

STRATEGIC INVESTMENT PLAN

HALEMBA MEGA-HUB

Sovereign Energy
Data Center
Industrial Ecosystem

1. Modern Production & Warehouse Facilities (180,000 sqm)

These are not standard warehouses, but Smart Industrial Units (Industry 4.0).

- ESG Standards: Buildings with BREEAM certification at Excellent or Outstanding levels. Features include PV-ready roofs, rainwater harvesting systems, and AI-driven lighting and climate management (IoT).
- High-Tech Tenants: Due to the proximity of the Data Center and low-cost energy, the park will attract leaders in Advanced Manufacturing, electronics assembly, and automated e-commerce logistics.
- Infrastructure: Floor loading capacities optimized for heavy industrial robotics and full site coverage by high-speed, low-latency 5G networks.

2. 100 MW Photovoltaic Farm (Green Energy Generation)

The foundation of the project's "Green Identity."

- Scalability: The plan starts at 100 MW with the potential to expand to 180 MW, enabling the park and Data Center to cover their total energy demand during daylight hours.
- PPA Model (Power Purchase Agreement): Direct energy sales to tenants via "Direct Wire" at rates significantly below market utility prices, serving as a powerful commercial incentive for recruitment.

3. 200 MW+ BESS (Battery Energy Storage System)

The critical stabilizer and the most profitable energy component.

- Energy Arbitrage: Storing energy when prices are low (or during peak PV production) and selling it back to the grid during peak demand hours (Peak Shaving).
- Ancillary Services: Providing frequency regulation services (FCR/aFRR) to the Polish Power Grid (PSE). This is currently one of the most high-demand assets in the European energy system.
- DC Security: The BESS serves as a massive, instantaneous UPS (Uninterruptible Power Supply) for the Data Center, eliminating micro-interruptions and reducing reliance on diesel generators.

4. Tier III+/IV Data Center (The Digital Core)

The "Digital Heart" of the project, leveraging unique local conditions.

- **AI & Cloud Ready:** Infrastructure specifically designed for High-Density Computing required by Artificial Intelligence and Big Data processing.
- **Energy Symbiosis:** Powered by on-site PV and the Plasma plant, the Data Center achieves the lowest possible PUE (Power Usage Effectiveness) and a near-zero carbon footprint.
- **Heat Recovery:** DC cooling systems are integrated with heat exchangers that feed the local municipal district heating network, turning a cooling cost into a revenue stream from heat sales.

5. Plasma Waste-to-Energy Plant (Circular Economy)

The world's most advanced waste utilization method, completely environmentally safe.

- **Plasma Gasification:** At temperatures exceeding 3000°C, waste (municipal, industrial, medical) is broken down into its elemental components. This produces clean Syngas (energy) and Vitrified Slag (a glass-like, non-toxic material used in construction).
- **Baseload Power:** Unlike solar, the Plasma plant operates 24/7, providing stable, constant power to the Data Center and the grid regardless of weather conditions.

6. Green Hydrogen Hub (The Future of Mobility)

Transforming surplus energy into the "fuel of the future."

- **Electrolyzer Plant:** Utilizes surplus energy from the PV farm (when BESS is at capacity) to produce Green Hydrogen (H₂).
- **Hydrogen Logistics:** An on-site H₂ refueling station will service tenants' transport fleets and the Silesian metropolis's public transport, establishing a "Green Corridor" along the A4 Motorway.

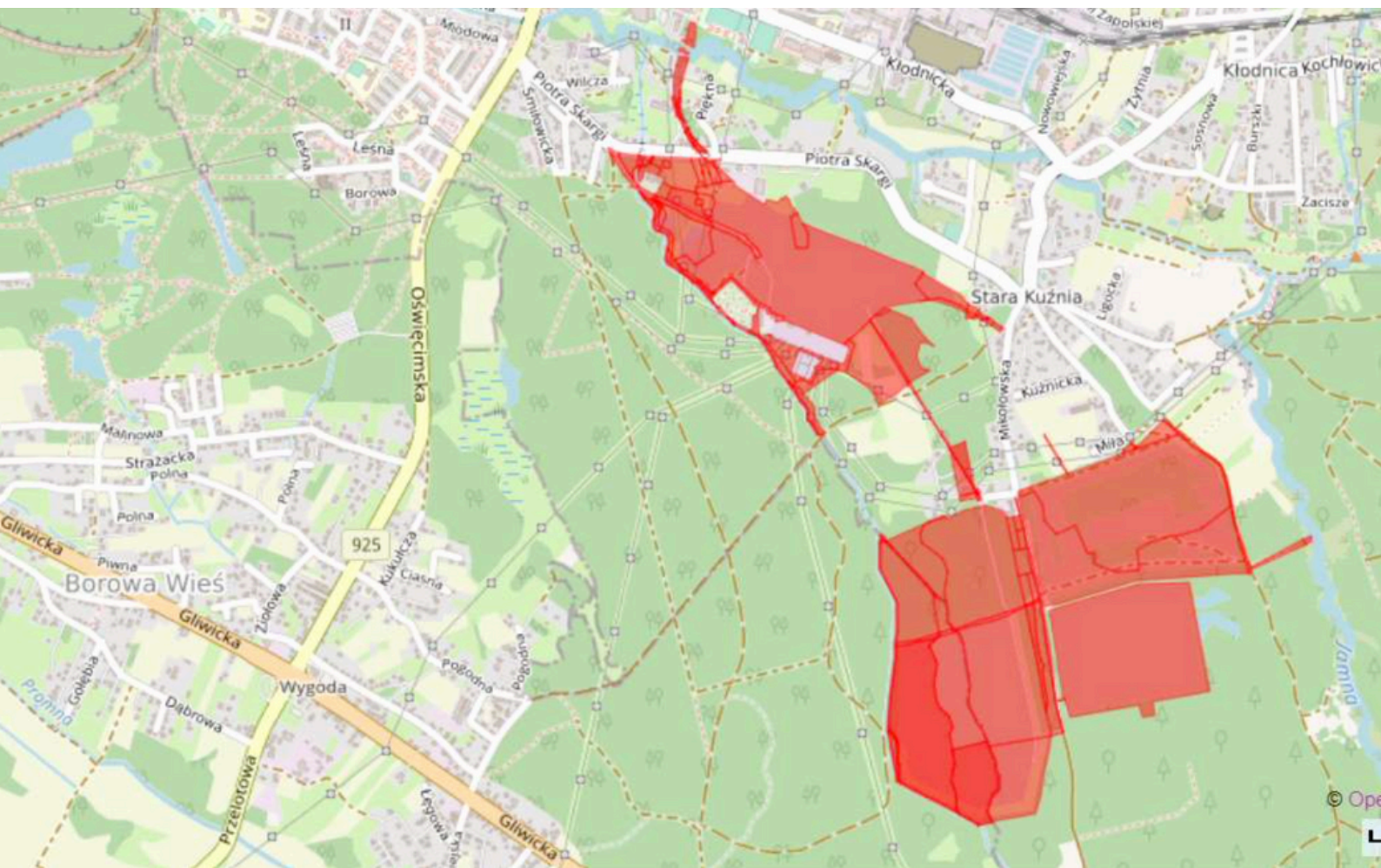
WHY IS THIS THE BEST SOLUTION? (Synergy Analysis)

The Halemba Project solves the "Energy Trilemma":

1. **Security:** On-site generation (PV + Plasma) and storage (BESS) make the hub immune to energy price shocks and regional blackouts.
2. **Sustainability:** The project is "Carbon Neutral"—it removes waste from the region, produces clean power, and generates green hydrogen.
3. **Profitability:** Every element supports another. Waste provides power for the Data Center → the DC provides heat for the city → PV provides hydrogen for logistics → BESS generates revenue from grid stabilization.

