

FROM PLANE

TO POD

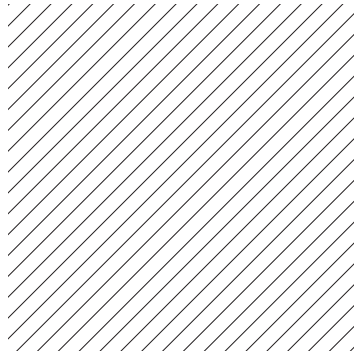


WE TRAVEL FAST ABOVE..
BY PLANE

..AND SOON FAST BELOW
BY HYPERLOOP

NEW MODE OF TRANSPORTATION

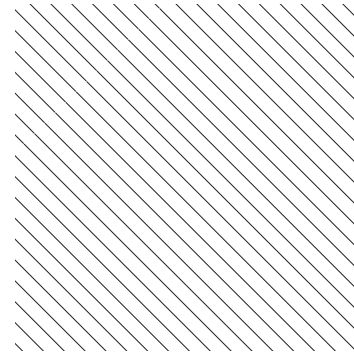
BETWEEN STATION AND AIRPORT



HYPERLOOP



STATION



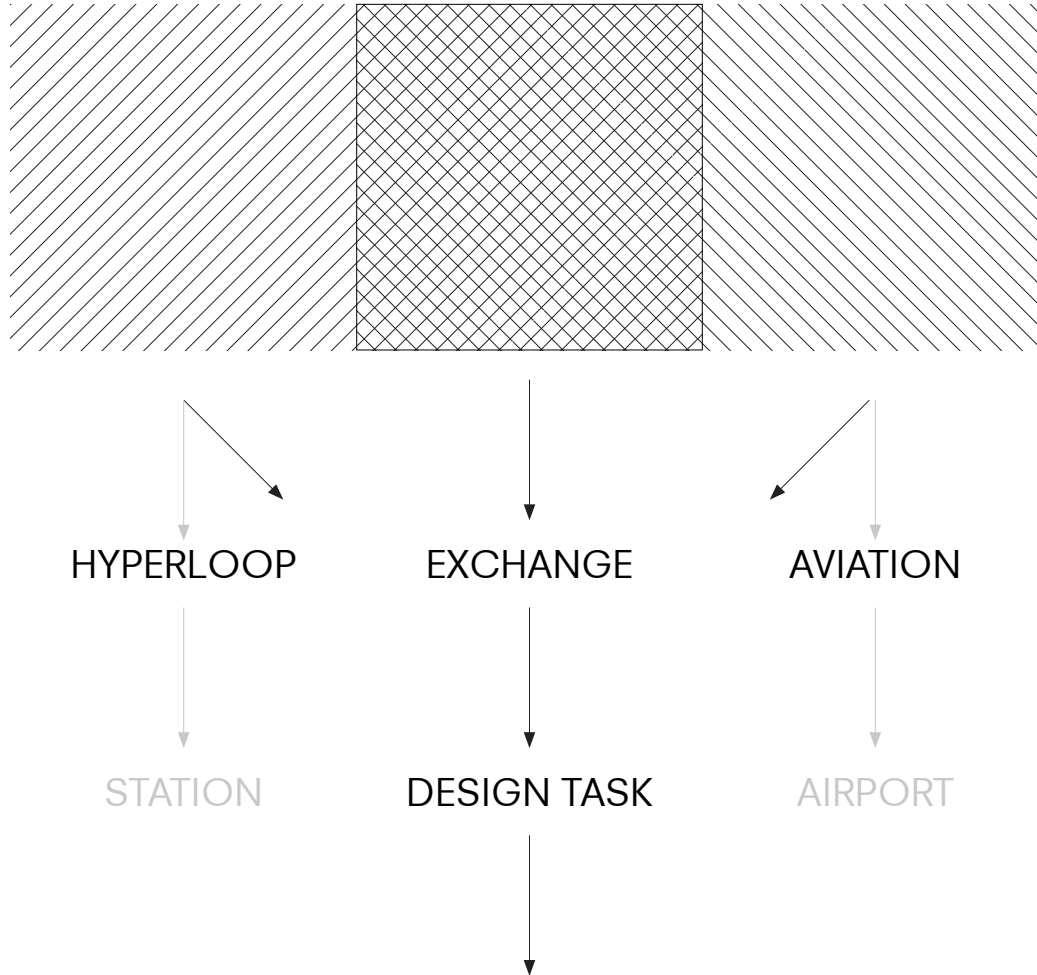
AVIATION



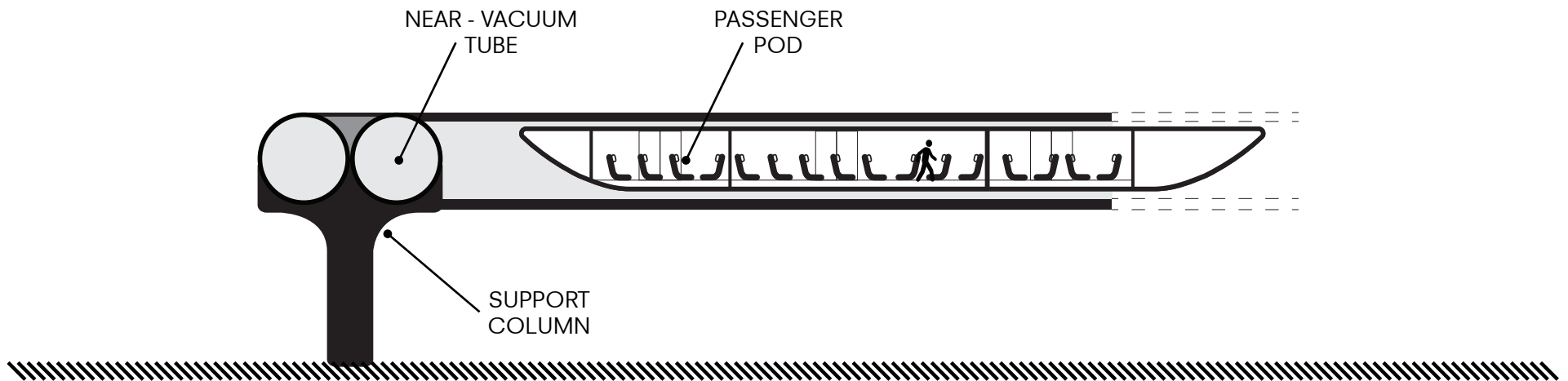
AIRPORT

NEW MODE OF TRANSPORTATION

DESIGN TASK



HYPERLOOP GENERIC OVERVIEW



CAPACITY: 50 - 120 ppl
AVERAGE SPEED: 500 - 800 km/h
OUT OF VEHICLE TIME: +- 1.5 hrs
DISTANCE FOR STOPPING & GOING: +- 500 m

BUT WHY?

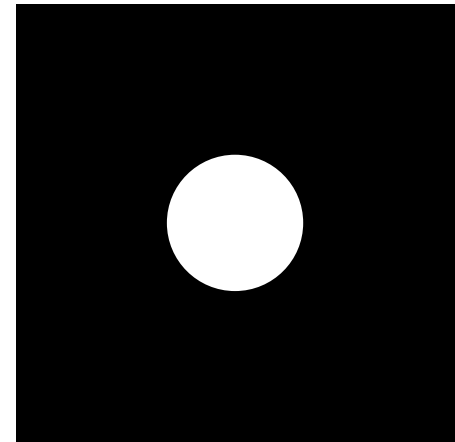
1: PROBLEMATIC AVIATION DENSITY IN EUROPEAN AIRSPACE



2: INTEGRATING A NEW CONCEPT; FULFILLING A NEED



3: GAB IN KNOWLEDGE



RESEARCH

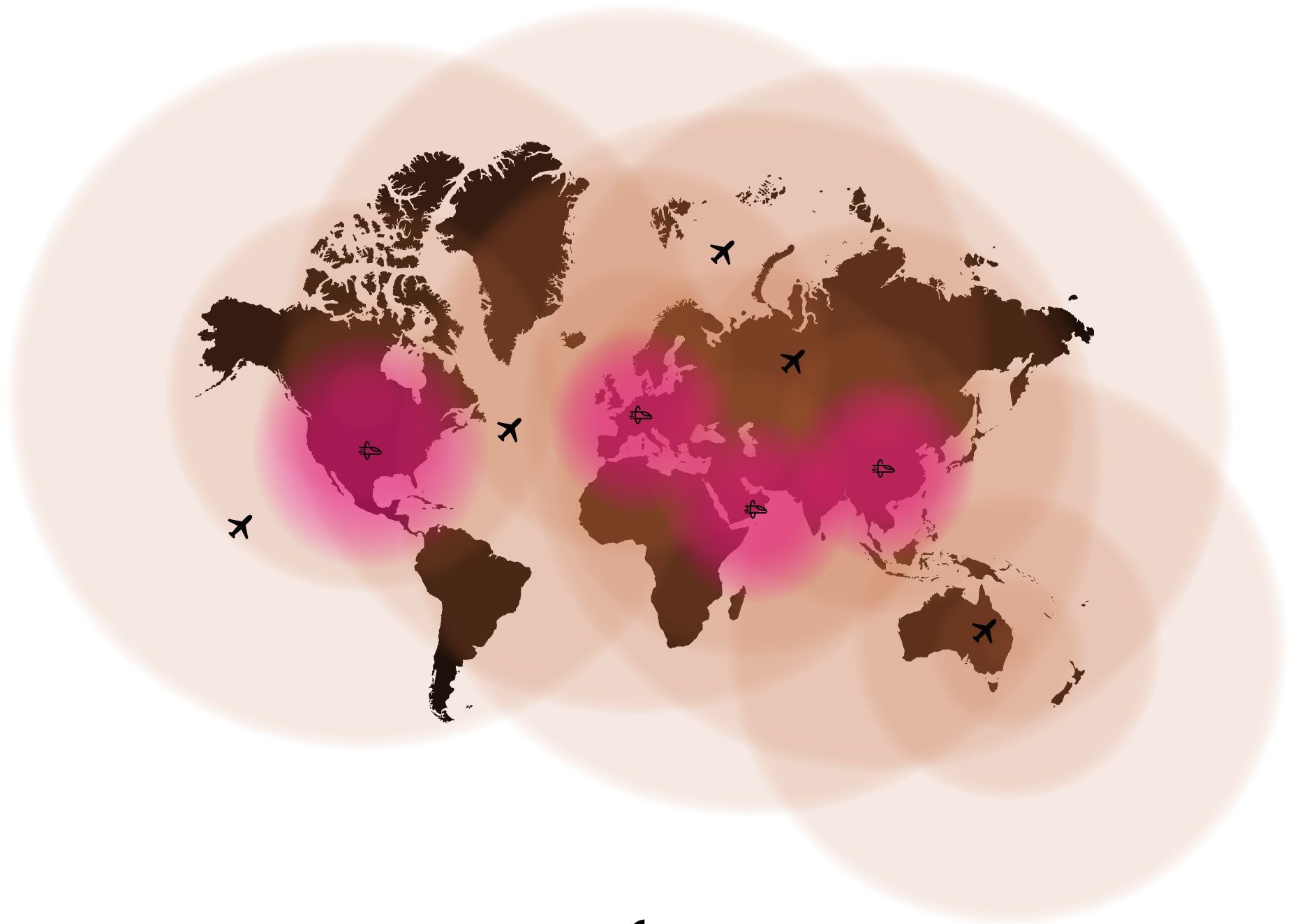


// RESEARCH
QUESTION//

WHAT KIND OF SPACE DO WE NEED IN ORDER TO MAKE
PASSENGER EXCHANGE BETWEEN HYPERLOOP AND
AVIATION POSSIBLE,
AND WHAT DOES THAT LOOK LIKE IN ARCHITECTURAL
TERMS?

PROBLEM DESCRIPTION

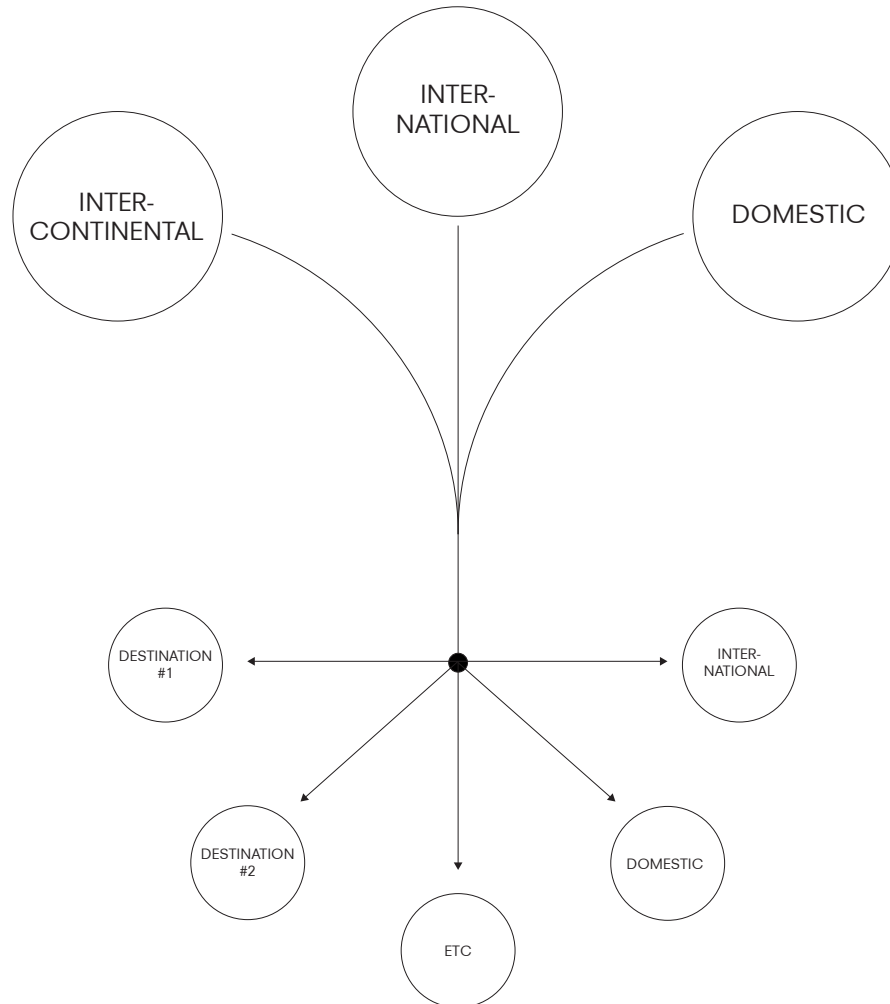
COMBINING STRENGTHS



CLIENT & AMBITION

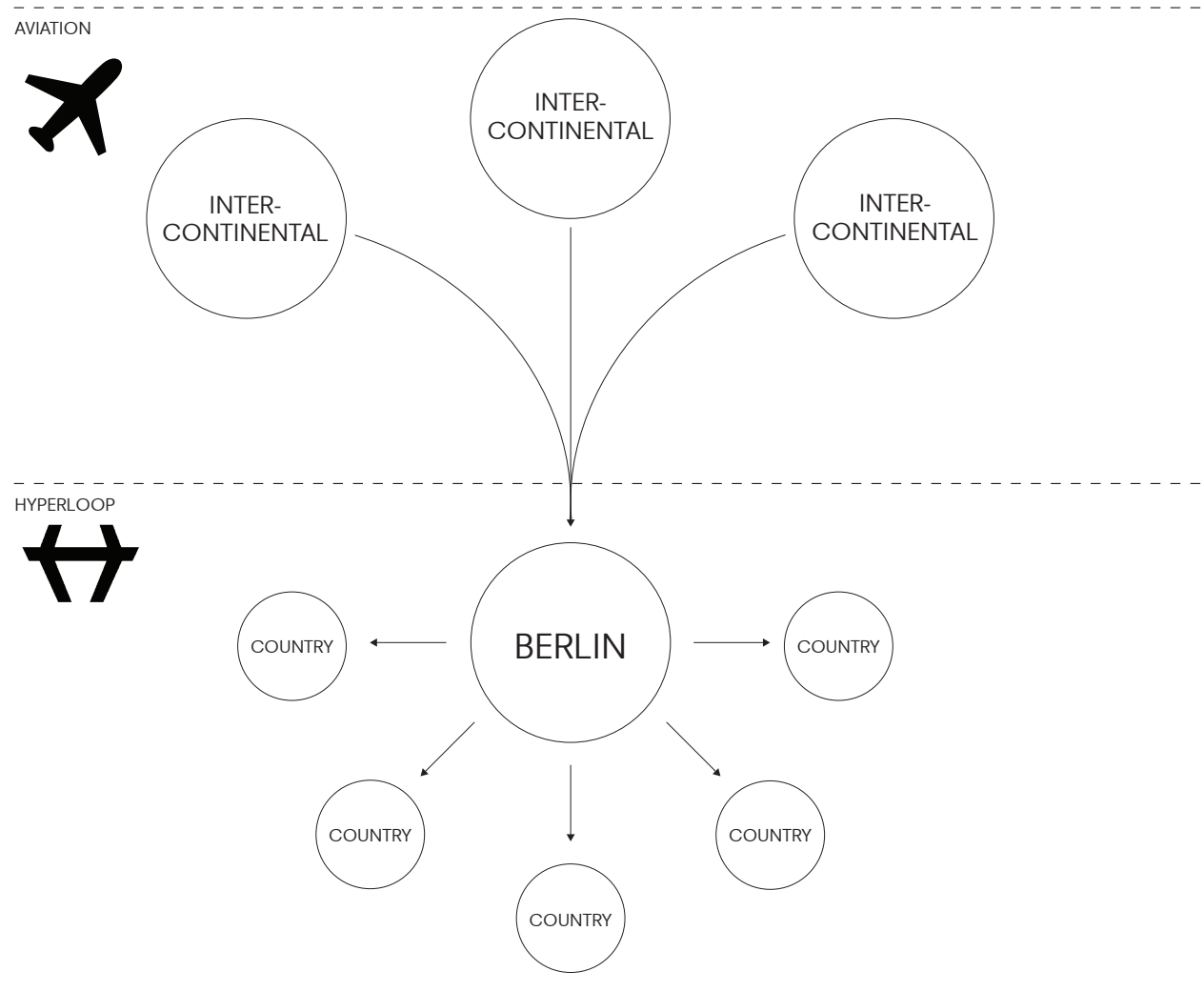
GATE TO EUROPE

AVIATION



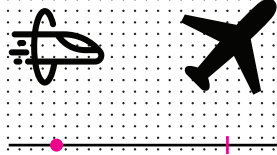
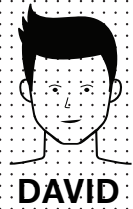
CLIENT & AMBITION

GATE TO EUROPE

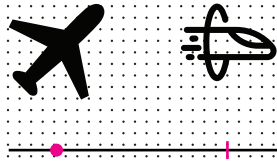
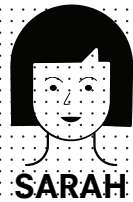


STAKEHOLDERS

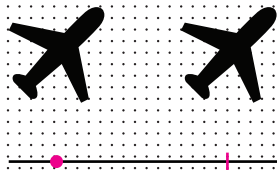
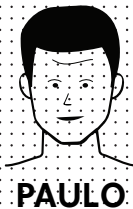
3 MAIN USER TYPES



"I WANT TO BE **EARLY**, RELAX A BIT AND HAVE SOMETHING TO EAT"



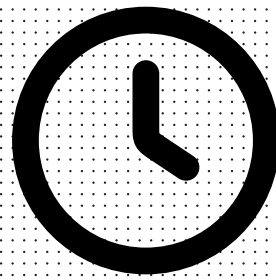
"I WANT TO MOVE ON AS **FAST** AS POSSIBLE"



"I WANT TO MOVE **SLOW**, BECAUSE I HAVE TIME TO KILL"

