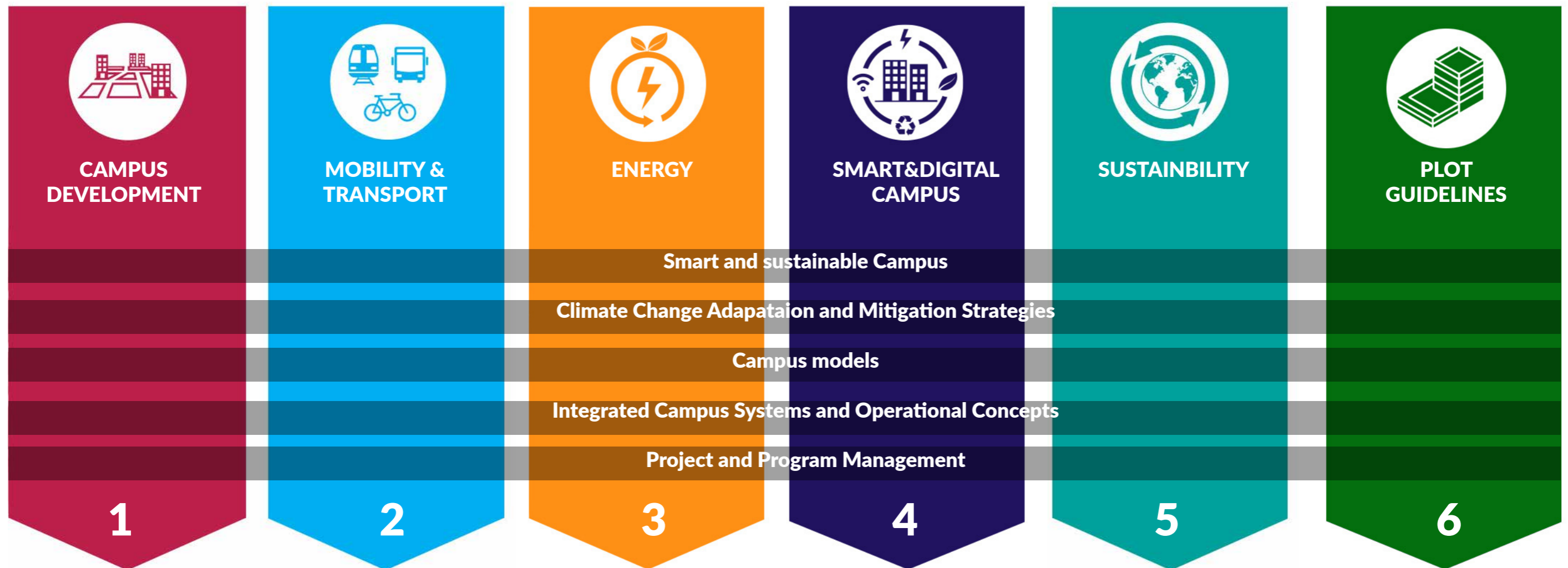




THE DEVELOPMENT OF THE TERRITORY OF THE ACADEMIC CENTRE OF THE UNIVERSITY OF LATVIA

CAMPUS DESIGN DISCIPLINES



1. CAMPUS DEVELOPMENT



URBAN DESIGN

- Feasibility and Impact Assessment
- City and University Visions
- Site Development Scenarios
- Benchmark studies
- Site characteristics
- Updating Municipal Plan
- Planning Application



MASTERPLAN & LANDSCAPE

- Biodiversity
- Density
- Functions
- Brief analysis
- Indoor spaces
- Outdoor Spaces



URBAN STRATEGIES GIS & DATA

- Gis and Data Maturity Assessments
- Data Management Strategies



URBAN STRATEGIES

- Stakeholders Engagement



INFRASTRUCTURE

- Water Supply
- Sewage and Storm
- Site Water Management
- Waterworks
- Irrigation

2. MOBILITY AND TRANSPORT



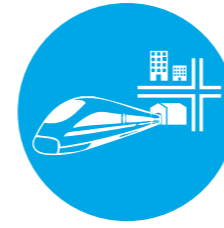
MOBILITY CONSULTING

- Mobility Concept
- Parking strategy
- Walkability concept
- Cycling concept
- Operating models/ concept



SMART MOBILITY

- Smart parking advisory



MOBILITY INFRASTRUCTURE

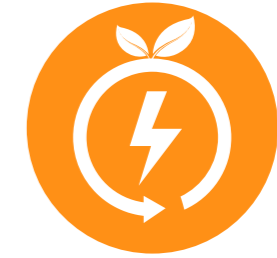
- Design of public spaces and parking
- Manoeuvrability testing



MOBILITY LOGISTICS

- Logistics/ Waste management concept
- network planning

3. ENERGY



ENERGY PLANNING

- Energy Consulting
- Smart Energy Concepts & Feasibility Studies
- Economic Calculations, Operating Costs, LCC, Contracting
- Technical Asset Management



DISTRICT MODELLING

- Carbon Management / Net Zero, Carbon strategies
- Analysis of Energy flows and savings potentials



SMART SYSTEMS

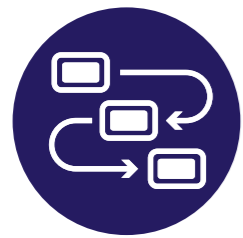
- Energy Masterplanning
- Energy Simulation and Optimisation
- Smart Energy System Analysis
- Sustainable Heating Cooling



ENERGY SIMULATIONS

- Clean Heating & Cooling Studies (CNC)
- Economic Calculations of Energy Systems Management

4. SMART DIGITAL CAMPUS



ENERGY PLANNING

- Strategy development
- Campus Benchmarking
- Innovation Consulting



DISTRICT MODELLING

- ICT Assessment
- Simulations
- Operation Models
- Level of Service (digital immersion analysis)
- KPI Development
- Technology frameworks

5. SUSTAINABILITY AND CLIMATE

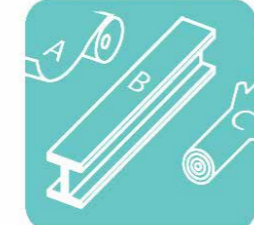


SITE & CLIMATE								
		SITE CHARACTERISTICS	SITE ORIENTATION	LANDSCAPE AND TOPOGRAPHY	BIODIVERSITY	TRANSPORT COMMUNICATION	DENSITY	
	FORM & MASSING							
			WIND ANALYSIS	SOLAR ANALYSIS	ENVIRONMENTAL IMPACT			
		MOBILITY						
			CIRCULATION	URBAN SPACE ZONING	MOBILITY CONSULTING			
	EXTERNAL ENCLOSURE							
		INSULATION LEVELS	RESPONSES TO FORM AND ORIENTATION	PHYSIOLOGICAL COMFORT	PHYSIOLOGICAL COMFORT			

5. SUSTAINABILITY AND CLIMATE



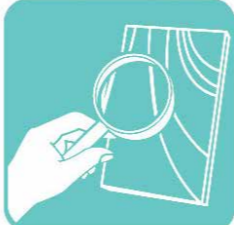
MATERIALS



MATERIALS SELECTION AND SOURCING

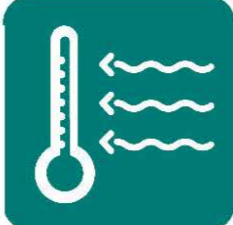
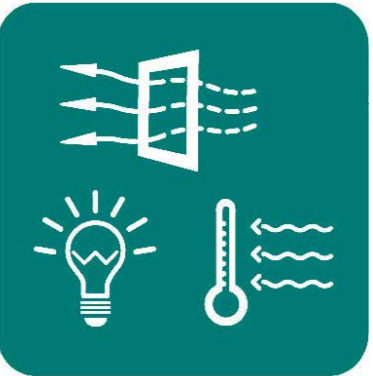


LIFE CYCLE ASPECTS

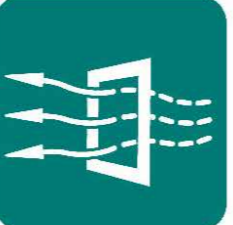


MATERIALS RESARCH

ENVIRONMENTAL SYSTEMS



HEATING/ COOLING



VENTILATION

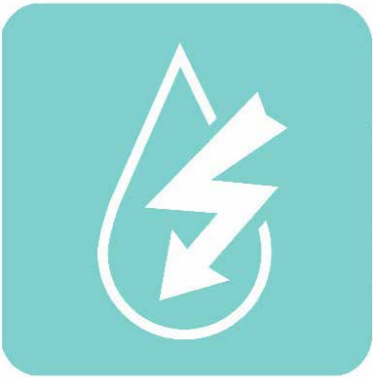


LIGHTING



CONTROLS

ENERGY & WATER



ENERGY STRATEGY



ENERGY SOURCES



WATER MANAGMENT

INCLUSIVITY DESIGN



ACCESIBILITY



DEAF-MUTE BLIND



DISABLED



SPECIAL NEED



STEPS



ELDERLY



LUGGAGE

6. PLOT GUIDELINES



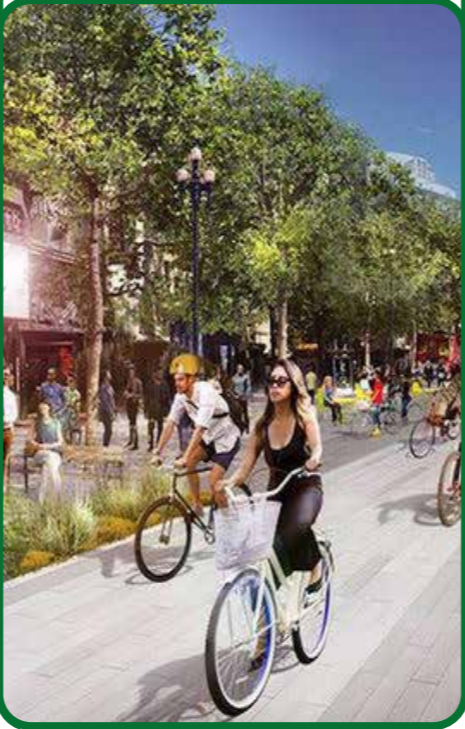
ARCHITECTURE
- Materials
- Heights
- Volume
- Density
- Character