INVESTMENT METRICS (Summary)

- **Total Capex:** €200M – €350M (depending on Data Center scale).
- **Estimated Annual Revenue:** €40M – €65M.
- **Payback Period:** 5–7 years (aggressive due to high-margin IT and energy services).
- **Grid Capacity:** Access to 400 MW - 1 GW connection (a unique asset in the EU).





1. Modern Production & Warehouse Facilities (180,000 sqm)

Modern Production & Warehouse Facilities, designed to attract sophisticated institutional investors and high-tech tenants.

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Strategic Concept: The "Industry 4.0" Sovereign Hub

This facility is reimagined as a cognitive industrial ecosystem where physical infrastructure meets digital intelligence. It is specifically engineered to support the shift from traditional logistics to Advanced Smart Manufacturing.

A. Global ESG Leadership & Sustainability

- **Certifications:** Target BREEAM "Outstanding" and LEED Platinum ratings, making it one of the greenest industrial assets in Europe.
- **Energy Autarky:** Every square meter of the 180,000 sqm roof is equipped with high-efficiency bifacial solar panels, feeding directly into the park's private microgrid.
- **Resource Circularity:** Implementation of advanced Gray Water Recovery systems and circular waste management integrated directly with the on-site Plasma Plant.
- **Cognitive Climate Control:** AI-driven HVAC systems utilize predictive analytics to adjust lighting and temperature based on real-time occupancy and external weather, reducing energy waste by up to 40%.

B. The High-Tech Tenant Ecosystem

- **Anchor Industries:** Designed for leaders in Semiconductor Assembly, Electric Vehicle (EV) Components, Med-Tech, and Automated Robotics.
- **The Data-Power Advantage:** Tenants benefit from a "Direct-Wire" connection to the on-site Tier IV Data Center and BESS, offering the lowest electricity prices in the region and ultra-fast data processing for AI-driven production lines.
- **Operational Resilience:** 24/7 mission-critical power redundancy ensures that automated production lines never experience a "micro-stop," saving millions in potential downtime.

C. Future-Proof Infrastructure

- **Robotic Optimization:** Floor slabs are reinforced with high-tolerance (FM2/Special) anti-static finishes, specifically designed for Autonomous Mobile Robots (AMRs) and heavy-duty robotic arms.
- **Connectivity:** A dedicated Private 5G Network provides sub-10ms latency across the entire 154-hectare site, enabling seamless coordination between human workers, drones, and machines.
- **Intermodal Synergy:** Direct heavy-load access routes to the A4 Motorway and proximity to the airport ensure that high-value finished goods can reach global markets with maximum efficiency.

D. Human-Centric Design (Workplace of the Future)

- **Employee Wellbeing:** Integration of "Biophilic Design" with green indoor walls, natural skylights, and advanced air filtration systems.
- **The Employee City:** Seamless connection to the planned Smart Employee Village, featuring modern housing, green parks, and high-speed transit, ensuring tenants have access to a stable, highly-skilled workforce.

Investment Perspective:

By combining Industrial Space with Energy Sovereignty and Digital Infrastructure, the Halemba Hub generates a significantly higher yield per square meter compared to standard logistics parks. It is a "Defensive Growth" asset that remains profitable regardless of energy price fluctuations.



2. 100 MW Photovoltaic Farm (Energy Autonomy Hub)

100 MW Photovoltaic Farm, emphasizing its role as the primary engine for the project's energy independence and commercial edge.

2. 100 MW Photovoltaic Farm (Energy Autonomy Hub)

Strategic Concept: The "Green Kilowatt" Advantage

The PV Farm is not merely an environmental statement; it is a critical financial instrument that de-risks the project from global energy volatility and provides a permanent competitive moat for all on-site tenants.

A. Technical Excellence & Scalability

- **Next-Gen Technology:** Implementation of Bifacial N-Type Modules mounted on AI-driven solar trackers. These trackers follow the sun's trajectory to maximize yield by up to 25% compared to fixed-tilt systems.
- **Aggressive Scalability:** While the initial phase delivers 100 MW, the site layout is optimized for a rapid expansion to 180 MW. This ensures the hub remains the primary energy provider even as the Data Center and Industrial Park reach full operational capacity.
- **Land Optimization:** Use of "Agrivoltaic" and dual-use land strategies, ensuring that the solar infrastructure coexists with local biodiversity and green buffer zones.

B. The "Direct Wire" PPA Model

- **Market-Leading Rates:** By utilizing a Private Wire Network, we bypass national distribution fees and grid charges. This allows UseCrypt/Halemba to sell electricity to tenants at 20–40% below market utility rates.
- **Price Certainty:** Tenants can sign Long-term Power Purchase Agreements (PPAs), fixing their energy costs for 10–15 years—a massive incentive for energy-intensive industries like AI Data Centers and heavy manufacturing.
- **Zero Transmission Loss:** Generating power exactly where it is consumed minimizes technical losses, maximizing the efficiency of every photon captured.

C. Integration with the Energy Ecosystem

- **The BESS Link:** During peak production, excess energy is routed into the 200 MW+ Battery Storage, ensuring that the solar energy generated during the day can power the site throughout the evening.
- **The Hydrogen Bridge:** When storage is full and demand is low, surplus "Green Electrons" are sent to the Hydrogen Hub to power electrolyzers, effectively "storing" sunlight as liquid fuel.
- **Dynamic Grid Interaction:** The PV farm is integrated with an EMS (Energy Management System) that automatically switches between PV, BESS, and the Plasma plant to ensure the Data Center always receives the cheapest and cleanest power available.

D. Global ESG and Compliance

- **Scope 2 Decarbonization:** Tenants located in the Halemba Hub can claim Zero Scope 2 Emissions, significantly increasing their corporate ESG ratings and attracting institutional investment.
- **RECs & Certification:** The project will issue Renewable Energy Certificates (RECs) and Guarantees of Origin, providing verifiable proof of the green energy lifecycle for international audits.

