

ROMAN KABANOV

Project Architect · Industrial, Educational and Residential Architecture · Computational BIM
Automation · Permitting and Delivery

500,000+ m²

TOTAL PROJECT VOLUME

~424,000 m²

PERMIT AND CD DELIVERY · INDUSTRIAL AND LOGISTICS

6 Years Practice

CIVIC, INDUSTRIAL AND RESIDENTIAL DELIVERY

BIM Toolmaking

CUSTOM C# / REVIT API COMPUTATIONAL TOOLS

STATEMENT

TECTONIC CLARITY AND CONSTRUCTIBILITY

Bridging spatial generosity, computational precision, and rigorous statutory execution.

Contemporary architecture exists at the convergence of pure spatial clarity, honest material assemblies, and rigorous technical execution. Across six years of professional architectural practice in European and international contexts, my work has focused on delivering complex industrial, logistics, educational, and residential buildings without compromising design intent during construction delivery.

Having designed and coordinated over 500,000 m² of architectural projects (built and approved) — encompassing mega-scale industrial and logistics parks, public educational campuses, and bespoke private residences — I combine conceptual design with technical delivery and statutory approvals (planning approvals and comprehensive construction documentation).

To eliminate drafting friction and resolve complex envelope geometries, I engineer custom computational tools in C# and the Revit API (Karo BIM Tools). Rather than serving as a detached technician, I view coding as an essential architectural craft — empowering design teams to spend less time managing modelling overhead and more time refining architectural form, proportions, and daylight.

EDUCATION

M.Arch EU Accredited

REGULATORY SCOPE

Statutory Approvals and CD Issue

CORE FOCUS

Industrial, Education, Residential

SOFTWARE CRAFT

Revit, Rhino, C# / .NET, Dynamo

CONTENTS

PORTFOLIO STRUCTURE

CHAPTER 01 · SPREADS 03 — 09

Public and Educational Architecture

Invento International School, 2nd Pugachevskaya School, Novo-Peredelkino School, Luchi Kindergarten.

CHAPTER 02 · SPREADS 10 — 15

Contemporary Residential Architecture

Petrovo-Dalneye Luxury Residence (ZROBIM architects, 797 m²), Hunters House in Vilnius, 8x4 Prefabricated Modular Housing.

CHAPTER 03 · SPREADS 16 — 17

Computational and Environmental Systems

Water Harvesting Kinetic Skyscraper (5K coastal panorama, complete 1st and 20th floor plans).

CHAPTER 04 · SPREADS 18 — 21

Technical Rigor, Envelopes and Working Drawings

TURKOV Climate Campus, Boyard Logistics Center, and Mega-Scale Logistics Parks (370,000 m²).

CHAPTER 05 · SPREADS 22 — 24

Tools Built for Practice

Karo BIM Tools (WhatsChanged, WhyHidden, Segments) and Professional Summary.

PRACTICE METRICS · CUMULATIVE VOLUME

500,000+ m² Total Project Volume

2020 — 2026 ARCHIVE

Mega-Scale Logistics and Industrial Parks · Patrushi (190,000 m²), Esipovo 5 (180,000 m²)

370,000 m²

Industrial, Production and Climate Hubs · Boyard (47.4k m²), Chervyaki (21.7k m²), Irtysky (18.5k m²), TURKOV (6.5k m²)

94,000 m²

Civic and Educational Campuses · Novo-Peredelkino (18k m²), Invento (11k m²), 2nd Pugachevskaya (9.9k m²), Luchi (4.5k m²)

43,400 m²

Bespoke Residential and Modular Housing · Petrovo-Dalneye (797 m²), Hunters House (~300 m²), 8x4 Prototypes (~64 m²)

~1,100 m²

FORMAT

16:9 Presentation Format

RESOLUTION

Ultra-High 3K / 5K Assets

TOTAL SPREADS

24 Curated Spreads

DESIGN ROLE

Roman Kabanov (Project Architect)



Fig. 01 — Site context before construction: campus boundary and surroundings.

PROJECT 01 / 08

CAMPUS MASTER PLANNING

An 11,000 m² international educational campus organized around a central pedestrian spine and microclimatic courtyards.

Tasked with delivering a benchmark international K-12 school in Tashkent, the site layout addresses extreme solar exposure through solar-oriented classroom blocks and sheltered central courtyards.

The campus segregates early learning, primary, and secondary blocks into clear spatial clusters connected by an intuitive central circulation spine and social gathering hubs.

Built in 2021, operating as an international K-12 campus.

TYPOLGY

K-12 International Campus

STATUS

Built / Fully Commissioned

GROSS FLOOR AREA

11,000 m²

ROLE

Concept Lead (remote subcontract, Mimar Group)



Fig. 02 — Central Library Commons: Tiered reading galleries, study carrels, and natural daylight integration.



Fig. 03 — Acoustic Honeycomb Study Pods: Individual focus niches and quiet breakout spaces.



Fig. 04 — Stepped Social Amphitheater: Multi-tiered gathering space connecting lower atrium to upper classrooms.



Fig. 05 — Courtyard and Outdoor Athletic Grounds: Ventilated rainscreen facade with accented window reveals, ribbon glazing, and sports grounds.

PROJECT 02 / 08

CIVIC COURTYARD ARCHITECTURE

A 9,900 m² secondary school complex for 400–550 students (design capacity), mediating between dense urban fabric and green parklands.

The 9,900 m² school building has a U-shaped massing that encloses an inner courtyard, orienting classrooms toward natural daylight.

The facade combines light-tone composite panels with yellow window reveals and aluminium ribbon glazing.

Developed within the KiPro architectural project team: Revit BIM modelling, architectural floor plans, and model QA coordination.

CAPACITY
400–550 Students (Design Capacity)

GROSS FLOOR AREA
9,900 m²

PRACTICE
KiPro · Architect, project team · BIM
modelling, plans, model QA

PROJECT PHASE
Built



Fig. 06 — Aerial Park Integration: Soft transition from public sports amenities to municipal park greenway.



Fig. 07 — Advanced IT and Robotics Laboratory: Mobile furniture, acoustic glass partitions, and flight-test cube.

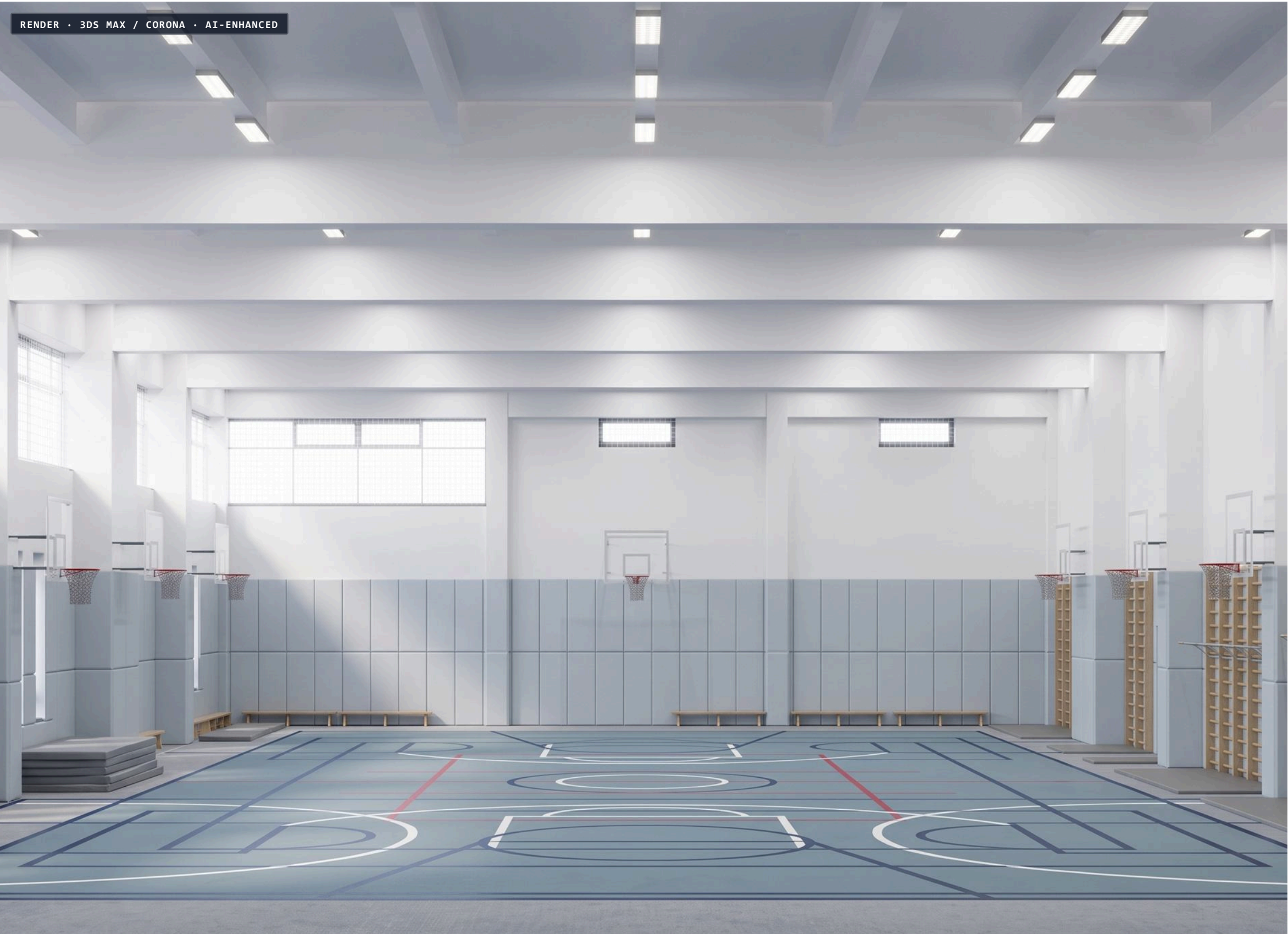


Fig. 08 — Double-Height Gymnasium: Exposed reinforced concrete beams, clerestory daylighting, and impact-resistant wall padding.