STRUCTURAL



MOBILITY



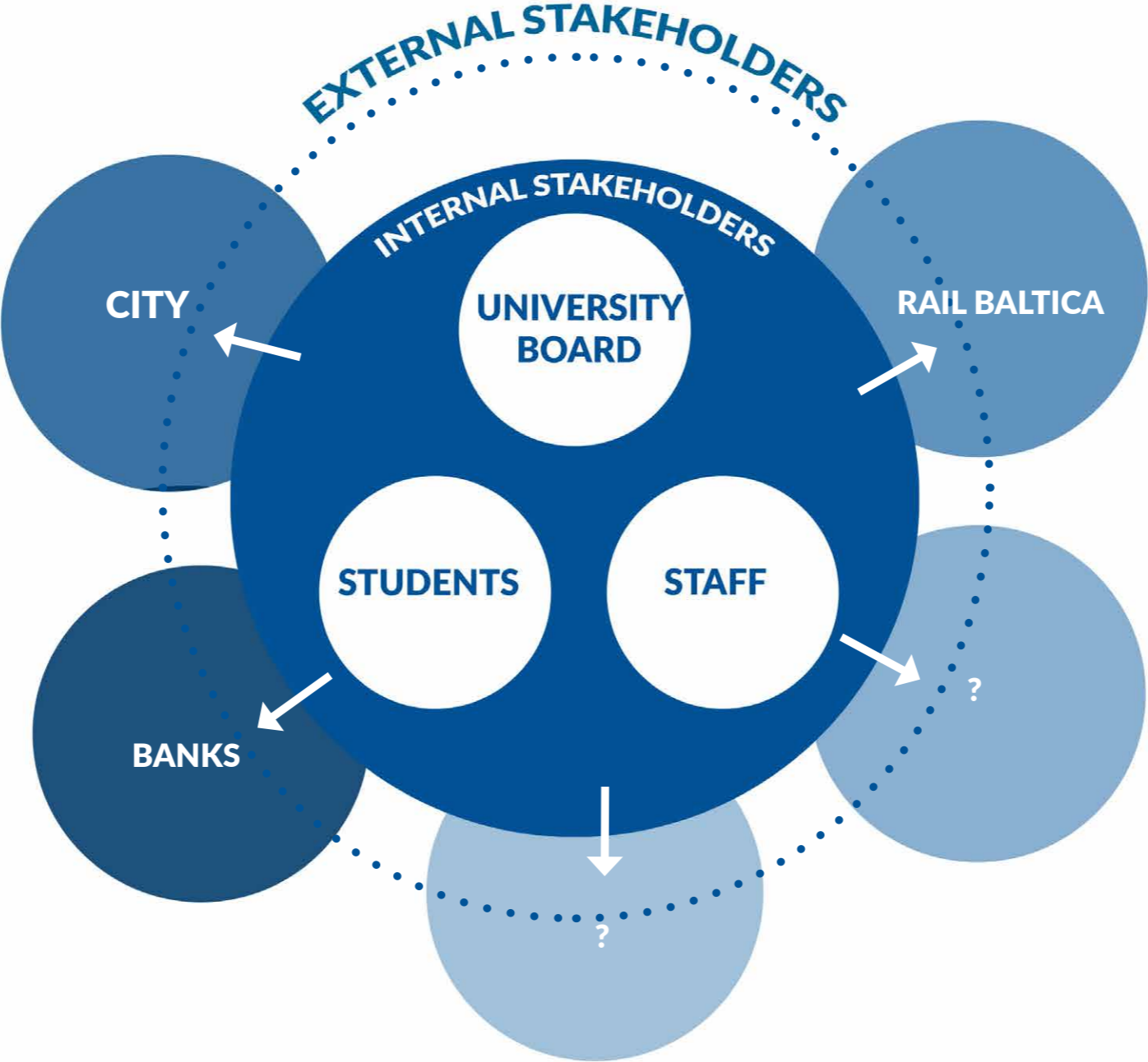
LANDSCAPE AND GREENERY



SUSTAINABLE DESIGN



7. STAKEHOLDERS COMMUNICATION



8. PROPOSED CONSULTANTS

WIND AND SOLAR STUDIES

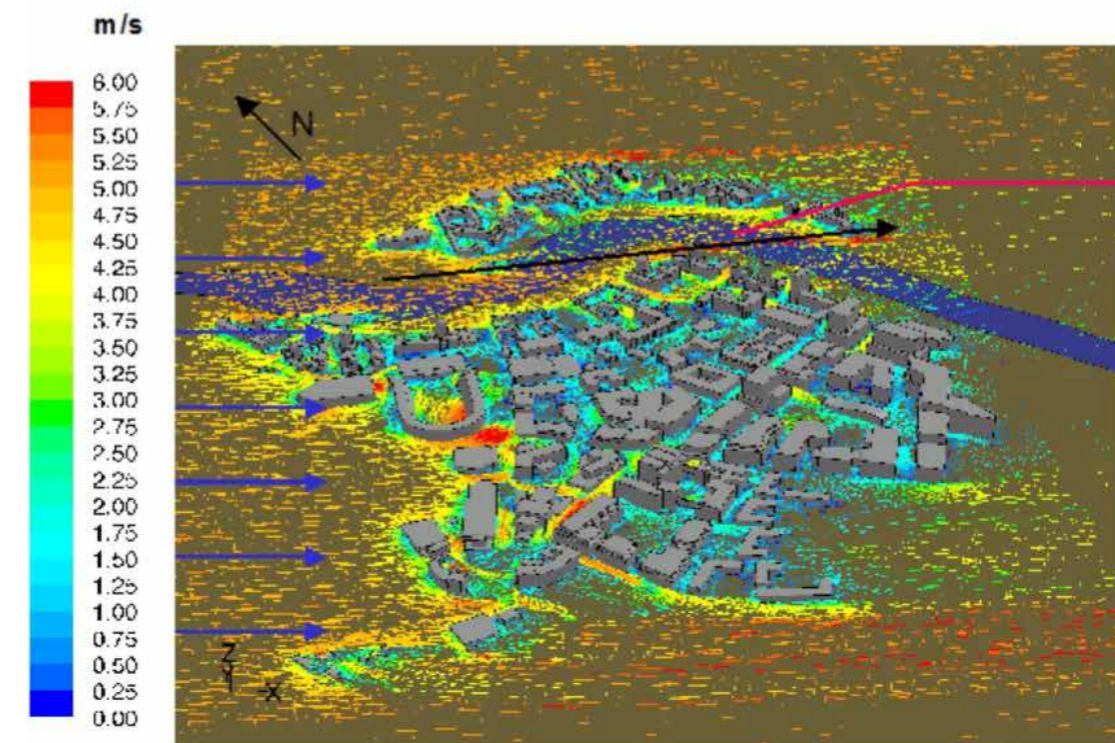
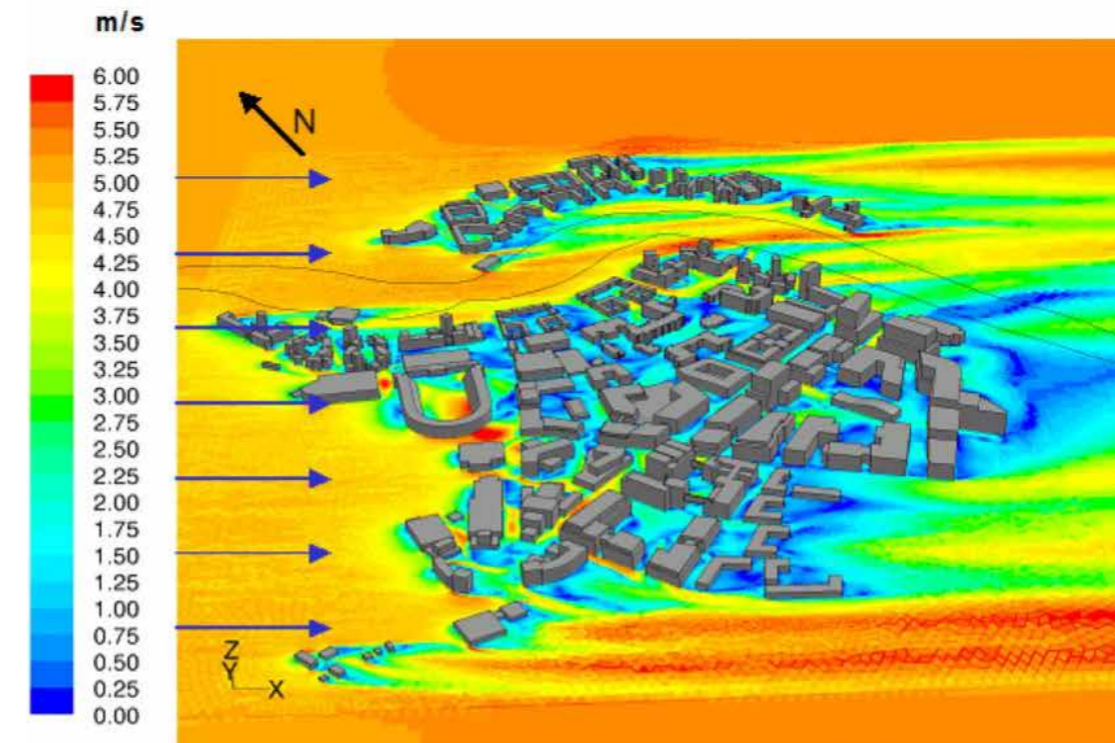
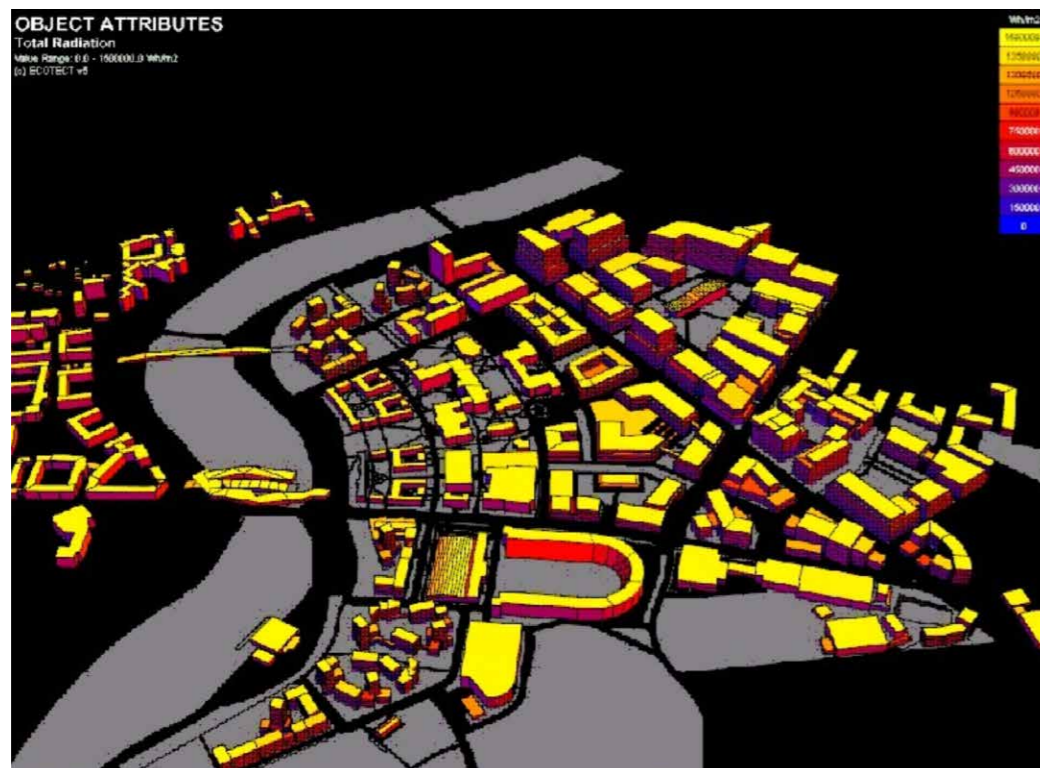
Transsolar KlimaEngineering

Transsolar is an international climate engineering firm determined to create exceptional, highly comfortable indoor and outdoor spaces with a positive environmental impact. We believe that the very measures taken to create remarkable architecture can simultaneously enhance human experience and minimize resource use. To us, sustainability is not separate from design, but an indispensable component that enhances the experience of the built environment.

Client Harvard University,

Allston Development Group Completion Stop 2007 GFA 1,180,000 ft / 110,000 m Architect Cooper, Robertson & Partners; Gehry Partners; Olin Partnership

To support the urban design process Transsolar performed various wind and solar studies for the Allston Science Complex Masterplan. The annual insolation study shows which areas are hit by direct sunlight, indicating façade and outdoor areas with solar exposure – a key element for residential program, façade performance requirements, renewable solar energy production and outdoor thermal comfort.