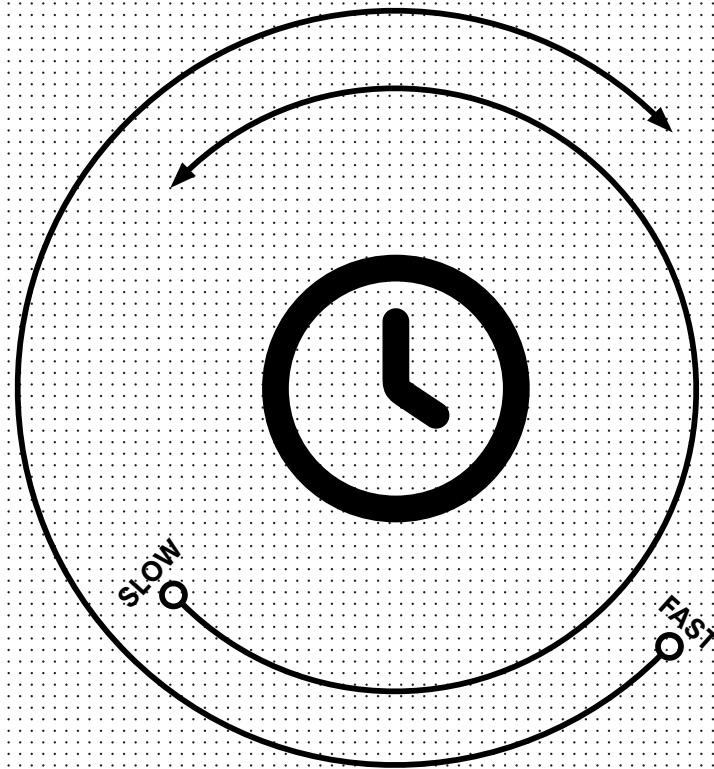
STAKEHOLDERS

CONFLICTING NEEDS



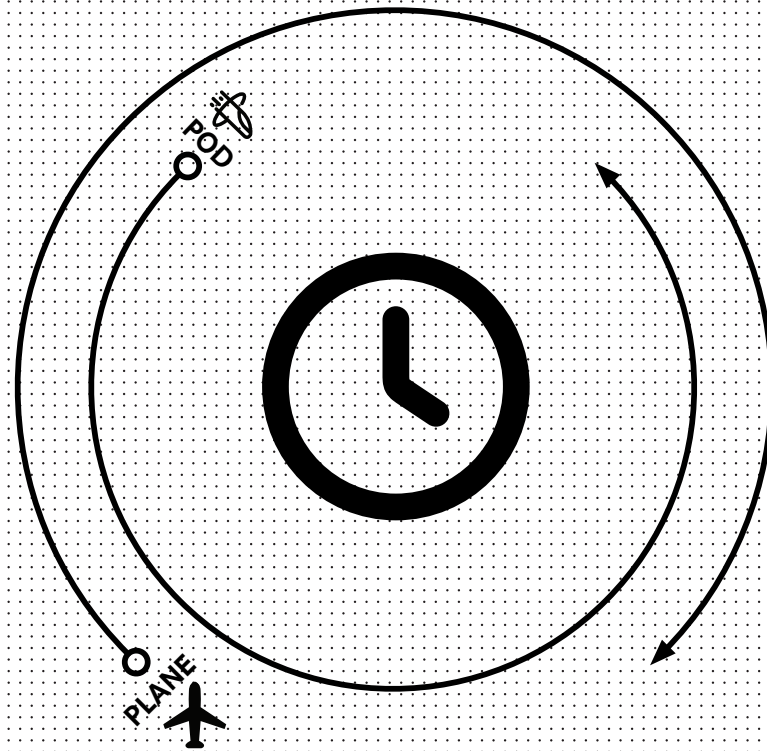
STAKEHOLDERS

CONFLICTING NEEDS



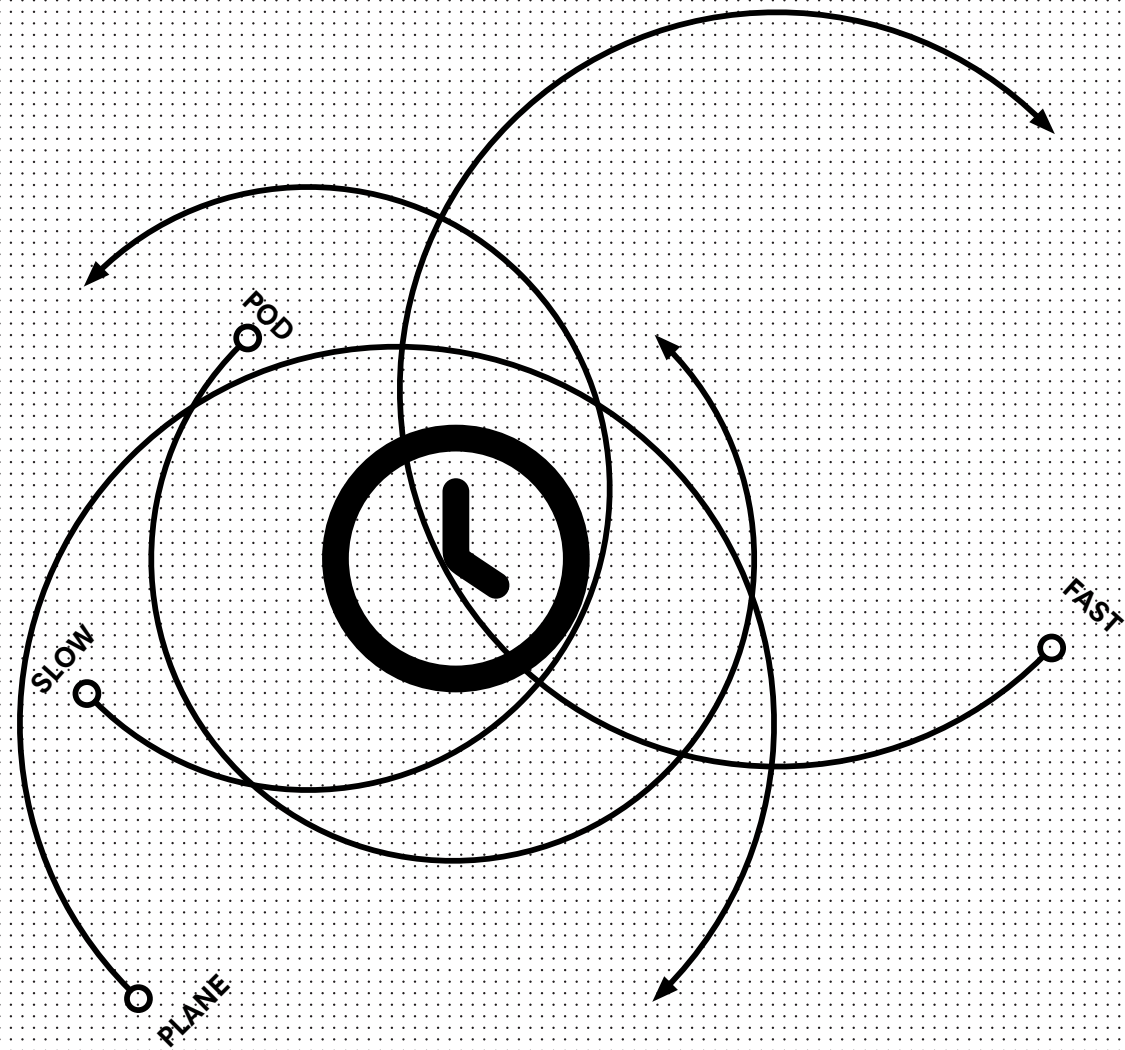
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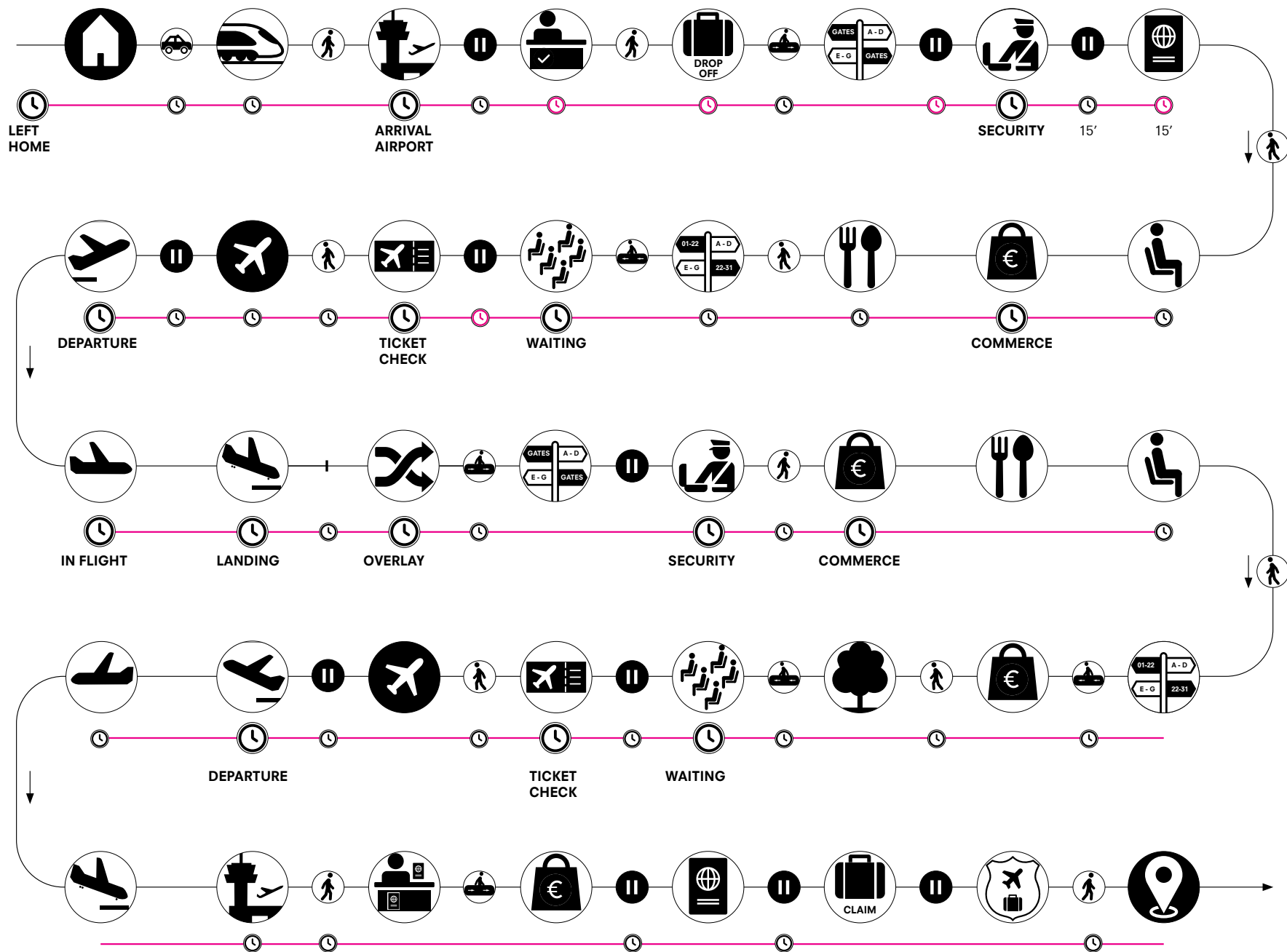
CONFLICTING NEEDS

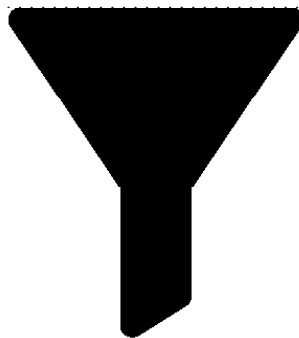
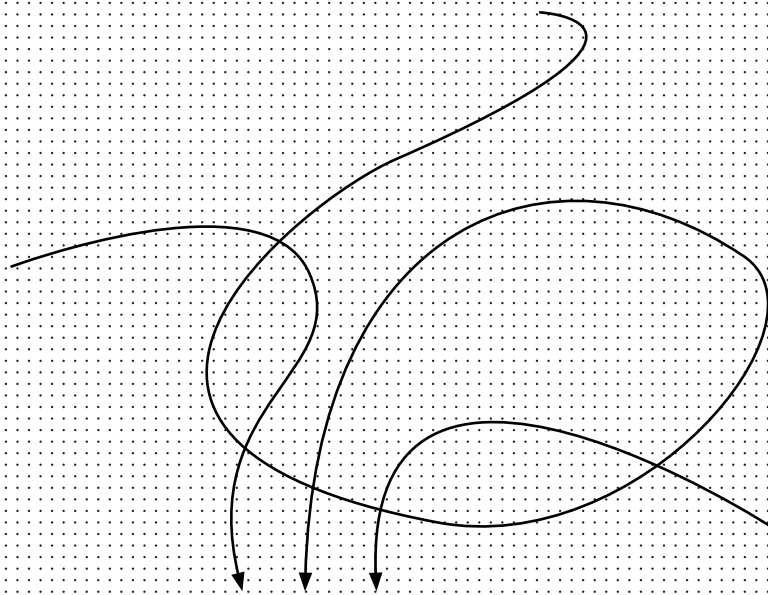


STAKEHOLDERS

CONFLICTING NEEDS



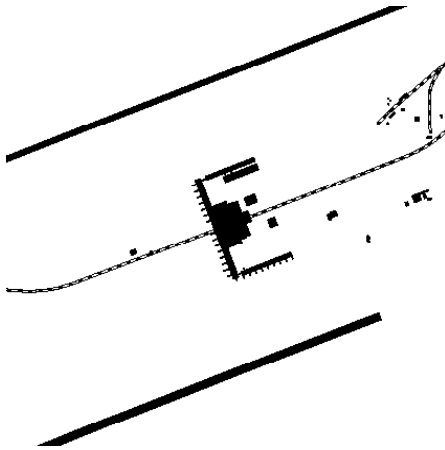




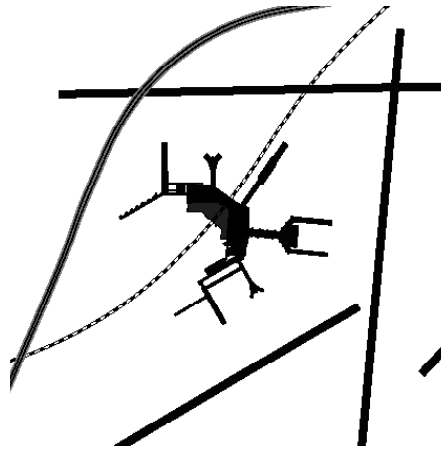
?

BENCHMARKING

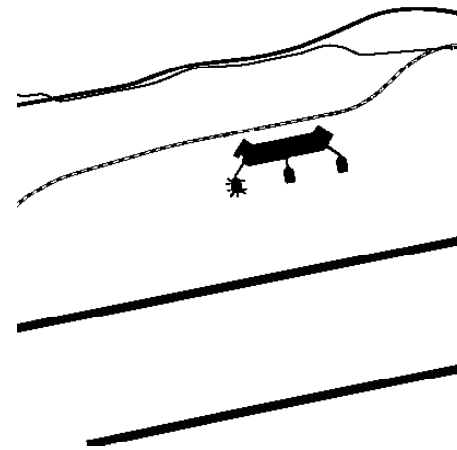
ANALYSES



Brandenburg - Berlin



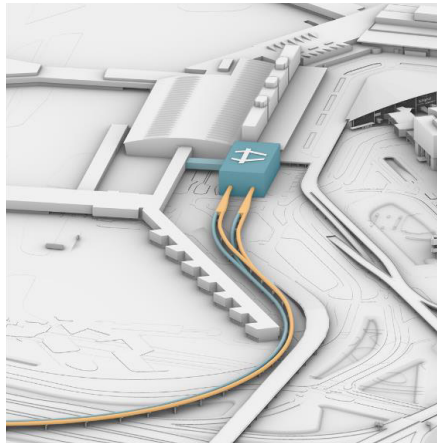
Schiphol - Amsterdam



Malpensa - Milan

BENCHMARKING

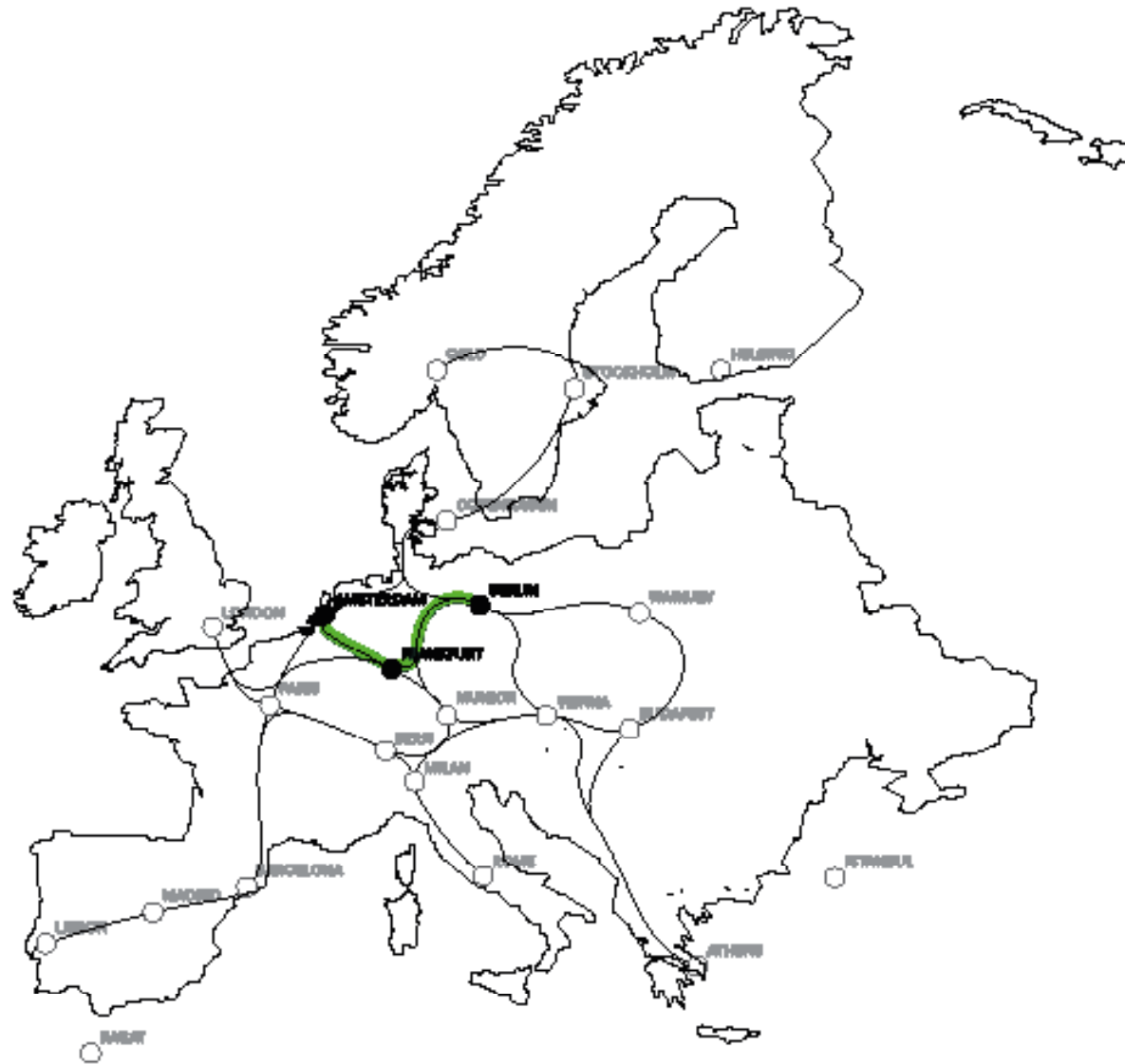
ANALYSES



SCHIPHOL HYPERLOOP
(Geuze et al., 2020)

BENCHMARKING

CONCLUSIONS



FOCUS AREA AMST - FRA - BER,
2040

BENCHMARKING

CONCLUSIONS

PASSENGERS

17.500.000

PAX_{MAX} / HOUR

5.000

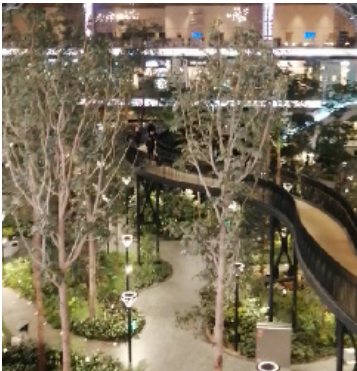
BOARDING UNITS

5 - 7

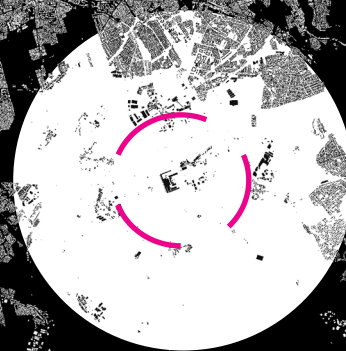
PROGRAMME

PROGRAMME BAR

OTHER		LOUNGE		HYPERLOOP		
5.000 m ²		10.000 m ²		15.000 m ²		
SECURITY 2500 m ²	OTHER 2500 m ²	FACILITIES 2500 m ²	RECREATIONAL 7500m ²	OTHER 2000 m ²	TUBE'S DELTA 5000 m ²	PLATFORM 8000 m ²