PROJECT 03 / 08

DOUBLE-HEIGHT SPORTS ARENA

A high-volume athletic hall with exposed reinforced concrete beams and glare-free north clerestory daylighting.

The athletic hall has a 9.60 m clear height structured by cast-in-place concrete beams with integrated linear LED profiles.

North-facing clerestory ribbon glazing provides indirect illumination across the competition court.

The lower perimeter is protected by light grey-blue impact-resistant acoustic wall padding for safety and sound absorption.

CLEAR HEIGHT

9.60 m Clear Height

PRACTICE

KiPro · Architect, project team · BIM modelling, plans, model QA

DAYLIGHTING

North Clerestory Ribbon

SPORTS SURFACE

Point-Elastic Polyurethane



Fig. 09 — School Cafeteria: Geometric suspended drywall acoustic clouds, oak columns, and linear lighting.



Fig. 10 — Central Circulation Gallery: Linear baffle acoustic ceiling, durable terrazzo tile, and informal breakout lounges.



RENDER · LUMION · AI-ENHANCED

Fig. 11 — Curvilinear Educational Block: Articulated timber portal, dark panel cladding, and outdoor play areas.

PROJECT 04 / 08

CURVED KINDERGARTEN ARCHITECTURE

A 4,500 m² early-childhood learning center with curved massing and natural timber accents, designed for 300 children.

The three-storey building has a curvilinear plan that encloses protected outdoor play areas while opening instructional wings toward daylight.

The facade combines a prominent timber-slatted entrance portal with dark panel rainscreen cladding across the curved classroom wings.

Large window openings provide abundant daylight to group rooms and administrative spaces, coordinated through detailed construction drawings (CD).

CAPACITY

300 Children

PRACTICE

KiPro · Architect, project team · BIM modelling, plans, model QA

FACADE MATERIAL

Timber Accents / Dark Rainscreen Panels

PROJECT PHASE

Built



Fig. 12 — Forest Panorama: Cantilevered roof overhangs, stone pylons, perimeter terrace, and panoramic forest glazing.



Fig. 13 — Entrance Portal: Split-face stone pilasters, timber steps, and vertical dark metal siding.



Fig. 14 — Private Bedroom Patio: Low-slung bedroom wing open to Japanese gravel garden and pine forest.

PROJECT 05 / 08

SCANDINAVIAN VILLA IN PETROVO-DALNEYE

A custom contemporary residential compound (797 m²) integrated into a preserved pine forest, balancing tactile natural materials and rigorous geometric clarity.

Designed for ZROBIM architects, the residence is conceived as an elongated single-story ensemble embedded within a preserved pine grove. The architectural massing wraps around internal landscaped courtyards and open light patios, preserving mature forest trees directly within the architectural footprint. Deep cantilevered eaves provide passive solar control and sheltered perimeter walkways.

The exterior combines heavy split-face architectural stone pylons anchoring the building to the terrain with dark graphite vertical metal siding, timber decking, and panoramic triple glazing. The 797 m² layout establishes clear spatial stratification: an expansive living core with fireplace, an isolated master bedroom wing with gravel garden, a dedicated 115 m² wellness spa with swimming pool and gym, plus an integrated 3-car garage.

LOCATION

Moscow Region, Petrovo-Dalneye

PRACTICE / ROLE

ZROBIM architects • Concept and Permit Design

GROSS FLOOR AREA

797.30 m² • 39 Functional Zones

STATUS

Built

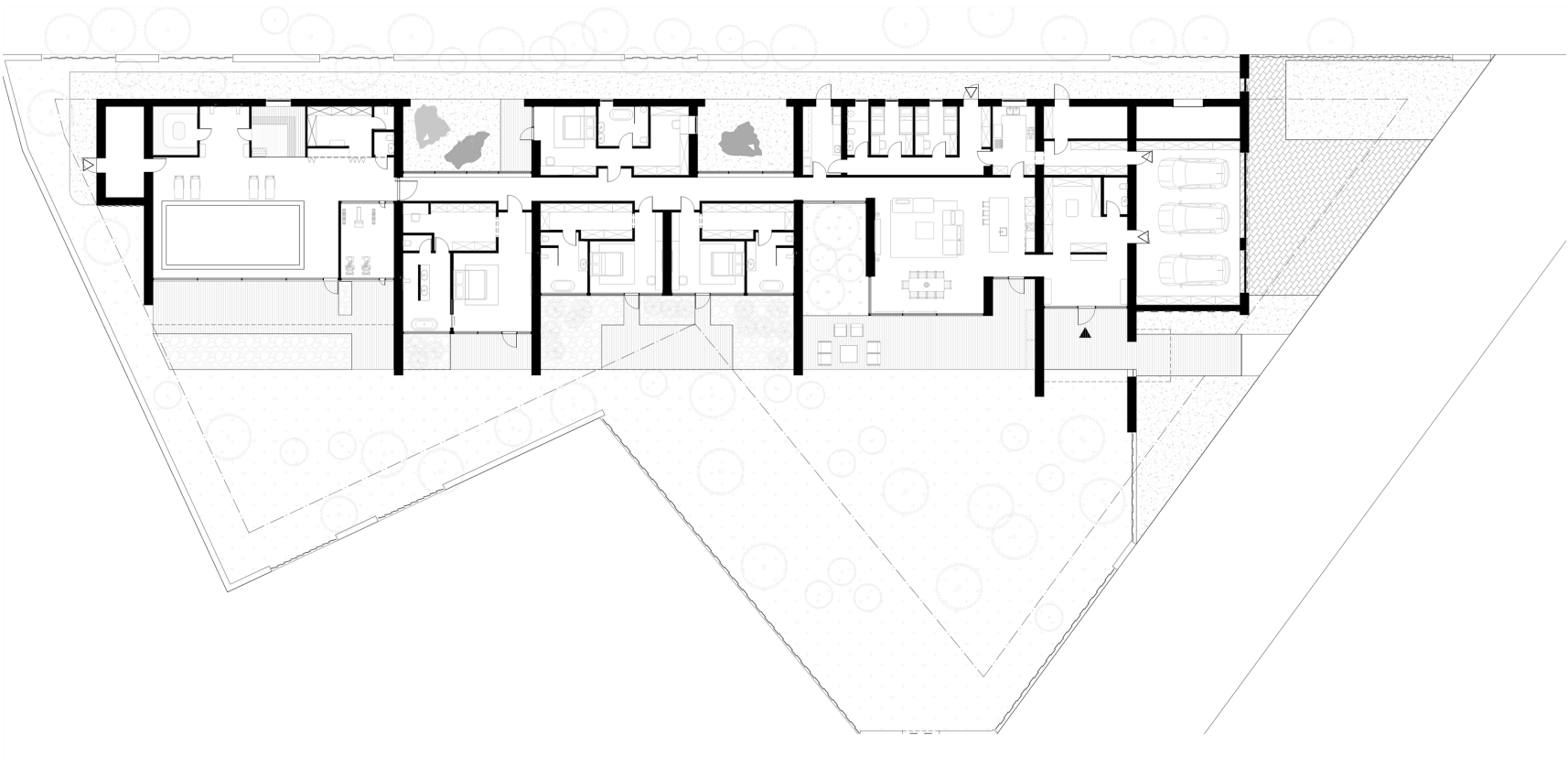


Fig. 15 — Complete Ground Floor Plan (797.3 m²): Master suite, central social core, 115 m² wellness spa with pool, internal tree courtyards, and 3-car garage.