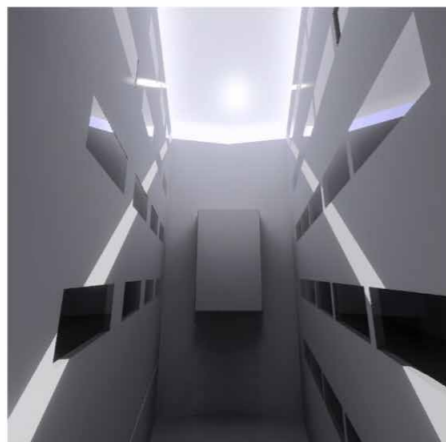
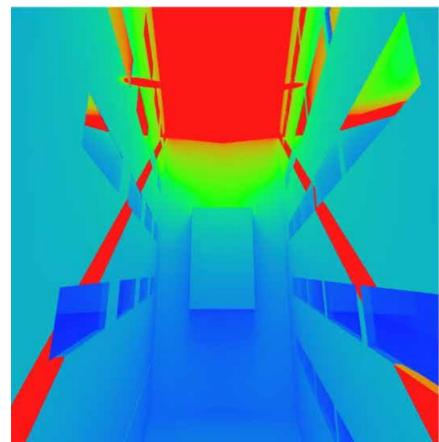
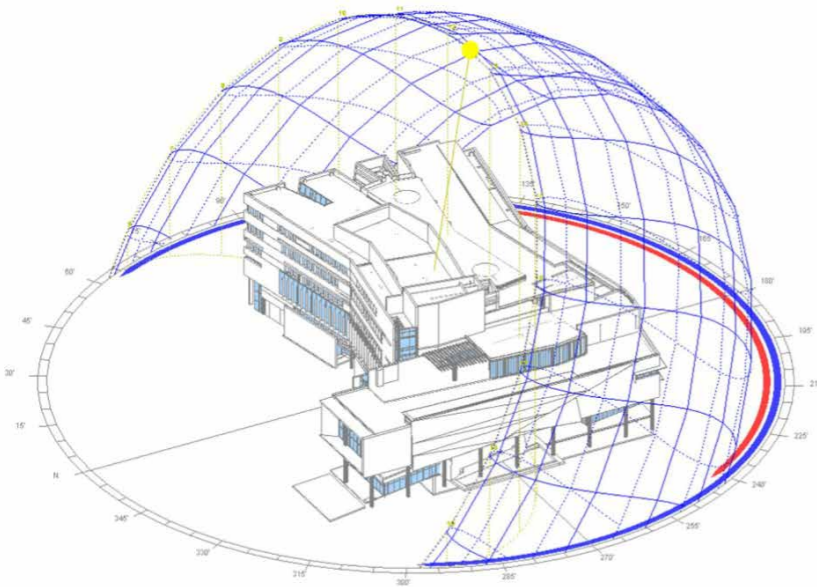
8. PROPOSED CONSULTANTS

WIND AND SOLAR STUDIES

Transsolar KlimaEngineering

Client Arizona Board of Regents Completion 2012 GFA 268,000 ft / 90,000 m Architect CO Architects, Ayers Saint Gross Photos Bill Timmermann

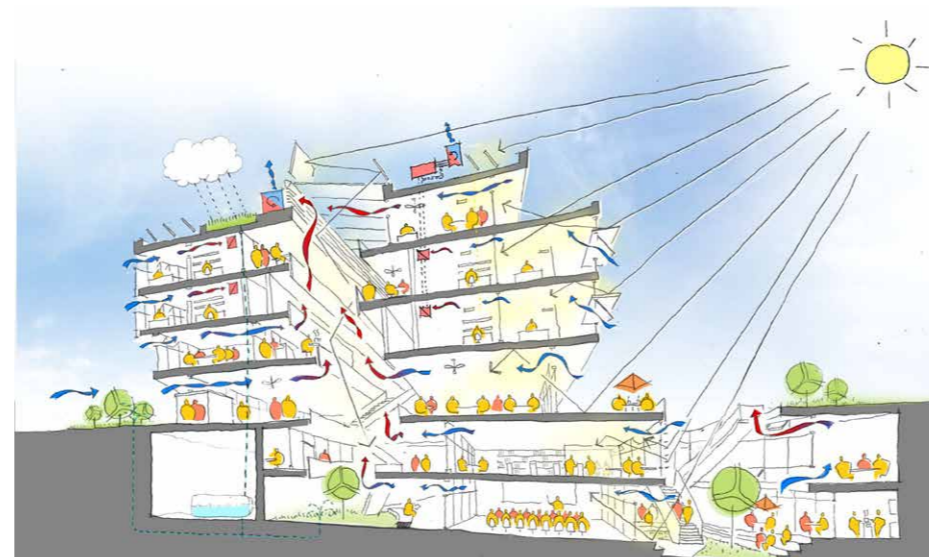
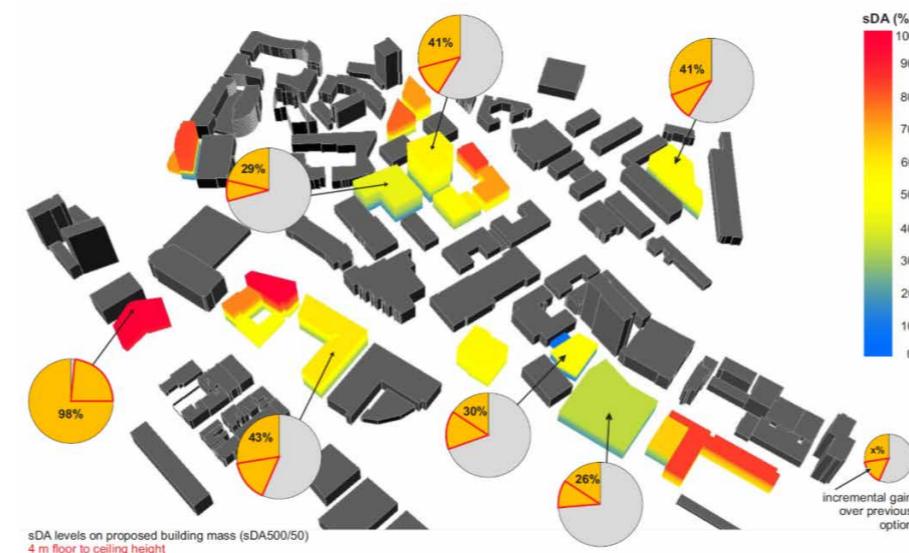
The aim of the project was to combine high comfort indoor and outdoor spaces with low energy intensity for building operation. The desert climate with frequent sands-torm leads to cooling dominated buildings with a robust façade design.



Transsolar KlimaEngineering

Client Northeastern Universität , Boston Completion 2013 Architect Chan Krieger NBBJ

Transsolar provided climate engineering and sustainable consultancy for Northeastern University's first-ever masterplan. The masterplan focuses on 10-year and 20-year space needs for Northeastern's continued transformation into a major research university.



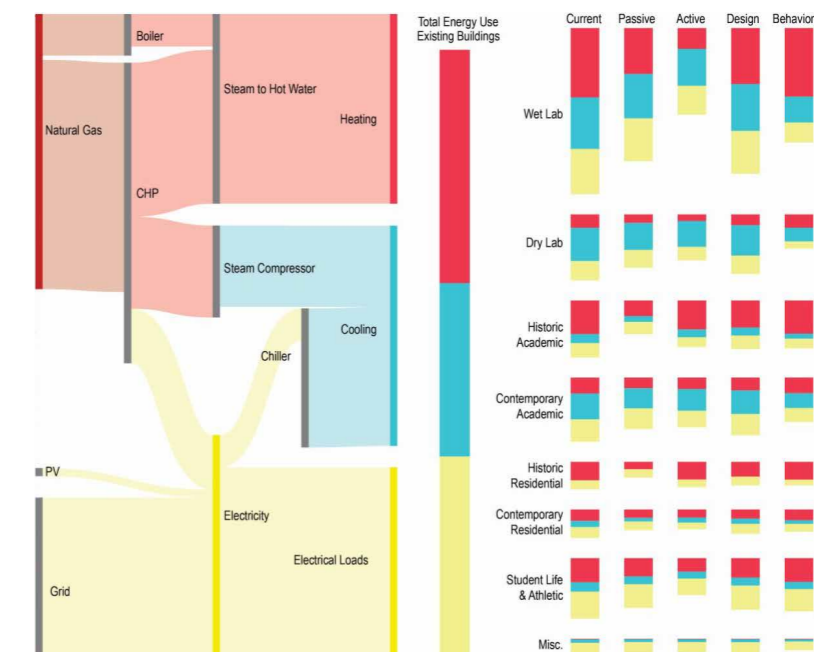
Transsolar KlimaEngineering

Client Princeton University Completion 2016 Architect Behnisch Architekten, KPMB Architects Renderings Behnisch Architekten

Princeton selected Transsolar to lead an exploration of how the university can take a more aggressive stance toward energy efficiency in architecture, contributing to a possible net zero carbon goal. Transsolar led an integrated project team with support from Behnisch Architekten and KPMB Architects.

This comprehensive visioning resulted in several key deliverables:

- an architectural vision for future new construction and major renovations
- recommendations to enhance Princeton's design and construction process in support of the vision
- metrics for evaluating and visualizing performance and cost of individual projects and the campus as a whole
- quantitative comparisons of the potential for energy reduction in different building types and their fiscal and social impact

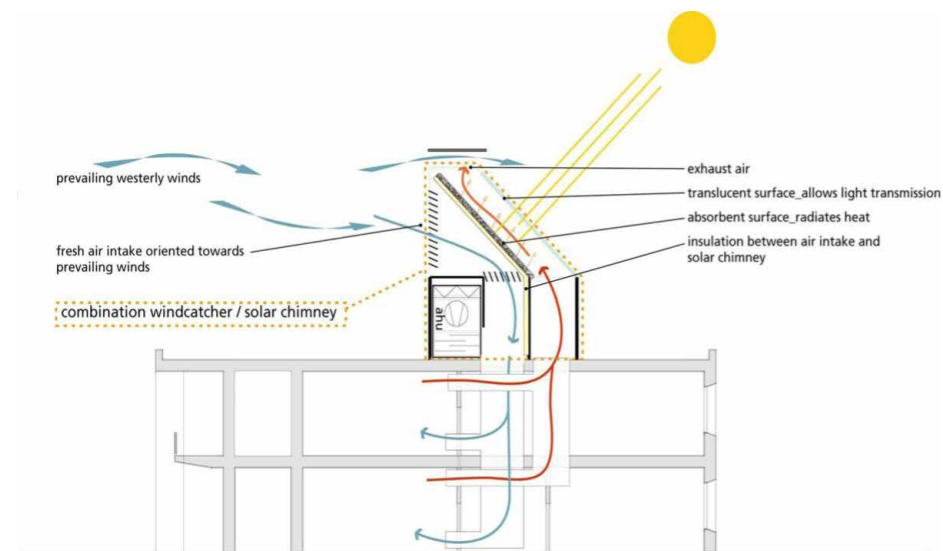


8. PROPOSED CONSULTANTS

WIND AND SOLAR STUDIES

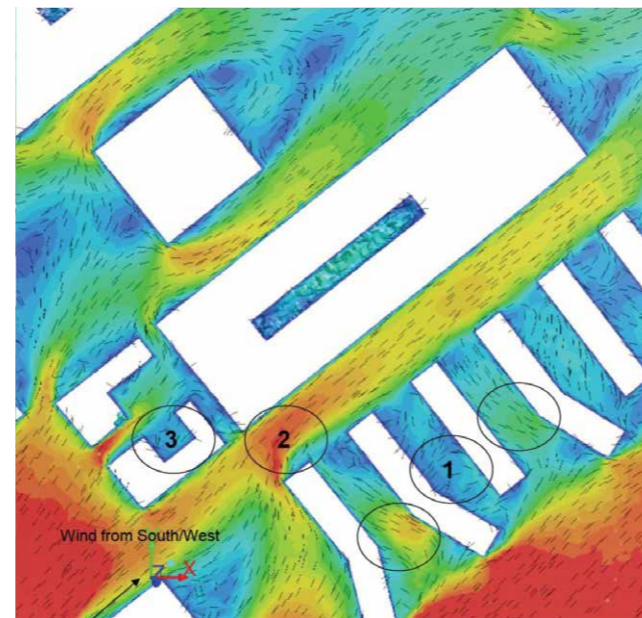
Transsolar KlimaEngineering

Client Aga Khan University GFA 2,152,782 ft / 200,000 m Architect Payette Mechanical Flack & Kurtz