LOCATION



LOCATION

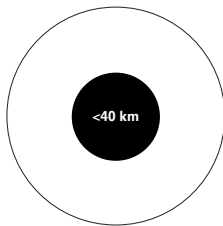
OPTIONS



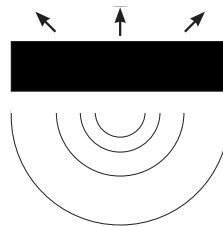
LOCATION

CRITERIA

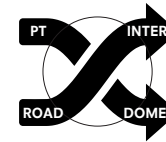
IN PROXIMITY OF BERLIN
MUNICIPALITY



AVAILABILITY EXPANSION



CONNECTIVITY



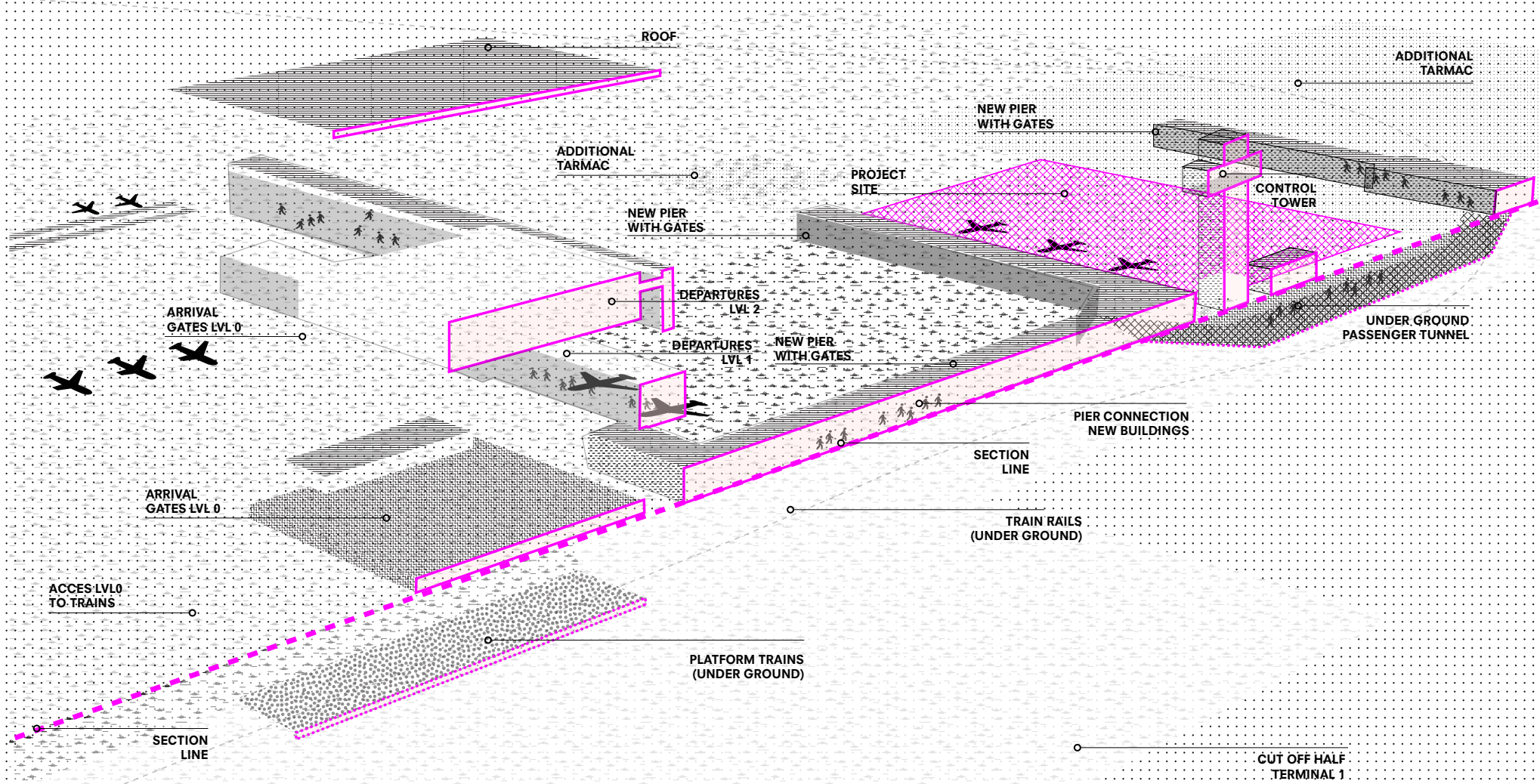
LOCATION

BERLIN AIRPORT WILLY BRANDT



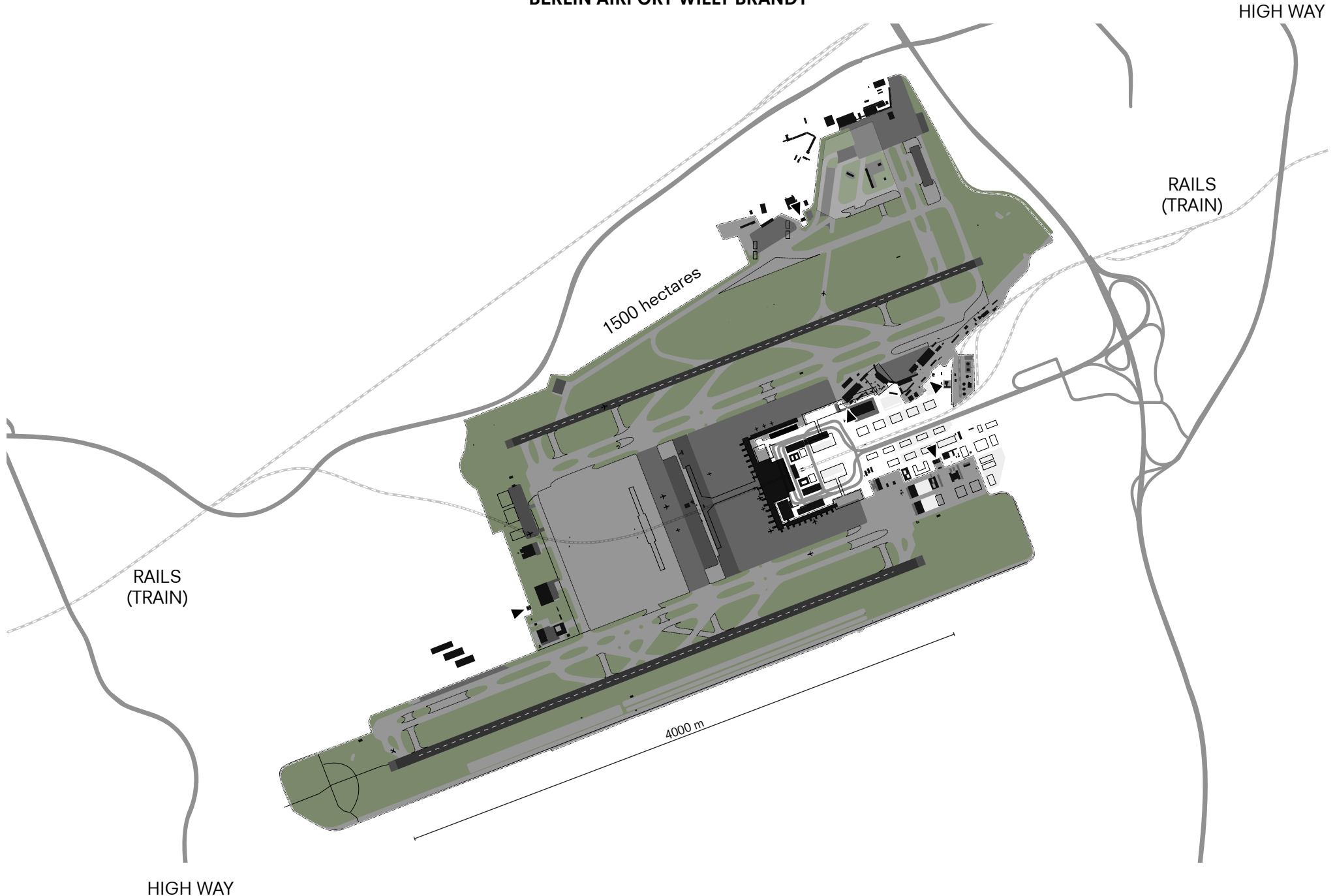
LOCATION

BERLIN AIRPORT WILLY BRANDT



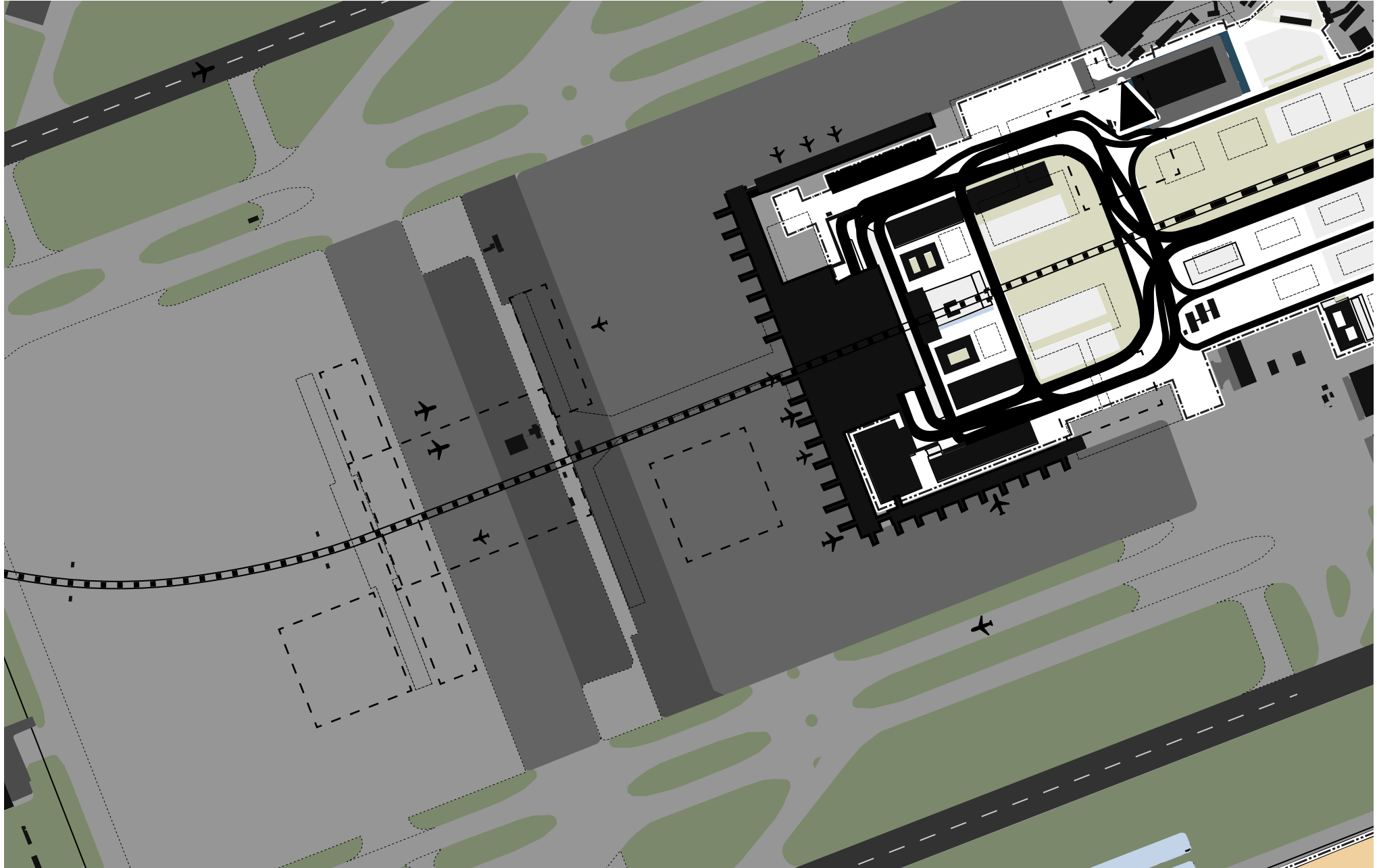
LOCATION

BERLIN AIRPORT WILLY BRANDT



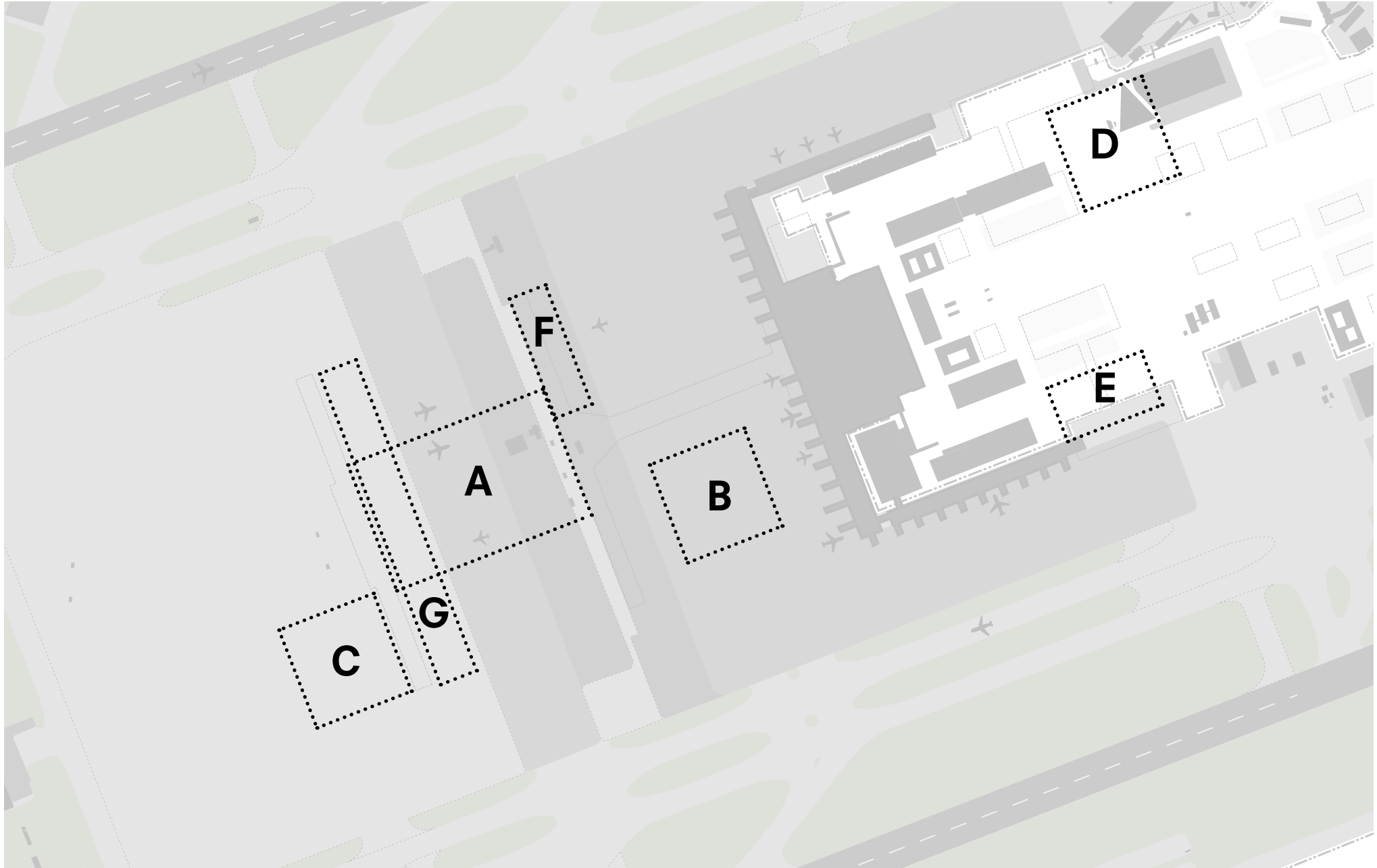
PROJECT SITE

BUILDING PLOT



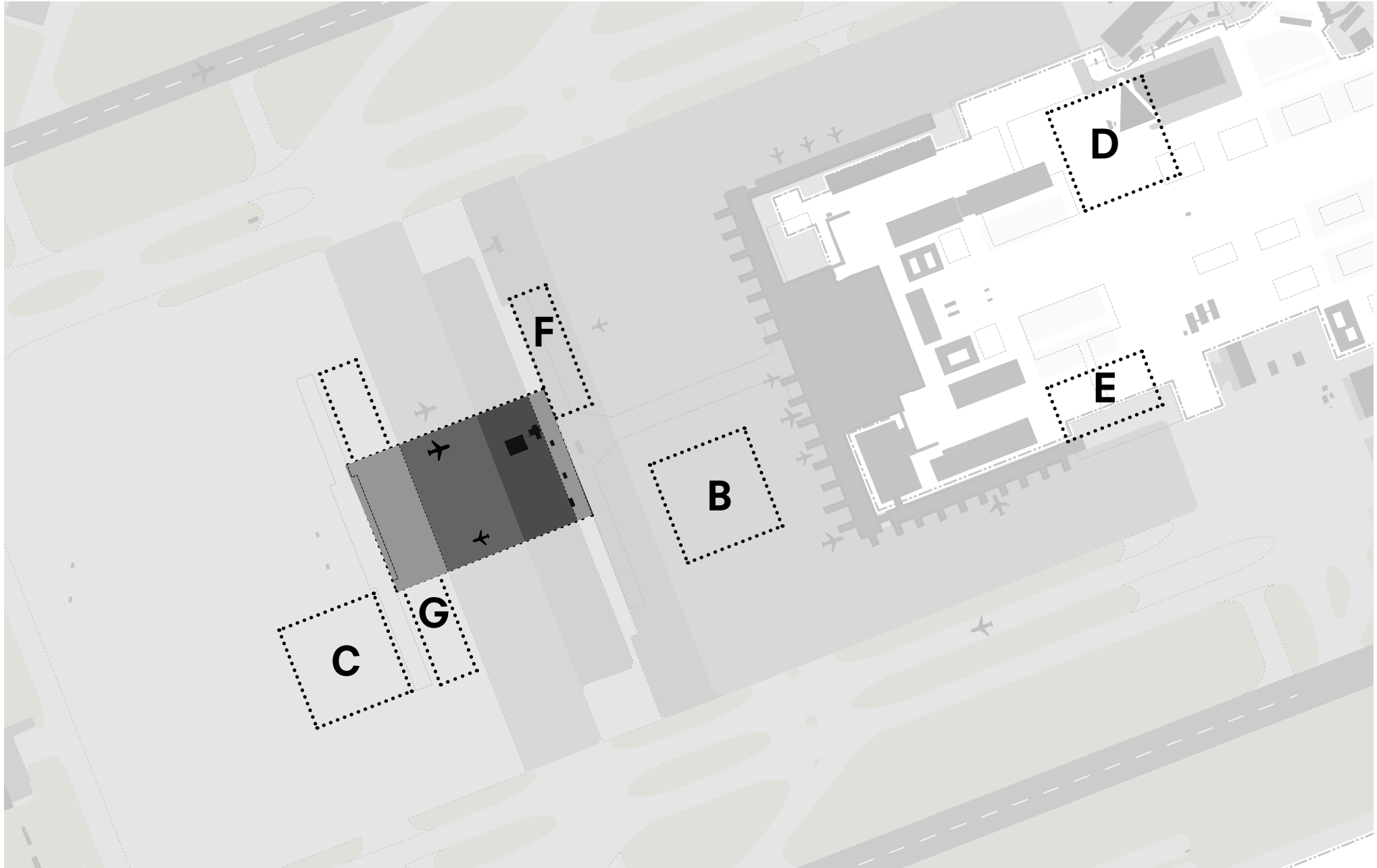
PROJECT SITE

BUILDING PLOT



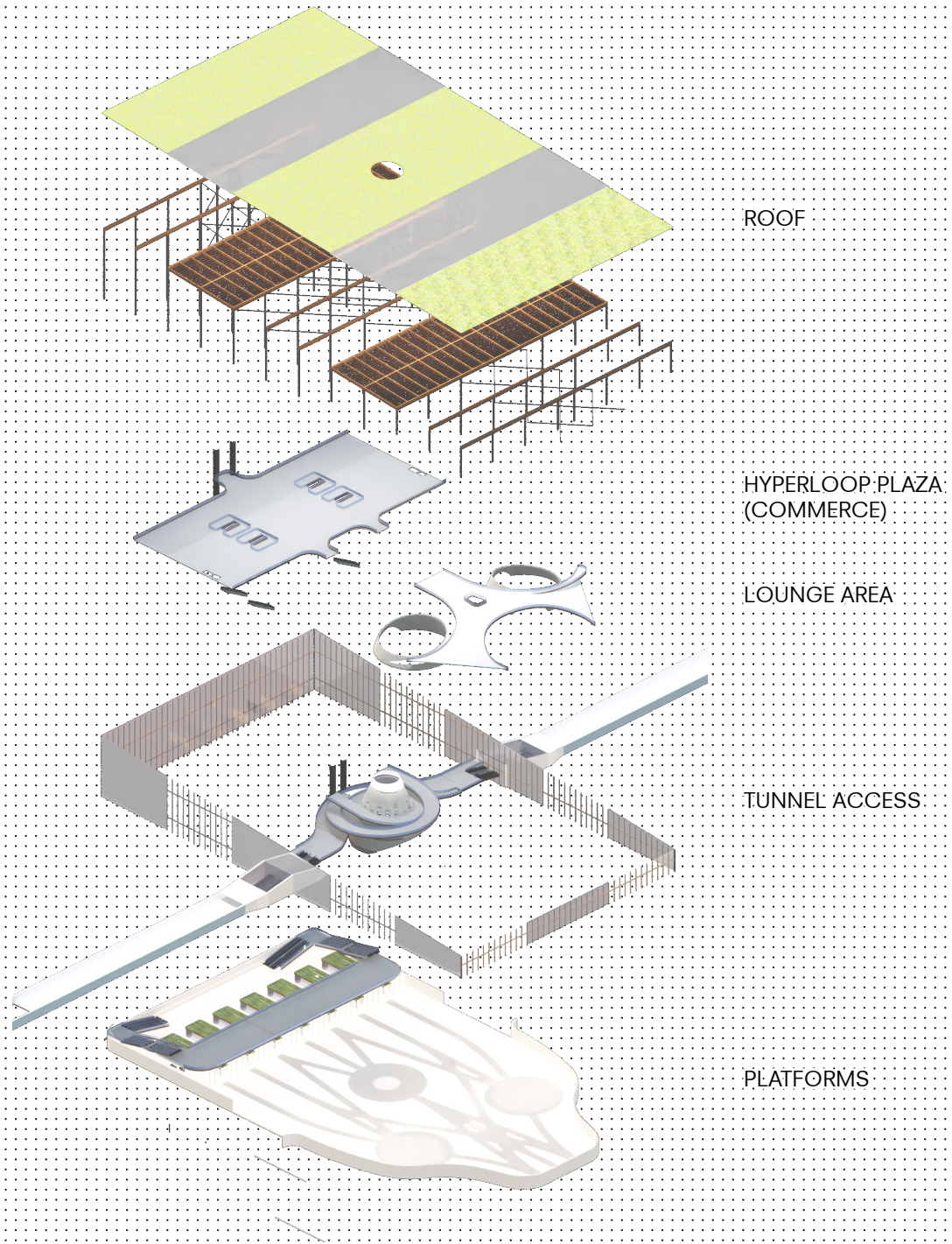
PROJECT SITE

BUILDING PLOT



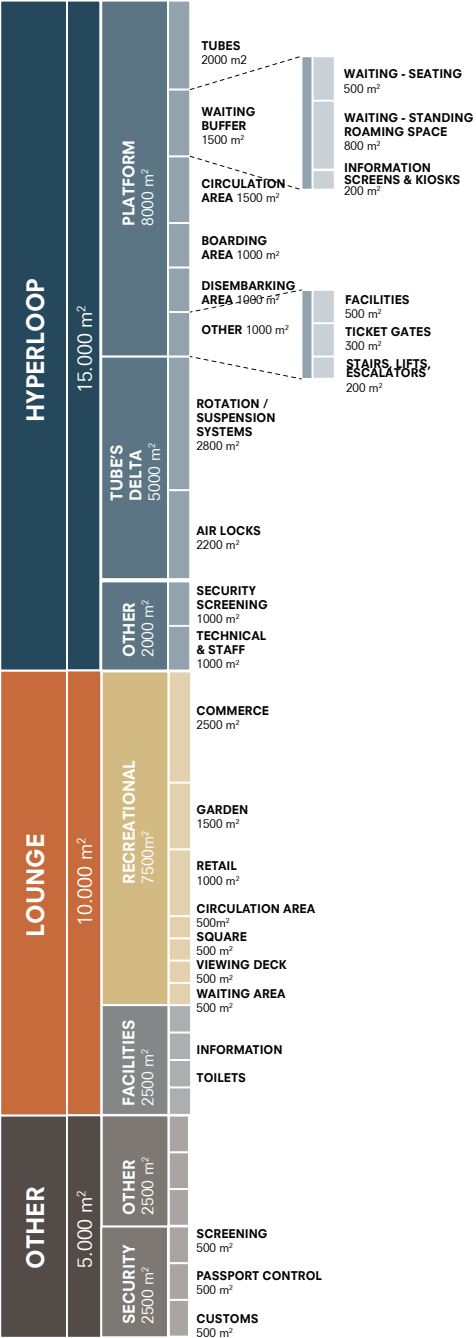
DESIGN





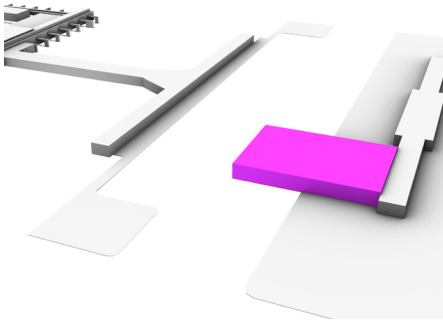
PROGRAMME

PROGRAMME BAR

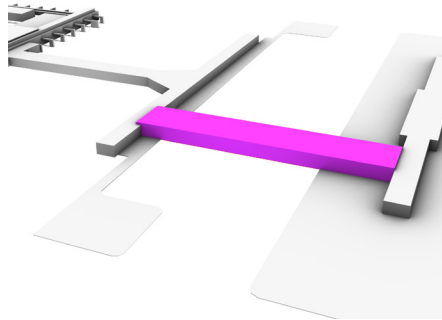


CONFIGURATIONS

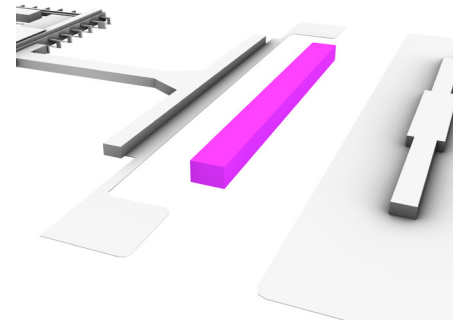
TERMINAL PLACEMENT



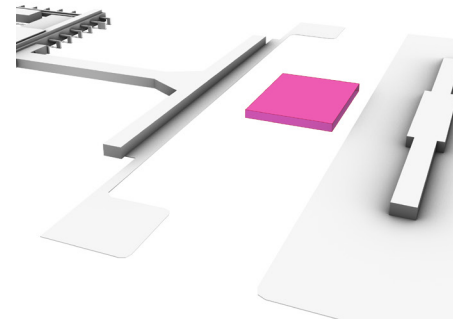
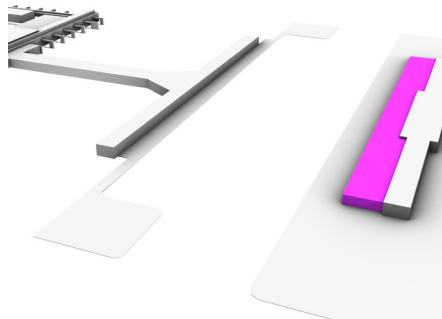
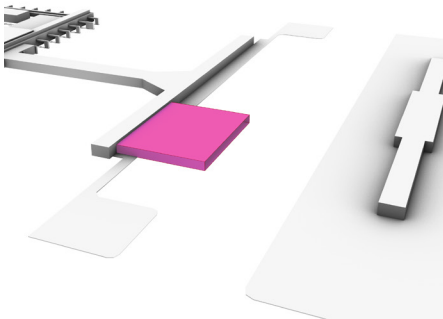
MEDIUM HIGHT TERMINAL



LONG TERMINAL



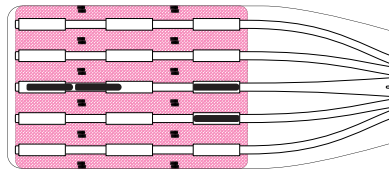
CENTRAL TERMINAL



CONFIGURATIONS

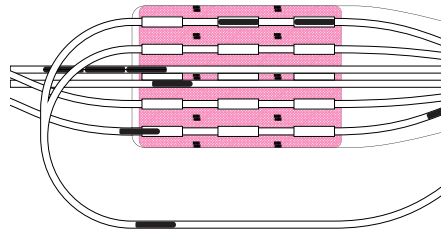
PLATFORM - OPTIONS

12.000 m²



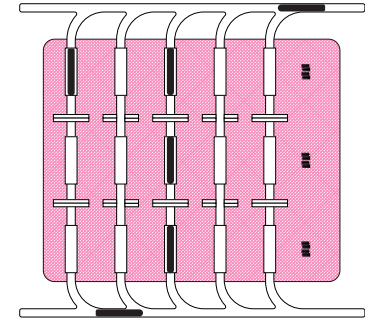
END STATION

12.000 m²



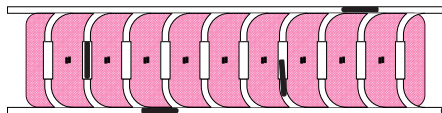
THROUGH STATION

13.500 m²



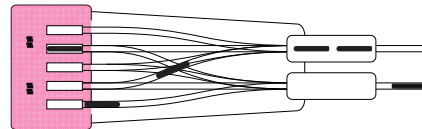
PARALLEL STATION

15.000 m²



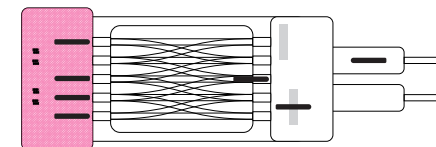
CONTINUOUS PARALLEL
STATION

14.400 m²



END SORTING STATION

14.300 m²



END LIFT STATION



[illegible]