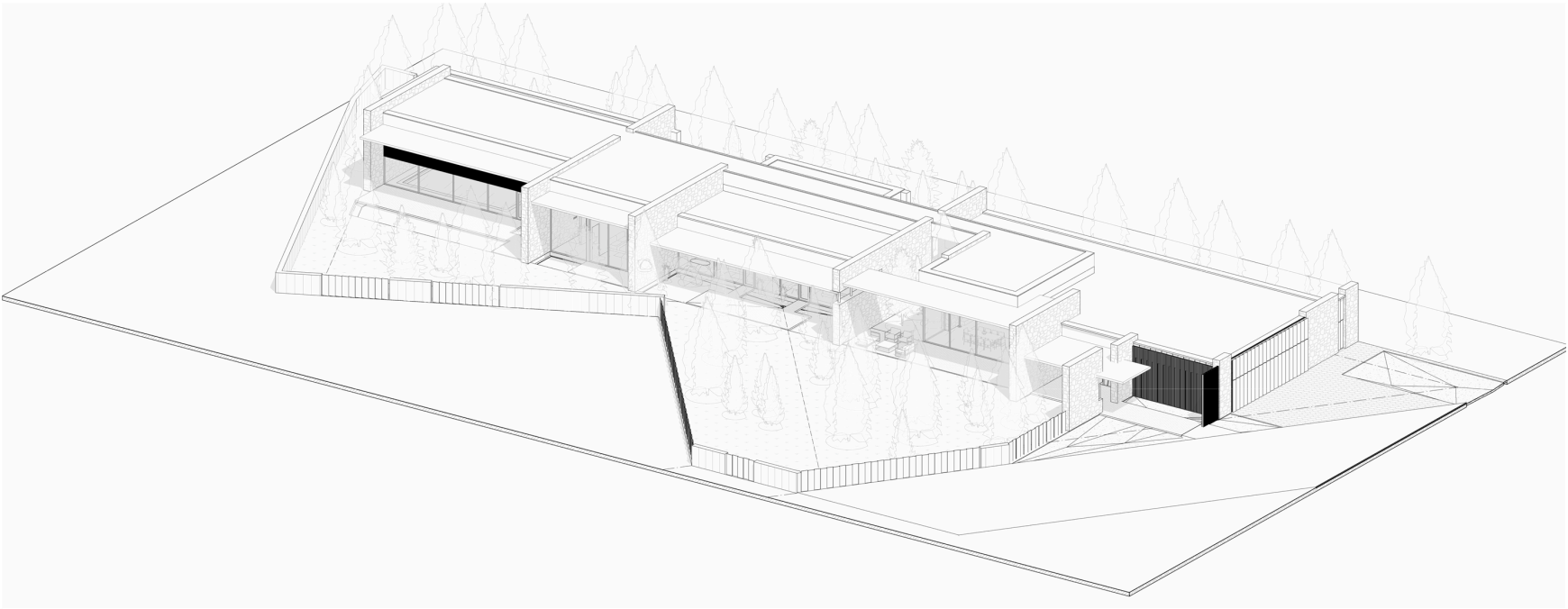


Fig. 16 — Architectural Axonometry: Single-story massing, courtyard punctures, and cantilevered roof overhangs.

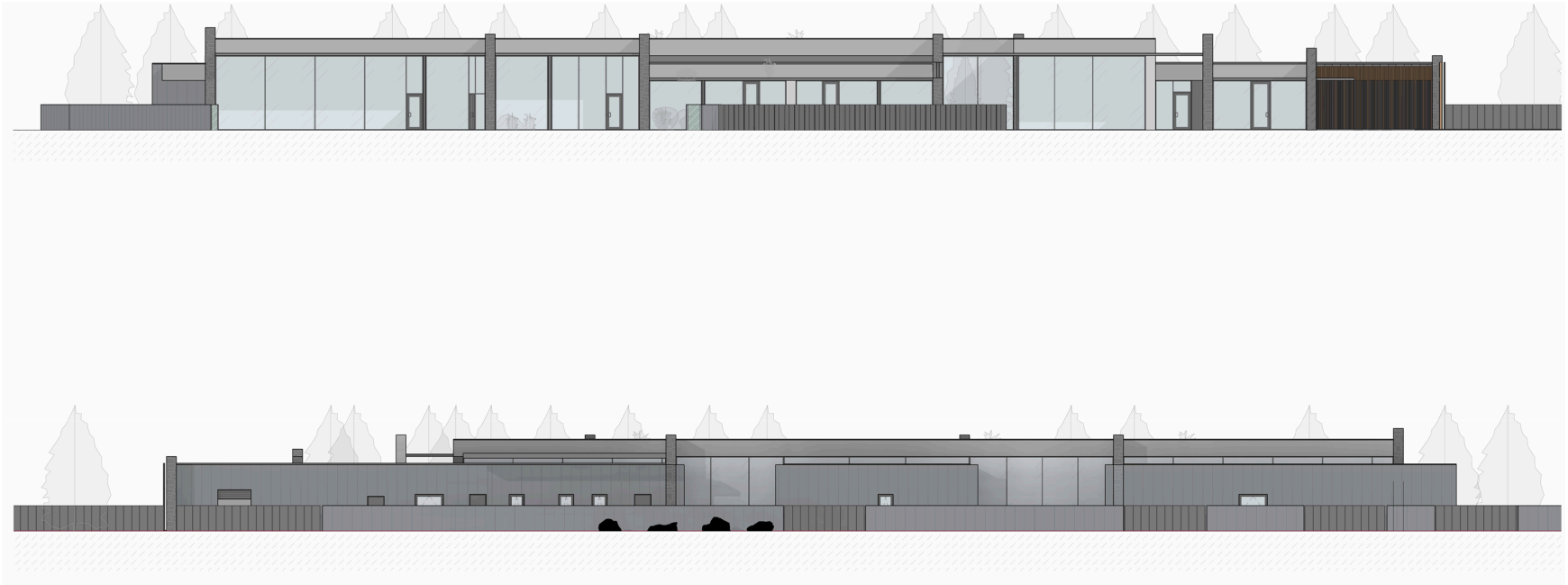


Fig. 17 — Architectural Elevations: Rhythm of split-face stone pylons, vertical metal envelopes, and horizontal cantilever eaves.



Fig. 18 — Lakeside Retreat: Matte anthracite standing-seam sheet metal shell with recessed sheltered timber terrace facing the water.

PROJECT 06 / 08

LAKESIDE FOREST RESIDENCE

A private residential retreat on a Lithuanian lakefront, sculpted as a dark standing-seam metal shell with a warm timber core.

The outer envelope is unified in dark anthracite standing-seam sheet metal, wrapping continuously from the low-pitch roof planes down exterior walls to withstand Baltic winter snowfall.

Underneath the cantilevered roof overhang, a deeply recessed terrace is lined with vertical natural timber slats, creating a sheltered outdoor living zone facing the water.

The low-slung volume sits gently on the lakefront edge, preserving existing trees and shoreline ecology without excessive earthworks.

LOCATION

Vilnius, Lithuania

OUTER ENVELOPE

Anthracite Standing-Seam Metal

PRACTICE / ROLE

Sigito Kuncevičiaus firma (Architect)

STATUS

Built

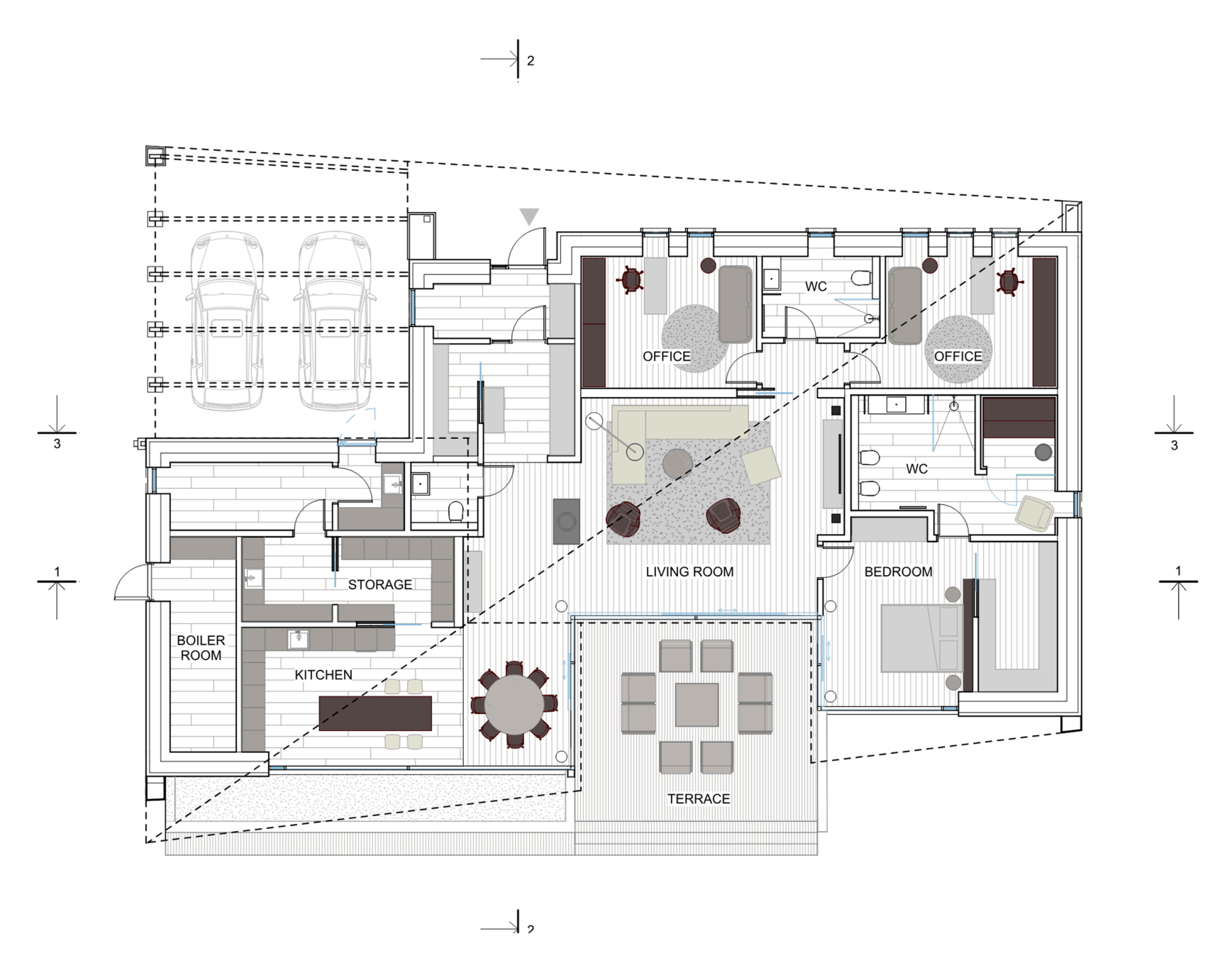


Fig. 19 — Ground Floor Plan: Garage, utility wing, kitchen, social core, offices, master bedroom, and lakefront terrace (dashed diagonal line indicates cantilevered roof overhang / covered terrace boundary).