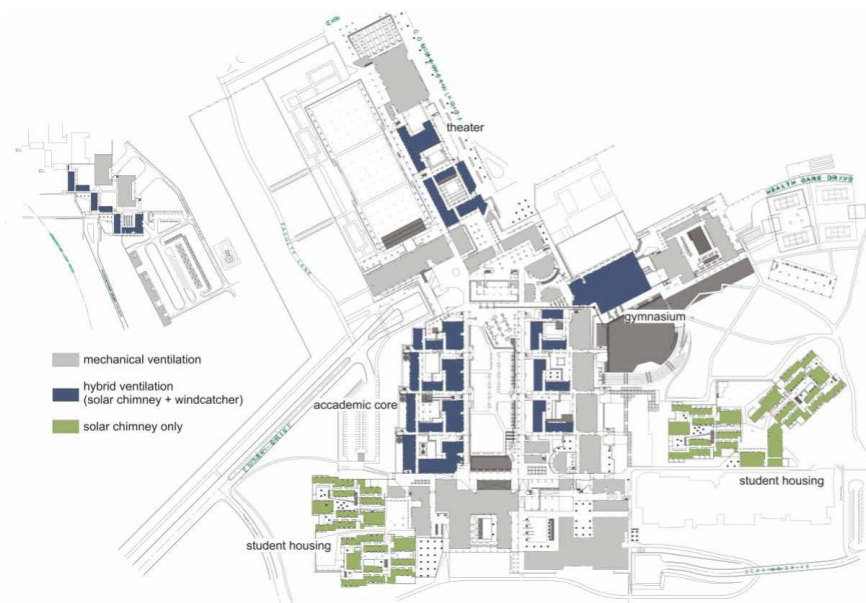
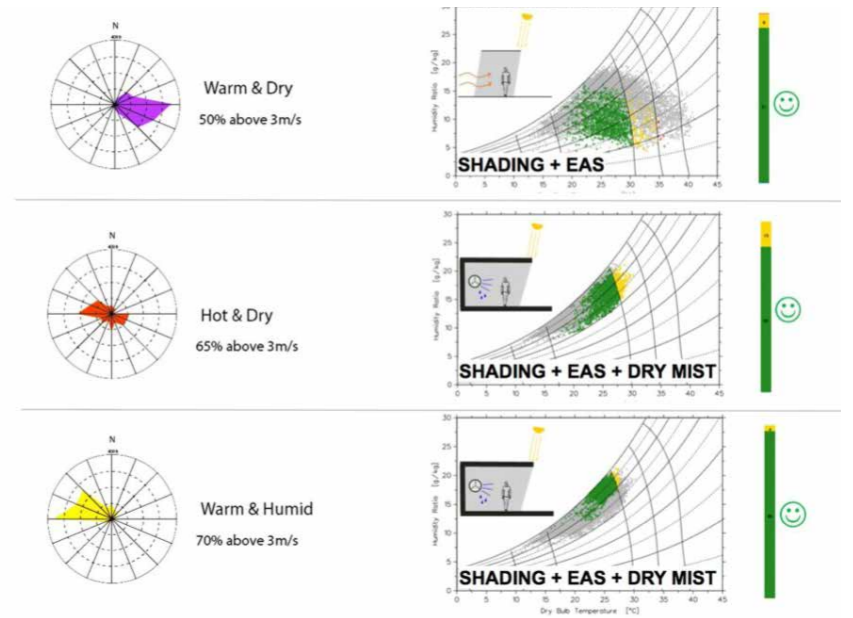
Transsolar KlimaEngineering

Client Aga Khan Foundation Completion postponed Site Area 37 ac / 15 ha Architect Hashim Sarkis Architects Mechanical Barbanel Middle East Renderings Hashim Sarkis Studios



Transsolar KlimaEngineering

Client WIPRO Limited Completion 2022 GFA 1,000,000 ft / 92,900 m Architect Morphogenesis Structural Schlaich Bergermann Partner Renderings Morphogenesis



8. PROPOSED CONSULTANTS

INFRASTRUCTURE

BURO HAPPOLD

Multi-national, integrated consultancy team, with a displayed focus on transformative solutions for the built environment through engineering, consulting, and advising capabilities -interdisciplinary, urban, carbon and lifecycle-focused

CLIENT
University of Bristol

ARCHITECT
FCBS

COLLABORATORS
Aecom, Grant Associates

SERVICES PROVIDED BY BURO HAPPOLD
Structural engineering, building services engineering (MEP), ground engineering, infrastructure, sustainability design, fire, inclusive design, acoustics.



Temple Quarter Enterprise Campus
Bristol, UK

CLIENT
London Development Agency, Olympic Delivery Authority, London Legacy Development Corporation

DURATION
2005 - 2018

SERVICES PROVIDED BY BURO HAPPOLD
Inclusive design, masterplanning, site remediation, hydrology, ecology, waste management, utilities, security, topographical design, earthworks modelling, river engineering, flood risk assessment and prevention, energy and sustainability strategies, bridge engineering, highways design and traffic engineering, fire engineering design and risk assessment



Delivering Inclusive Design Standards - London Olympic Park Masterplan (Games and Legacy) London, UK

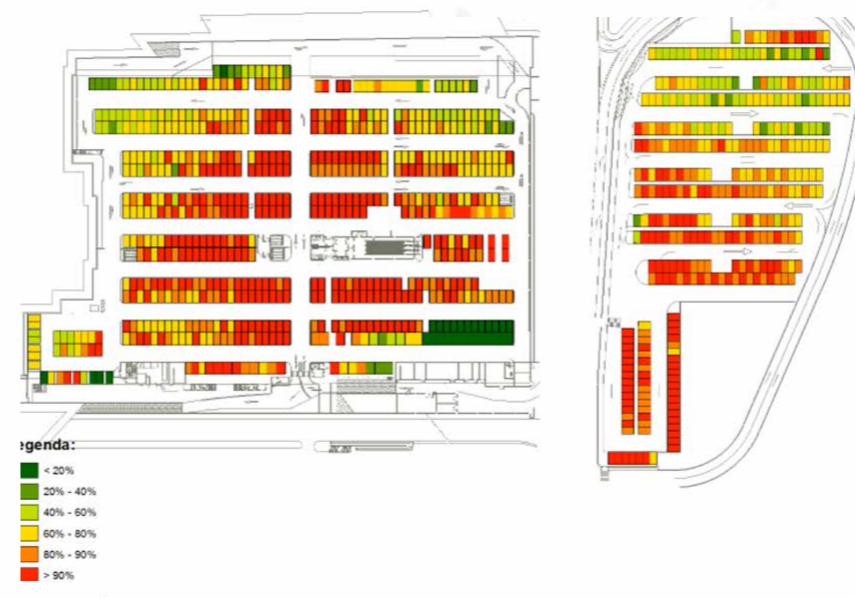
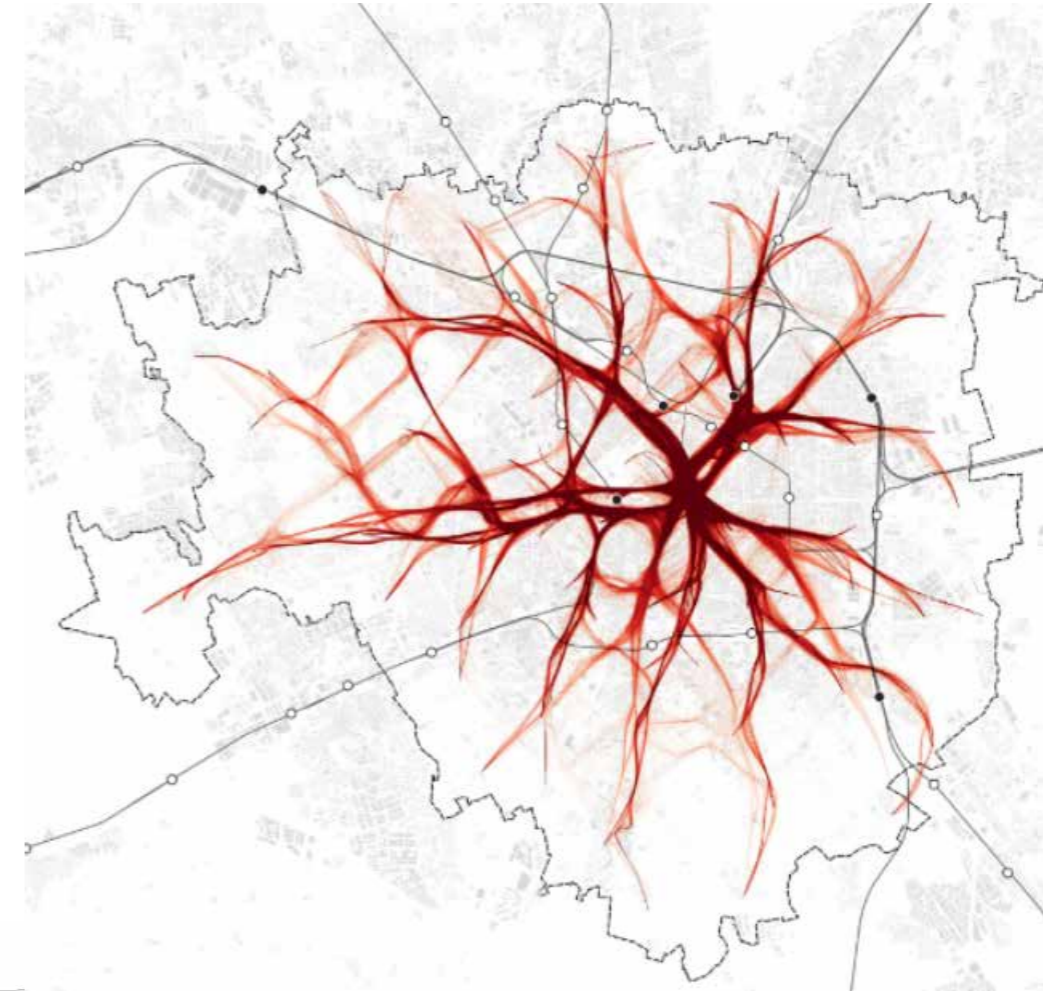
8. WORKSHOP'S ON MOBILITY

MOBILITY

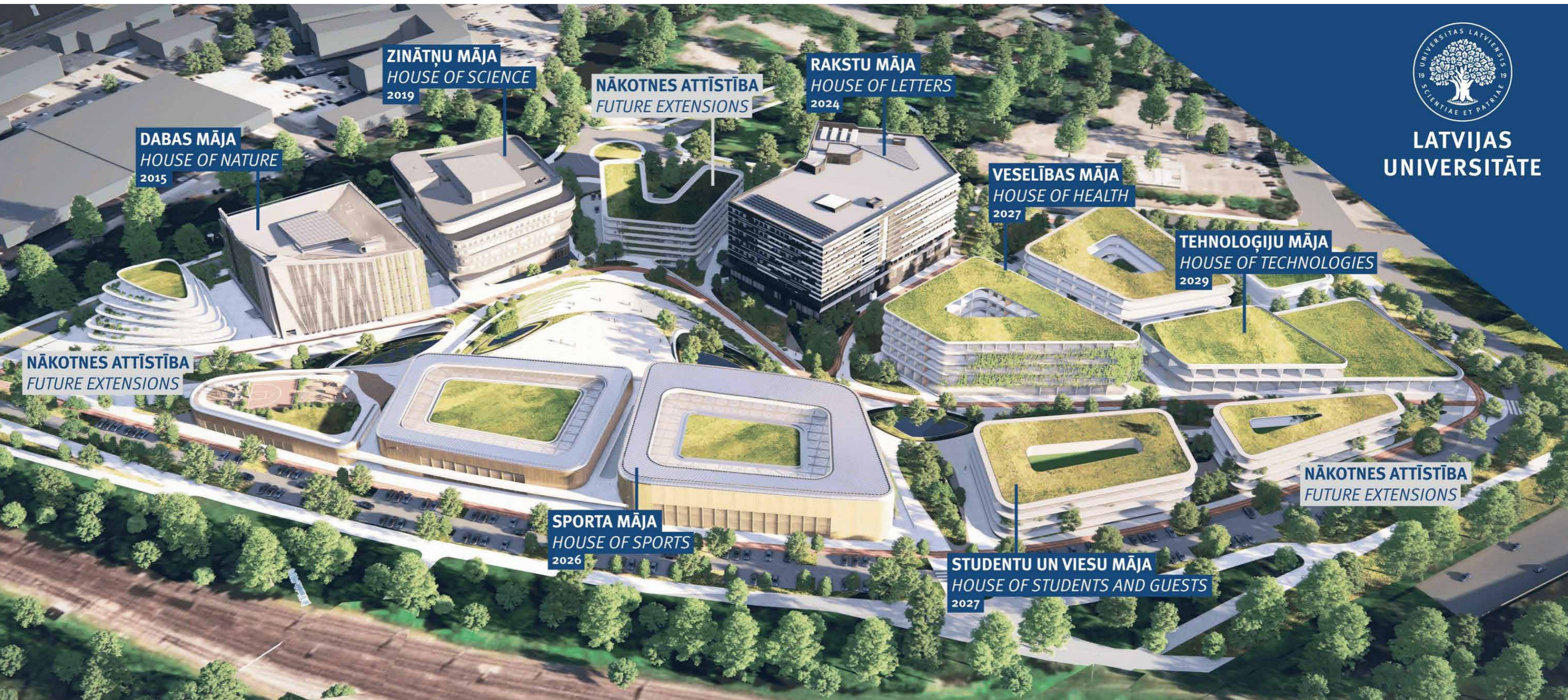
SYSTEMATICA

Systematica operates at multiple scales – national, urban/metropolitan, and development-scale – and provides a wide array of integrated consultancy services in the transport and urban planning sectors, such as strategic advisory and due diligence for infrastructure investments; traffic analysis and management; mobility engineering in complex buildings and events venues with a focus on pedestrian flows; parking design; vertical transportation, and application of advanced mobility systems and technologies.