Investment Perspective:

In a world where energy costs are the #1 operational risk, the 100 MW PV Farm transforms Halemba from a consumer of power into a Sovereign Energy Producer. This asset turns a traditional "utility expense" into a high-margin revenue stream with a clear, long-term ROI.



3. 200 MW+ BESS (The Intelligent Energy Vault)

200 MW+ BESS as the "Brain and Heart" of the infrastructure, turning volatile renewable energy into a high-value, bankable asset.

3. 200 MW+ BESS (The Intelligent Energy Vault)

Strategic Concept: High-Velocity Grid Stabilization & Profit Maximization

The Battery Energy Storage System (BESS) is the most technologically advanced and highest-margin component of the Halemba Hub. It acts as a Digital Reservoir, ensuring that every kilowatt generated on-site is utilized at its maximum market value while providing mission-critical resilience.

A. Revenue Optimization through Energy Arbitrage

- **Peak Shaving & Shifting:** The BESS captures surplus "Zero-Cost" energy from the 100 MW PV farm during daylight hours. This energy is then discharged during evening peaks when market prices are highest, capturing the maximum price delta.
- **Negative Pricing Strategy:** In the modern European energy market, prices occasionally turn negative due to oversupply. The BESS is programmed to charge during these periods—effectively getting paid to take energy from the grid—and then selling it back when demand returns.

B. High-Margin Ancillary Services (Grid Support)

- **Frequency Regulation (FCR & aFRR):** The Polish Power Grid (PSE) requires sub-second response times to maintain grid stability (50Hz). The Halemba BESS can react in milliseconds, providing Frequency Containment Reserve (FCR) and automatic Frequency Restoration Reserve (aFRR).
- **Capacity Market Participation:** By committing 200 MW of available power to the national grid during stress events, the project secures fixed, long-term availability payments, providing a stable baseline of revenue independent of energy trading.

C. Mission-Critical Resilience for the Data Center

- **The "Infinite UPS":** Traditional Data Centers rely on chemical batteries for minutes and diesel generators for hours. The Halemba BESS provides instantaneous, large-scale backup, capable of powering the entire Tier IV Data Center for extended periods without a single millisecond of latency (Zero-Drop Transition).
- **Decarbonizing Security:** This system eliminates the need for thousands of liters of stored diesel and frequent generator testing, allowing the Data Center to market itself as a True Zero-Emission Facility even during grid outages.

D. Advanced Technology & Lifecycle Management

- **Lithium Iron Phosphate (LFP) Tech:** Utilizing high-safety LFP cells, known for their thermal stability and long cycle life (over 6,000–8,000 cycles).
- **Liquid Cooling & AI Monitoring:** Every battery module is managed by a Battery Management System (BMS) that uses predictive AI to optimize state-of-charge (SoC) and prevent degradation, extending the asset's life to 15–20 years.
- **Scalability:** The modular containerized design allows the capacity to be increased to 300 MW+ as the Data Center and Industrial Park power requirements grow.

Investment Perspective:

The BESS transforms the Halemba Hub from a passive infrastructure project into an Active Participant in the European Energy Transition. While Real Estate provides stability, the BESS provides Exponential Upside, capitalizing on the volatility of the modern energy market. It is the project's most effective tool for generating high-velocity cash flow.



4. Tier III+/IV Data Center (The Digital Fortress)

high-level strategic description of the Data Center, emphasizing its role as the high-value "anchor" of the entire ecosystem.

4. Tier III+/IV Data Center (The Digital Fortress)

Strategic Concept: Sovereign AI & Hyperscale Infrastructure

The Halemba Data Center is not a commodity storage facility; it is a High-Performance Computing (HPC) Powerhouse. Designed to meet the explosive demand for Artificial Intelligence (AI) and Machine Learning (ML), it offers a unique combination of extreme power density, sovereign security, and unmatched environmental efficiency.

A. AI-Ready High-Density Computing

- **Next-Gen Power Density:** Unlike traditional data centers designed for 5–10 kW per rack, Halemba is engineered for High-Density Computing, supporting 50–100 kW+ per rack. This is essential for NVIDIA H100/B200 GPU clusters used in LLM (Large Language Model) training.
- **Liquid Cooling Ready:** The facility features hybrid cooling architectures, including Direct-to-Chip (D2C) and Immersion Cooling capabilities, allowing for maximum thermal efficiency even under the most demanding computational loads.
- **Sovereign Cloud & Security:** Built to Tier IV standards (99.995% uptime), the facility offers "Fault Tolerant" infrastructure, making it the ideal choice for government data, financial institutions, and sovereign AI initiatives that require total data residency and security.

B. Radical Energy Symbiosis & PUE Optimization

- **Zero-Carbon Base:** By sourcing power from the on-site 100 MW PV Farm and 24/7 Plasma Plant, the facility operates on a "True Green" microgrid. This eliminates "Greenwashing" and provides tenants with verifiable Carbon-Free Energy (CFE).
- **World-Class PUE:** The integration with the site's energy management system and advanced cooling allows for a Power Usage Effectiveness (PUE) of < 1.15, placing it in the top 1% of the world's most efficient data centers.
- **BESS Integration:** The 200 MW+ BESS acts as the primary power conditioner, cleaning the "dirty" grid power and providing instant backup, which significantly reduces the operational wear and tear on sensitive server hardware.

C. Thermal Revenue: The Waste-to-Heat Model

- **District Heating Integration:** Instead of venting waste heat into the atmosphere (thermal pollution), the DC acts as a Digital Boiler. We capture low-grade thermal energy through high-efficiency heat exchangers.
- **Municipal Revenue Stream:** This heat is pumped into the Silesian District Heating Network, providing clean, low-cost heating to thousands of local homes. This turns a traditional operational expense (cooling) into a stable, long-term revenue stream and strengthens local government relations (ESG social impact).

D. Connectivity & Latency

- **Fiber Gateway:** Located at a strategic crossroads in Central Europe, the facility sits on major fiber routes connecting Frankfurt, Warsaw, Prague, and Vienna.
- **5G Industrial Edge:** The DC serves as the brain for the on-site Private 5G Network, enabling real-time processing for the autonomous robots and smart systems within the neighboring warehouse facilities.

Investment Perspective:

The Data Center is the "Yield Multiplier" of the project. While the warehouses provide stable real estate returns, the Data Center attracts high-margin tech tenants and provides the digital infrastructure necessary for the Industry 4.0 components of the hub. It transforms "land and power" into "Intelligence as a Service."



5. Plasma Waste-to-Energy Plant (The Circular Engine)

The Plasma Waste-to-Energy (WtE) Plant is the ultimate technological differentiator of the Halemba Mega-Hub. It transforms the site from a simple consumer of energy into a Circular Economy Powerhouse that solves two problems at once: waste management and the need for 24/7 carbon-free energy.