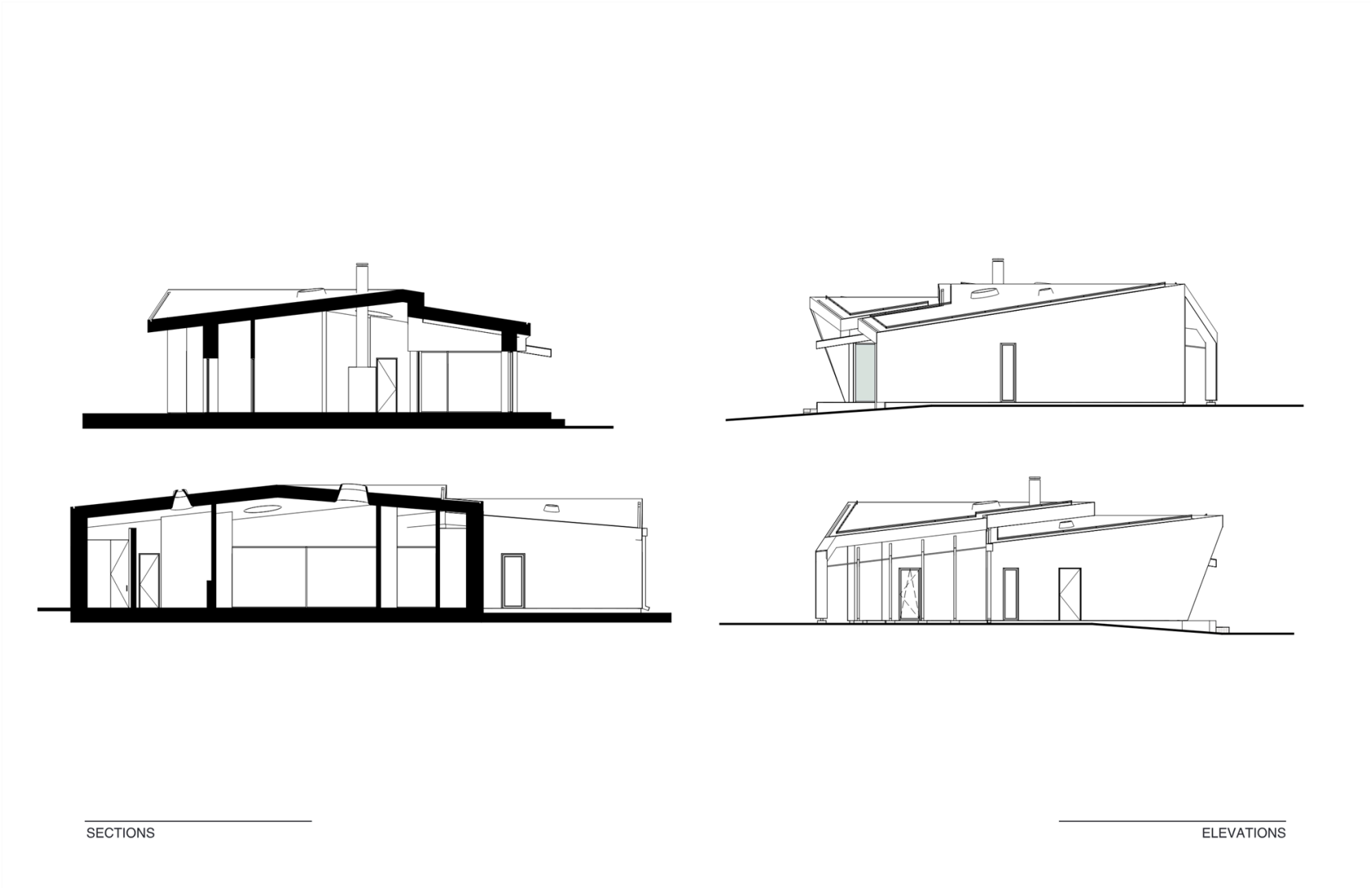


Fig. 20 — Cross-Sections and Elevations: Roof pitch articulation, clerestory shafts, and lake-facing facade.



Fig. 21 — Forest Clearing Prototype: Dark profiled sheet metal envelope with panoramic glazing in natural meadow landscape.

PROJECT 07 / 08

OFF-GRID MODULAR HOUSING

A factory-built modular architectural prototype engineered for rapid deployment in natural landscapes with zero wet concrete foundations.

Based on a standardized 8.0 x 4.0 meter transportable structural footprint (32 m² unit), the system accommodates multiple cladding options including vertical timber board siding and dark profiled sheet metal.

Mounted on ground screw piles without wet concrete works, preserving meadow soil and natural site terrain.

Modular off-grid options include roof solar photovoltaic arrays, rainwater harvesting filtration, and high-efficiency heat pump climate controls.

PRACTICE / ROLE

Sigito Kuncevičiaus firma (Architect)

OUTER CLADDING

Modular Options: Timber Siding /
Profiled Steel

STRUCTURAL SYSTEM

Hybrid Steel / Timber Frame

STATUS

Prototype Developed

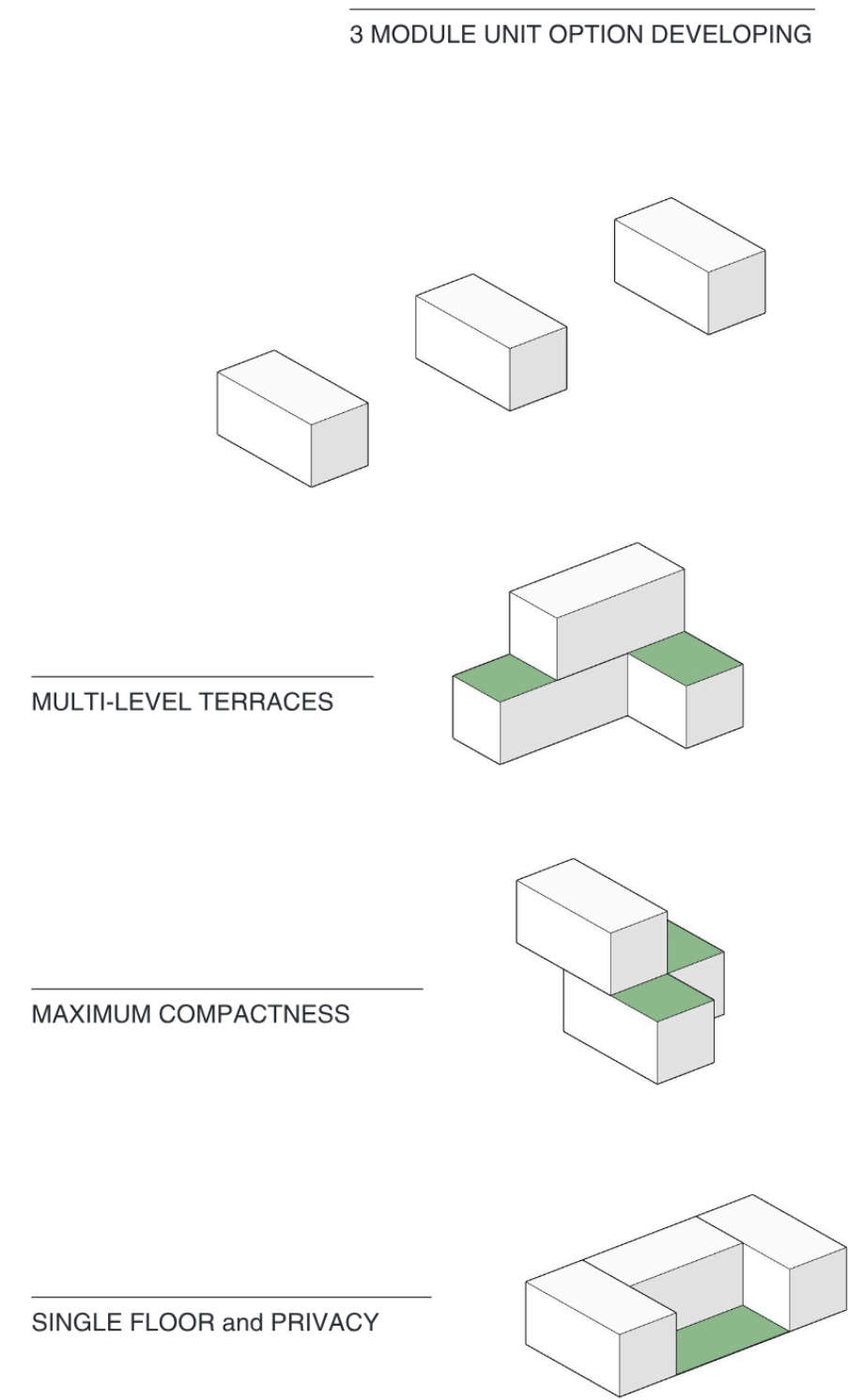


Fig. 22 — Modular Combinatorics: Three-module configurations showing multi-level terracing, compact stacking, and single-level courtyard layouts.



Fig. 23 — Architectural Elevations and Massing Studies: Vertical timber board siding, fenestration rhythm, and modular envelope proportions.



RENDER · LUMION · AI-ENHANCED

Fig. 24 — Coastal Panorama: Aerodynamic twisting diagrid tower with humidity-responsive kinetic louvers on coastal cliff.

PROJECT 08 / 08

ATMOSPHERIC WATER HARVESTING

An advanced computational skyscraper thesis exploring bio-inspired water harvesting envelopes and aerodynamic form-finding.

Developed during master studies at VILNIUS TECH in academic exchange with Bauhaus-Universität Weimar, the project investigates an aerodynamic tower with humidity-responsive kinetic facade louvers.