Committed to its mission to provide innovative, inclusive, and sustainable solutions, Systematica also seeks new approaches to overcome the ever-changing challenges of mobility and transport planning and support sustainable growth through scientific research.

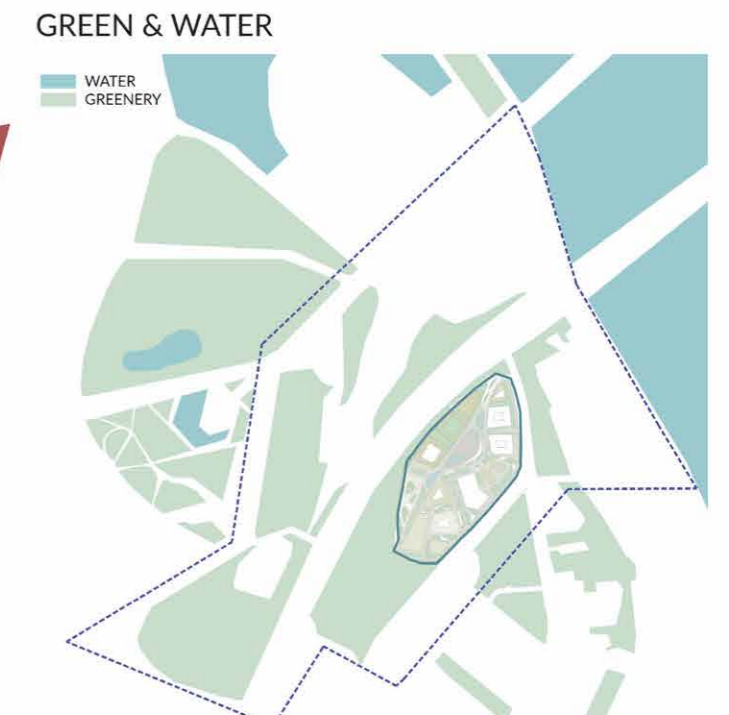
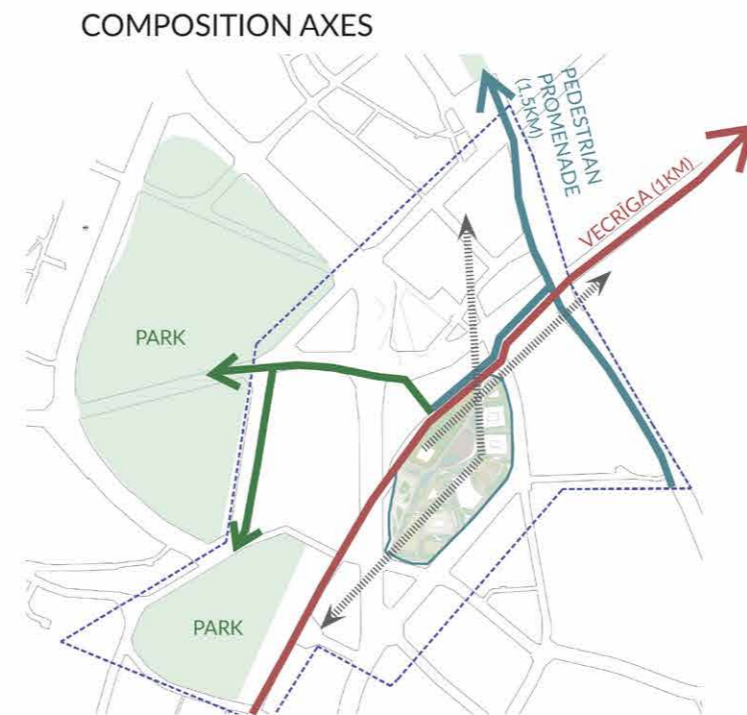
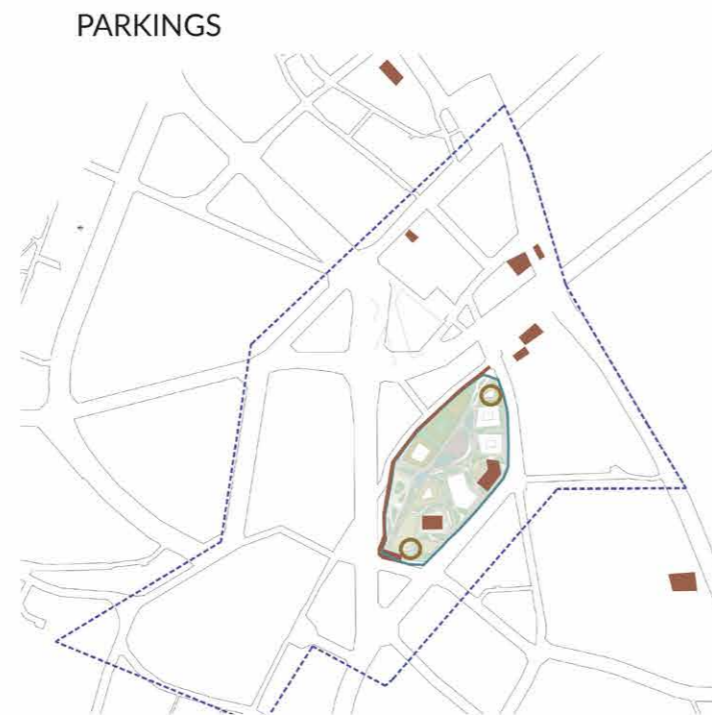
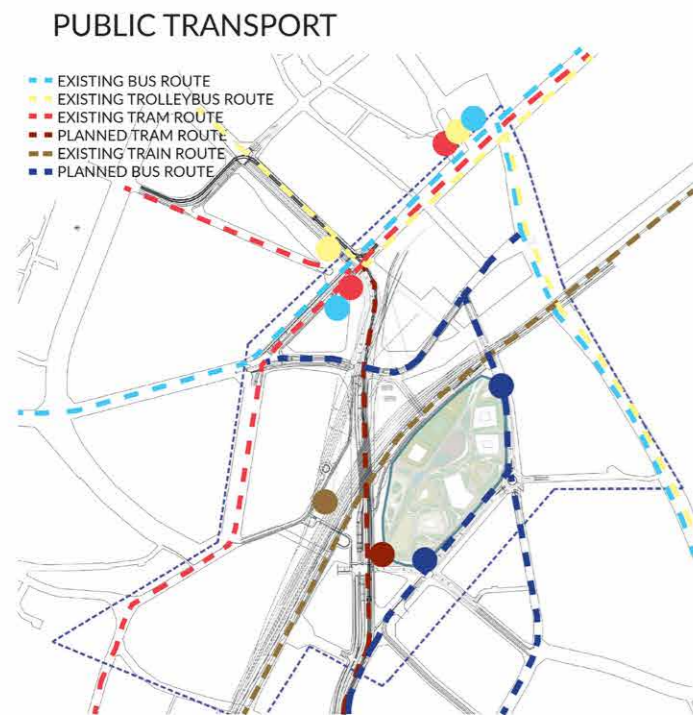
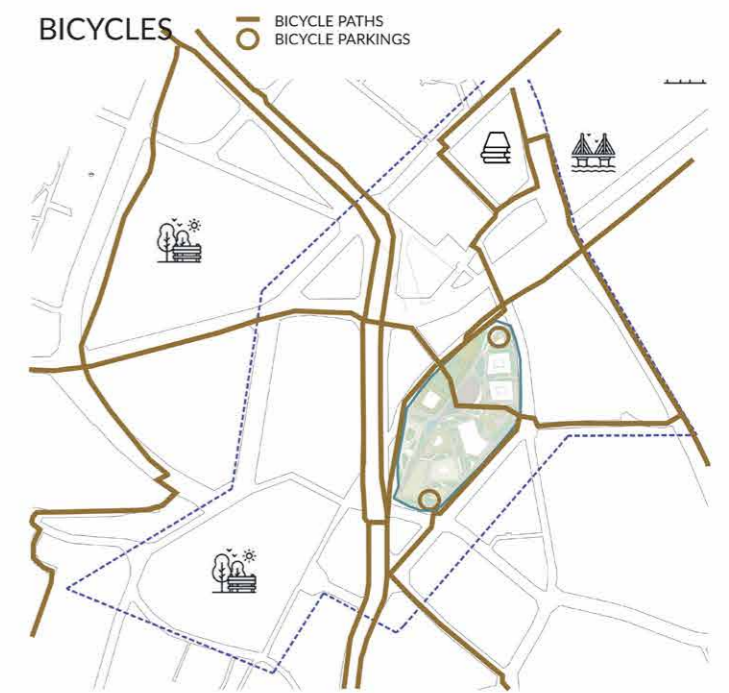
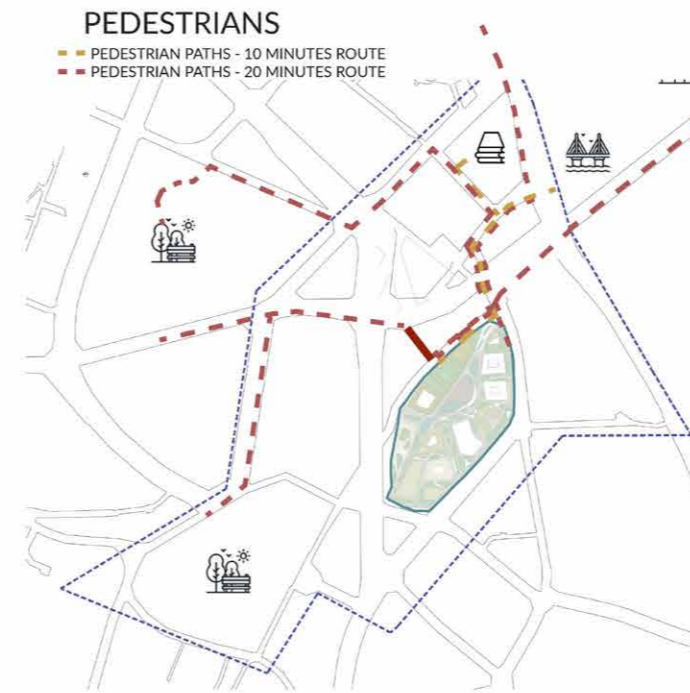
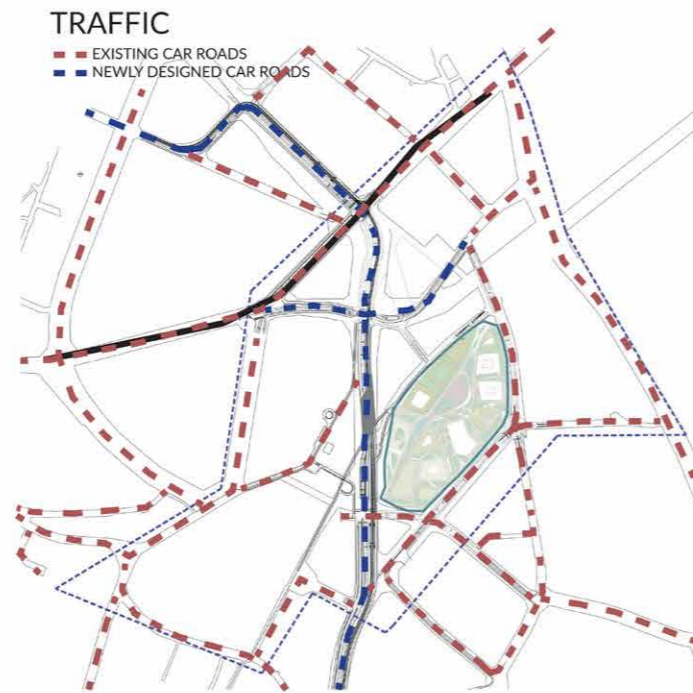
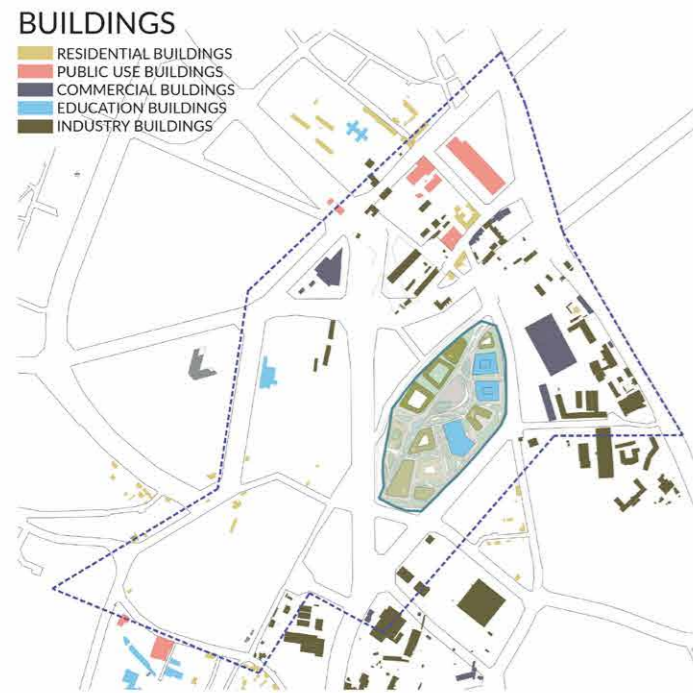


