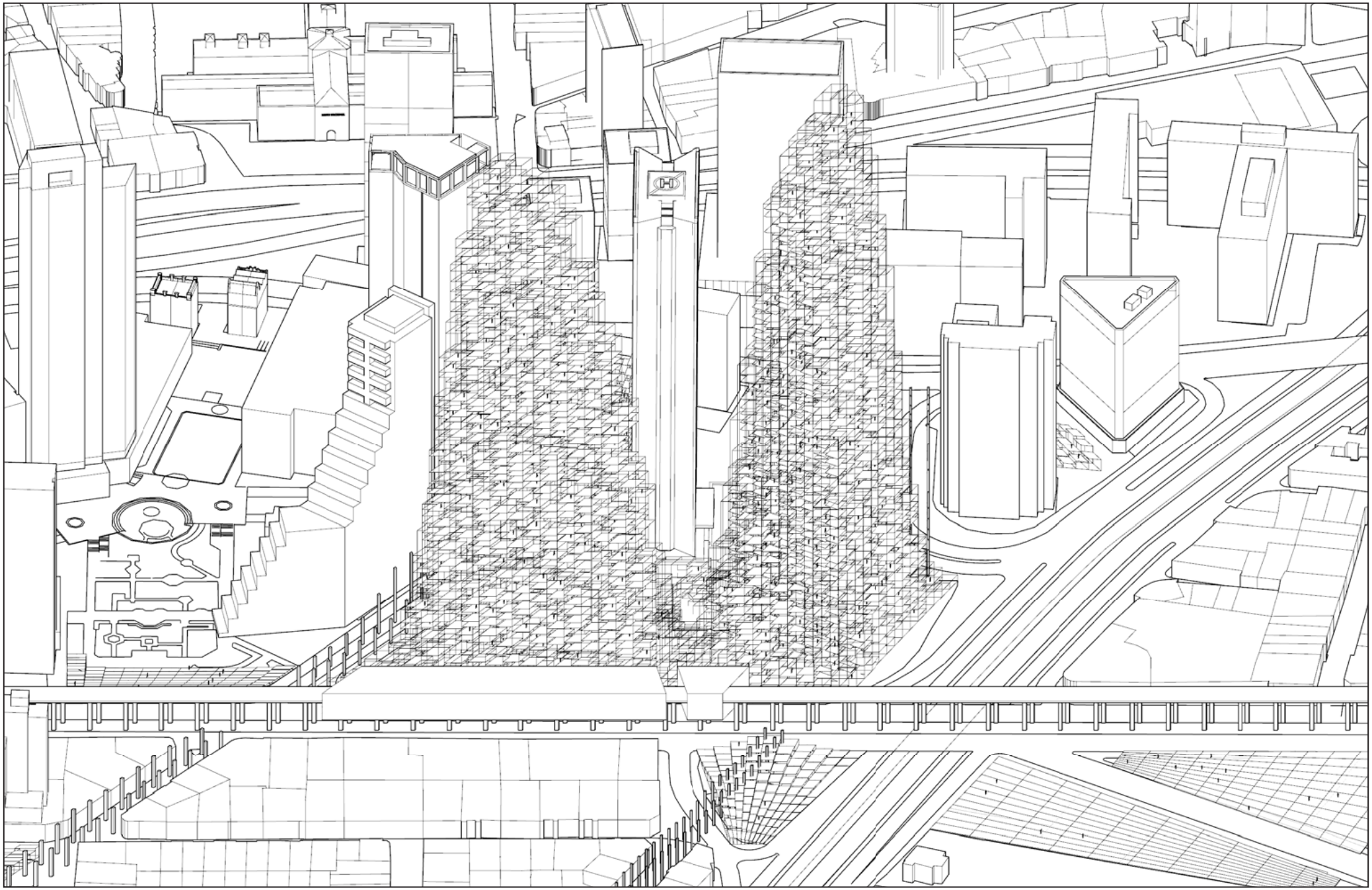


Reflection | Zigzag Design Path

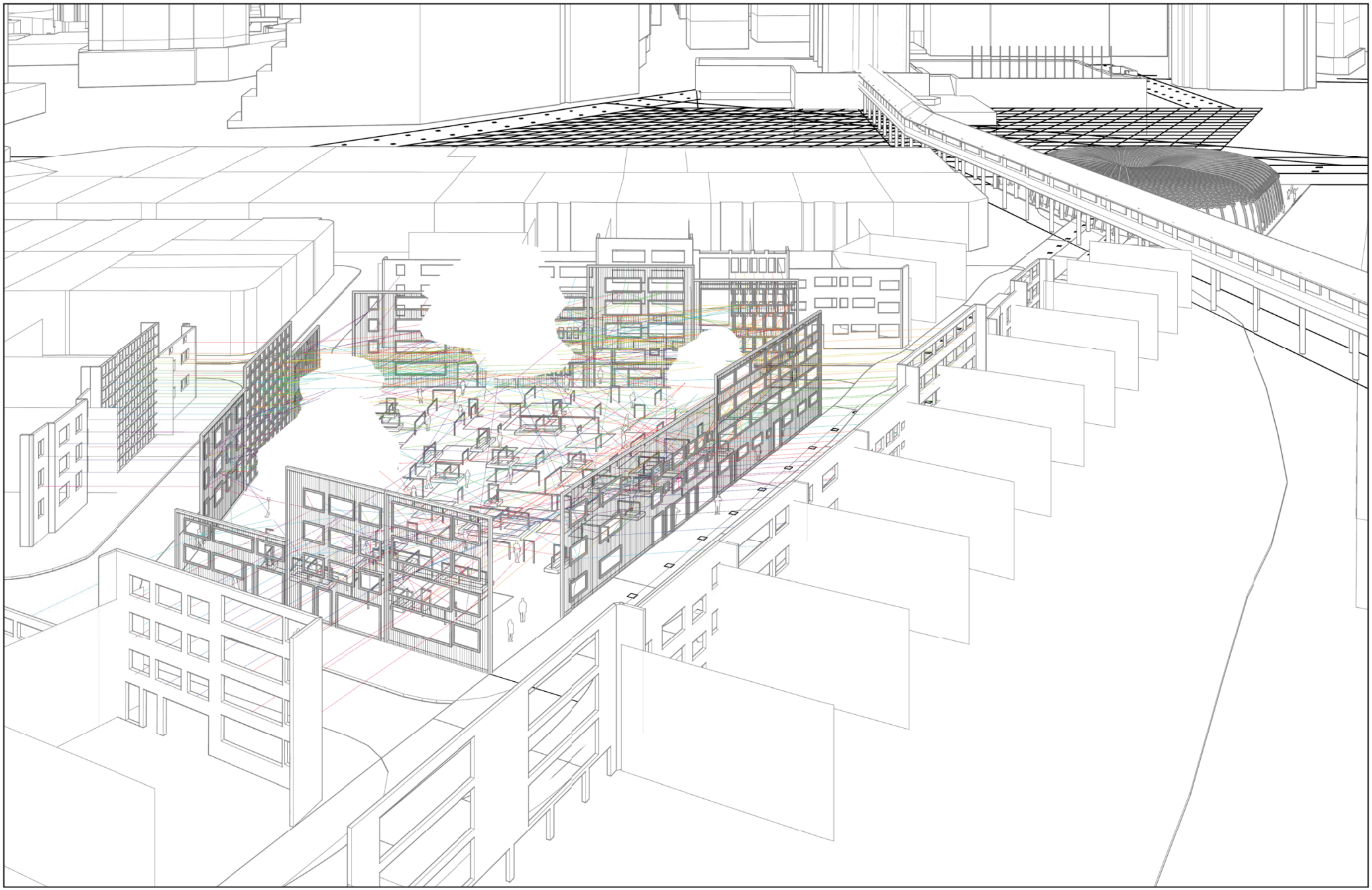