The aerodynamic twisting form was scripted in Grasshopper to mitigate wind vortex shedding and lateral wind loads, with diagrid nodes acting as water collection channels.

The kinetic envelope responds dynamically to solar radiation vectors and relative humidity, directing condensed moisture to a central filtration spine.

RESEARCH HUB

Bauhaus Weimar / VILNIUS TECH

KINETIC SKIN

Actuated Titanium-Zinc Petals

STRUCTURAL FRAME

Parametric Concrete Diagrid

COMPUTATIONAL STACK

Rhino, Grasshopper, Ladybug

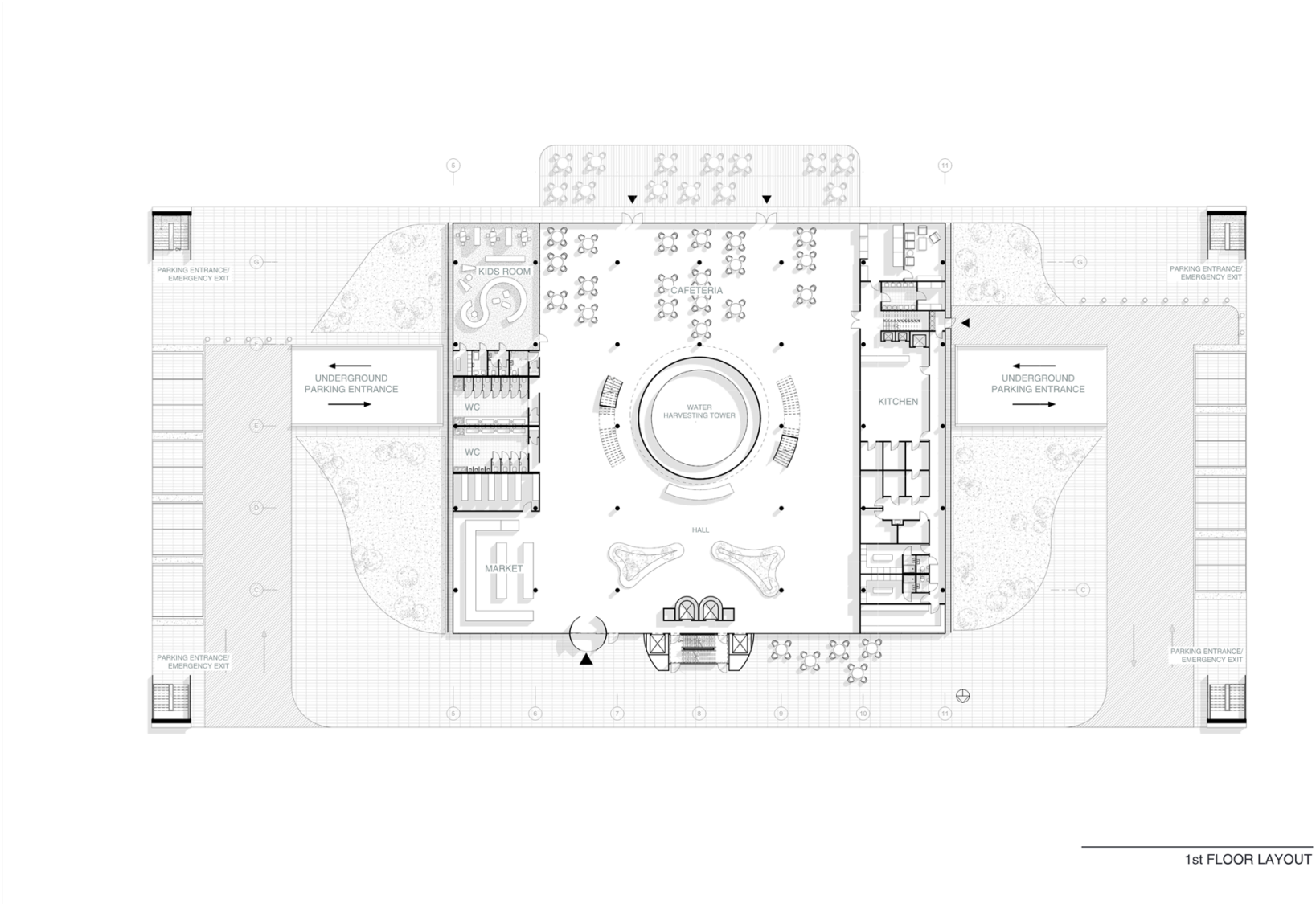


Fig. 25 — Ground Floor Plan: Central water harvesting collector pool, public market, cafeteria, and parking access.

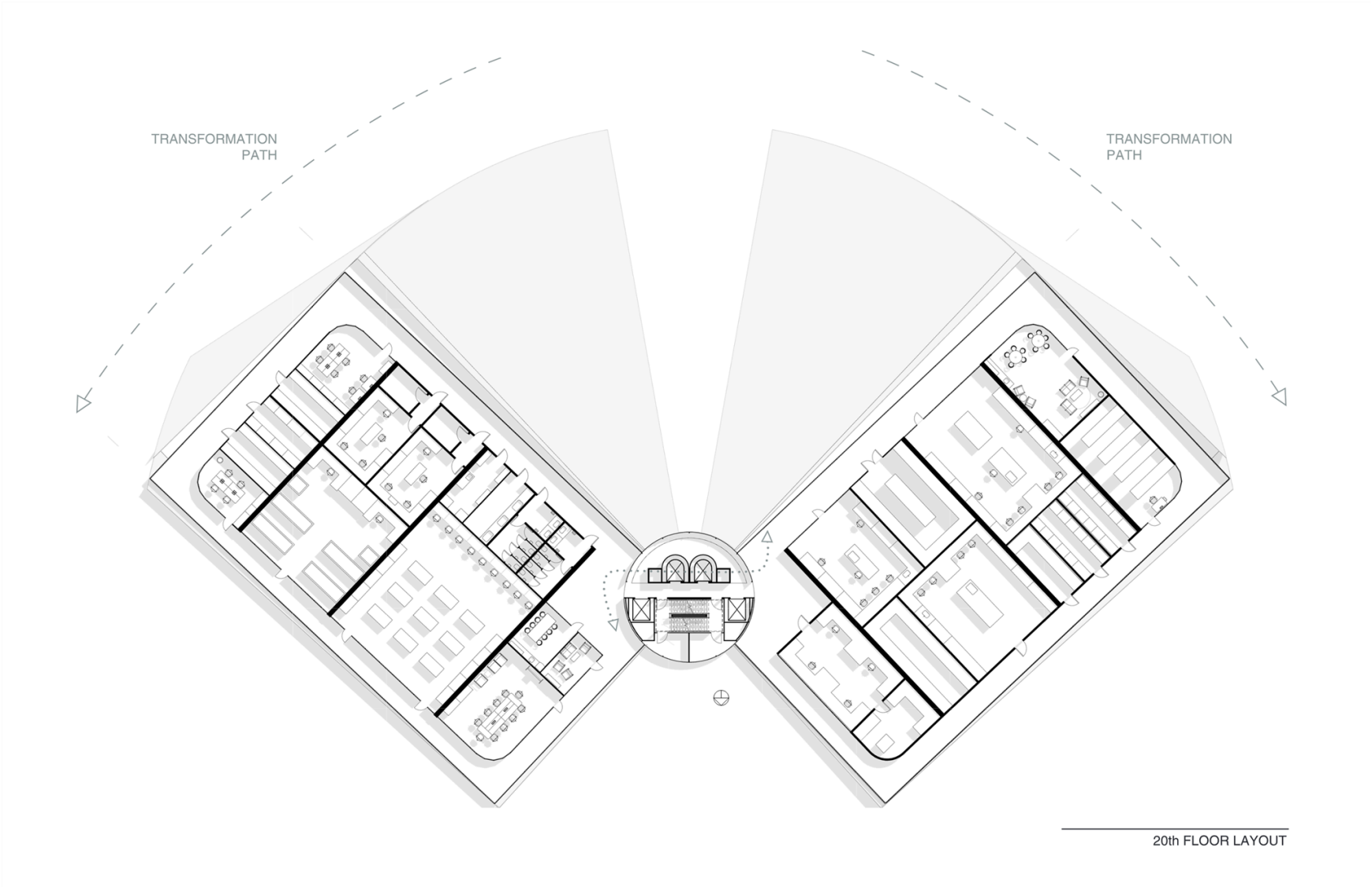


Fig. 26 — 20th Floor Plan: Environmental research laboratory wings, central elevator core, and transformation arc.