9. COMPETITION PROPOSAL



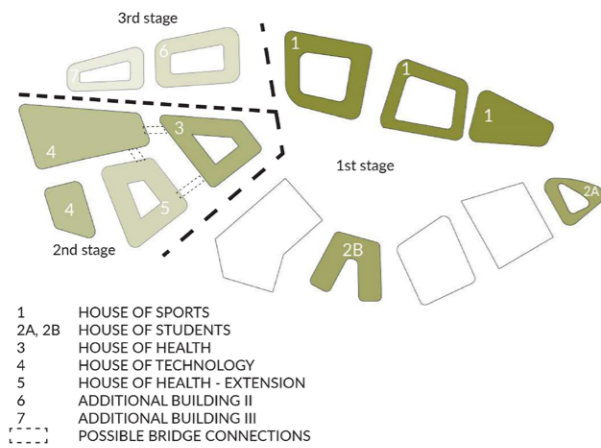
LATVIJAS
UNIVERSITĀTE

9. COMPETITION PROPOSAL

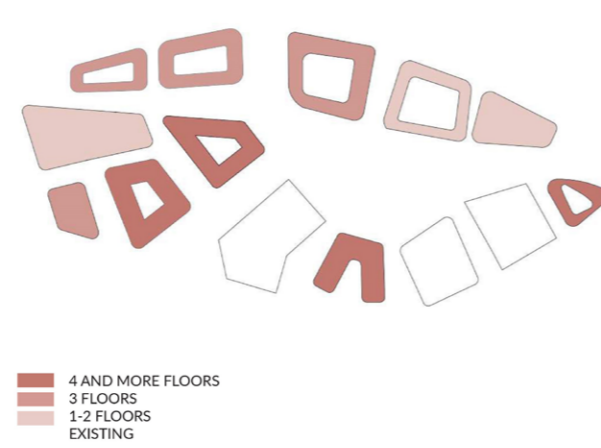


9. COMPETITION PROPOSAL

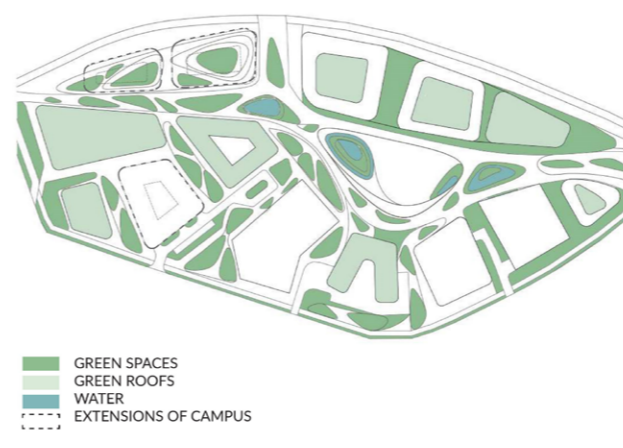
STAGES



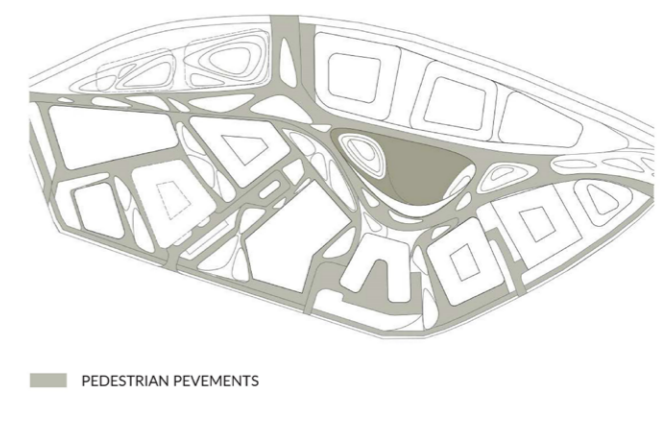
HEIGHTS OF BUILDINGS



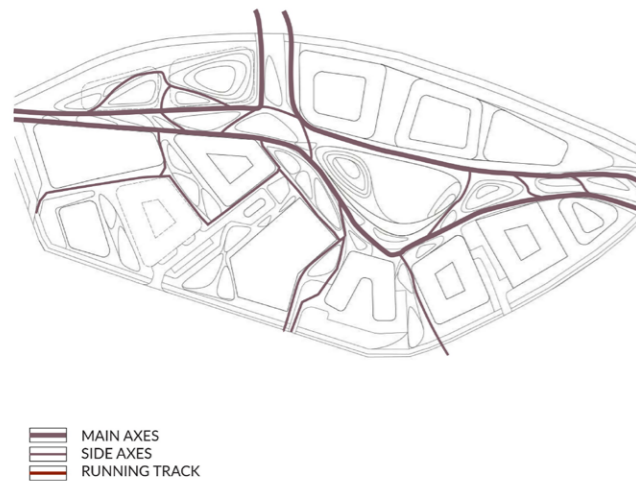
GREEN & WATER



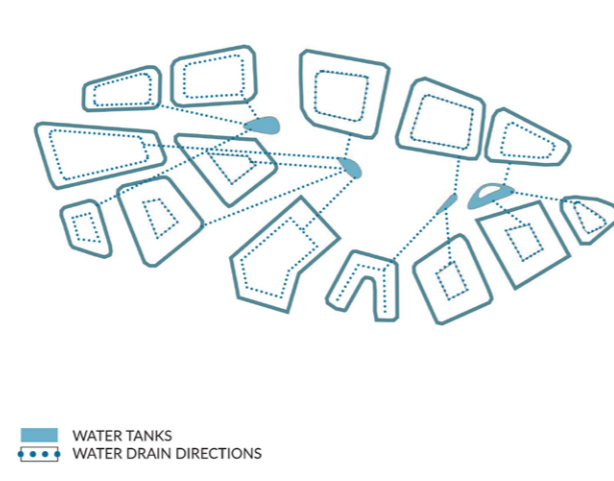
PAVEMENTS