1 Mechanical Approach | Metro Station



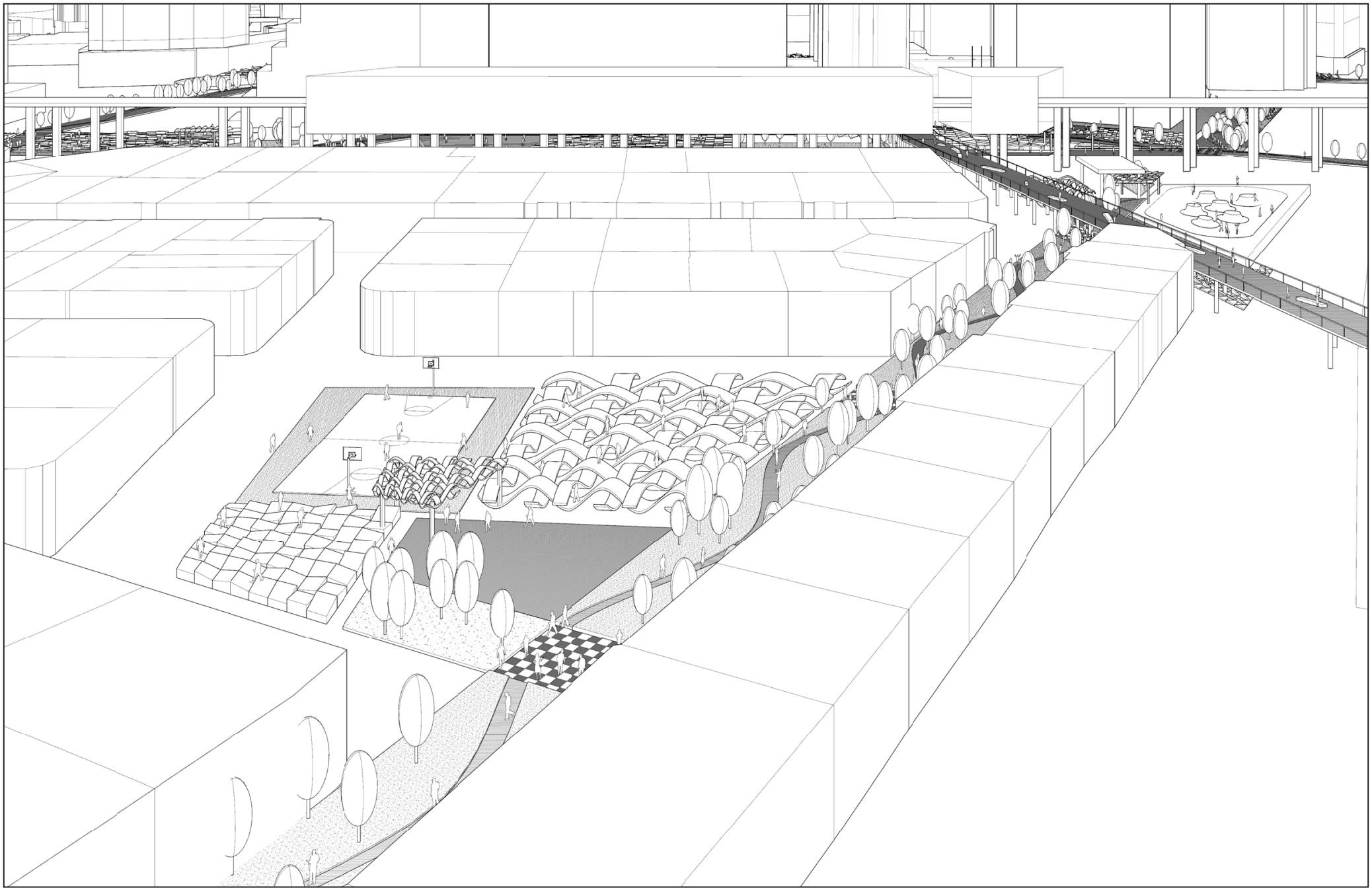