5. Plasma Waste-to-Energy Plant (The Circular Engine)

Strategic Concept: Zero-Waste Baseload Generation

While solar power is variable, the Plasma Plant provides the "Baseload"—the steady, unyielding flow of electricity required to keep the Tier IV Data Center and automated factories running 365 days a year, regardless of whether the sun is shining or the wind is blowing.

A. The Science of Plasma Gasification

- **Molecular Deconstruction:** Unlike traditional incineration, which burns waste and produces toxic ash and dioxins, Plasma Gasification uses a Plasma Torch to create temperatures exceeding 3000°C. At this heat, waste does not burn; it undergoes molecular dissociation, breaking down into its simplest atomic forms.
- **Feedstock Versatility:** The plant can process a wide array of high-liability waste streams that landfills cannot handle, including:
 - Municipal Solid Waste (MSW) from the surrounding Silesian Metropolis.
 - Industrial & Hazardous Waste from nearby manufacturing plants.
 - Medical Waste, ensuring complete destruction of pathogens.

B. High-Value Outputs (Revenue Streams)

- **Ultra-Clean Syngas:** The primary output is a hydrogen-rich Syngas. This gas is purified and used in high-efficiency gas turbines to generate electricity or can be further processed into Green Methanol or Synthetic Fuels.
- **Vitrified Slag (Eco-Construction):** The inorganic portion of the waste turns into a molten, obsidian-like glass called Vitrified Slag. It is non-leachable, inert, and 100% safe. This material is sold as a premium aggregate for road construction or high-strength concrete, creating a secondary revenue stream.
- **Tipping Fees:** The facility generates immediate cash flow by charging "Tipping Fees" to municipalities and private companies for waste disposal—fees that are often higher than the value of the energy produced.

C. 24/7 Baseload Power for the Data Center

- **Eliminating Intermittency:** The biggest weakness of a 100% renewable grid is the night-time gap. The Plasma Plant operates 8,000+ hours per year, providing the constant "heartbeat" of power that allows the Data Center to claim 100% Carbon-Free Energy (CFE) around the clock.
- **Grid Balancing:** When the PV farm is at peak production, the Plasma plant's output can be diverted to produce Hydrogen or heat, and when the sun goes down, it becomes the primary source of power for the entire 154-hectare park.

D. Environmental & Social Impact (ESG)

- **Landfill Diversion:** By processing waste that would otherwise go to a landfill, the project prevents the emission of Methane (a greenhouse gas 25x more potent than CO₂).
- **Public-Private Partnership (PPP):** The plant positions UseCrypt and its investors as essential partners to the local government, helping the region meet strict EU waste-to-landfill reduction targets.

Investment Perspective:

The Plasma Plant is the "Unfair Advantage" of this project. It provides energy security that competitors cannot match and turns a regional liability (waste) into the project's most valuable asset (24/7 clean power). It is the final link in the chain that makes the Halemba Hub a truly self-sustaining, sovereign ecosystem.



6. Green Hydrogen Hub (The Zero-Emission Fuel Core)

The Green Hydrogen Hub is the project's final stroke of genius, serving as the "energy overflow valve." It ensures that not a single photon of solar energy or a single joule of plasma heat is ever wasted, while simultaneously spearheading the decarbonization of the European transport sector.

6. Green Hydrogen Hub (The Zero-Emission Fuel Core)

Strategic Concept: Converting Surplus Power into Molecular Wealth

This component elevates the Halemba Mega-Hub from a local energy producer to a critical node in the European Hydrogen Backbone. It bridges the gap between the power grid and the heavy transport industry, which is notoriously difficult to electrify with batteries alone.

A. The Electrolyzer Plant (Energy-to-Matter)

- **Strategic Surplus Management:** When the 100 MW PV farm is producing at its peak and the 200 MW BESS is fully charged, the system automatically redirects excess "Green Electrons" to the PEM (Proton Exchange Membrane) Electrolyzers.
- **Zero-Marginal-Cost Production:** By using energy that would otherwise be "curtailed" (lost) due to grid congestion, the hub produces Green Hydrogen (H₂) at a cost-basis far lower than traditional standalone plants.
- **On-Site Storage:** The produced hydrogen is compressed and stored in high-pressure tanks, acting as a "long-duration energy storage" (LDES) that can be used for weeks or months, providing seasonal resilience.

B. Hydrogen Logistics & The "A4 Green Corridor"

- **The Strategic Location Advantage:** Situated directly at the crossroads of Central Europe's busiest transit routes, the hub features a High-Capacity H₂ Refueling Station.
- **Tenant Fleet Decarbonization:** Logistics tenants within the 180,000 sqm warehouse park can transition their heavy-duty fleets to Hydrogen Fuel Cell Trucks (FCEVs). This allows them to meet strict EU emission standards while maintaining the 5-minute refueling times required for long-haul logistics.
- **Public Transit Partnership:** The hub will serve as the primary fuel source for the Silesian Metropolis's hydrogen bus transition, generating stable, long-term municipal contracts for fuel supply.

C. Industrial & Chemical Feedstock

- **Synergy with Plasma Gasification:** The Green H₂ produced by electrolysis can be combined with the CO (Carbon Monoxide) from the Plasma plant to create Synthetic E-Fuels or Green Methanol, which are high-value commodities in the global shipping and chemical industries.
- **Direct Industrial Feed:** Proximity to the Silesian industrial heartland allows for the potential transport of hydrogen via dedicated pipelines to nearby steel or chemical plants looking to replace "Grey Hydrogen" (natural gas-based) with "Green Hydrogen."

D. Decarbonizing the "Hard-to-Abate"

- **Scope 3 Impact:** While the PV and BESS solve Scope 1 and 2 emissions, the Hydrogen Hub addresses Scope 3 (Supply Chain) emissions, making the Halemba Hub the most attractive location for global corporations committed to "Net Zero" by 2030/2040.

Investment Perspective: The Ultimate Revenue Circularity

The Green Hydrogen Hub completes the "Halemba Infinity Loop":

1. Waste becomes Plasma Power.
2. Sunlight becomes PV Power.
3. Surplus Power becomes Green Hydrogen.
4. Hydrogen fuels the Logistics Trucks that move the goods from the Smart Warehouses.

This is no longer just a real estate play; it is a vertically integrated energy and technology commodity engine. You are not just renting space—you are selling the future of energy and data.

FINANCIAL & OPERATIONAL PROJECTION: HALEMBA MEGA-HUB

Total Estimated Investment (CAPEX): €480M – €580M Land Acquisition Cost: €30M (154 Hectares) Strategic Objective: Integration of Energy Sovereignty with Industrial Intelligence.

1. DEVELOPMENT PHASES & CAPITAL ALLOCATION

The project is structured in four strategic "Waves" to ensure cash flow optimization and risk mitigation.