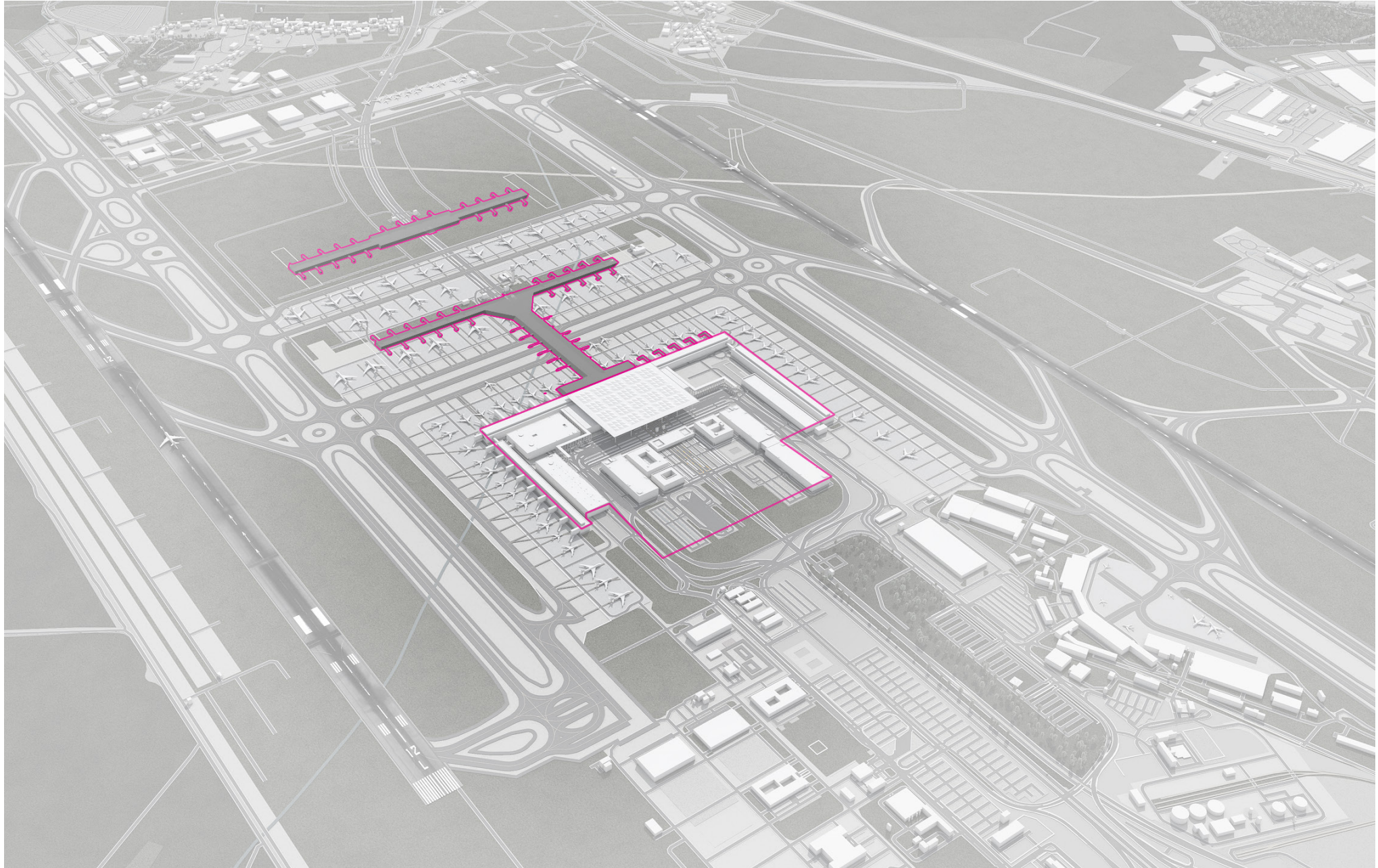
SITUATION

CURRENTLY

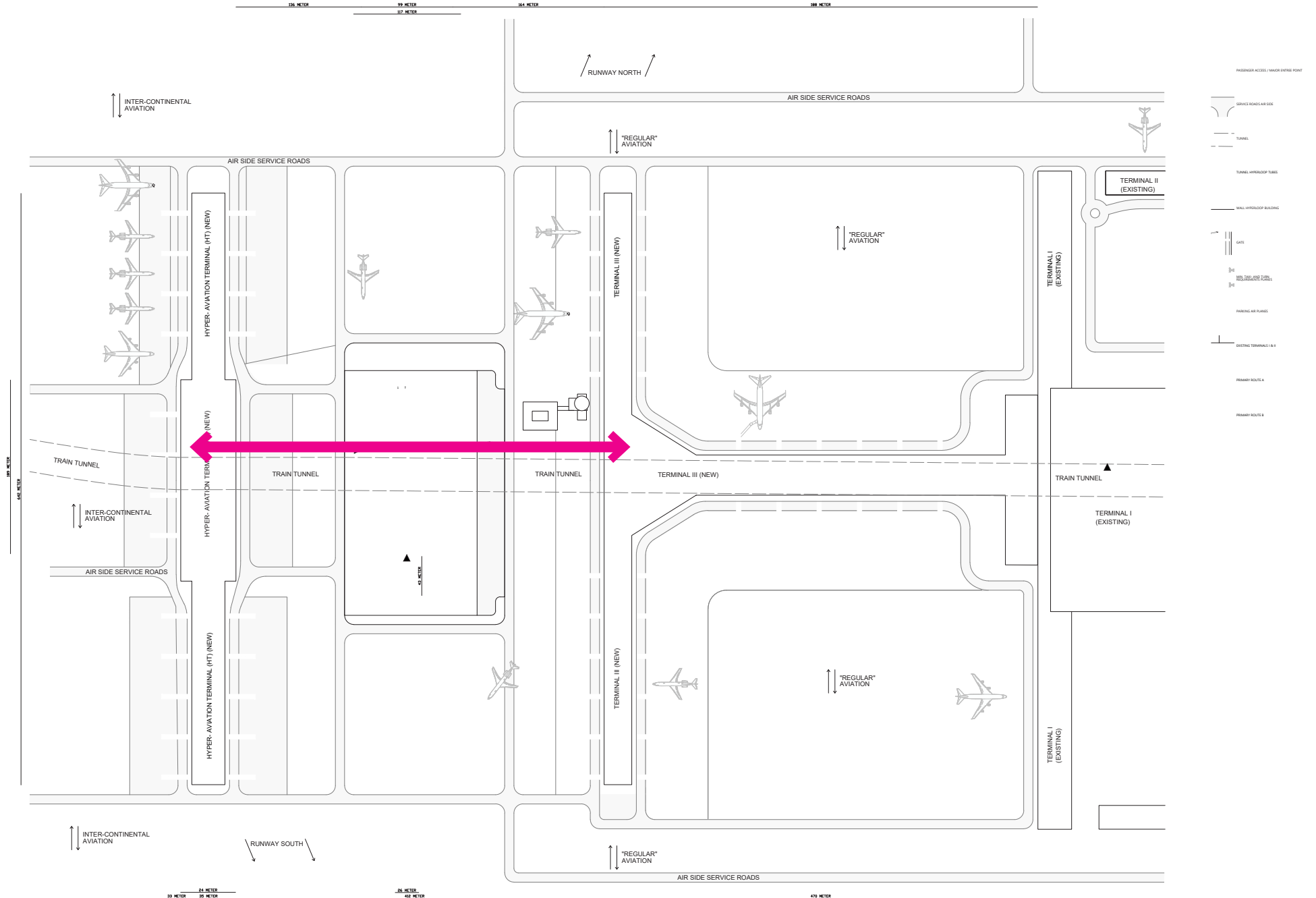


SITUATION

FORESEEABLE FUTURE



SITUATION TUNNEL

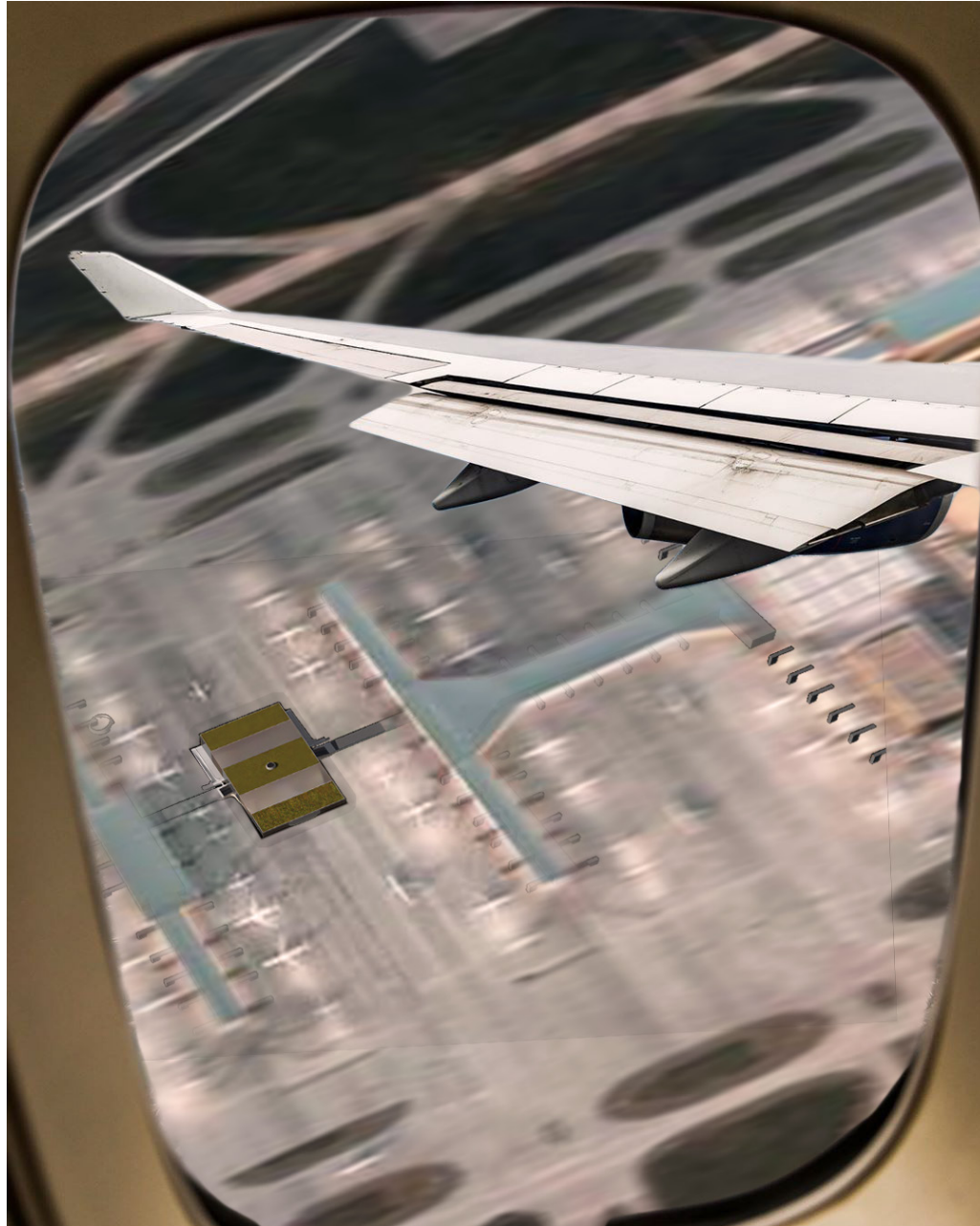


SITUATION

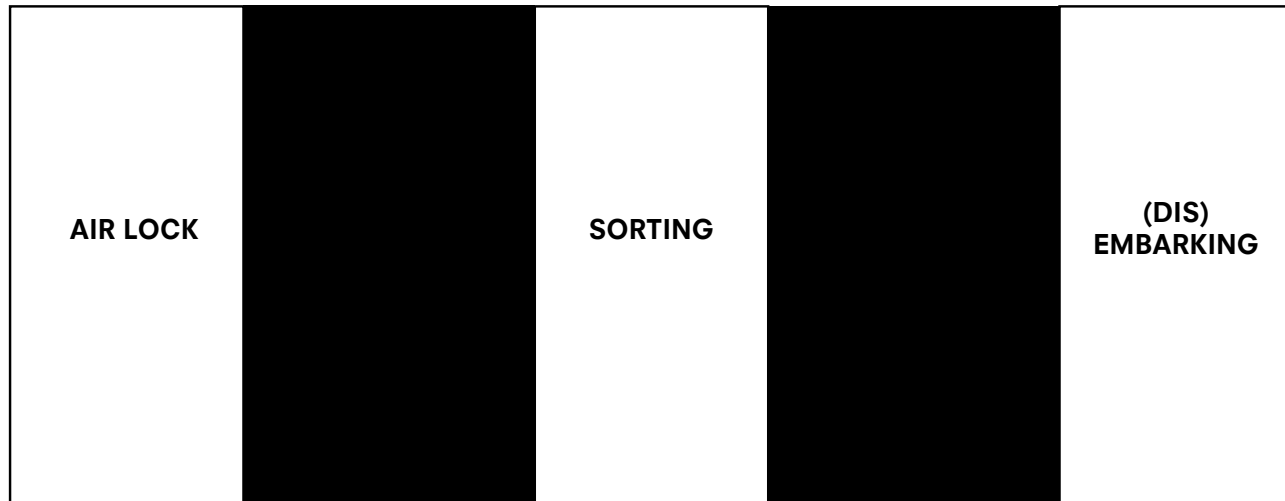
OPENING UP

SITUATION

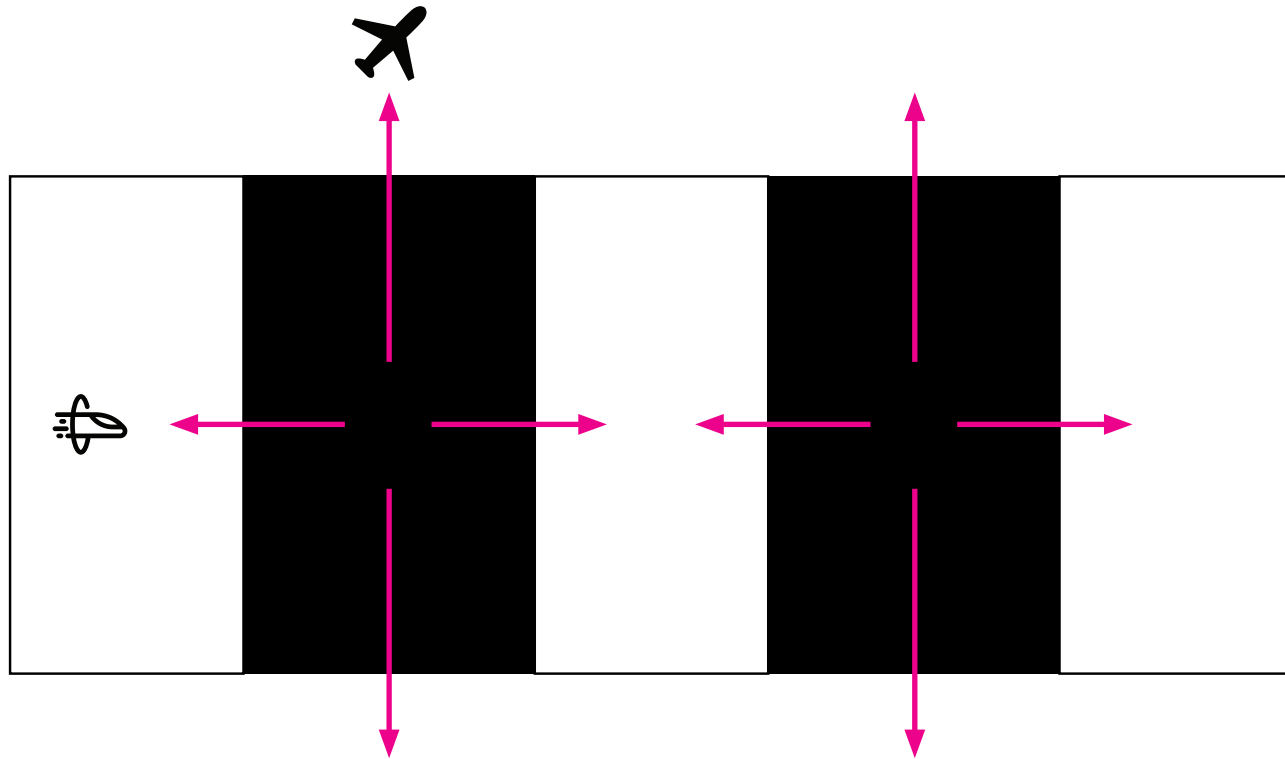
VIEW FROM PLANE



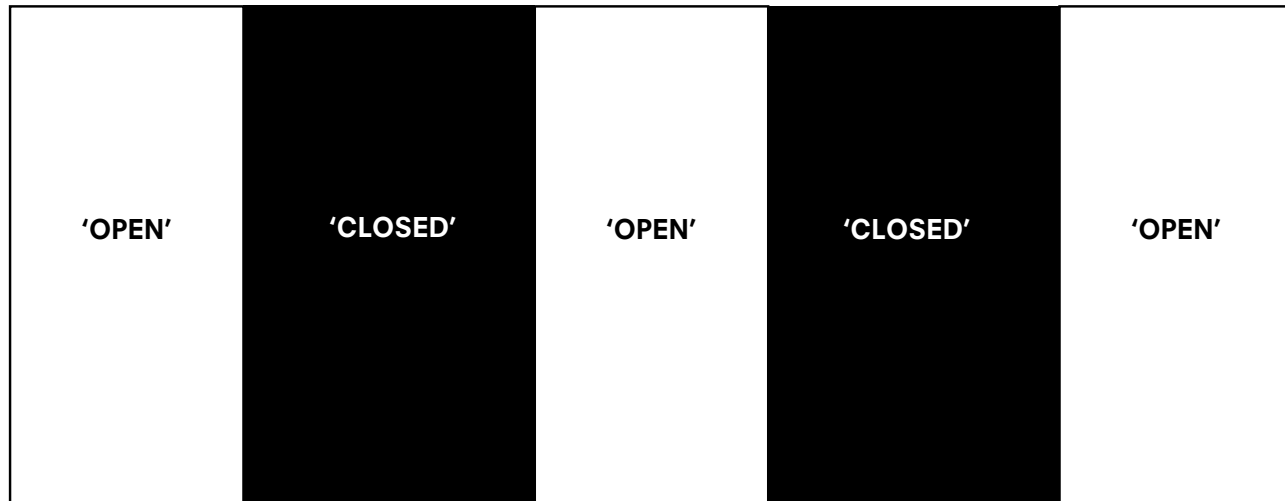
DESIGN SEQUENCE

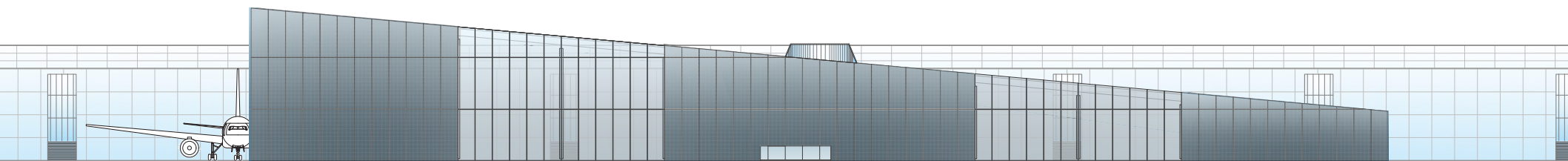


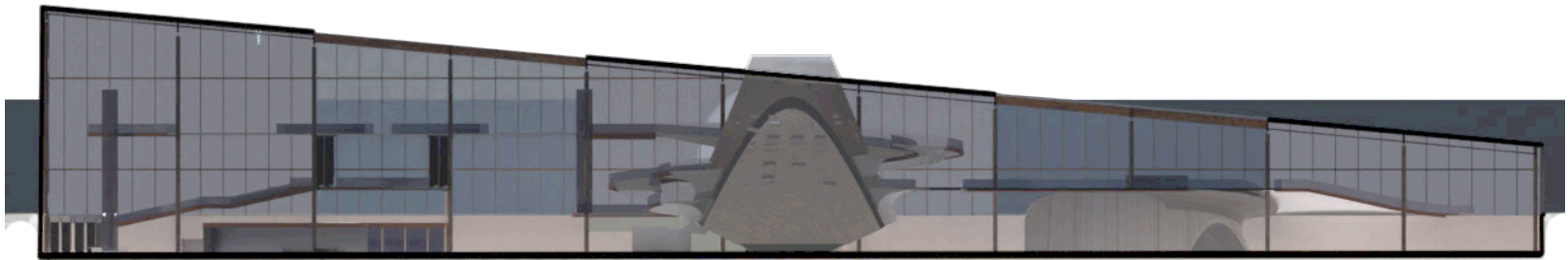
DESIGN SEQUENCE



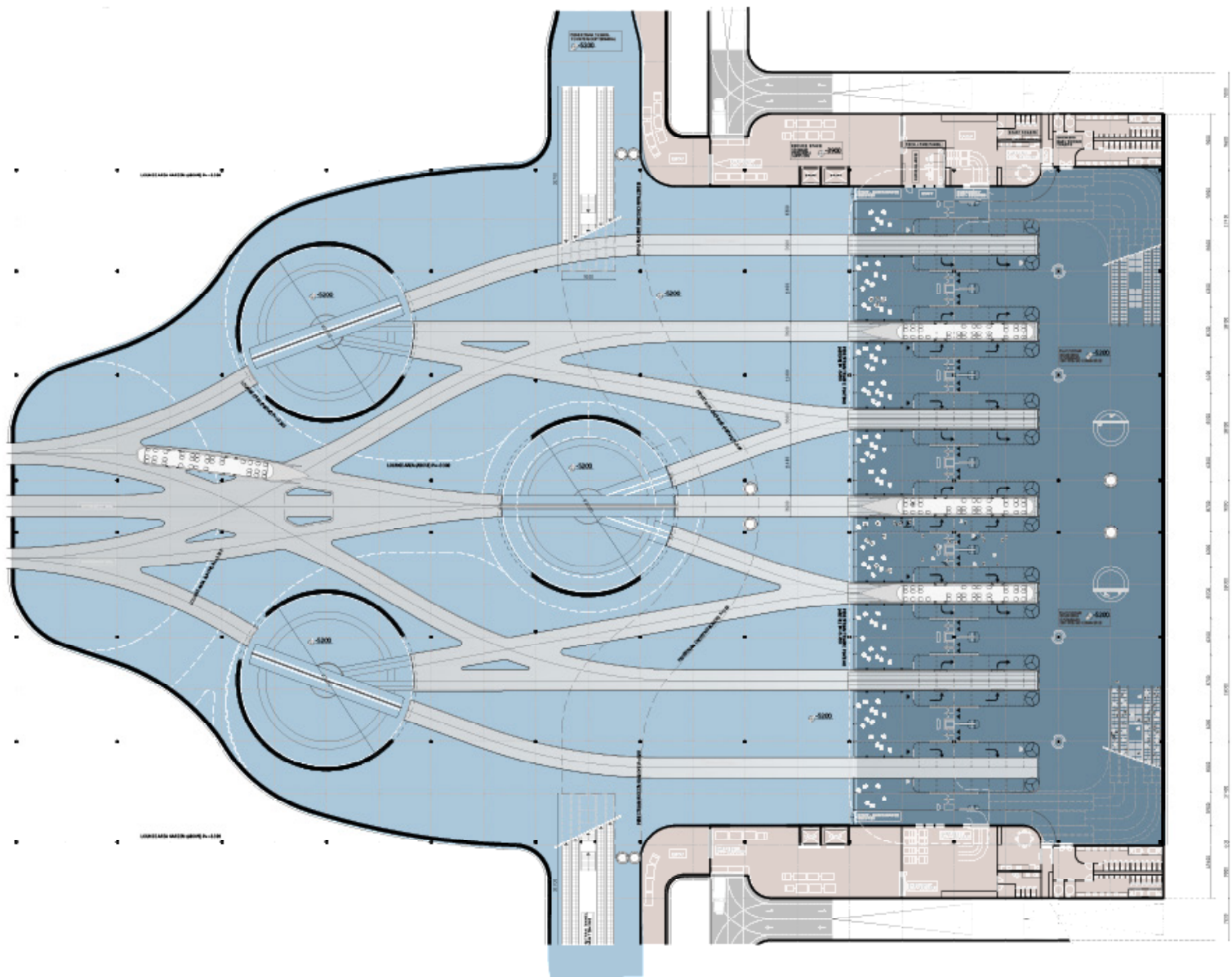
DESIGN SEQUENCE







FLOOR PLAN -1
PLATFORMS AND HYPERLOOP DELTA

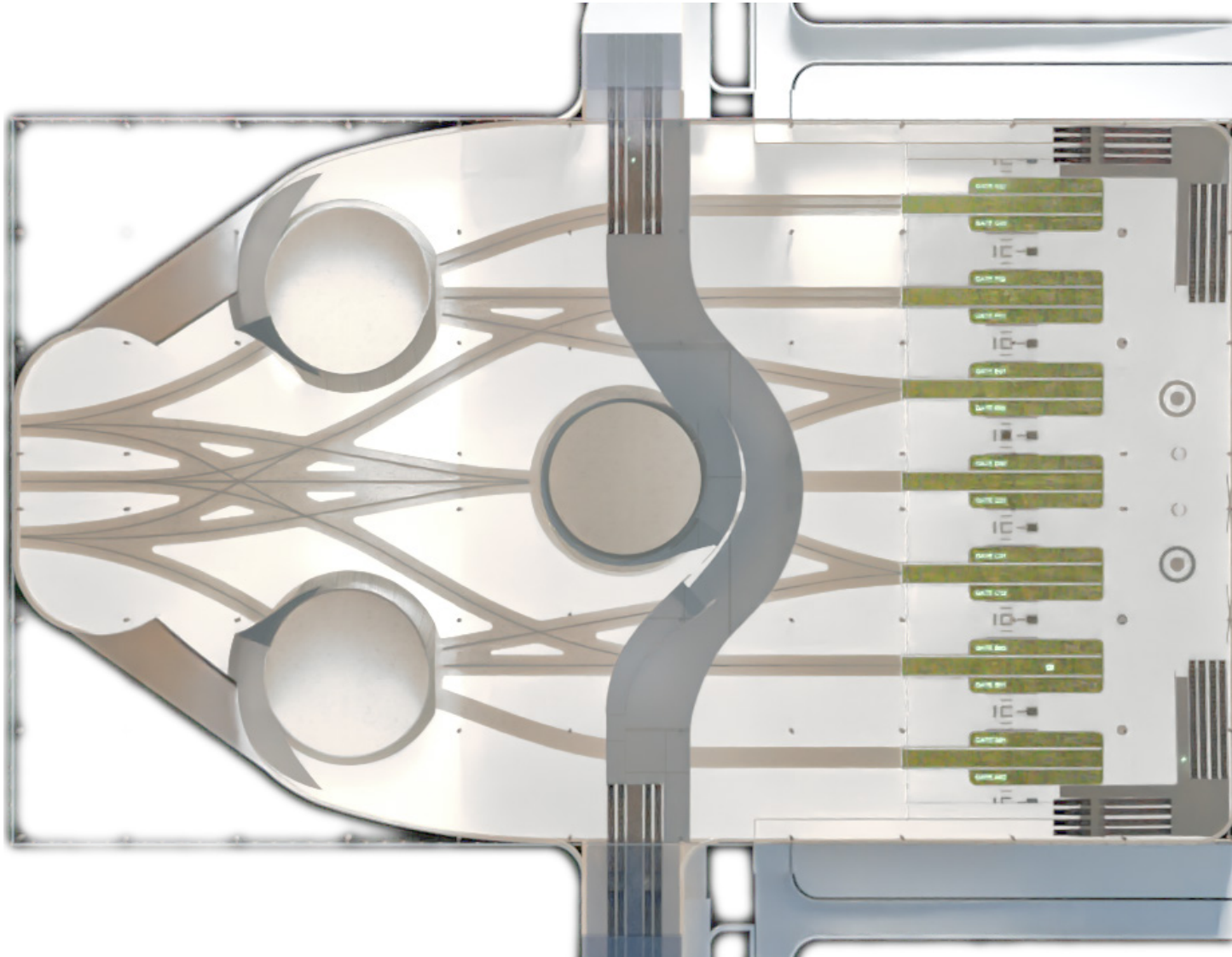


-5.400P

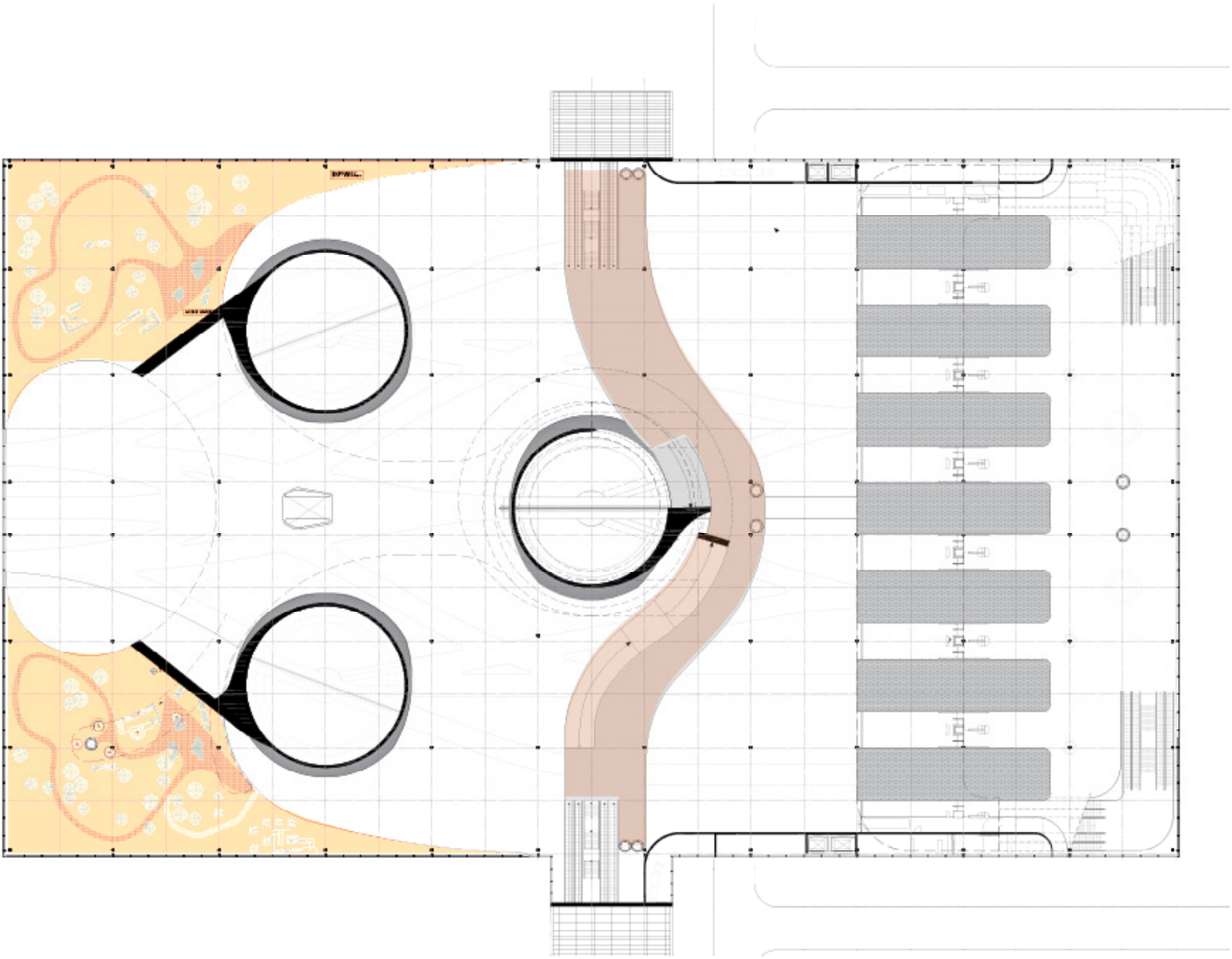
LOUNGE		HYPERLOOP		
OTHER	5,000 m ²	10,000 m ²	OTHER	15,000 m ²
SECURITY	2,000 m ²	RECREATIONAL	TUBES DELTA	PLATFORM
		7,000 m ²	5,000 m ²	6,000 m ²
		FACILITIES		
		2,000 m ²		
		OTHER		
		2,000 m ²		