2 Obsession in Objects | Alternative Twin Towers

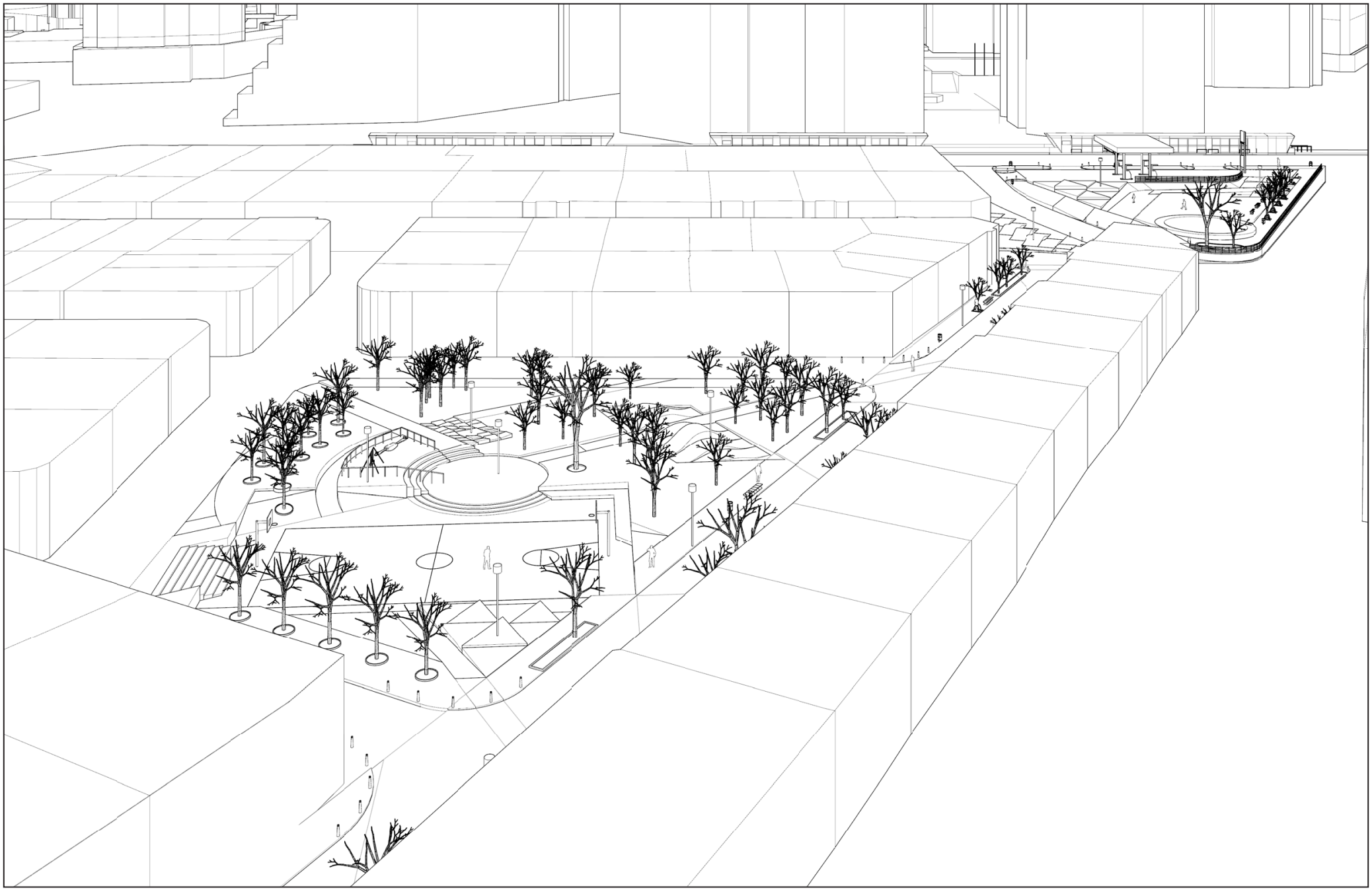