Phase	Description	Timeline	Est. Cost
Phase 0	Acquisition & Permitting: Land purchase, Masterplan, Environmental Impact Assessments (EIA), and Grid Connection Secured.	12-18 Months	€35M
Phase 1	Energy Foundation: 100MW PV Farm, 200MW+ BESS installation, internal road networks, and high-voltage substations.	18-24 Months	€125M
Phase 2	The Digital & Industrial Core: Construction of 180k sqm Smart Warehouses and the Tier III+/IV Data Center shell and core.	24-36 Months	€240M
Phase 3	Circular Economy Hub: Plasma Waste-to-Energy Plant and the Green Hydrogen Hub (Electrolyzers + Refueling).	36-48 Months	€150M

2. THE HYBRID REVENUE MODEL

Unlike traditional real estate, Halemba operates on a **Vertical Integration Model**, capturing value at every stage of the energy and data lifecycle.

A. Digital Infrastructure (Data Center)

- **Colocation & Managed Services:** High-margin revenue from AI-driven enterprises.
- **Heat Monetization:** Revenue from selling waste heat to the municipal district heating network.
- **Uptime Guarantees:** Premium pricing for Tier IV "Fault Tolerant" reliability.

B. Energy Arbitrage & Ancillary Services (BESS)

- **FCR/aFRR Markets:** Providing sub-second frequency regulation to the Polish Grid (PSE).
- **Price Shifting:** Charging at negative/low prices; discharging during evening peaks.
- **Capacity Market:** Guaranteed annual payments for providing grid-ready power availability.

C. Industrial Real Estate (Industry 4.0)

- **Green Premium Rents:** Tenants pay a premium for BREEAM "Outstanding" space that reduces their Scope 2 emissions to zero.
- **Microgrid Mark-up:** Selling PV and Plasma energy via "Direct Wire" PPAs. We bypass public grid fees, allowing a 30% margin while still being cheaper for the tenant.

D. Circular Economy (Plasma & Hydrogen)

- **Tipping Fees:** Revenue from municipal and hazardous waste disposal.
- **Commodity Sales:** Sale of Vitrified Slag (construction) and Green Hydrogen (transport).

3. FINANCIAL PROJECTIONS (Annual EBITDA Run-Rate)

Once fully operational, the project targets a diversified revenue stream with high EBITDA margins.

Business Unit	Est. Revenue (Annual)	EBITDA Margin	EBITDA Contribution
Tier IV Data Center	€70M	55%	€38.5M
Industry 4.0 Warehouses	€20M	85%	€17.0M
BESS (Energy Services)	€28M	70%	€19.6M
PV Farm (Energy Sales)	€14M	92%	€12.8M
Plasma WtE Plant	€25M	45%	€11.2M
Green Hydrogen Hub	€10M	35%	€3.5M
TOTALS	€167M	61%	€102.6M

4. INVESTMENT VALUATION & EXIT STRATEGY

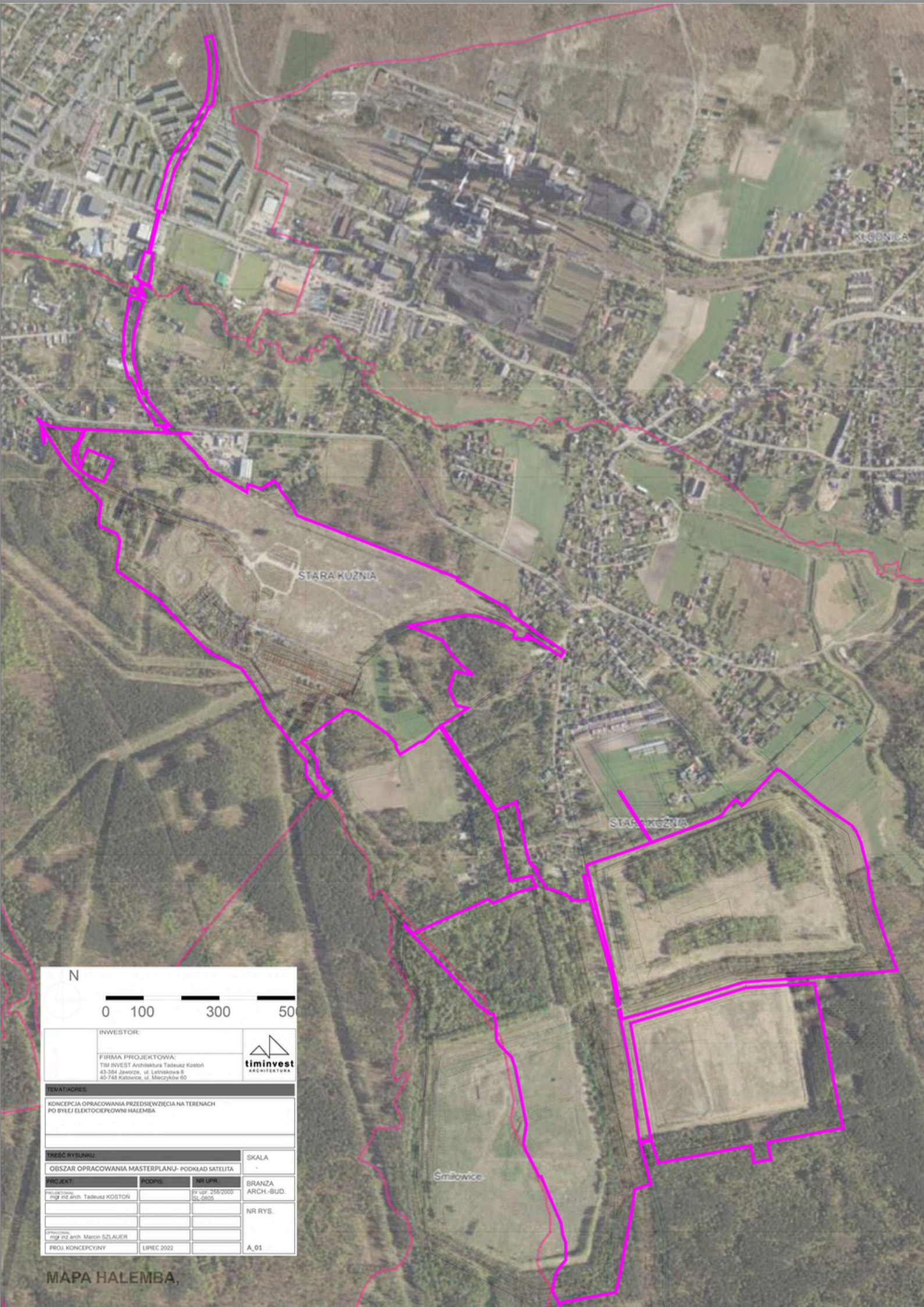
- **Yield on Cost (YoC): 17.5% – 21.3%** (Exceeding traditional logistics by >200%).
- **Payback Period: 5.5 – 6.5 years** (Accelerated by EU Green Deal subsidies/grants).
- **Exit Valuation:** Based on a conservative 12x EBITDA multiple, the **Exit Value is estimated at €1.23 Billion**, representing a potential **4x Equity Multiple** for early-stage investors.