FLOOR PLAN -1

PLATFORMS AND HYPERLOOP DELTA



FLOOR PLAN 0
ENTRANCE AND EXIT TO TUNNEL

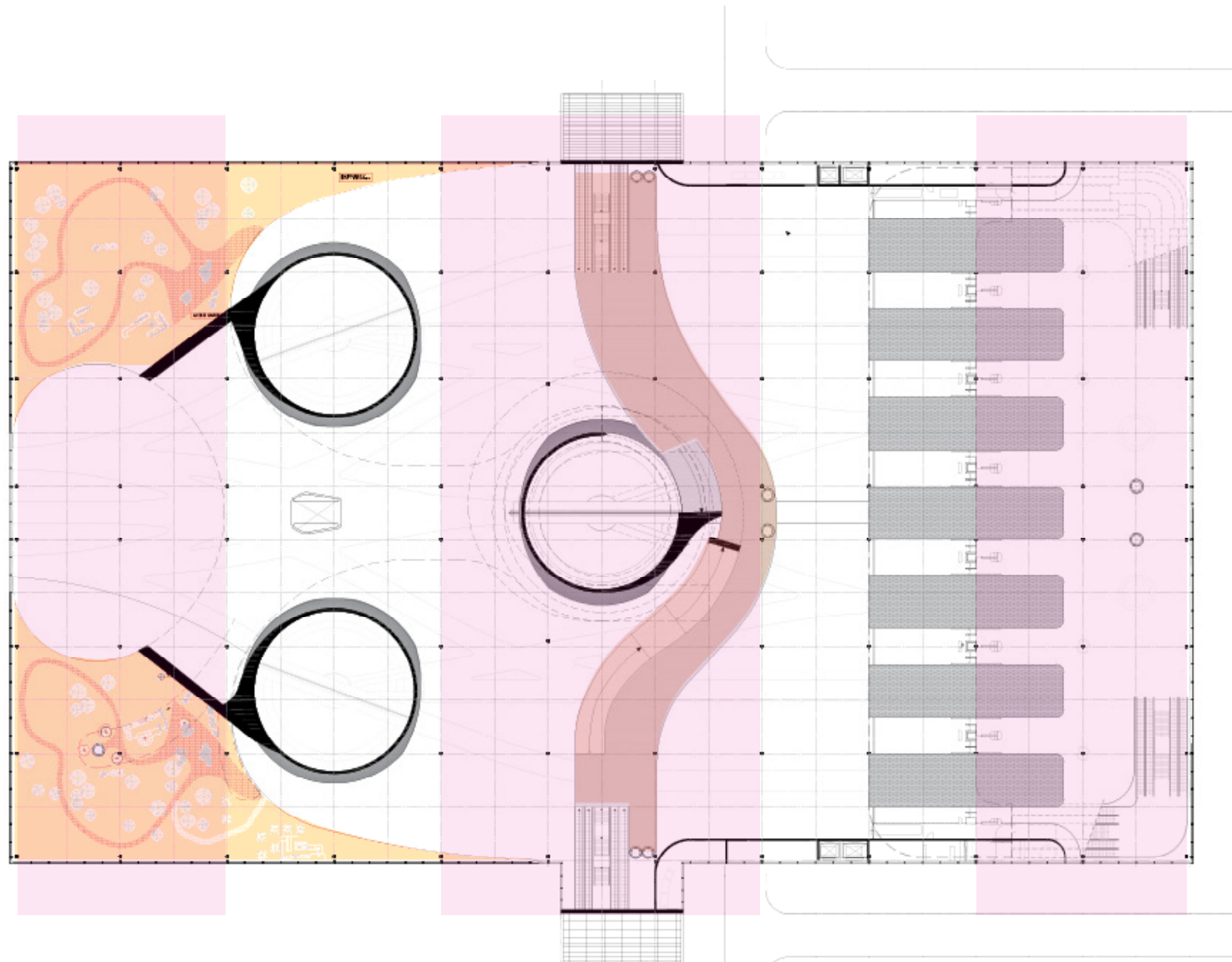


P=0.00

OTHER		LOUNGE		HYPERLOOP		
5,000 m ²		10,000 m ²			15,000 m ²	
SECURITY 2,000 m ²	OTHER 2,000 m ²	FACILITIES 2,000 m ²	RECREATIONAL 7,000 m ²	OTHER 2,000 m ²	TUBES DELTA 5,000 m ²	PLATFORM 5,000 m ²

FLOOR PLAN 0

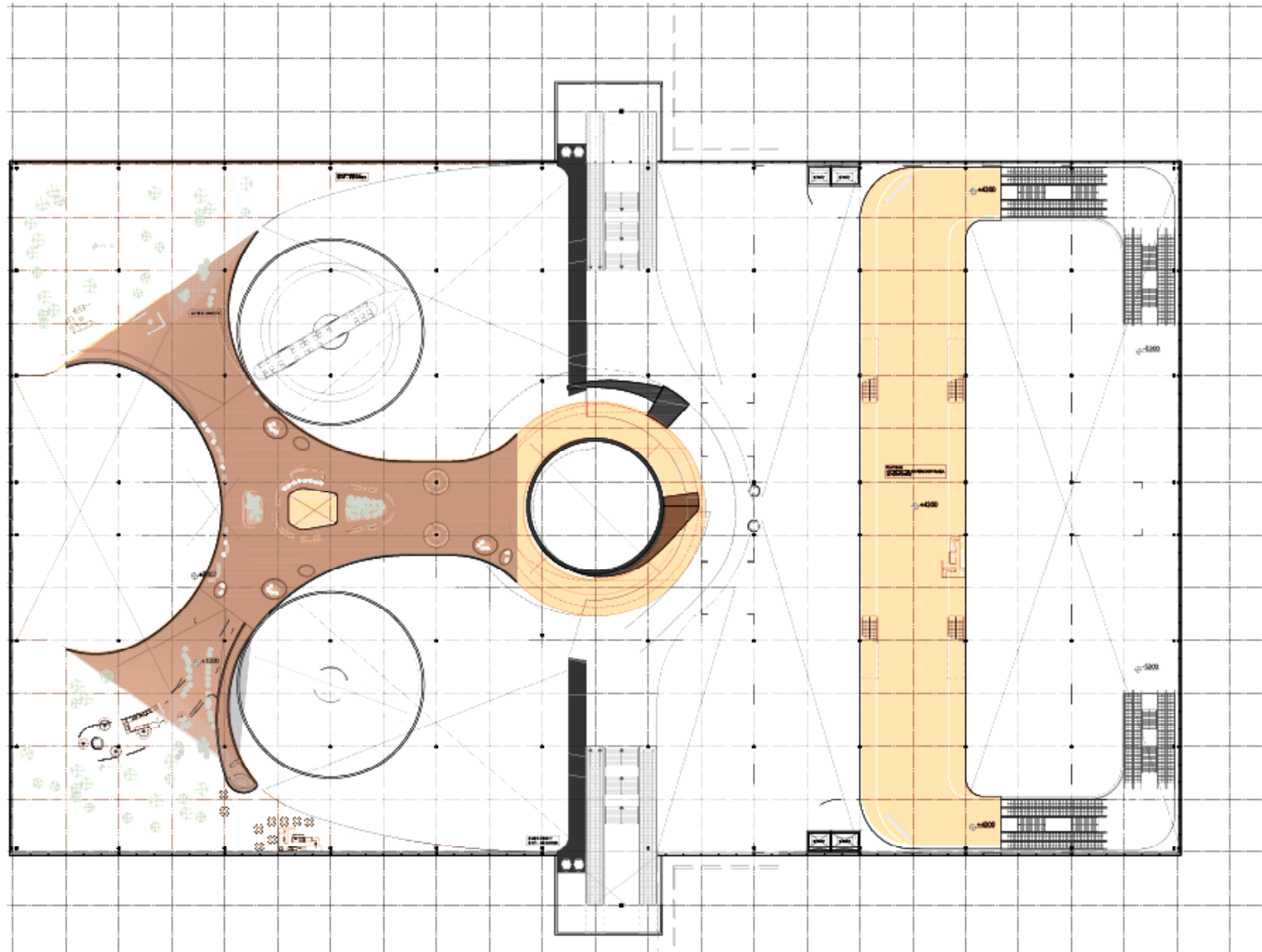
ENTRANCE AND EXIT TO TUNNEL



P=0.00

FLOOR PLAN 0.1

PUBLIC LOUNGE AND PLATEAU

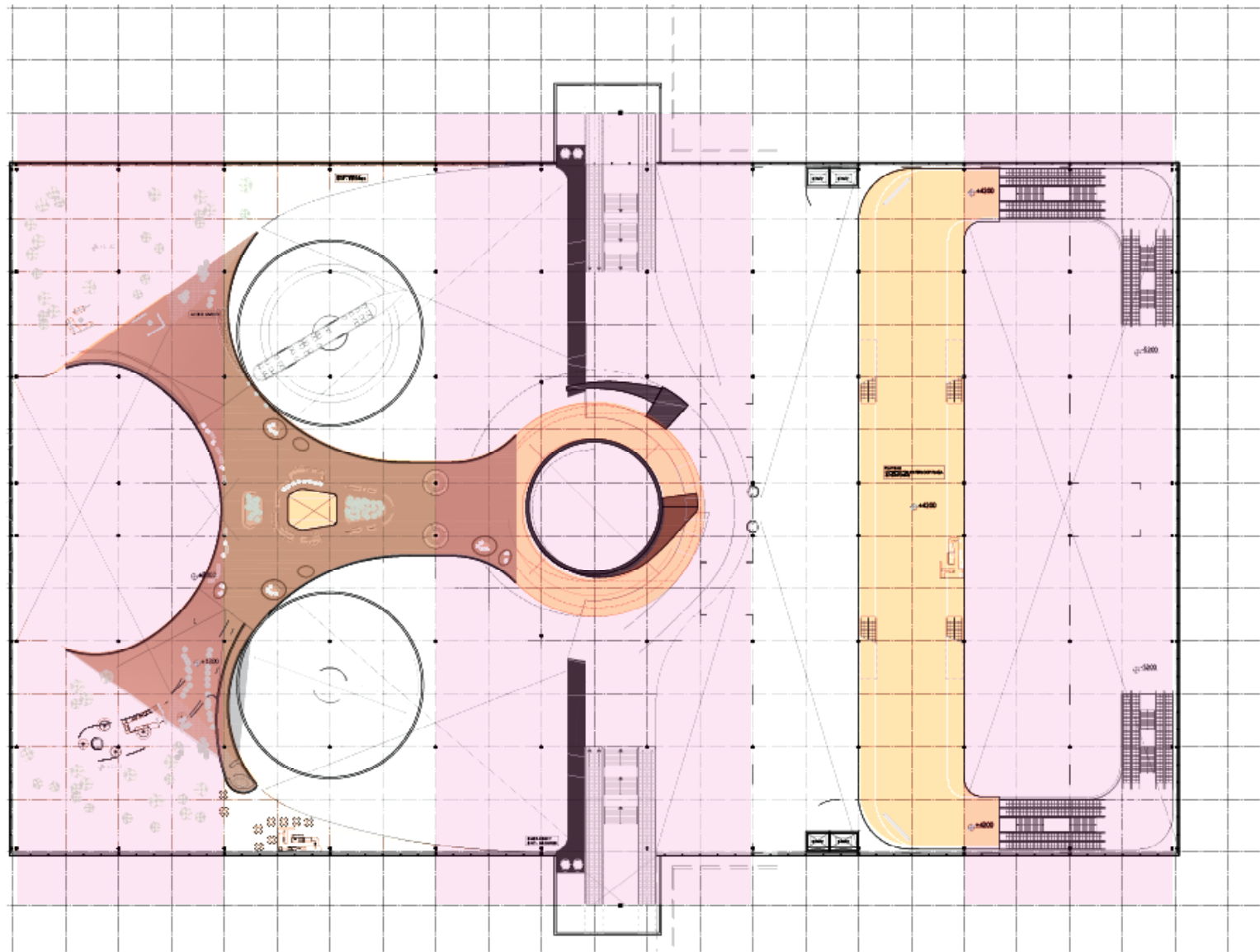


+3.300P

5,000 m ²		10,000 m ²		15,000 m ²	
SECURITY	2,000 m ²	FACILITIES	2,000 m ²	OTHER	2,000 m ²
		RECREATIONAL	7,000 m ²	TUBES DELTA	5,000 m ²
					PLATFORM
					5,000 m ²

FLOOR PLAN 0.1

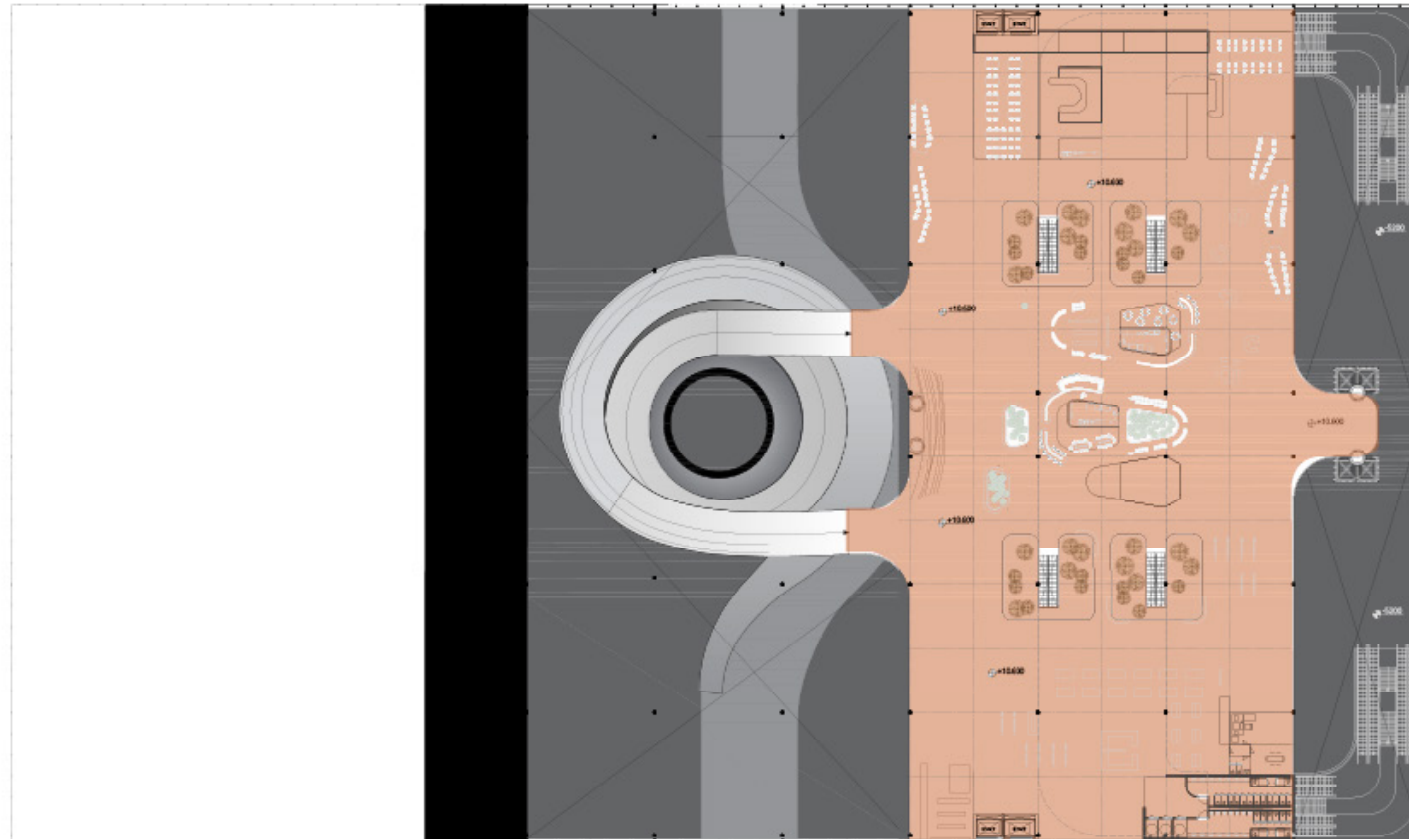
PUBLIC LOUNGE AND PLATEAU



+3.300P

FLOOR PLAN 1.0

HYPERLOOP PLAZA; COMMERCE

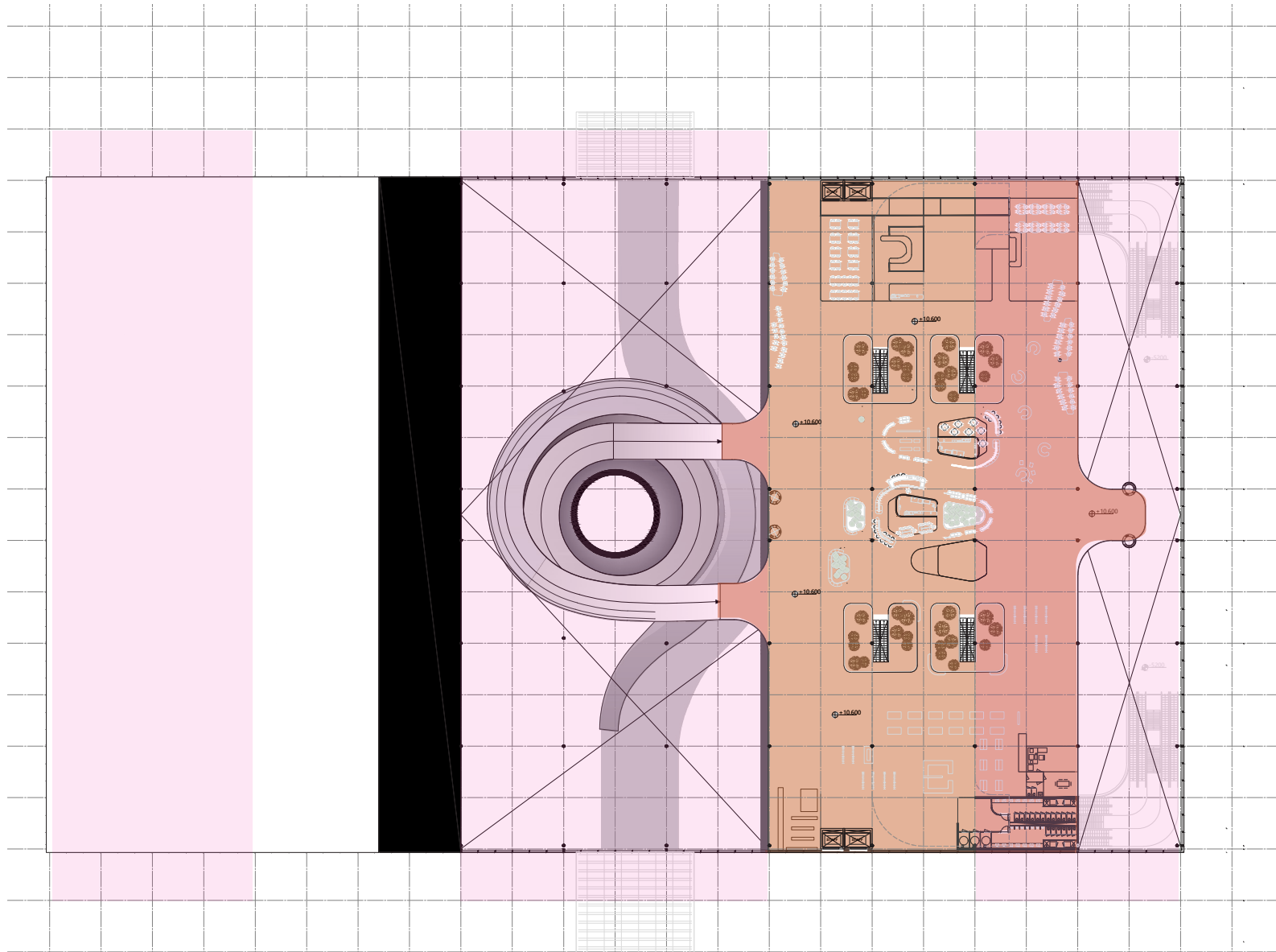


+10.600P

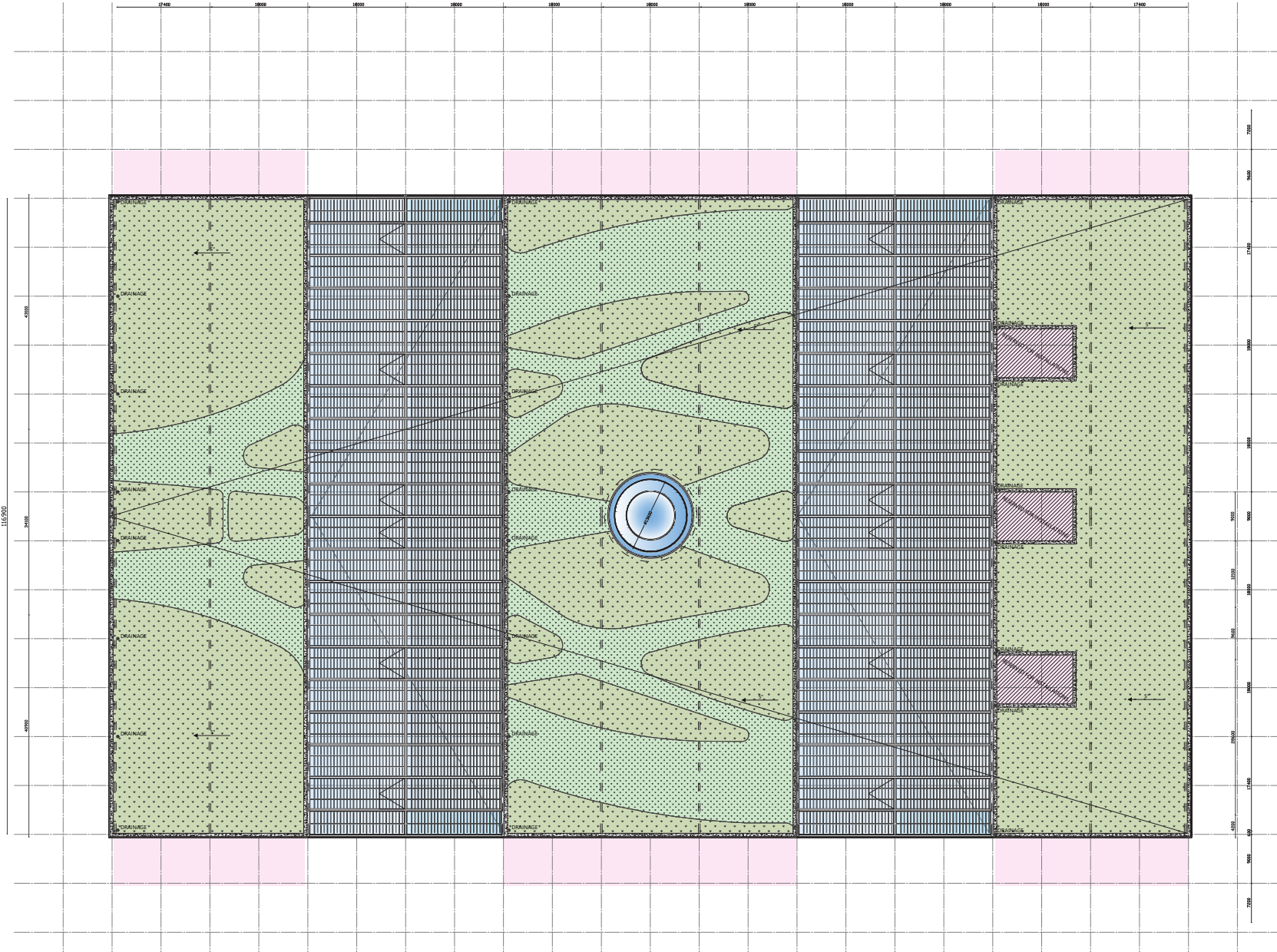
OTHER	LOUNGE	HYPERLOOP		
		RECREATIONAL FACILITIES	OTHER SERVICE COUNTERS	PLATFORM
5,000 m ²	10,000 m ²	15,000 m ²	15,000 m ²	15,000 m ²