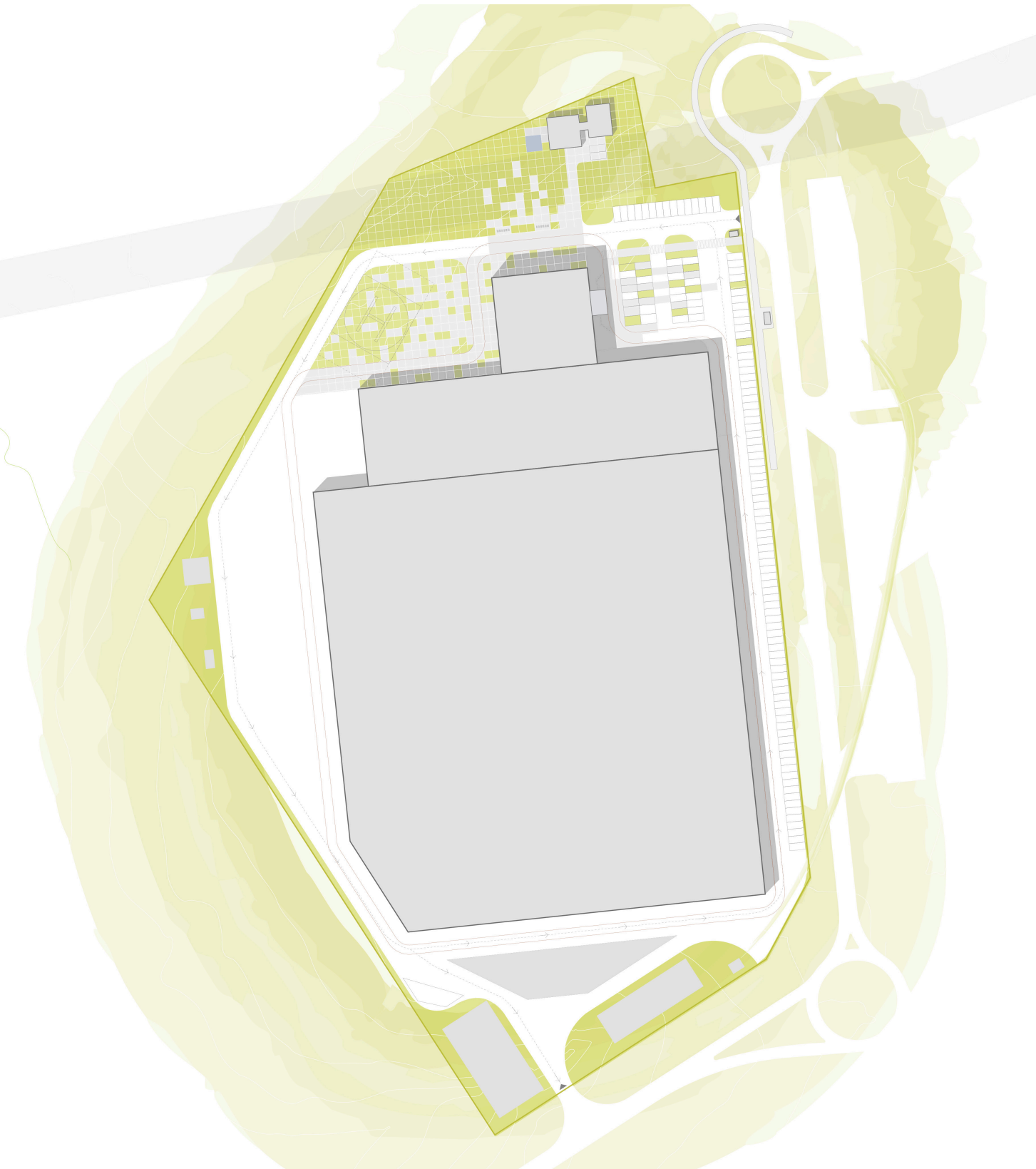


Fig. 27 — Master Site and Campus Zoning: Master plan of the 15,000+ m² campus; Phase 1 plant 6,493 m², testing laboratories, logistics circulation loop, and landscaped zones.

ON-SITE CONSTRUCTION ARCHIVE

MARCH 2024 • KIPRO



Fig. 27b–c — On-Site Structural Assembly (March 2024): 1) Mobile crane hoisting prefabricated steel roof trusses; 2) Spatial tubular steel truss structure across 132 m primary production bays.

SITE EXECUTION AND SUPERVISION

Author supervision during roof truss hoisting. Verification against Revit coordination models prior to envelope installation.

TECHNICAL CASE 01 / 03

CORPORATE ENGINEERING CAMPUS

A 15,000+ m² high-tech campus and corporate headquarters for TURKOV, an industry-leading climate engineering manufacturer.

The master plan organizes a 15,000+ m² climate engineering campus, integrating an automated manufacturing plant, research laboratories, administrative headquarters, and testing centers.

Site logistics establish strict separation between heavy freight trucking rings, employee circulation, and visitor arrival zones, optimizing vehicular safety and workflow.

Fully coordinated across disciplines in Autodesk Revit, progressing through statutory permitting to detailed construction documentation (CD) and author supervision.

CAMPUS AREA / GFA

15,000+ m² masterplan GFA (Phase 1: 6,493 m²)

STATUTORY SCOPE

Permitting and Detailed CD

PROGRAM

HQ, Labs, Automated Plant

PRACTICE

KiPro • Project Architect • Full-Cycle Architectural Delivery

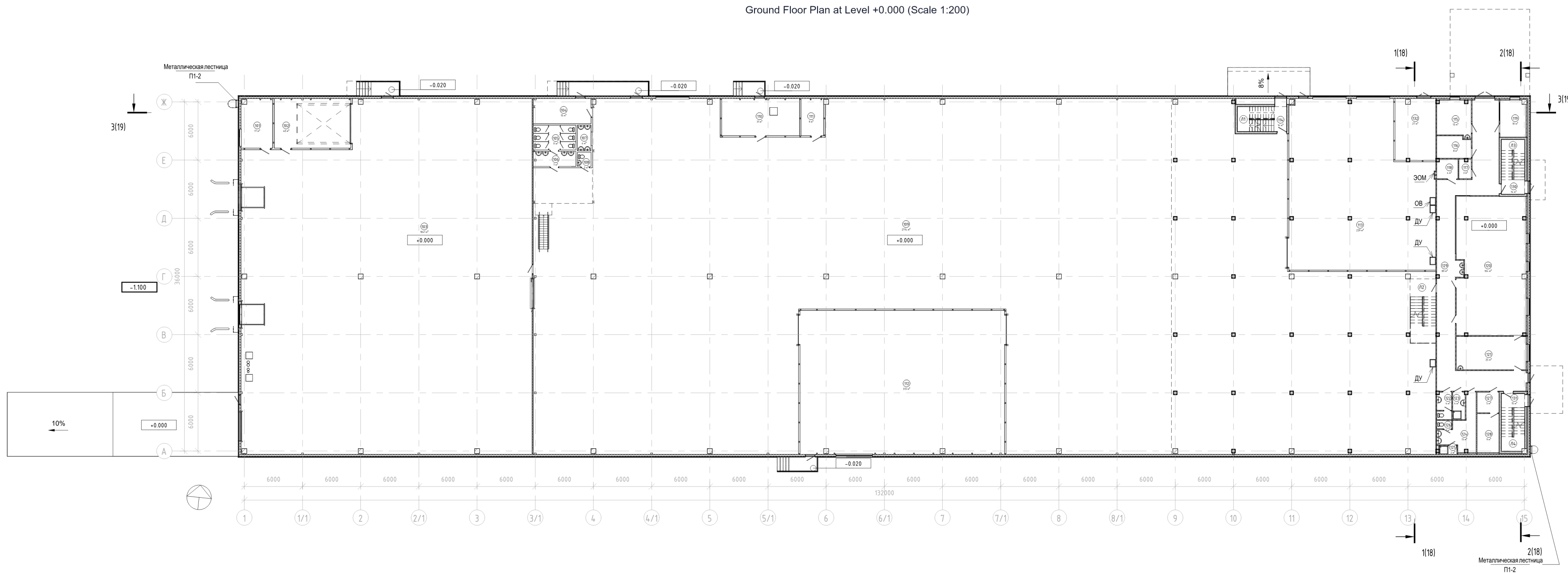


Fig. 28 — Primary Production Floor Plan (Sheet 02 · Detailed Design CD): 132 m building length across a 36 m wide structural envelope with regular column grid and steel roof trusses, organizing logistics docks, fabrication bays, and engineering laboratories.

SCALE 1:200 · ARCHITECTURAL PACKAGE · KIPRO

KEY TRANSLATION: 1. Production Floor · 2. Climate Testing Labs · 3. Logistics and Loading Docks · 4. Administrative and Staff Facilities (ABK) · 5. Technical and MEP Rooms

FIRE BARRIER DETAILING

Inter-floor fire barrier FE50 engineering resolving vertical compartmentalization, thermal expansion, and slab connection.