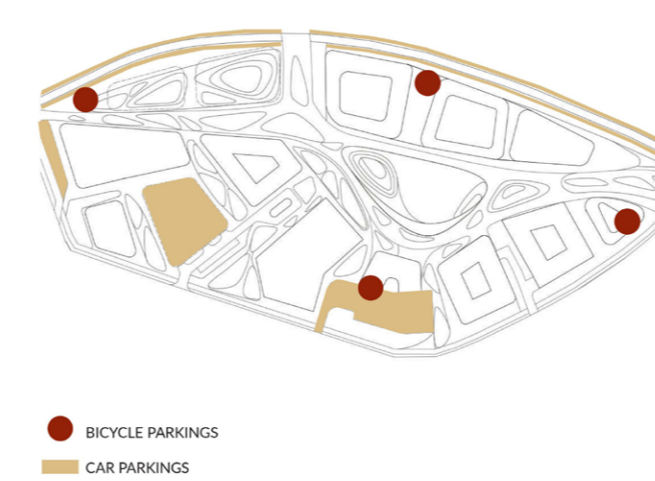
PEDESTRIAN CORRIDORS



WATER CIRCULATION



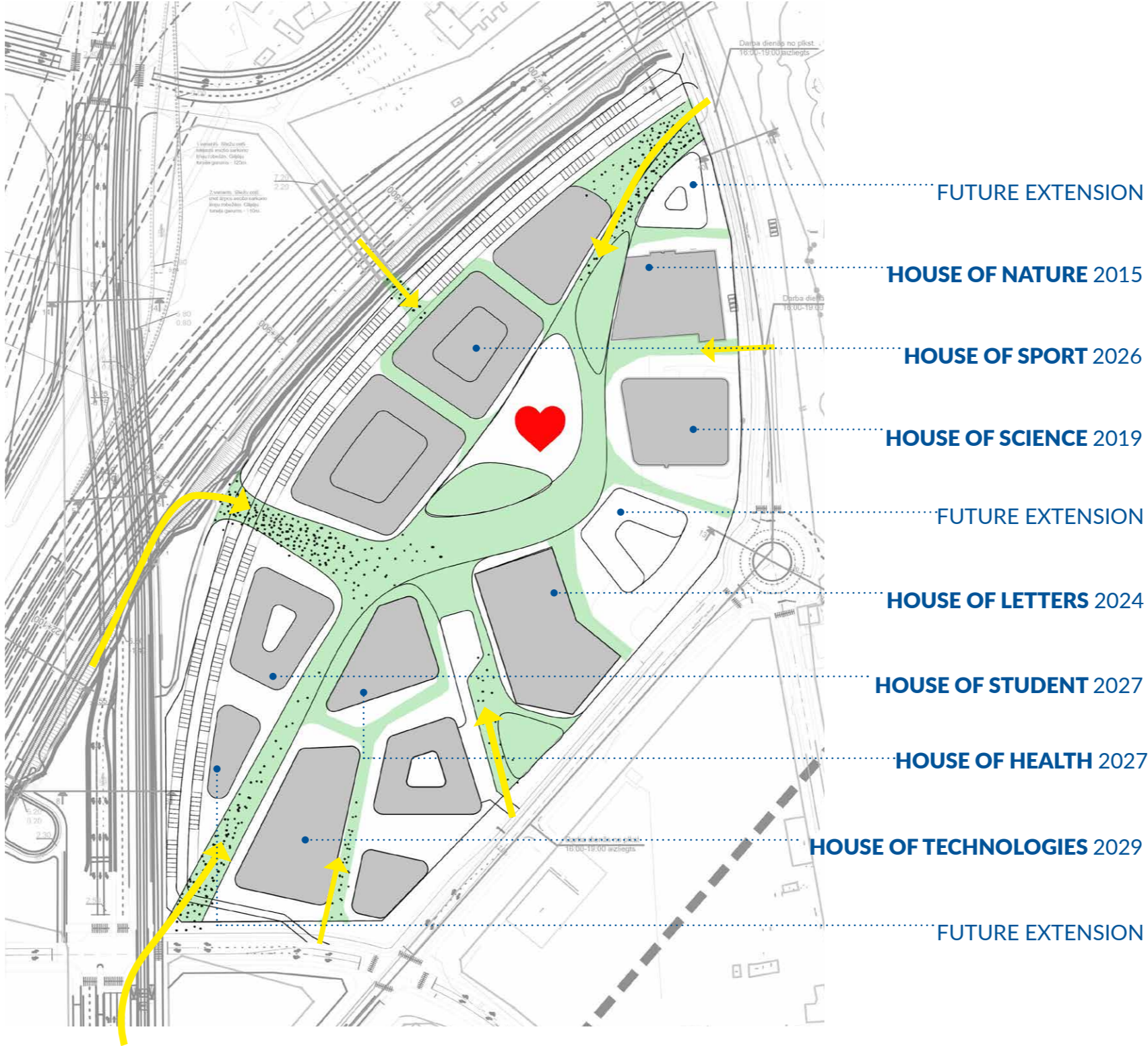
PARKING ZONES
BIKES / CARS



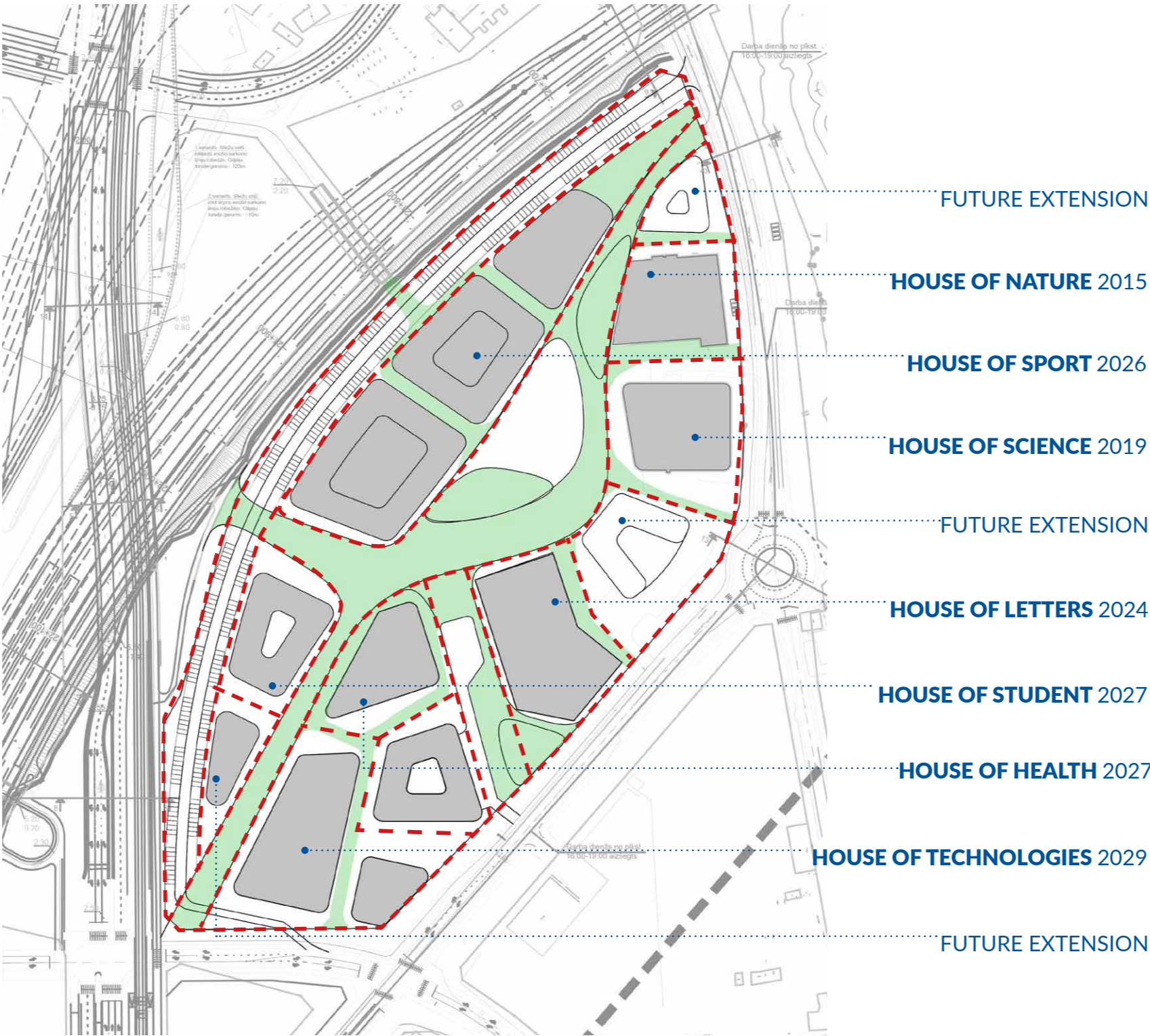
NOISE LEVEL



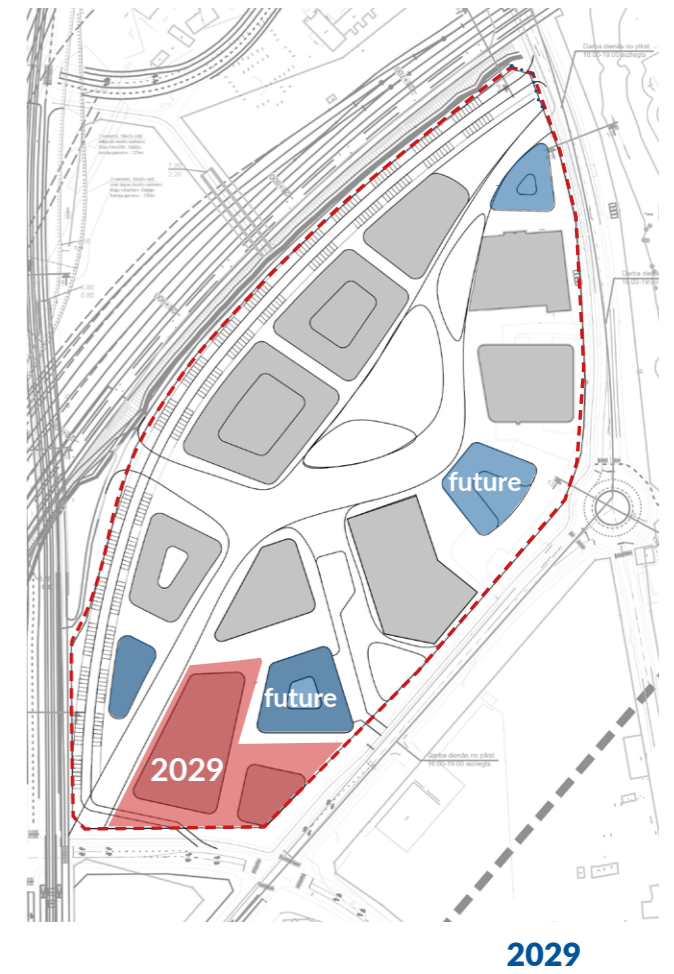
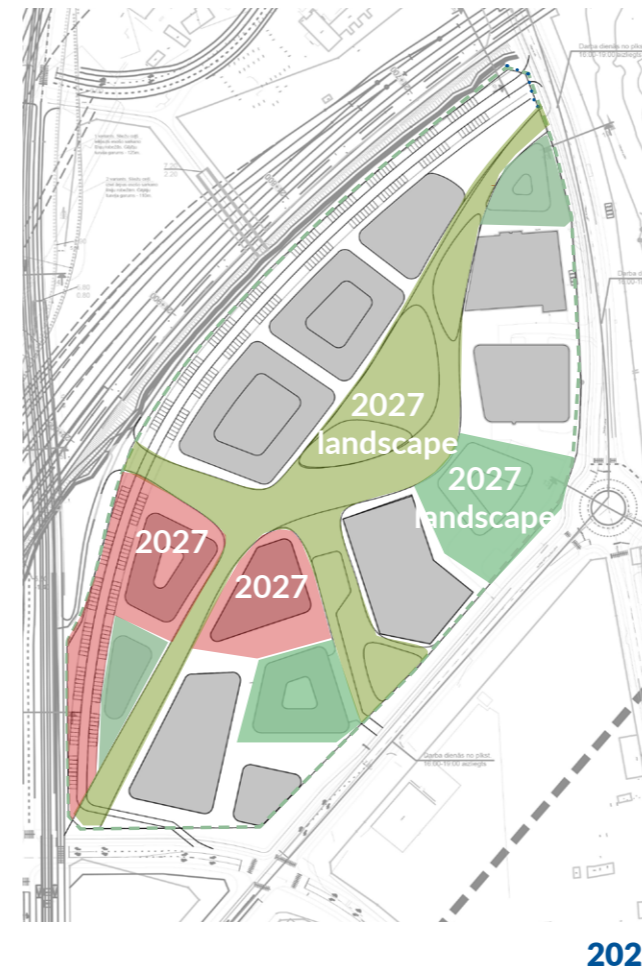
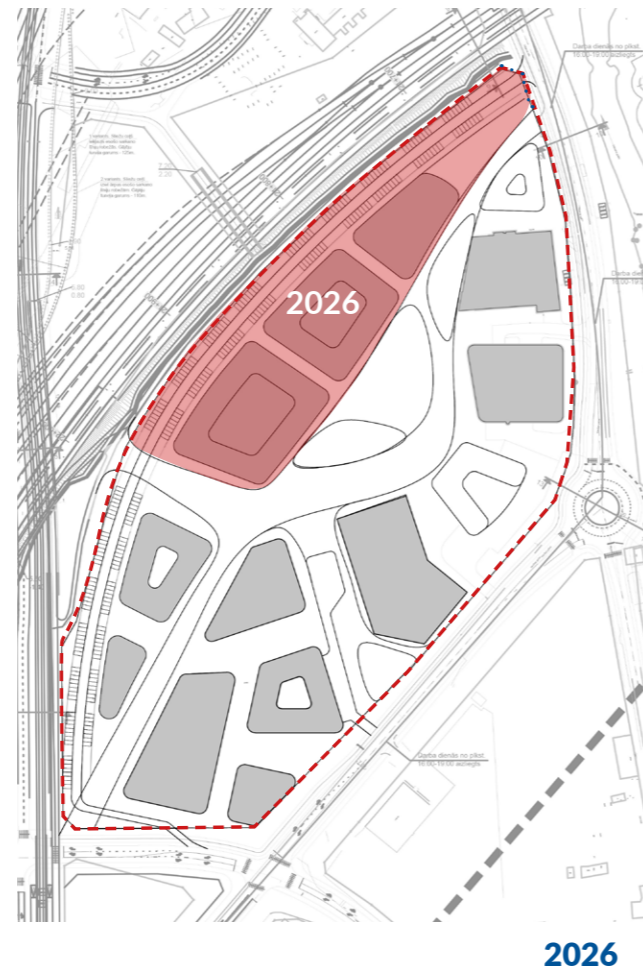
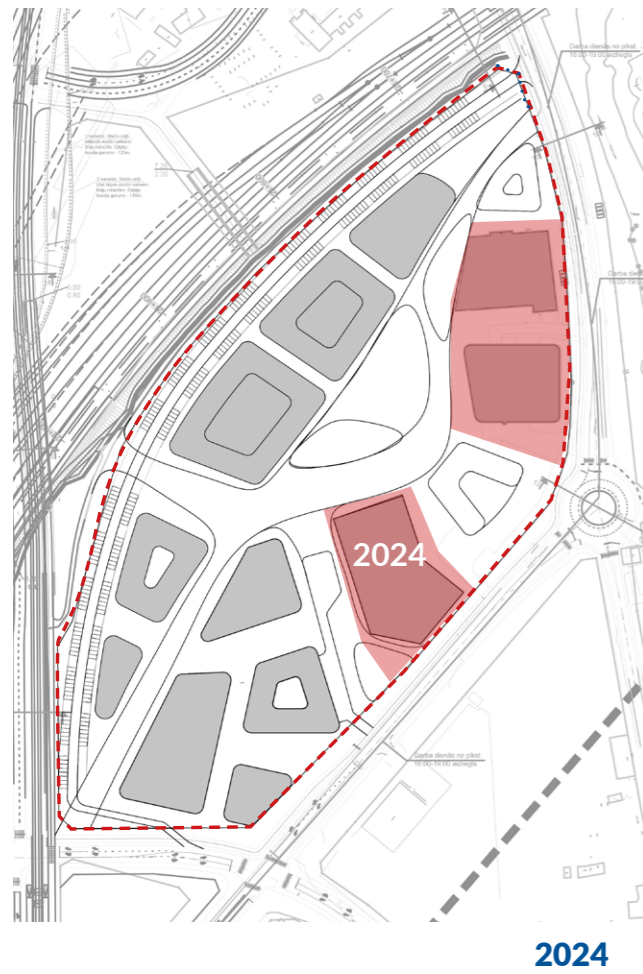
9. COMPETITION PROPOSAL- PEDESTRIAN FLOW