FLOOR PLAN 1.0

HYPERLOOP PLAZA; COMMERCE



FLOOR PLAN
ROOF



- LIGNATUR PREFAB FLOOR ELEMENT = 3000X18000 MM
- PERFORATED ACOUSTIC BOARD, WOOD 40 MM
- FIRE RETARTAND LAYER, >90 MIN 42 MM
- INSULATION, WOOD FIBRE 200 MM
- WOODEN STRUCTURE 40 MM
- ALL SEAMS TO BE FIRE-PROOF SEALED -
- WATERPROOF LAYER 2 MM
- OPTIGRUN GREEN ROOF SYSTEM P = 130 MM (TOTAL)
- ROOT RRESISTANT MEMBRANE
- STRUCTURED STORAGE FLEECE RMS 500
- PITCHED ROOF BOARD FKD 58SD
- EXTENSIVE SUBSTRATE 80 MM
- VEGETATION MAT
- VEGETATION

- OPTIGRUN OPTISAFE
- OSL SAFETY RAIL
- DRAINAGE, FREE STRIP, GRAVEL

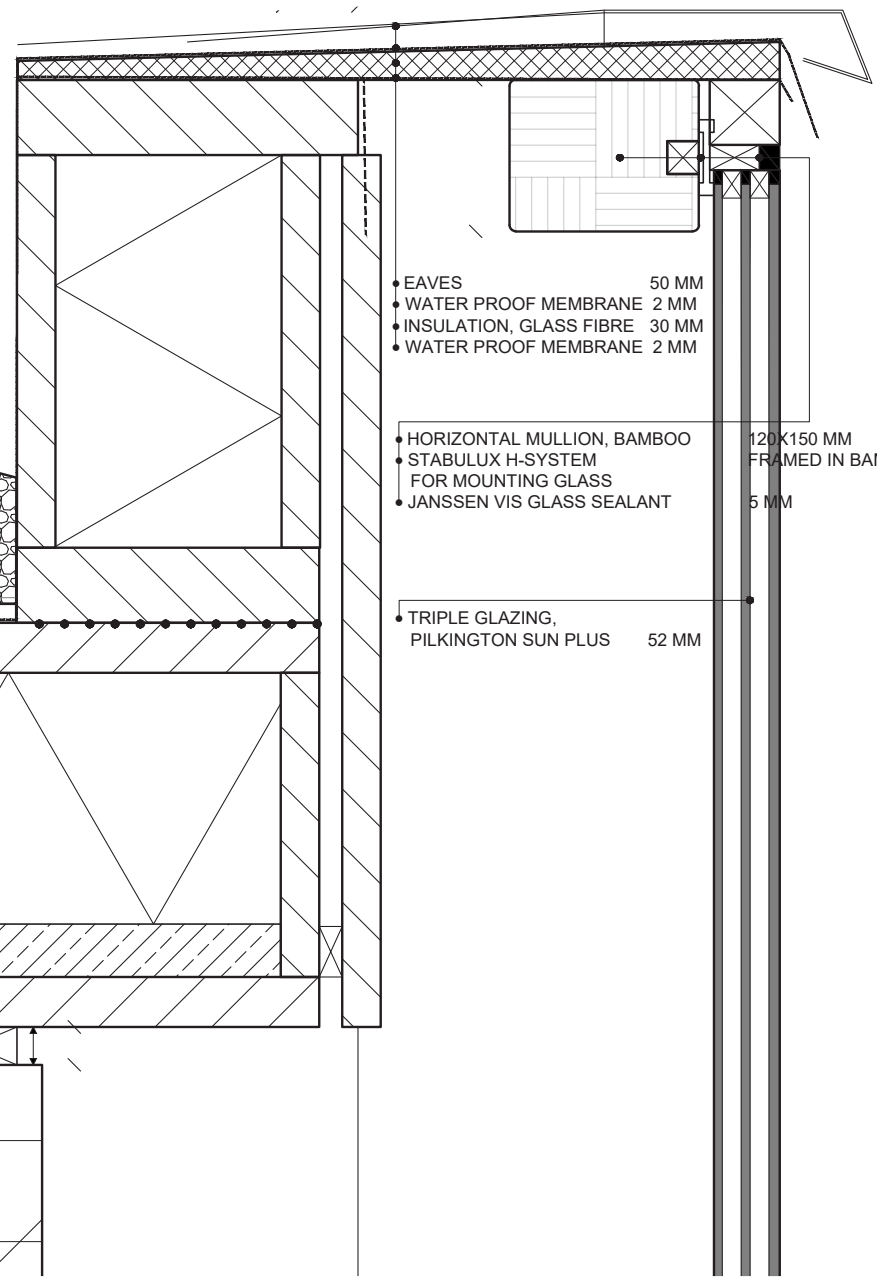
- EAVES 50 MM
- WATER PROOF MEMBRANE 2 MM
- INSULATION, GLASS FIBRE 30 MM
- WATER PROOF MEMBRANE 2 MM

- HORIZONTAL MULLION, BAMBOO 120X150 MM
- STABULUX H-SYSTEM FRAMED IN BAMBC
- FOR MOUNTING GLASS
- JANSSEN VIS GLASS SEALANT 5 MM

- TRIPLE GLAZING, PILKINGTON SUN PLUS 52 MM

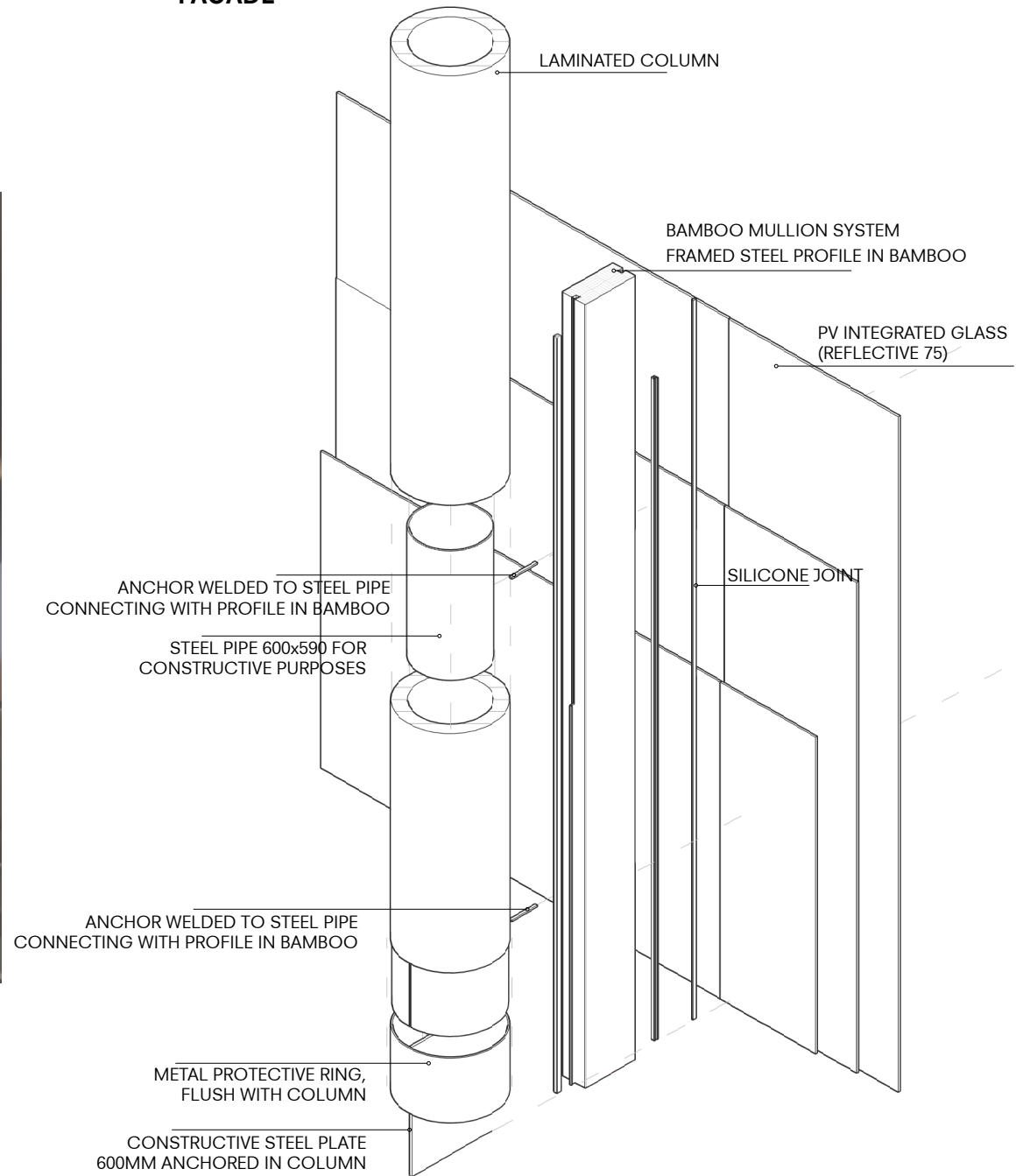
- ADJUSTMENT SPACE

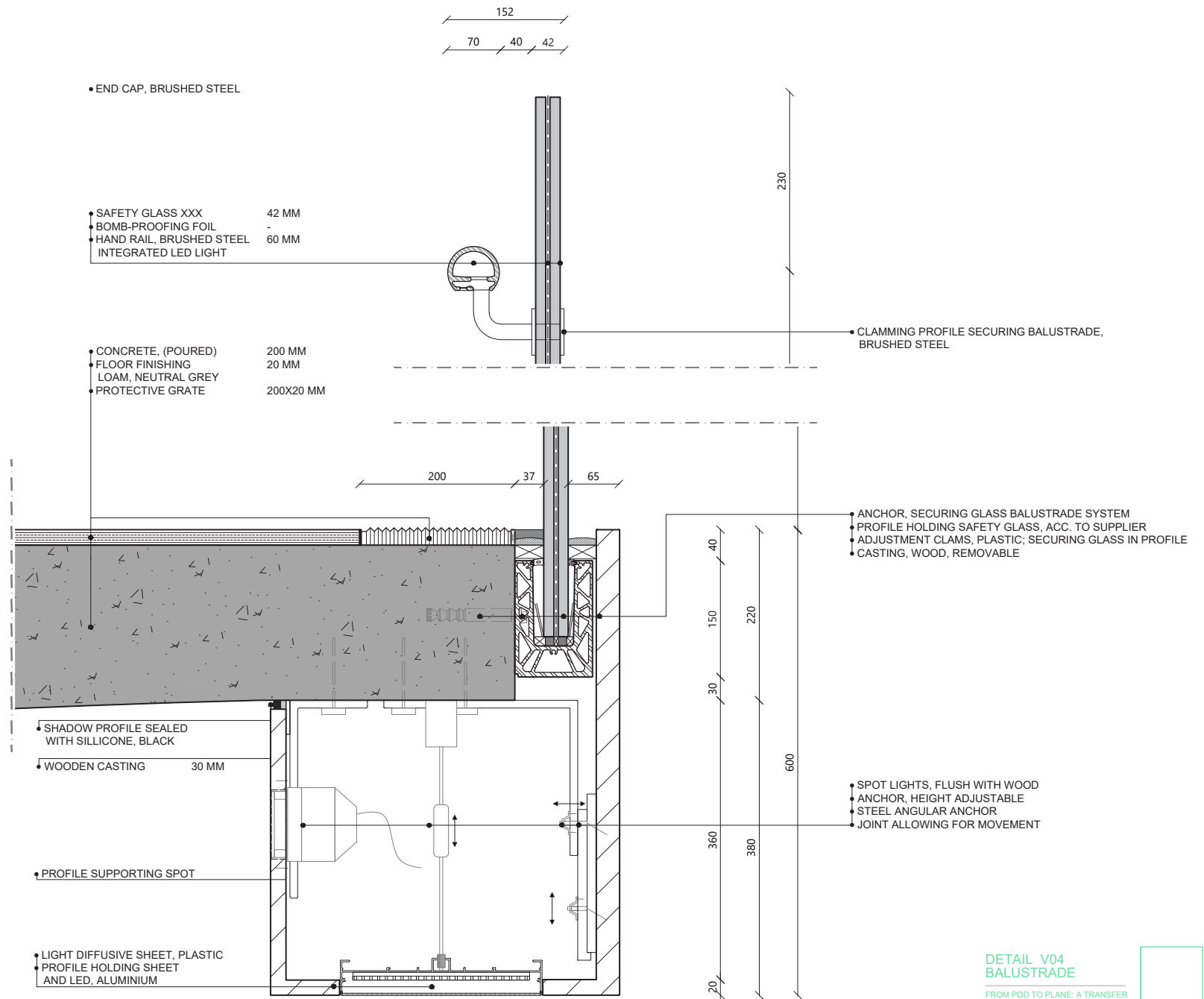
- STEEL ANCHOR
- BEAM LAMINATED, WOOD 1200X300 MM



IMPRESSIONS

FACADE



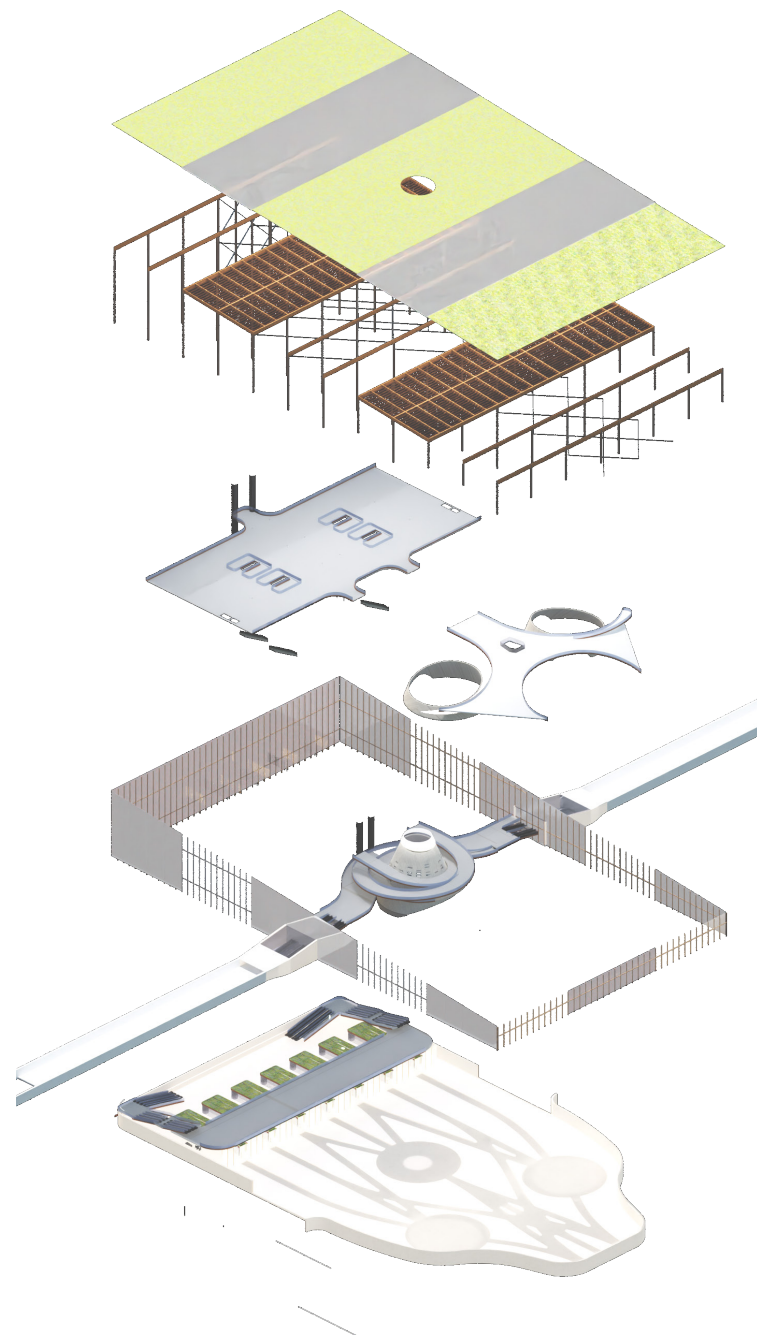


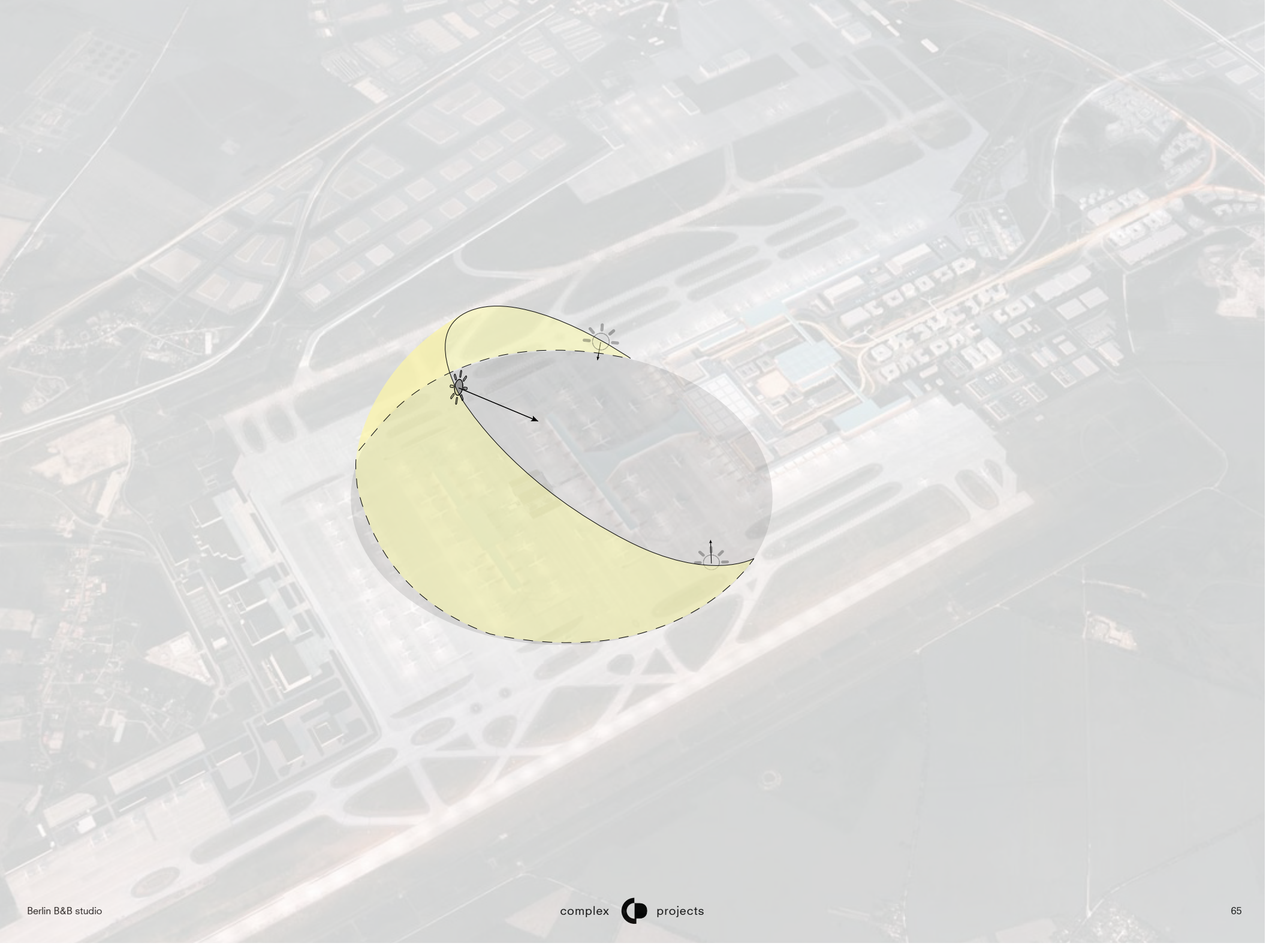
DETAIL V04 BALUSTRADE

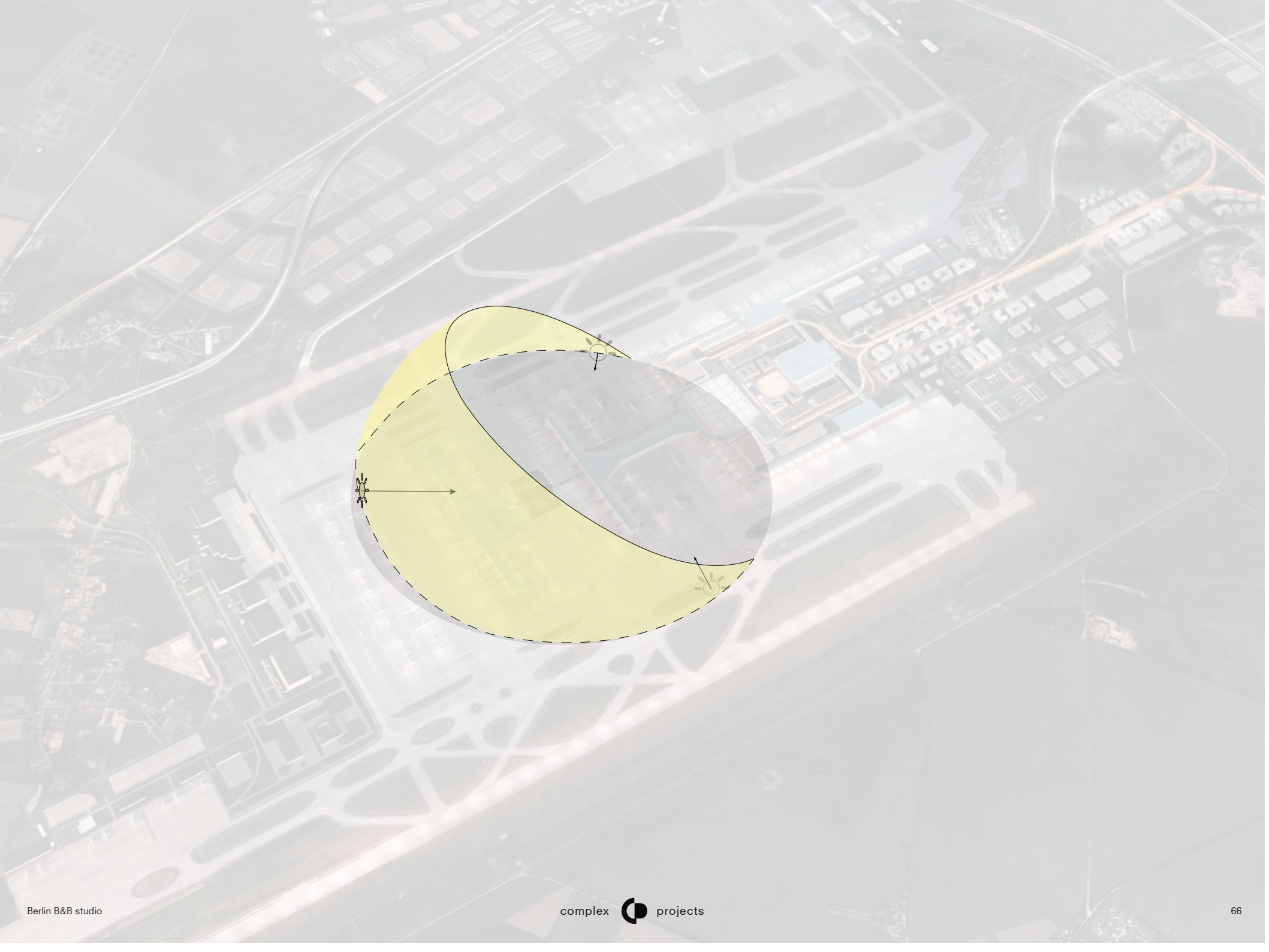
FROM POD TO PLANE: A TRANSFER
FACILITY AT BERLIN AIRPORT (BER)