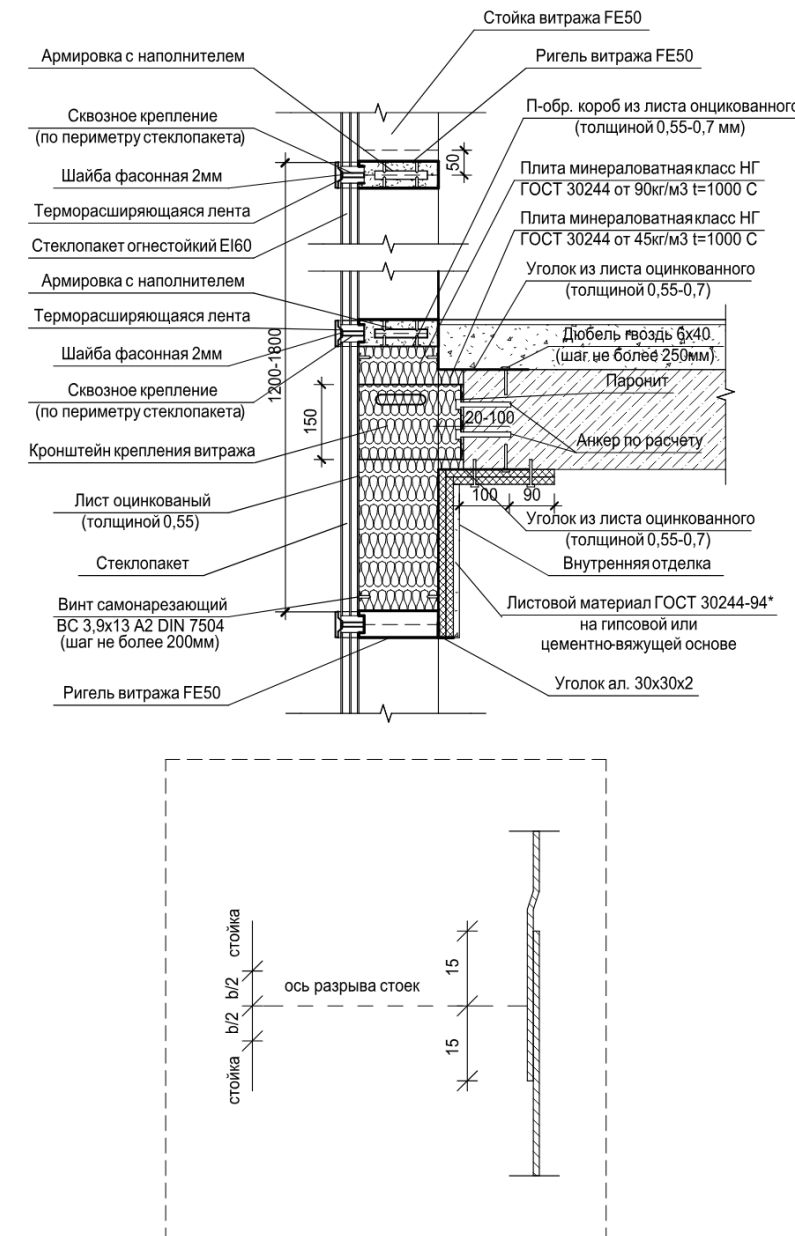
As Project Architect at KiPro, I developed the full detailed architectural package (CD) for the 47,400 m² Boyard logistics facility in Ekaterinburg, coordinating high-bay warehouse volumes, 34 automated dock levelers, and administrative wings.

The drawing on the right details the code-compliant perimeter fire barrier assembly (Sheet 30) at the precast floor slab edge. The assembly integrates fire-resistant double glazing EI 60, high-density non-combustible (GOST 30244), comparable to Euroclass A1 mineral wool ($\geq 90 \text{ kg/m}^3$, 1000°C fire endurance), and structural thermal break isolators.

An engineered axial expansion joint (mullion expansion joint axis) compensates for structural deflections and thermal expansion without compromising smoke or fire containment.



FE50 Inter-Floor Fire Barrier Belt Assembly
EI 60 Fire-Rated Glazing at Slab Edge (from 150 mm)



Примечания:
b - зазор температурного расширения
* - при толщине утеплителя от 80мм до менее 100мм, устанавливается два слоя листового материала толщиной 9,5-10 мм
-при толщине утеплителя от 100мм устанавливается один слой листового материала толщиной 12,5 мм

Fig. 30 — Construction Detail (Sheet 30, Detailed Design / Execution Drawings): Inter-floor fire barrier FE50 with EI 60 fire-rated glazing and mineral wool insulation. Developed by Roman Kabanov.

KEY ANNOTATIONS: Precast RC slab REI 150 • Spandrel EI 60 • Non-combustible mineral wool $\geq 90 \text{ kg/m}^3$ • Thermal break isolator • Mullion thermal expansion joint

REGIONAL DISTRIBUTION HUB • 190,000 M² CLASS-A LOGISTICS PARK



10 MULTI-BAY WAREHOUSE BLOCKS • KIPRO

TECHNICAL CASE 03 / 03

MEGA-SCALE INDUSTRIAL DELIVERY

Full-cycle architectural Permit and Detailed CD engineering across a Class-A logistics hub (Patrushi) and an industrial logistics park (Esipovo 5) totaling 370,000 m².

As Project Architect at KiPro, delivered complete architectural packages (Permit / Stage P and Detailed CD) for two landmark mega-scale logistics parks: a 190,000 m² Class-A multi-block distribution hub and a 180,000 m² 7-building industrial logistics park.

Coordinated complex building envelopes: insulated sandwich panels, thermal expansion joints, topping slab floor interfaces, roof parapets, and high-frequency automated loading dock bays.

Conducted interdisciplinary coordination across structural, MEP, and industrial technology models in Revit, securing statutory approvals and passing state expertise.

INDUSTRIAL LOGISTICS CLUSTER • 180,000 M² PRODUCTION AND LOGISTICS PARK



7 STANDALONE BUILDINGS (BLOCKS A-G) • KIPRO

Fig. 31a–f — On-Site Construction Archive (KiPro Architectural Delivery): Precast concrete column erection, long-span steel roof truss assembly, insulated sandwich panel envelope mounting, and dock pit interfaces across 370,000 m² of logistics facilities.

TOTAL PROJECT SCOPE
370,000 m² Combined Volume

STATUTORY SCOPE
Permit (Stage P) and Detailed CD

PROGRAM
Logistics and industrial / 17 buildings

PRACTICE
KiPro • Project Architect • Full-Cycle Architectural Delivery

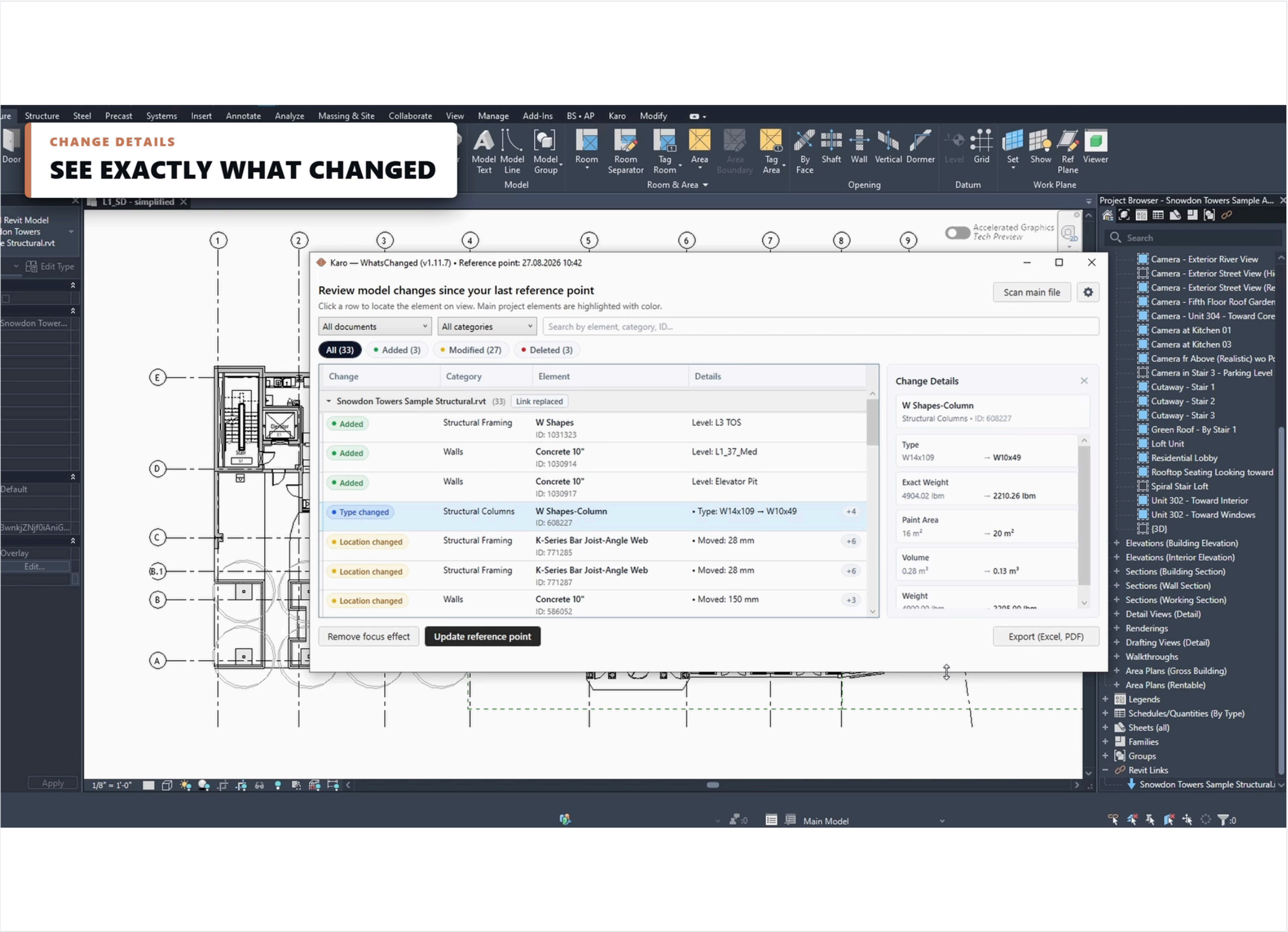


Fig. 32 — Karo.WhatsChanged on a Revit sample project.

TOOLS FOR PRACTICE 01 / 02

MODEL QA AND COORDINATION AUTOMATION

Custom Revit add-ins built to eliminate cross-discipline coordination friction and protect documentation fidelity.

During the delivery of large-scale industrial and educational facilities, manual audits of linked structural and MEP models cause recurring coordination delays and costly site revisions.

To eliminate these bottlenecks directly inside Autodesk Revit, I developed targeted C# / .NET tools focused on model hygiene and cross-discipline verification.

Karo.WhatsChanged automates differential tracking between multidisciplinary model releases, instantly flagging moved columns, altered framing sizes, and deleted elements. Combined with Karo.WhyHidden for one-click visibility troubleshooting across 30+ parameter overrides, these tools streamline model review and protect documentation quality before statutory filing and site release.