5. STRATEGIC BUSINESS ASSUMPTIONS

1. **Energy Sovereignty:** The Data Center's biggest cost is power. By producing it on-site (PV/Plasma) and storing it (BESS), we decouple the digital business from energy market volatility.
2. **Regulatory Tailwinds:** The project is perfectly aligned with the **EU Green Deal** and **REPowerEU**, making it eligible for significant low-interest "Green Loans" and non-repayable grants.
3. **Location Synergy:** The Silesian Metropolis is Poland's industrial heart. The transition from coal to hydrogen/plasma ensures local government support and a massive pool of skilled technical labor.

Investment Highlight:

The **Halemba Mega-Hub** is a defensive, future-proof asset. It provides the stability of **Real Estate**, the growth of **AI-Cloud Tech**, and the high-yield volatility capture of **Modern Energy Markets**.



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100

300

500

INWESTOR:

FIRMA PROJEKTOWA:
TIM INVEST Architektura Tadeusz Kościół
43-504 Jaworzno, ul. Leśnikowa 8
40-748 Katowice, ul. Mieczysława 60

TENANT/ADRES:

KONCEPCJA OPRACOWANIA PRZEDSIĘWZIĘCIA NA TERENACH
PO BYLEJ ELEKTROCIĘPLOWNI HALEMBA

TREŚĆ RYSUNKU:

OBSZAR OPRACOWANIA MASTERPLANU- PODKŁAD SATELITA

PROJEKT:

PROJEKTOWAŁ:
mgr inż arch. Tadeusz KOŚCIÓŁ

PODPIS:

NR UPR.:

Pr upr. 258/2000
SL-0805

BRANŻA:

ARCH.-BUD.

OPRACOWAŁ:

mgr inż arch. Marcin SZLAUER

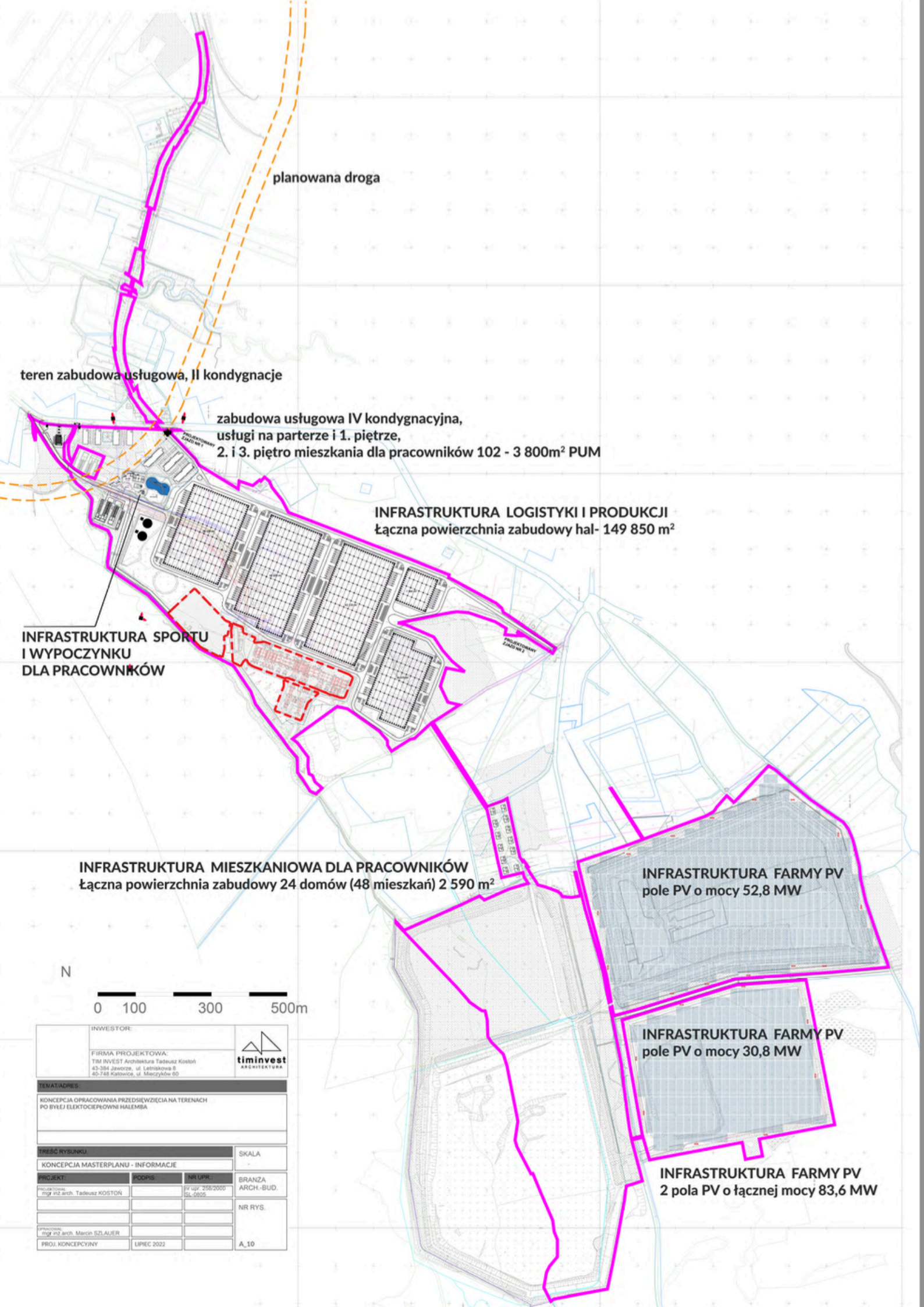
PROJ. KONCEPCYJNY

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MAPA HALEMBA,



planowana droga

teren zabudowa usługowa, II kondygnacje

zabudowa usługowa IV kondygnacyjna,
usługi na parterze i 1. piętrze,
2. i 3. piętro mieszkania dla pracowników 102 - 3 800m² PUM

INFRASTRUKTURA LOGISTYKI I PRODUKCJI
łączna powierzchnia zabudowy hal- 149 850 m²

INFRASTRUKTURA SPORTU
I WYPOCZYNKU
DLA PRACOWNIKÓW

INFRASTRUKTURA MIESZKANIOWA DLA PRACOWNIKÓW
łączna powierzchnia zabudowy 24 domów (48 mieszkań) 2 590 m²