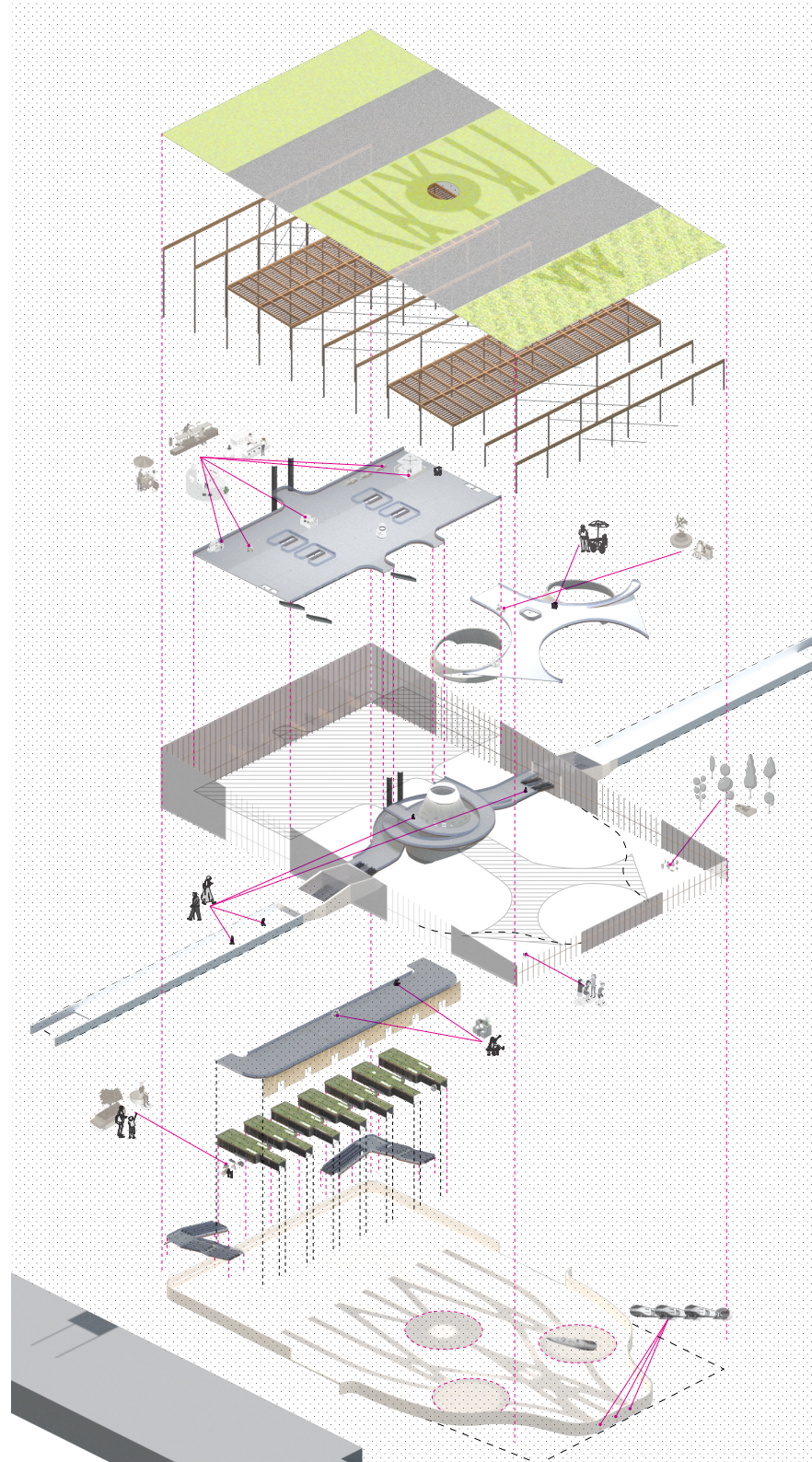
STUDENT: BAS ROJERS
ST. NUMBER: 4643763
DATE: 12-09-2023