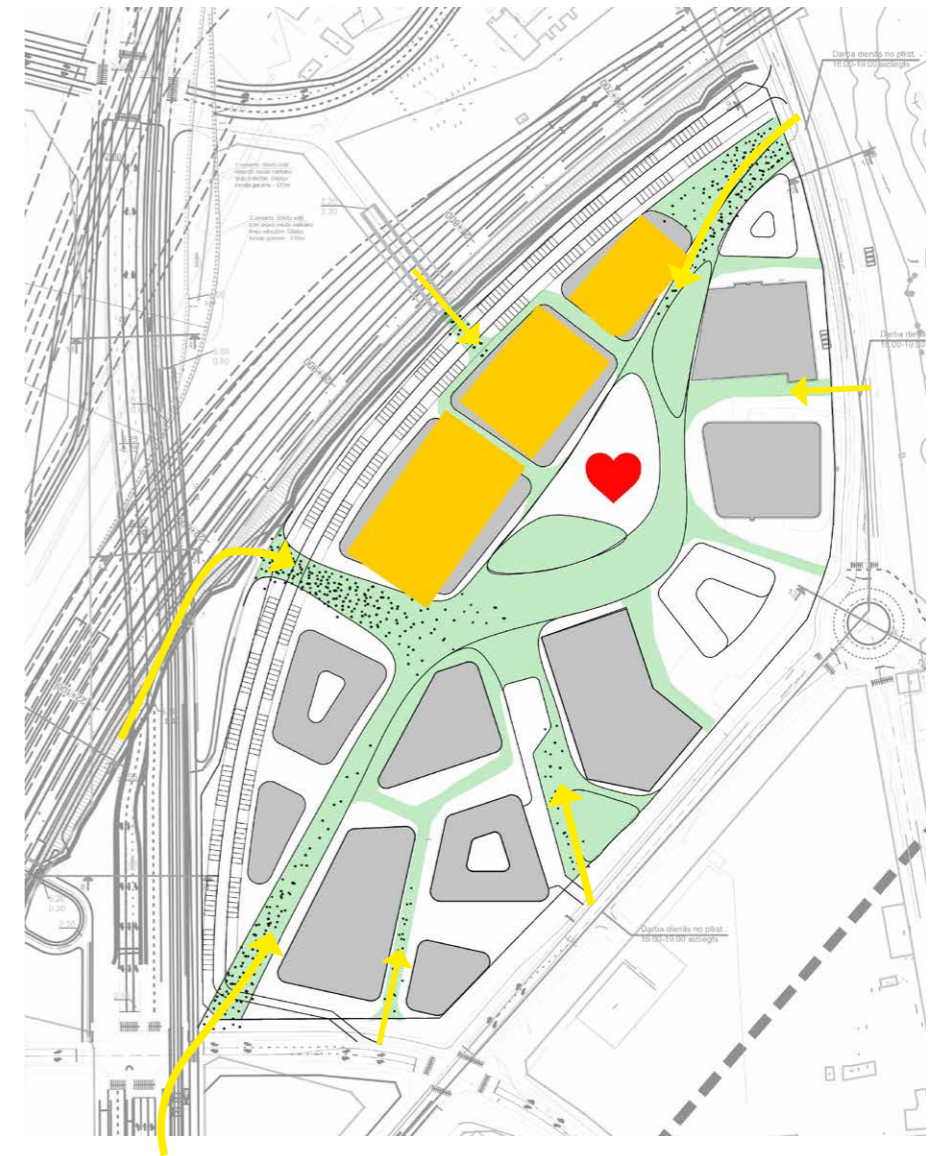
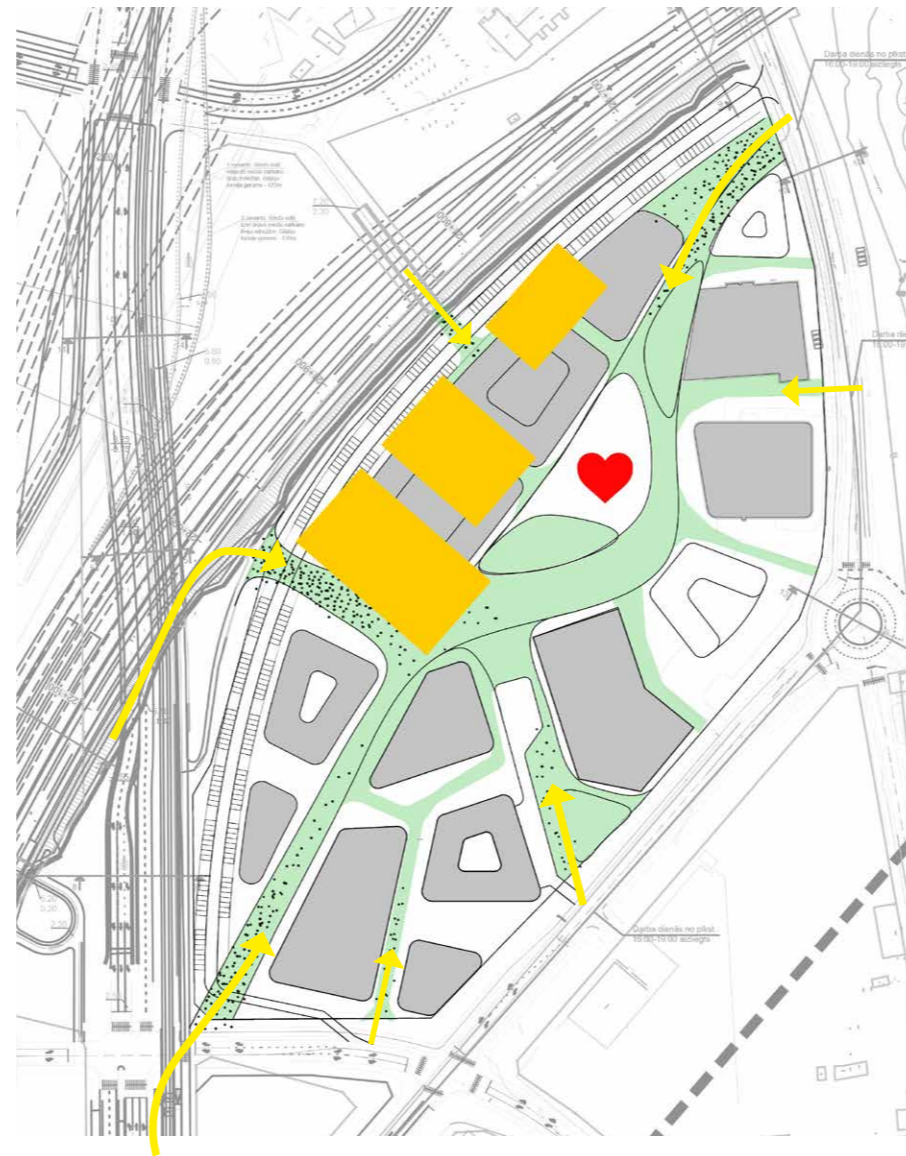
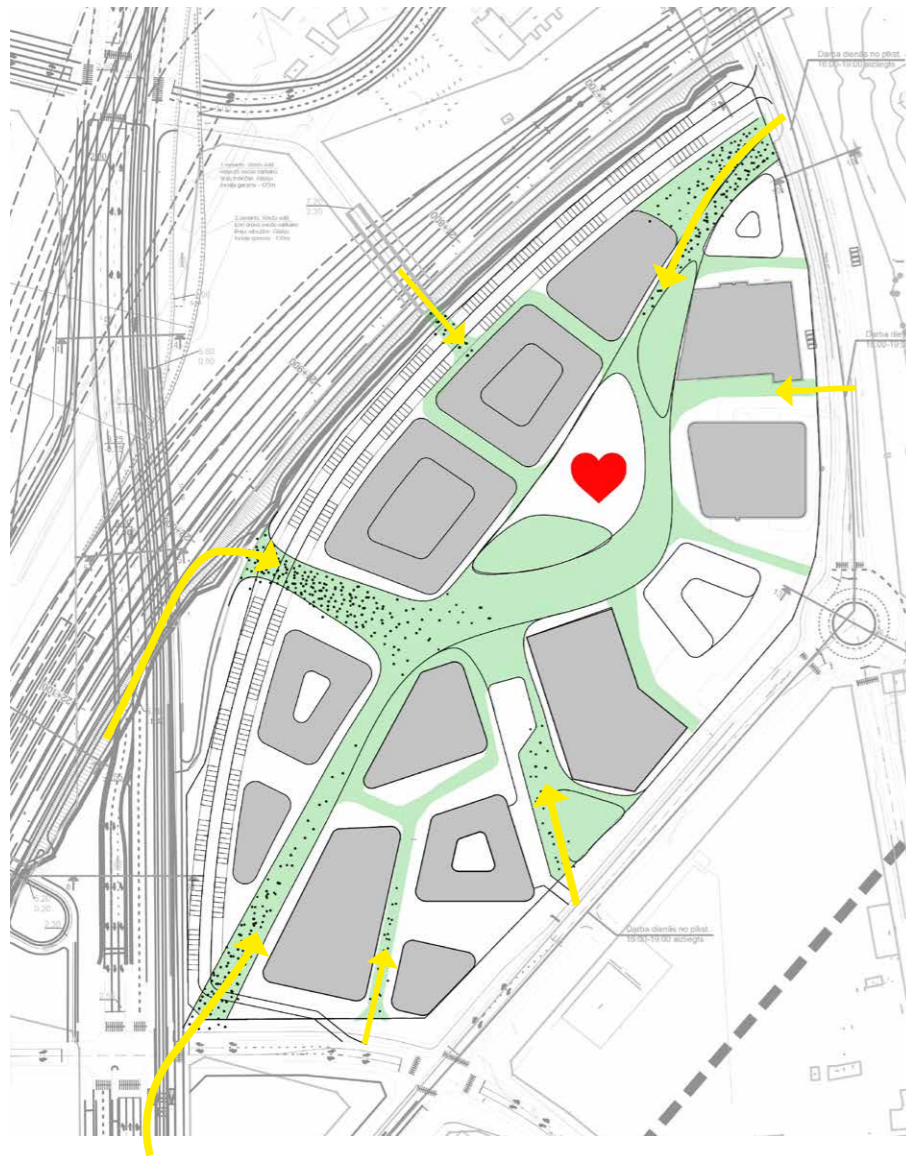
9. COMPETITION PROPOSAL - PLOTS DIVISION



10. COMPETITION PROPOSAL- PHASING



11. QUESTIONS- HOUSE OF SPORTS - OPTION 1



11. QUESTIONS- HOUSE OF SPORTS- OPTION 2