ARCHITECTURE

Clean Architecture / WPF MVVM

TARGETED WORKFLOW

Model Auditing and QA

LANGUAGE / STACK

C# / .NET / Revit API

OFFICIAL PORTAL

karomodum.com

TOOLS FOR PRACTICE 02 / 02

AUTOMATED PARAPET AND COPING DETAILING

Direct translation from architectural boundary edges to fabrication-ready sheet metal segments and live schedules.

Detailed construction documentation for extensive industrial and public roofs involves hundreds of linear meters of folded metal copings and flashings, which are conventionally drafted by hand.

To accelerate execution packages on complex building perimeters, I built Karo.Segments as a native Autodesk Revit add-in.

The software detects 3D wall and roof boundary edges, automatically generates segmented sheet metal assemblies according to manufacturing stock lengths, and assigns coating parameters. Live Revit schedules and bidirectional Excel exports provide fabricators with exact piece counts, unfolded flat widths, and cut dimensions, reducing drafting rework and procurement errors directly from the model.

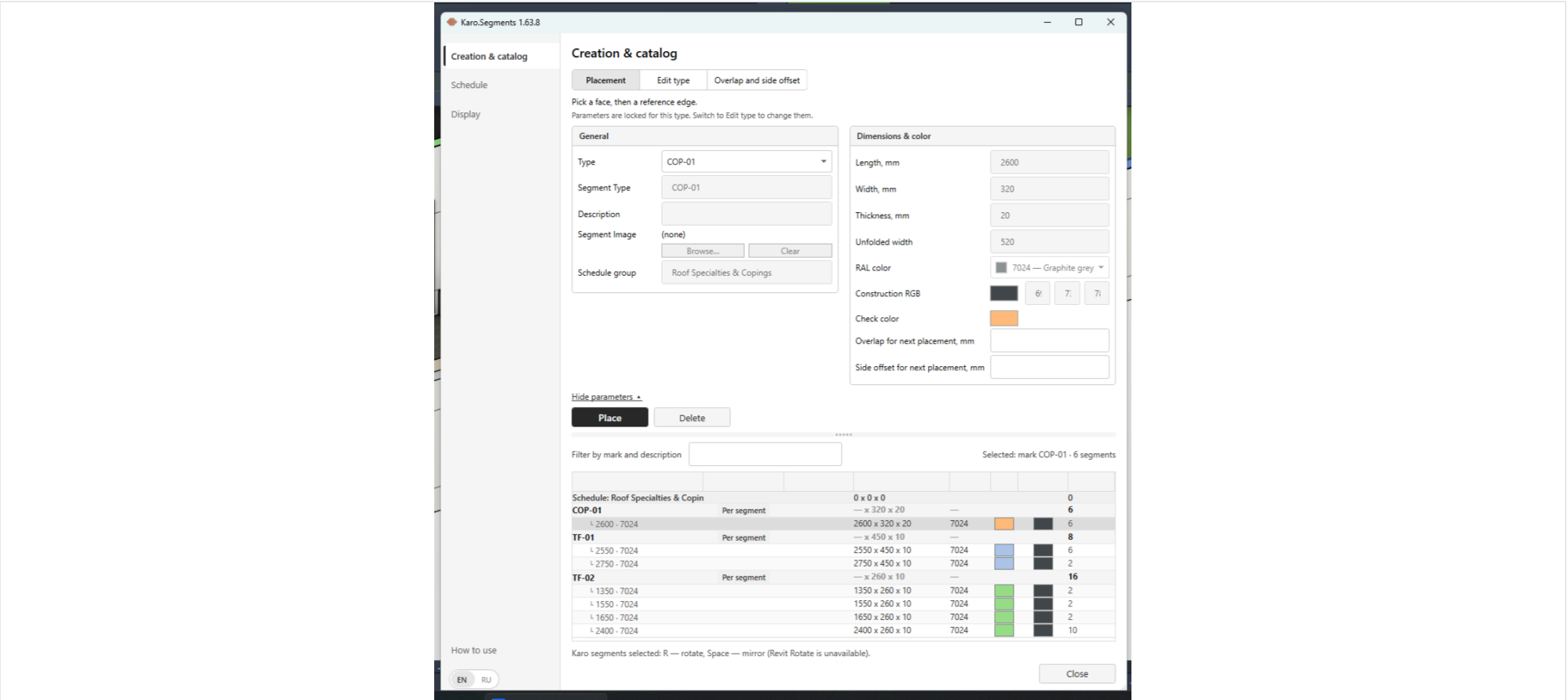


Fig. 33 — Karo.Segments Interface in Autodesk Revit: Edge-based coping placement, profile dimensioning, overlap offsets, and RAL color assignment.

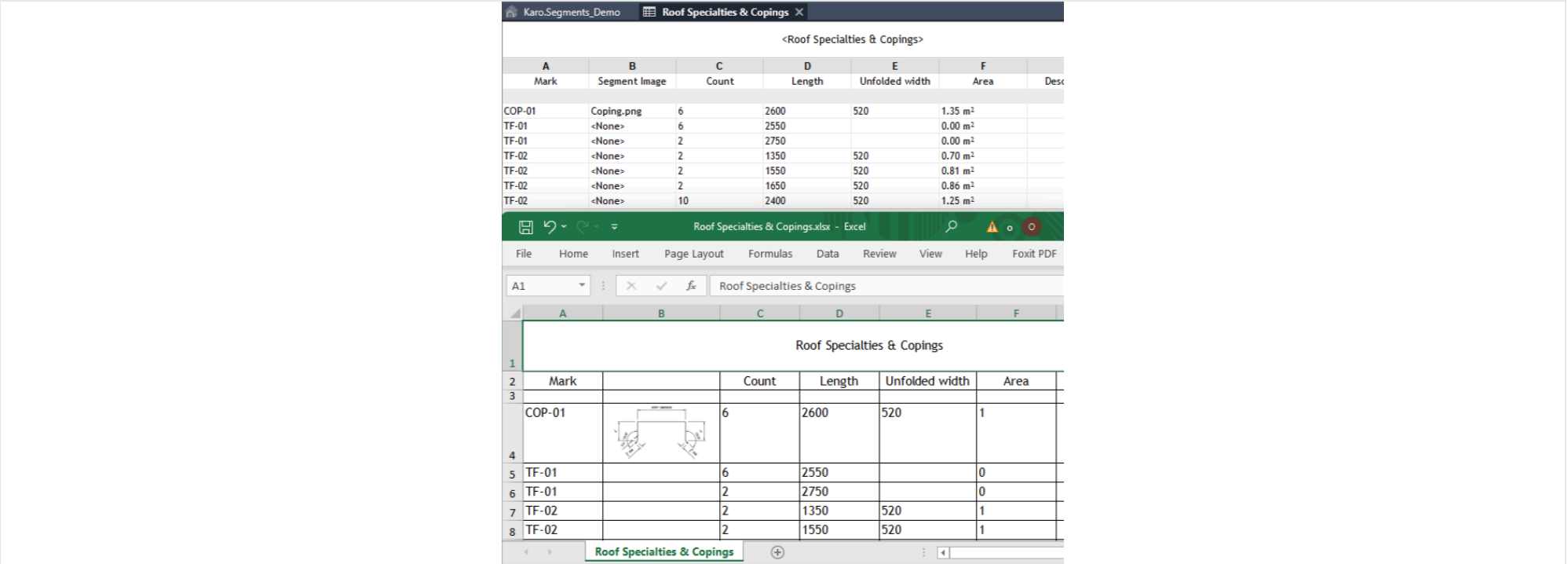


Fig. 34 — Synchronized Fabrication Schedules: Automated Revit schedules and Excel exports detailing piece marks, cut lengths, unfolded widths, and surface areas.

MODULE

Karo.Segments 1.02.6

FABRICATION OUTPUT

Live Revit Schedules + Excel BOM

TARGET GEOMETRY

Roof Copings, Parapets, Flashings

TARGETED WORKFLOW

Sheet Metal Coping Detailing

CREDENTIALS

ACADEMIC AND PROFESSIONAL STANDING

Master of Architecture (M.Arch)

VILNIUS TECH, Lithuania · EU Accredited Professional Degree · 2017 — 2022

Architectural Design and Urbanism

Bauhaus-Universität Weimar, Germany · Erasmus Exchange · 2019 — 2020

AP Degree in Multimedia Design

KEA — Copenhagen School of Design and Technology, Denmark · 2008 — 2011

SELECTED COMPETITIONS AND HONORS

1st Place — VILNIUS TECH Architecture Competition (Residential Architecture)

Selected Exhibitor — Bauhaus-Universität Weimar “Go For Spring” Annual Showcase

International Finalist — Marissa Villas Townhouse Competition

RESIDENTIAL PRACTICE

Featured contemporary residence in Petrovo-Dalneye (797 m²) designed for **ZROBIM architects** is presented in Chapter 02.

LANGUAGES

English C1, German A2, Danish A2, Ukrainian / Russian
(Native)

STATUS

Open to Relocation / Remote

COMMUNICATION

DIRECT INQUIRIES

EMAIL ADDRESS

rokabb@gmail.com

DIRECT MESSENGER

[Telegram: @krillian](https://t.me/krillian)

PROFESSIONAL NETWORK

[linkedin.com/in/roman-kabanov](https://www.linkedin.com/in/roman-kabanov)

COMPUTATIONAL ARCHITECTURE PORTAL

karomodum.com

AVAILABILITY AND RELOCATION

Ukrainian Citizen · Open to Relocation · Remote / Hybrid · Available with 1-Month Notice