INFRASTRUKTURA FARMY PV
pole PV o mocy 52,8 MW

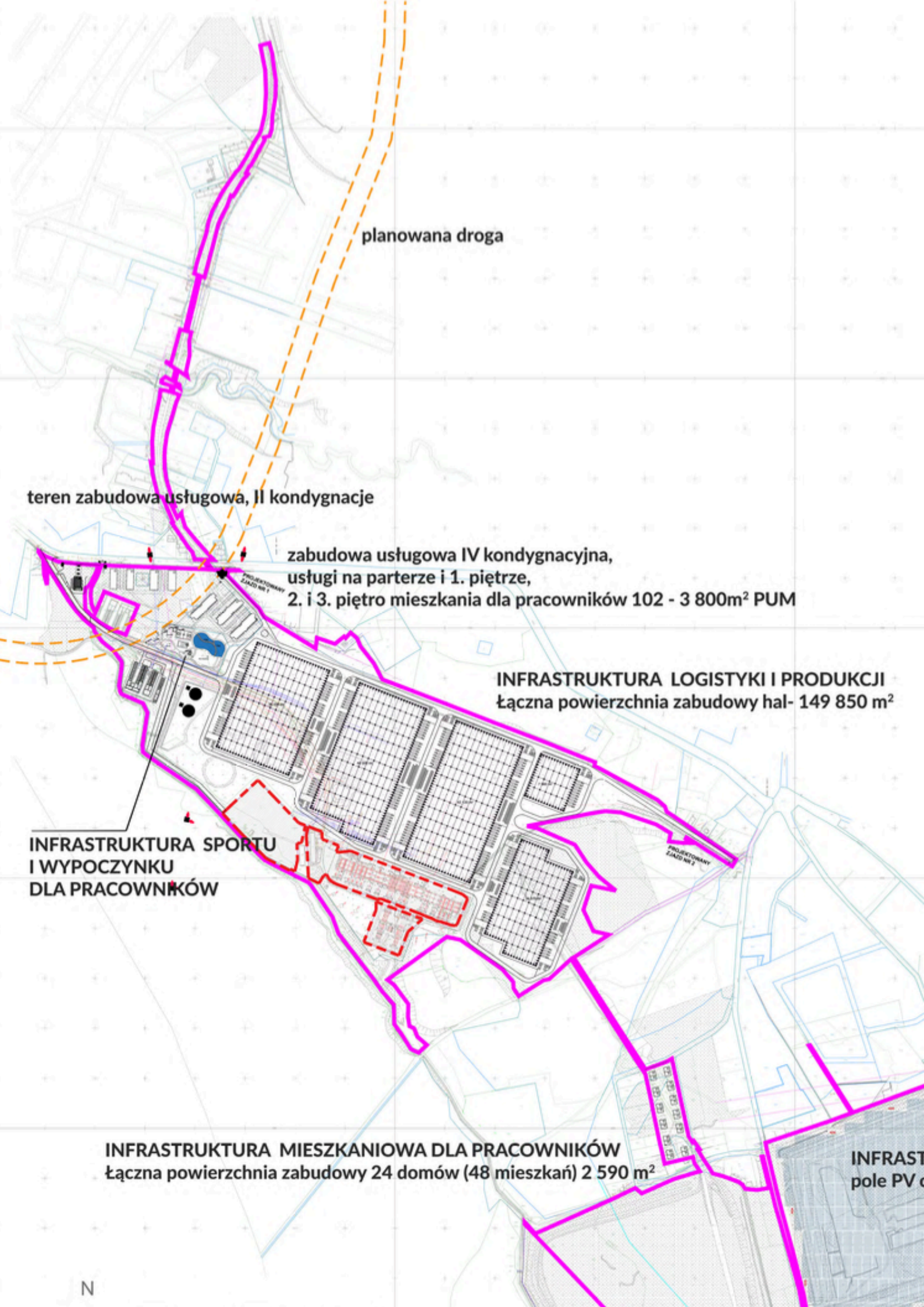
INFRASTRUKTURA FARMY PV
pole PV o mocy 30,8 MW

INFRASTRUKTURA FARMY PV
2 pola PV o łącznej mocy 83,6 MW

N

0 100 300 500m

INWESTOR:		
FIRMA PROJEKTOWA: TIM INVEST Architektura Tadeusz Kostoń 43-584 Jaworze, ul. Letniskowa 8 40-748 Katowice, ul. Męczysława 60		
TEMAT/ADRES:		
KONCEPCJA OPRACOWANIA PRZEDSIĘWZIĘCIA NA TERENACH PO BYLEJ ELEKTROCIĘPLOWNI HALEMBA		
TREŚĆ RYSUNKU		SKALA -
KONCEPCJA MASTERPLANU - INFORMACJE		
PROJEKT:	PODPIS:	BRANŻA ARCH.-BUD.
Projektant: mgr inż. arch. Tadeusz KOSTOŃ	Pr. upr. 255/2020 SL-0505	
		NR RYS.
Opracowanie: mgr inż. arch. Marcin SZLAUER		A_10
PROJ. KONCEPCYJNY	LIPIEC 2022	



planowana droga

teren zabudowa usługowa, II kondygnacje

zabudowa usługowa IV kondygnacyjna,
usługi na parterze i 1. piętrze,
2. i 3. piętro mieszkania dla pracowników 102 - 3 800m² PUM