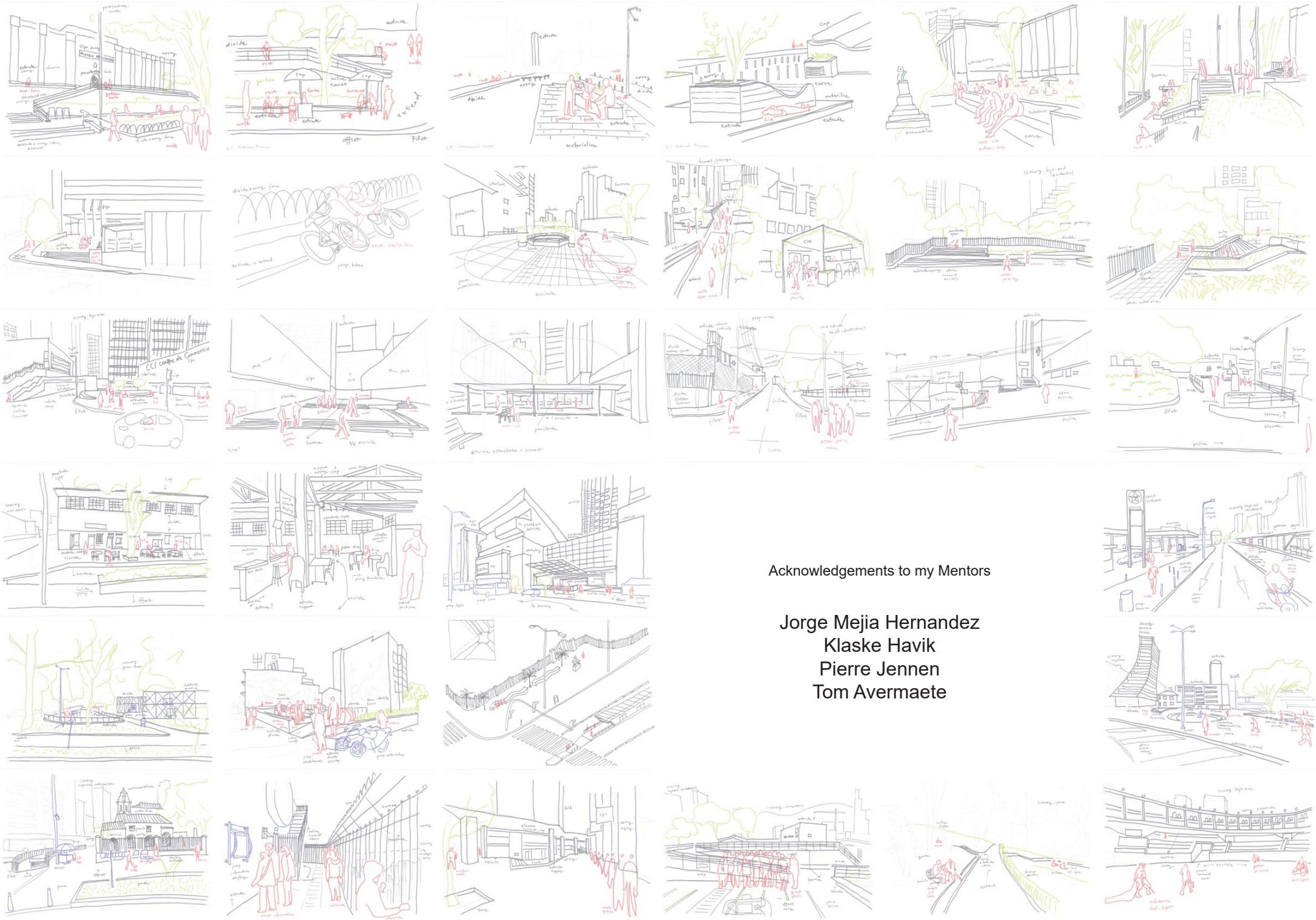
3 Impose Design Ideas | Community Games



4 Excessive Ingredients | Arbitary Ground Patterns







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