COMPLEX PROJECTS
SCALE
1:5









HYPERLOOP
PODS

HYPERLOOP
PLAZA

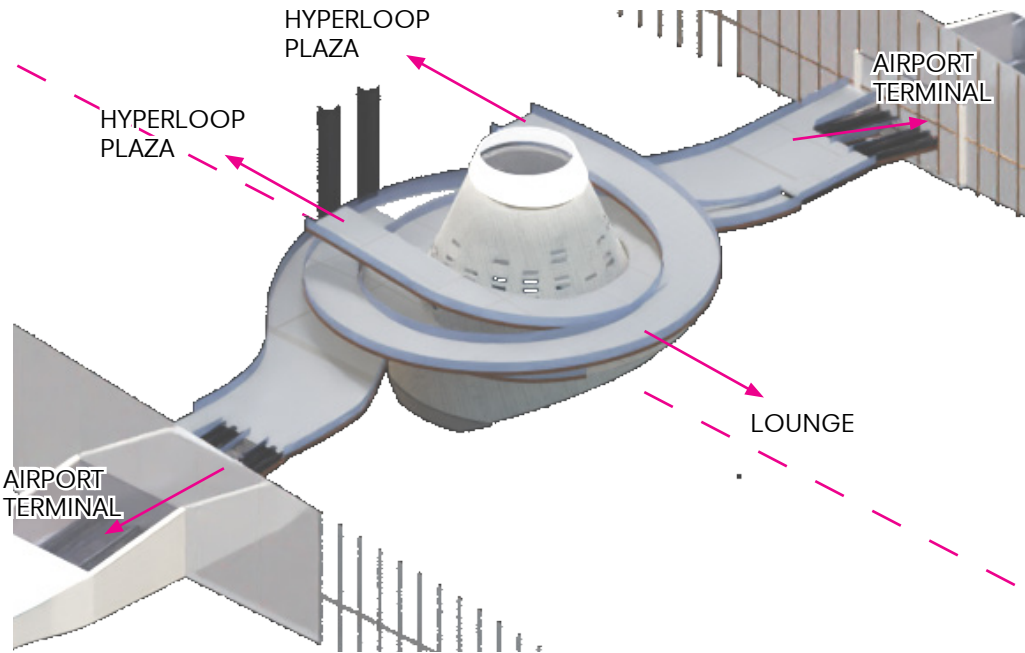
AIRPORT
TERMINAL

HYPERLOOP
PLAZA

AIRPORT
TERMINAL

LOUNGE

HYPERLOOP
PODS



PASSENGER JOURNEY

DAVID

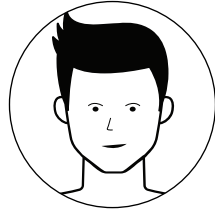
SARAH

PAULO

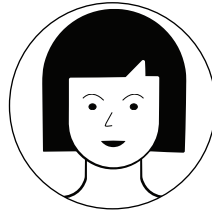


DESIGN COMMUTERS

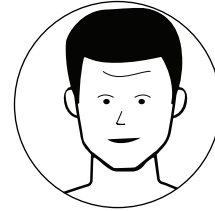
DAVID



SARAH

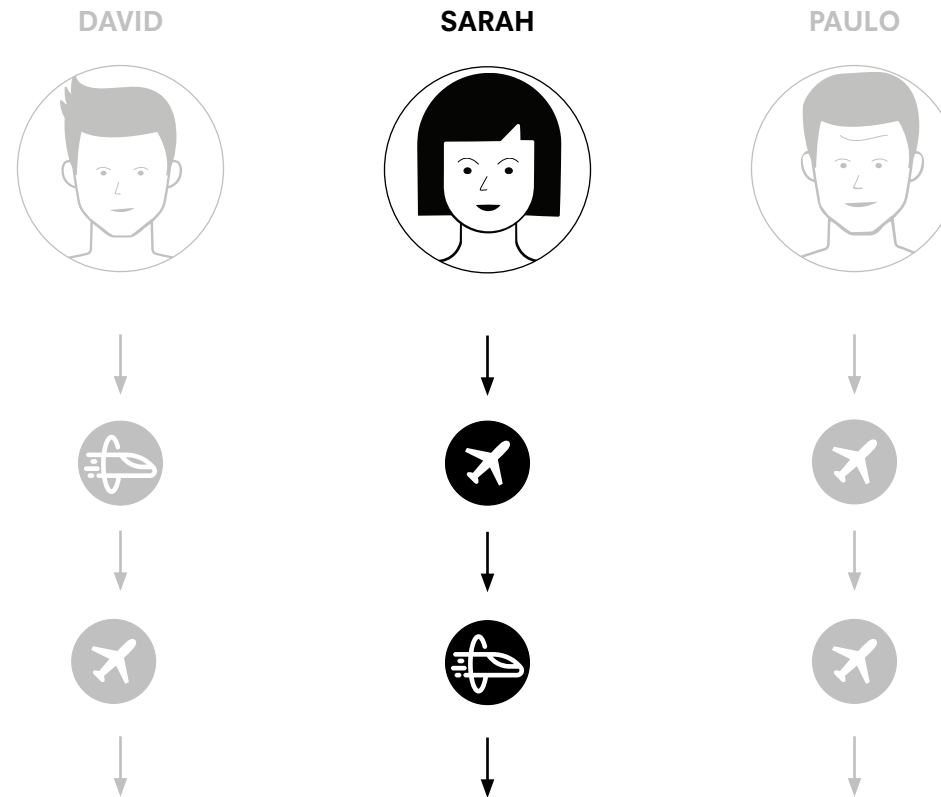


PAULO



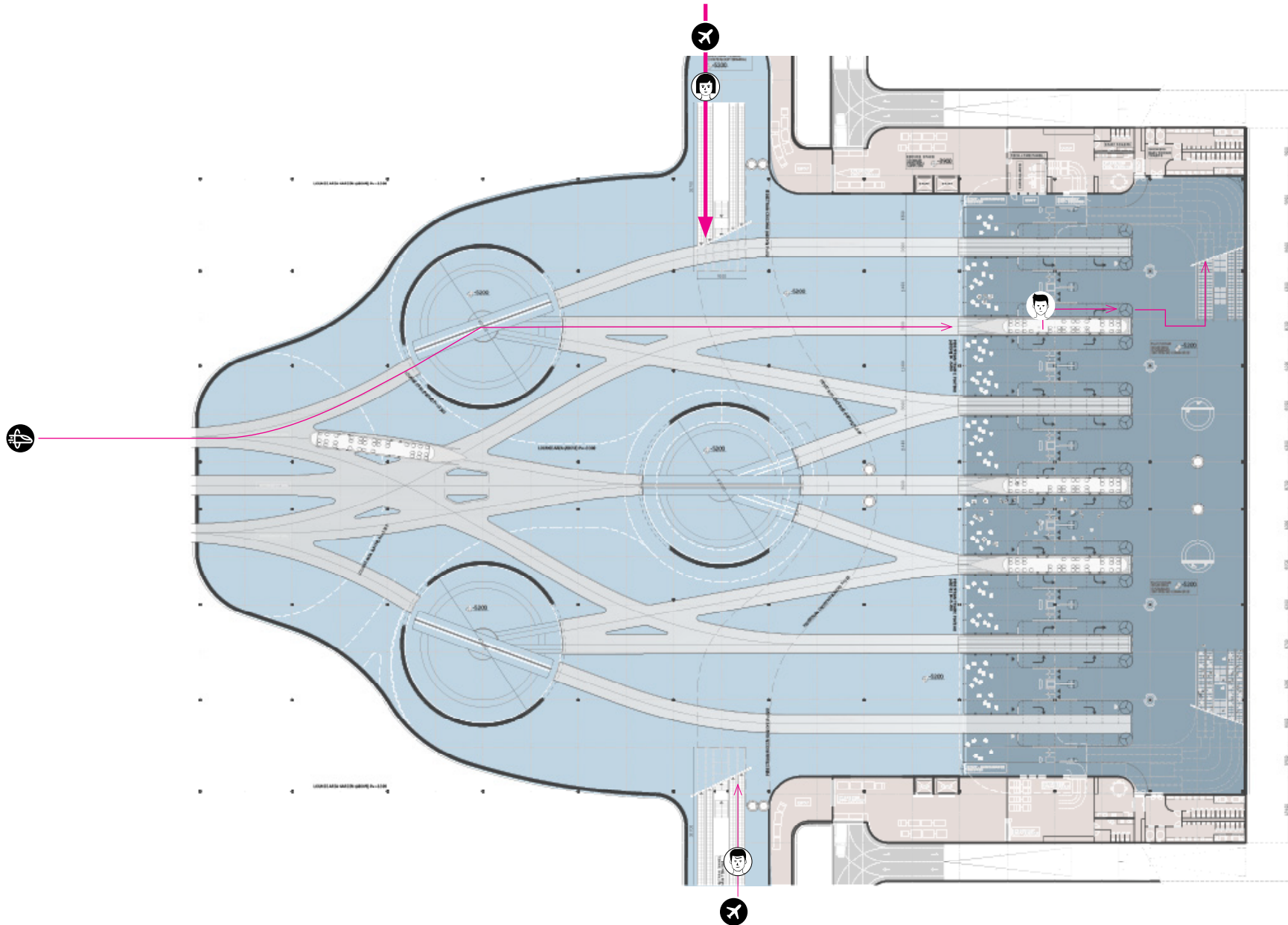
DESIGN

POD TO PLANE COMMUTER FLOW



DESIGN

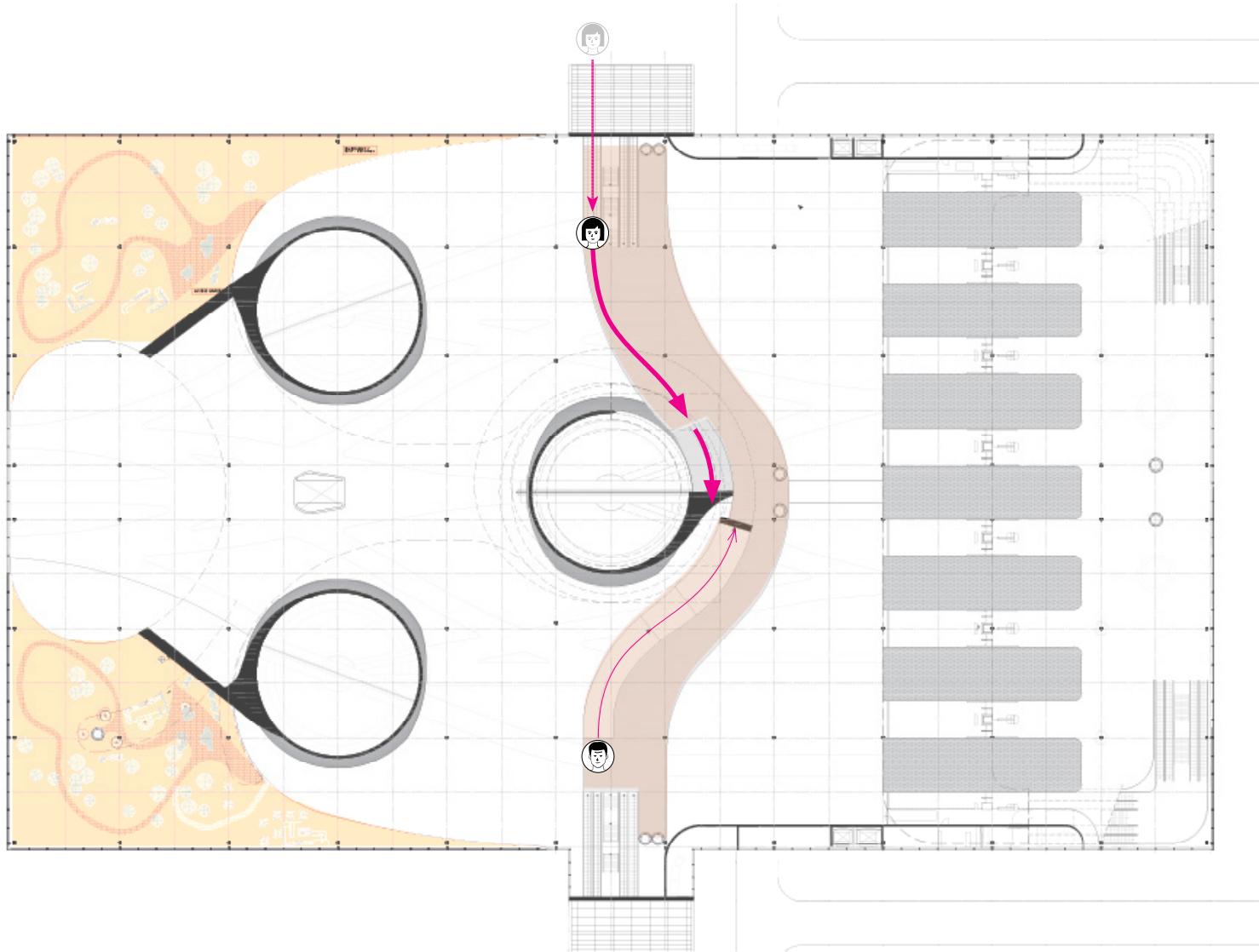
MAIN USER FLOWS





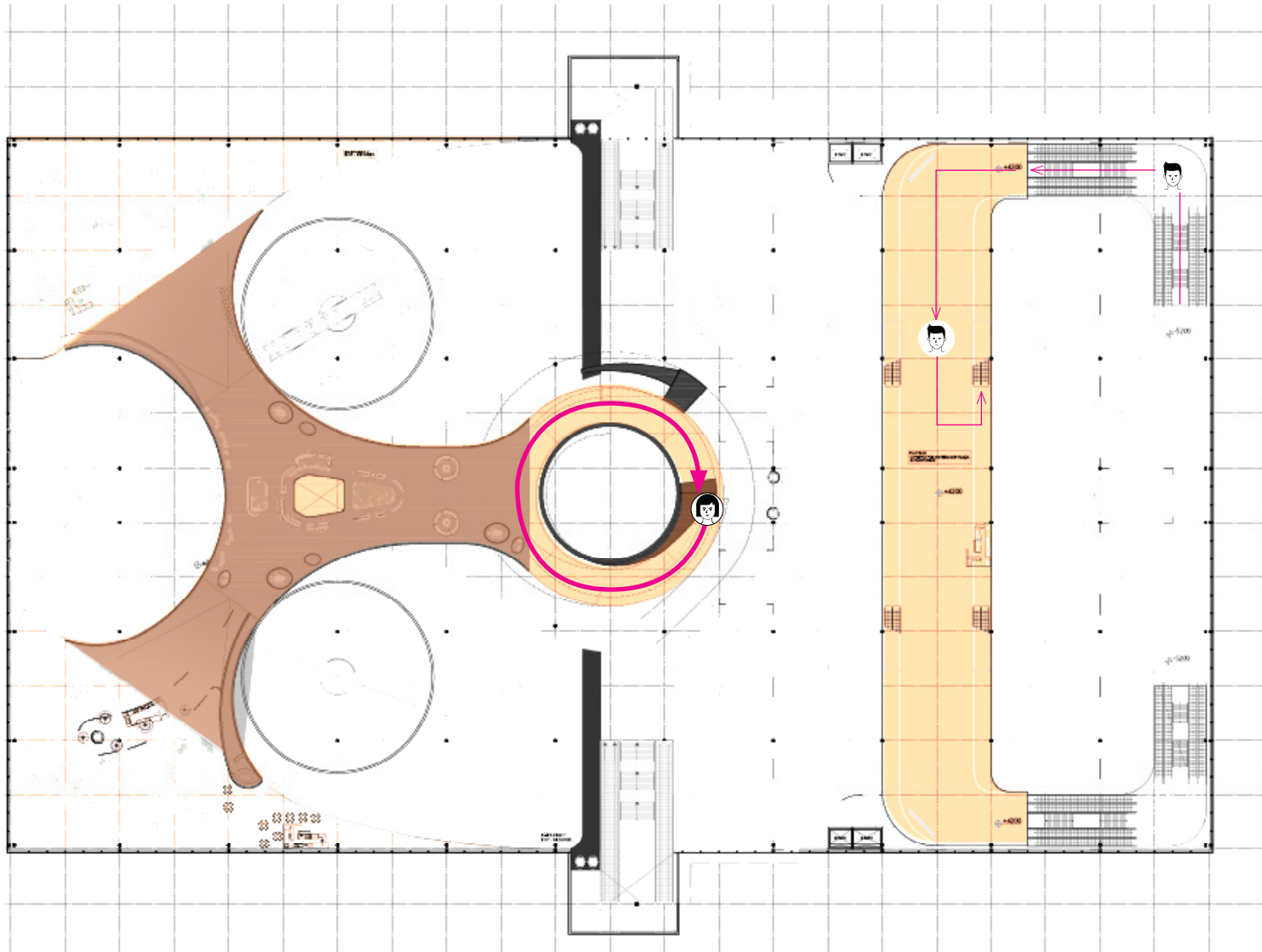
DESIGN

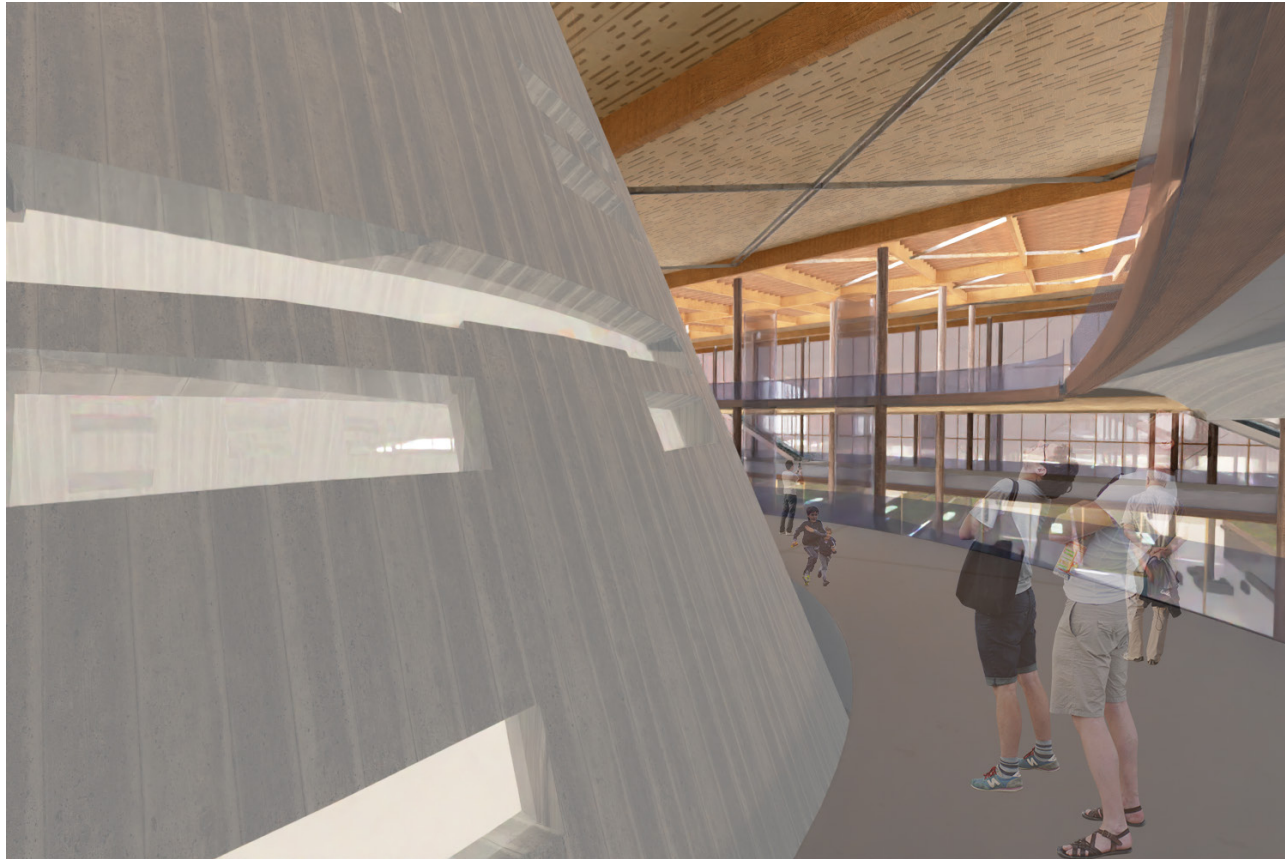
MAIN USER FLOWS



DESIGN

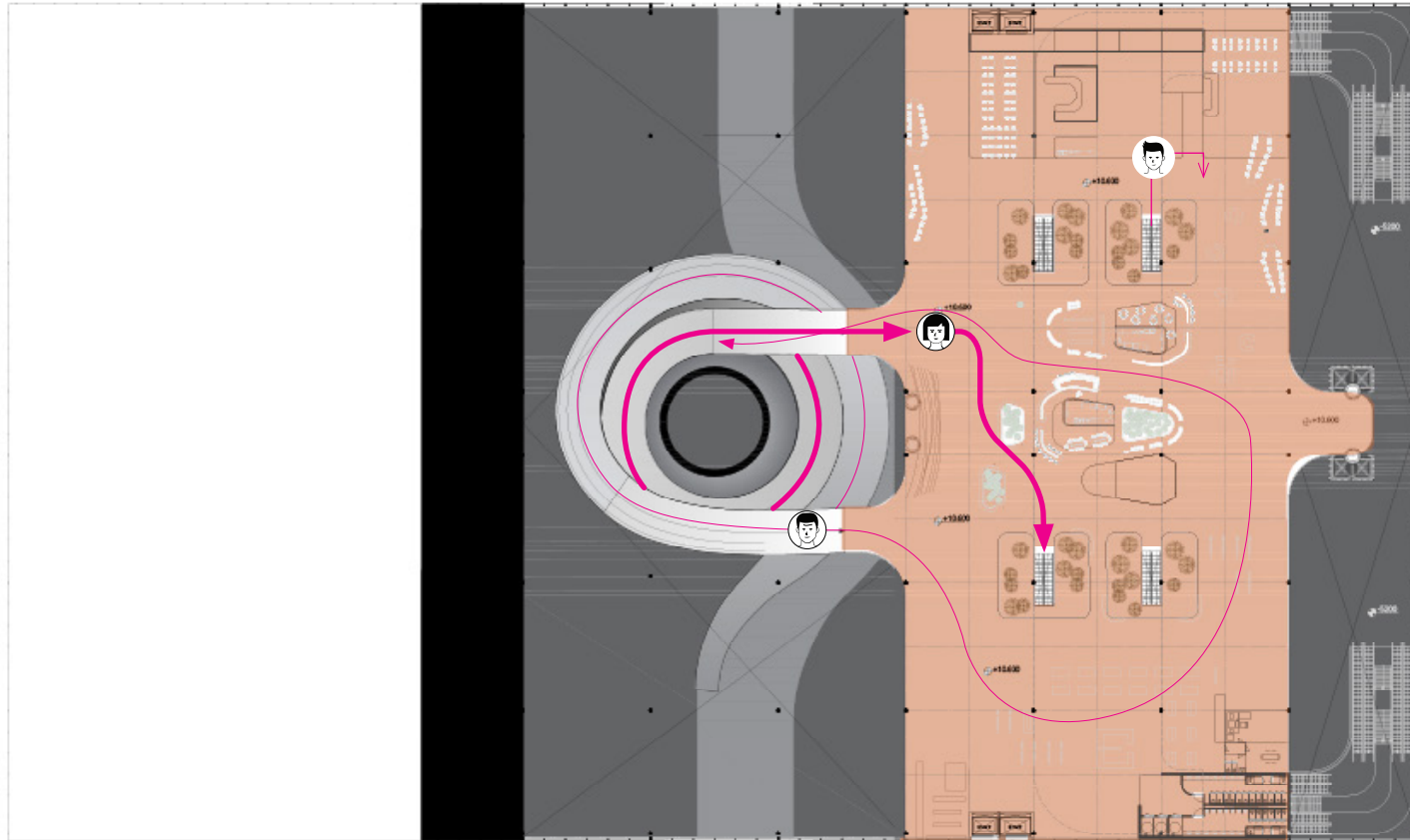
MAIN USER FLOWS





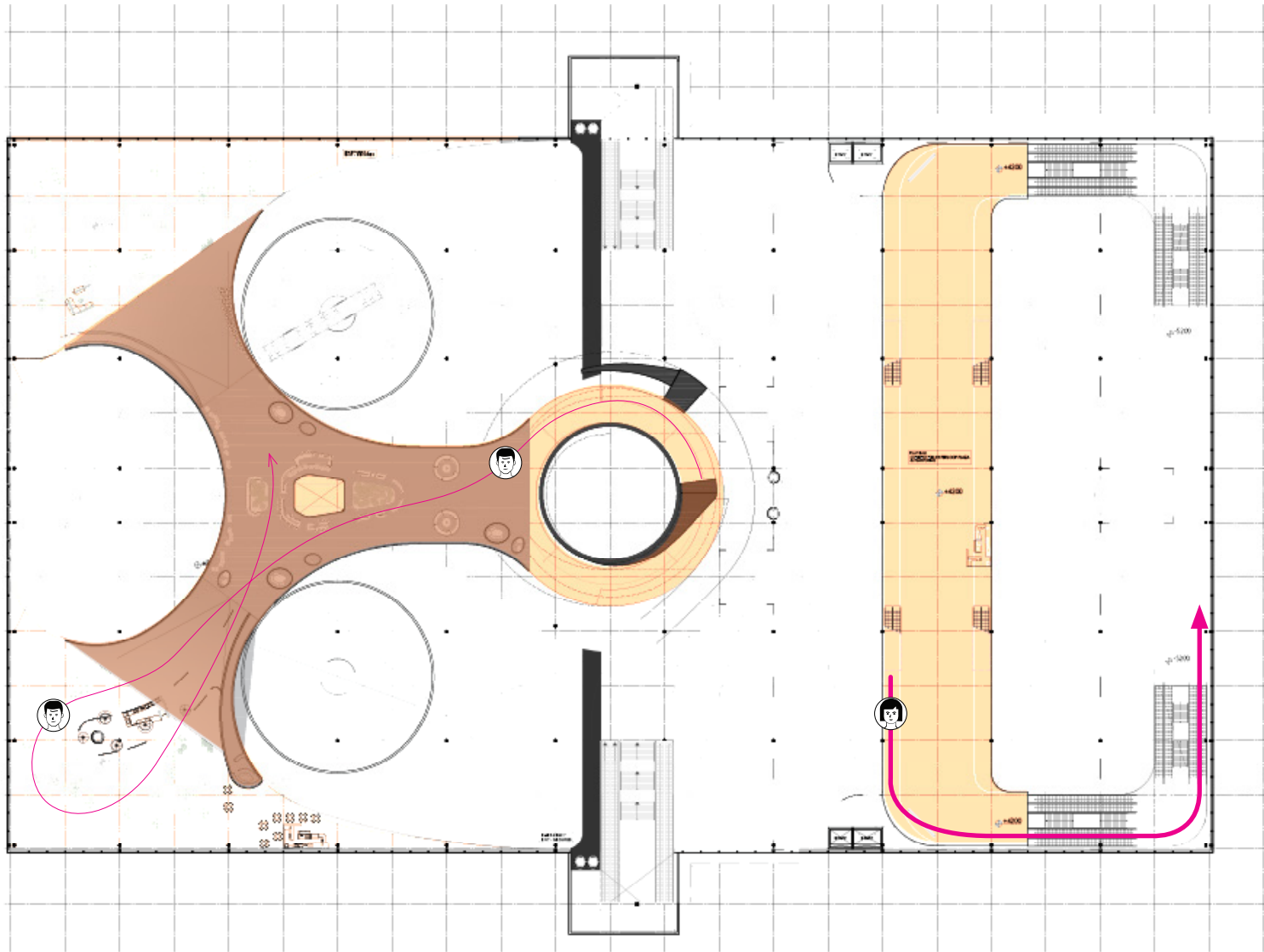
DESIGN

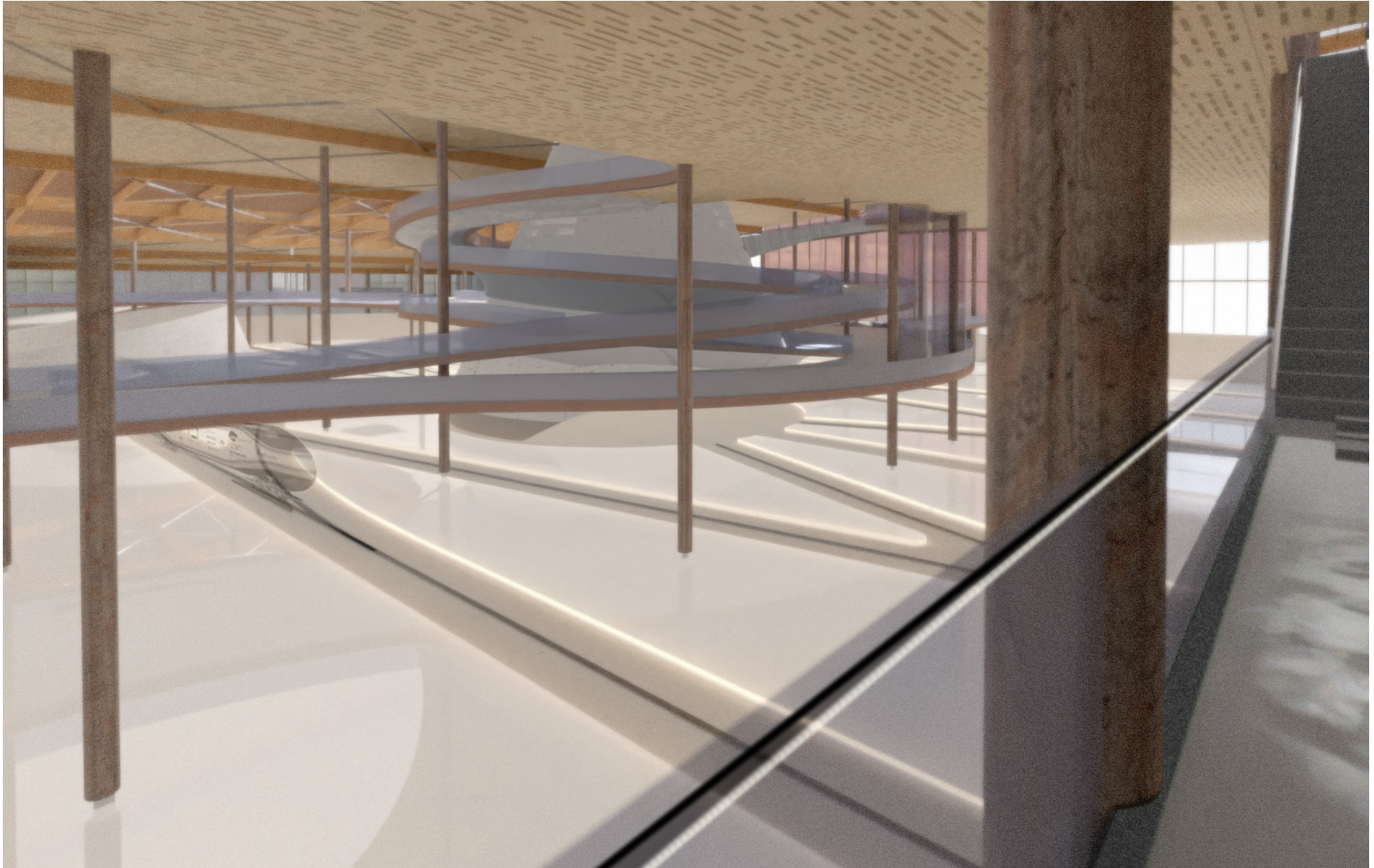
MAIN USER FLOWS



DESIGN

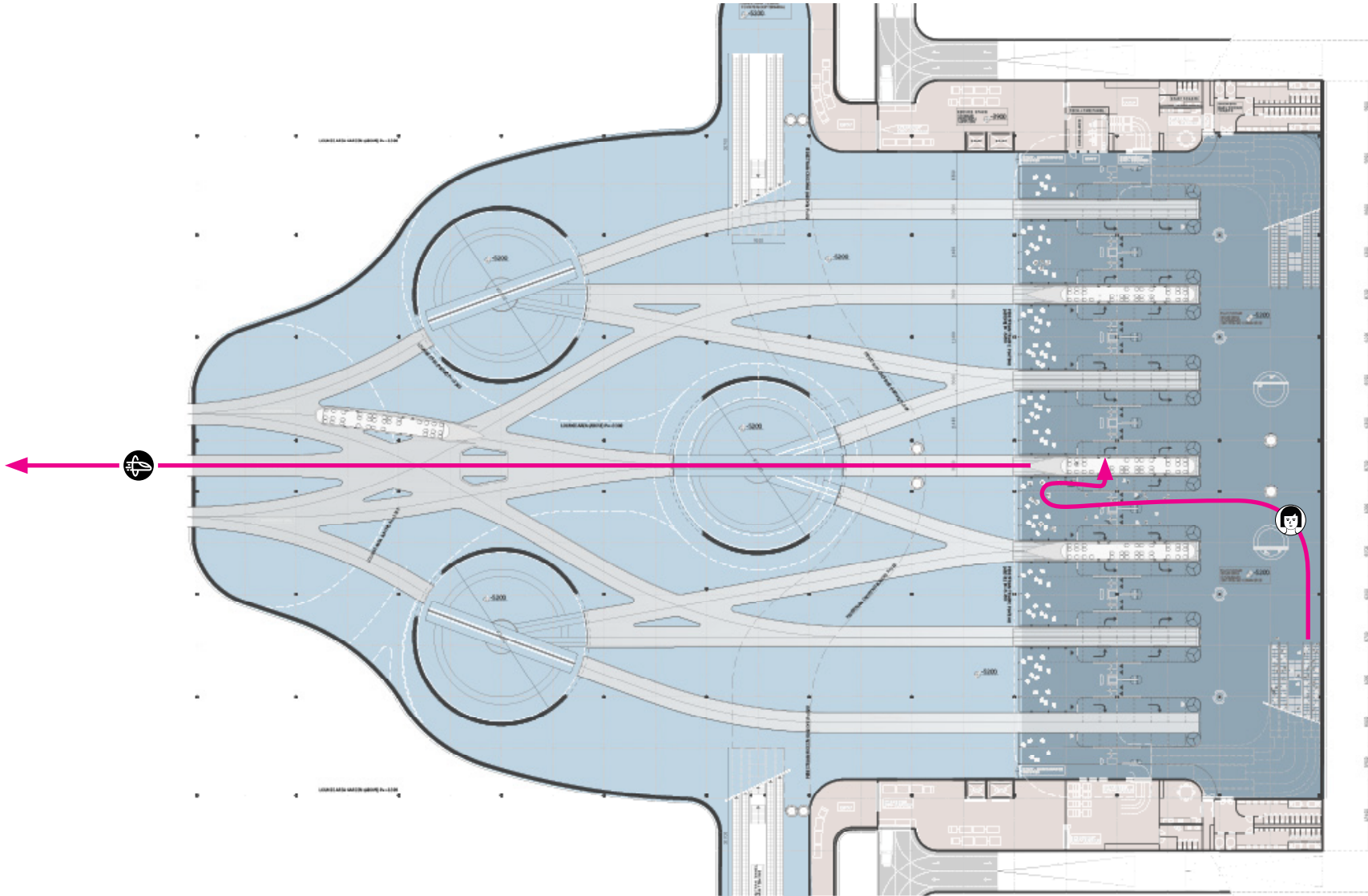
MAIN USER FLOWS





DESIGN

MAIN USER FLOWS



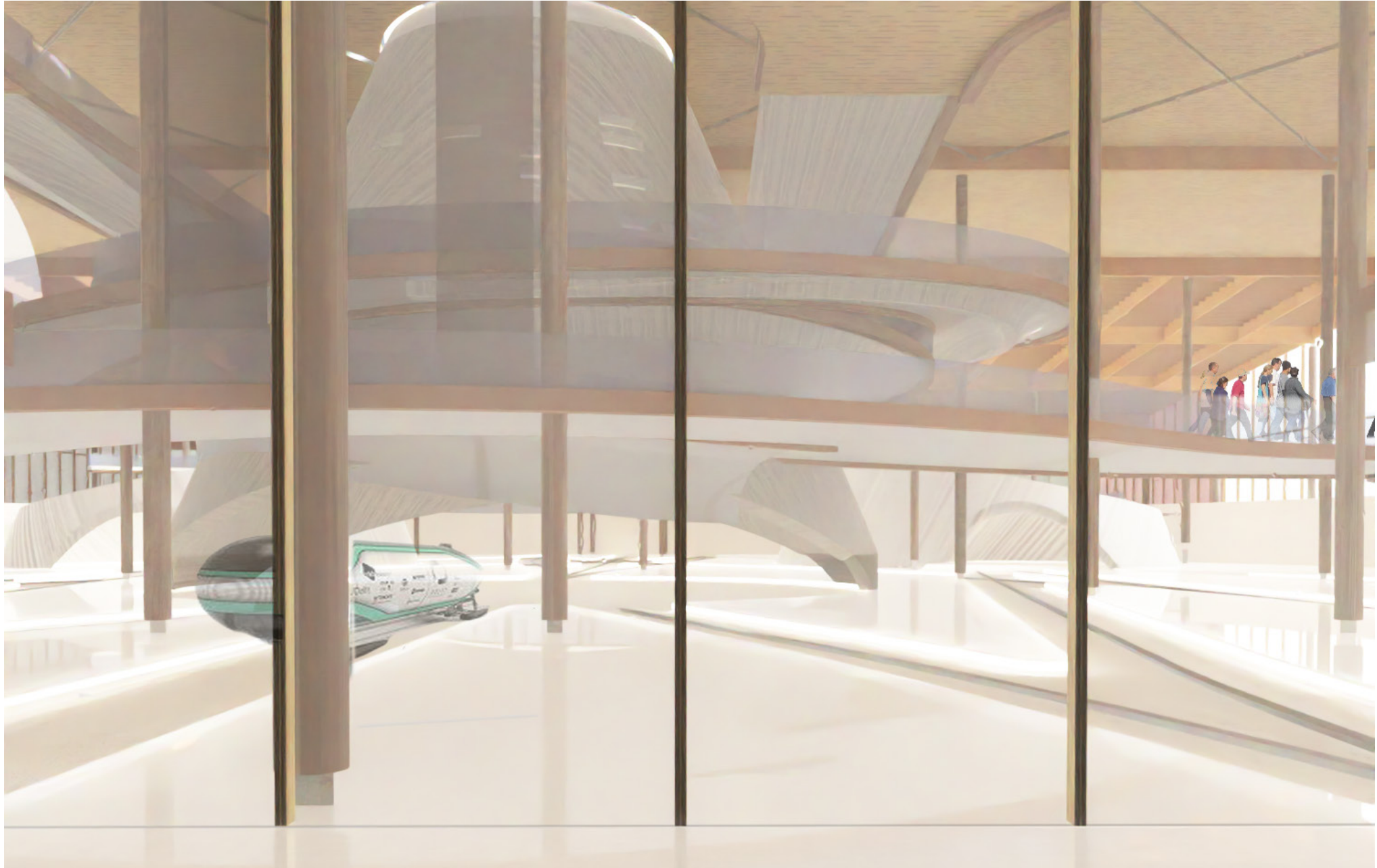
DESIGN

BOARDING UNIT VIEW



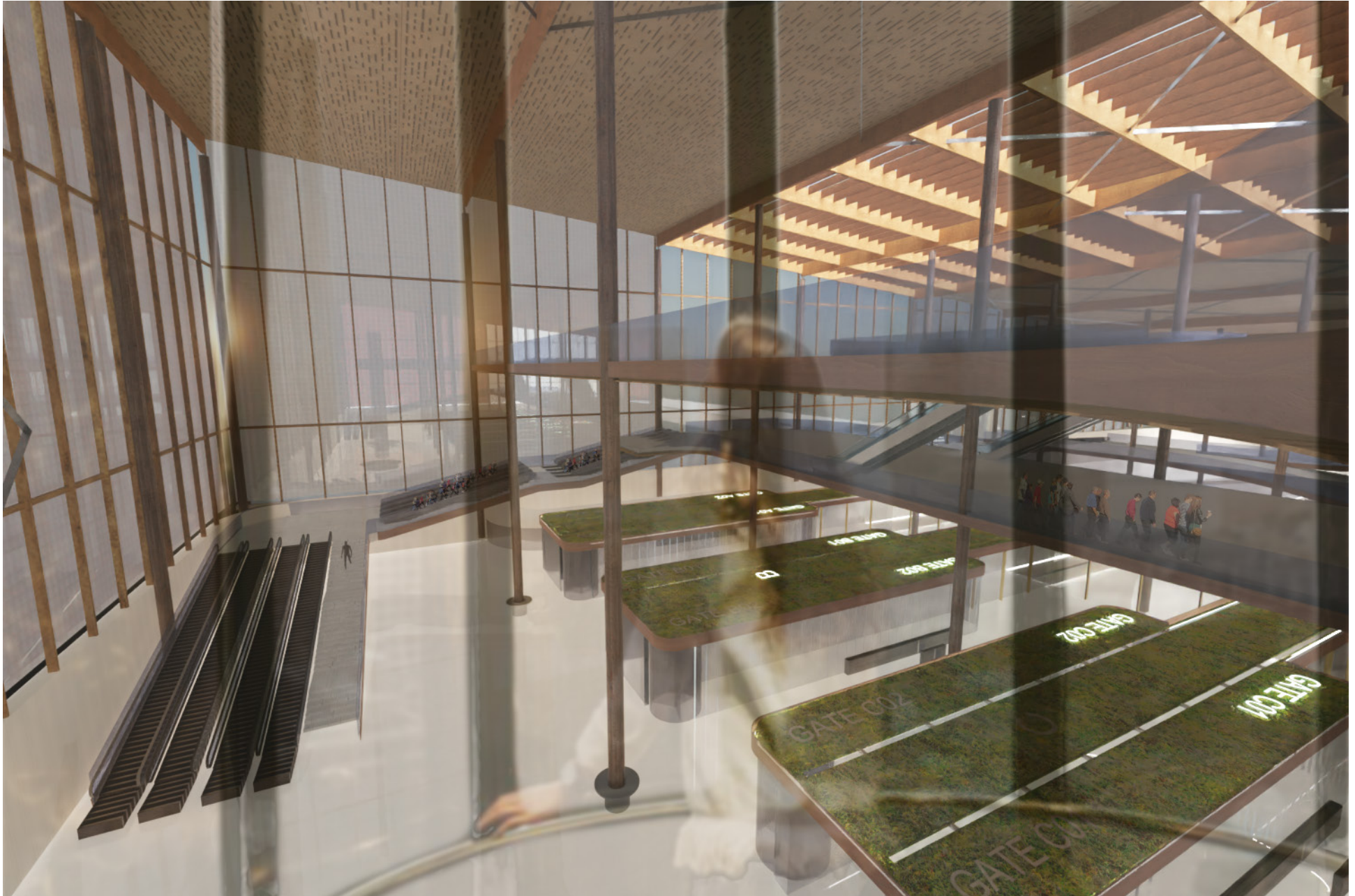
DESIGN

BOARDING UNIT VIEW



DESIGN

VIEW FROM ELEVATOR

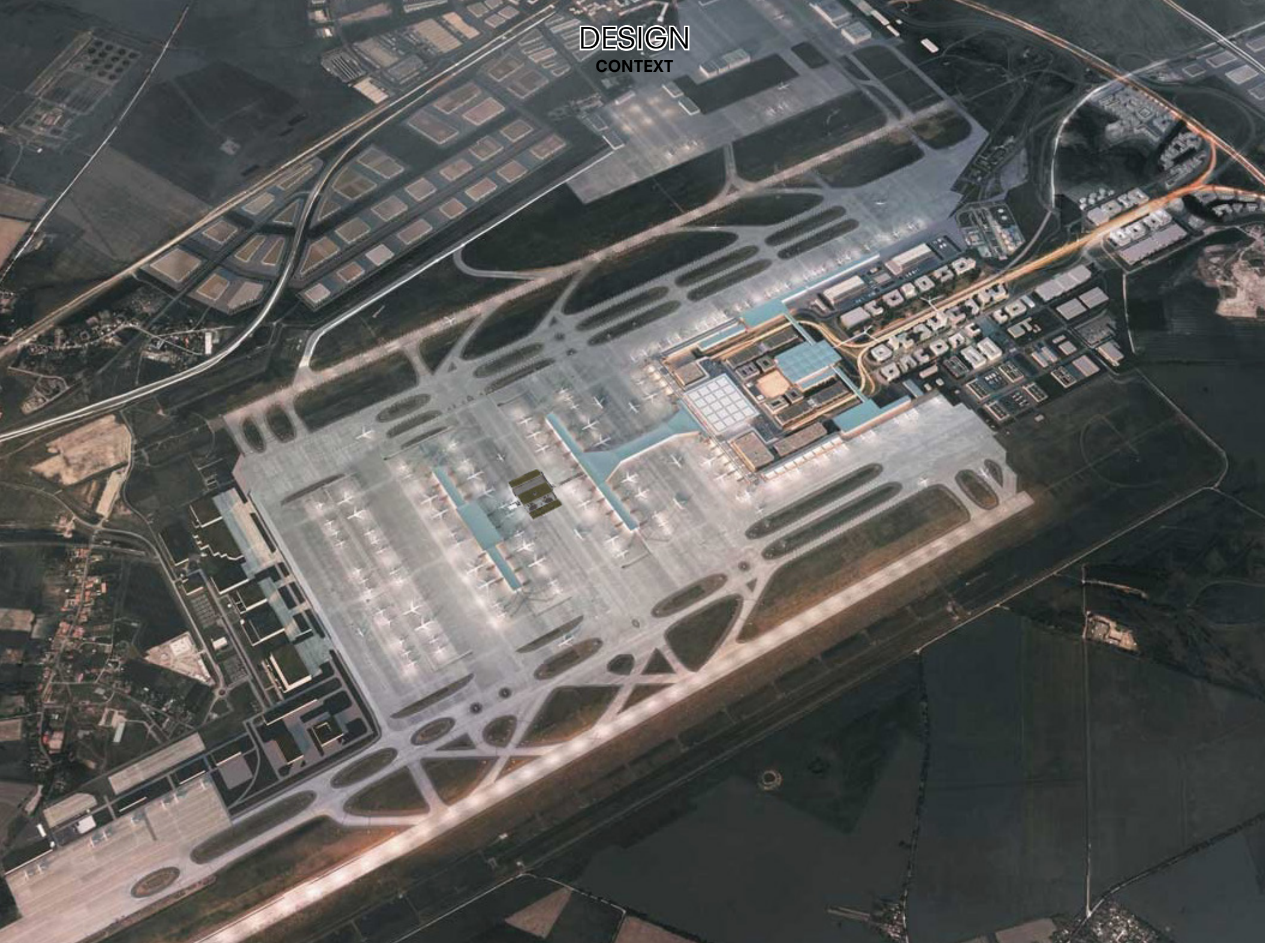


DESIGN

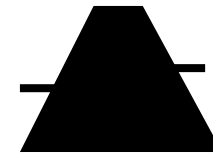
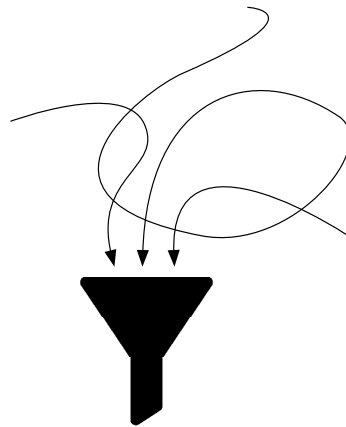
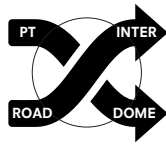
FACADE MATERIAL



DESIGN
CONTEXT







THANK YOU