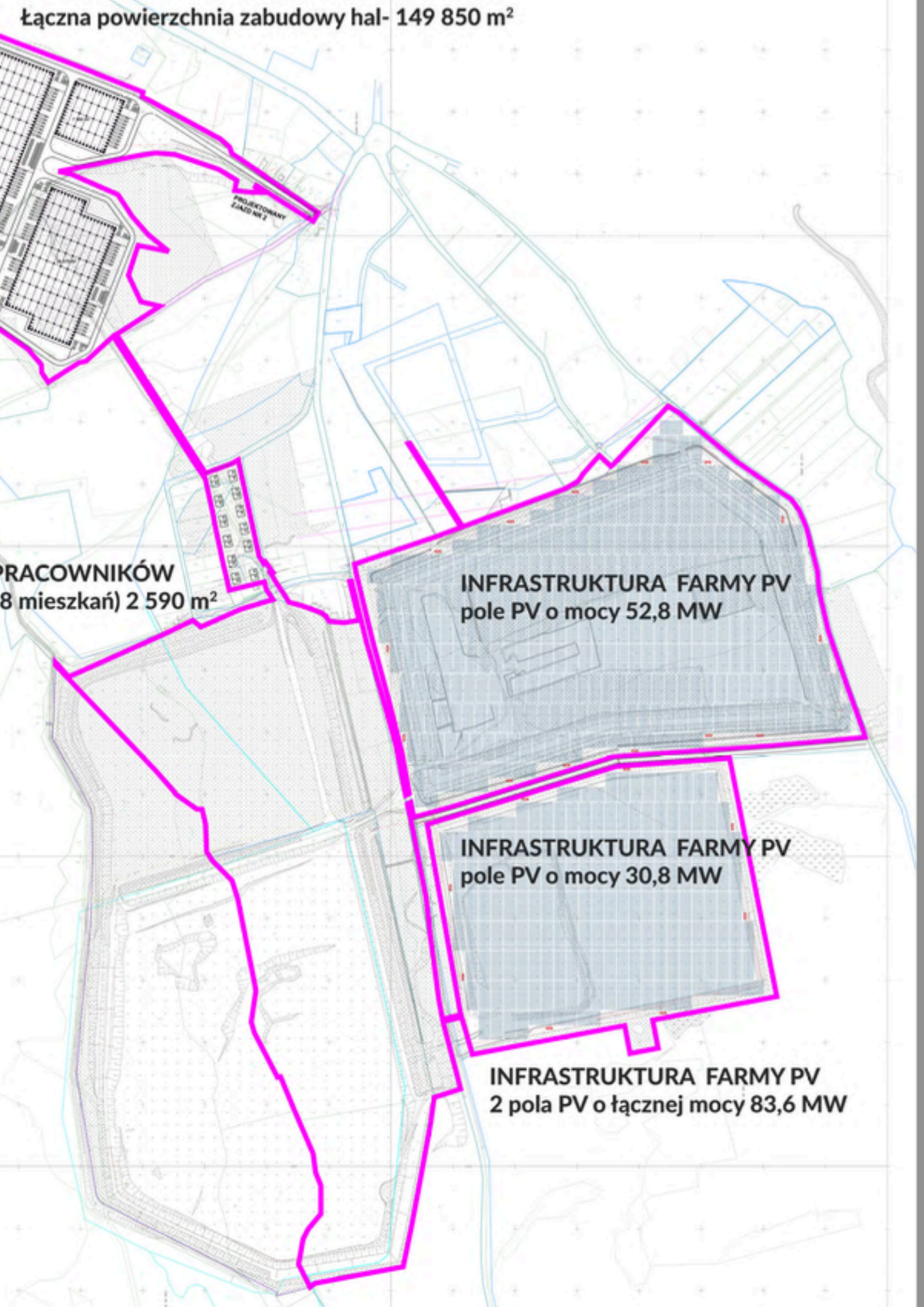
INFRASTRUKTURA LOGISTYKI I PRODUKCJI
łączna powierzchnia zabudowy hal- 149 850 m²

INFRASTRUKTURA SPORTU
I WYPOCZYNKU
DLA PRACOWNIKÓW

INFRASTRUKTURA MIESZKANIOWA DLA PRACOWNIKÓW
łączna powierzchnia zabudowy 24 domów (48 mieszkań) 2 590 m²

INFRASTRUKTURA
pole PV c

Łączna powierzchnia zabudowy hal- 149 850 m²



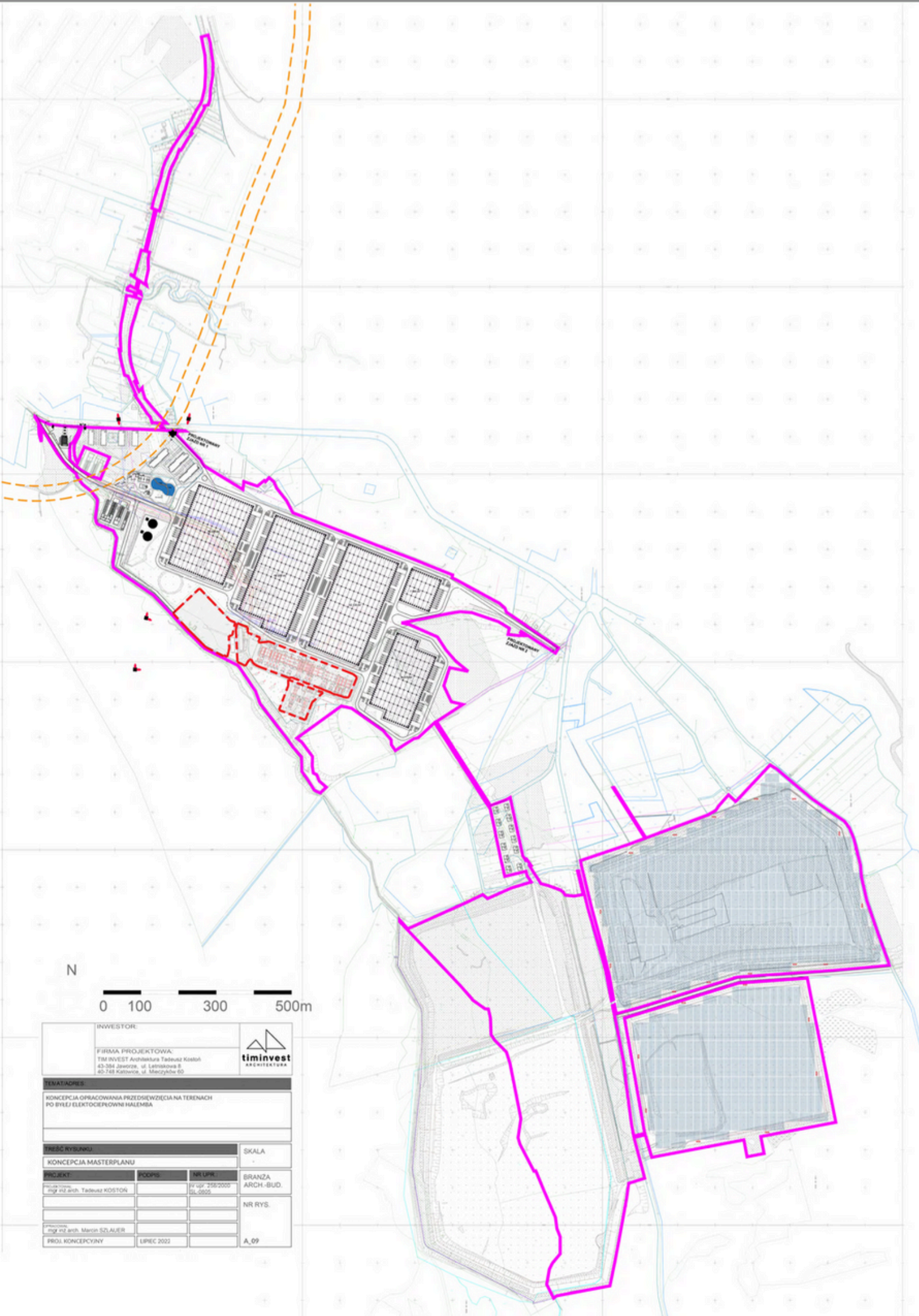
PROJEKTOWANY
ZIEMO NR 2

**PRACOWNIKÓW
(8 mieszkań) 2 590 m²**

**INFRASTRUKTURA FARMY PV
pole PV o mocy 52,8 MW**

**INFRASTRUKTURA FARMY PV
pole PV o mocy 30,8 MW**

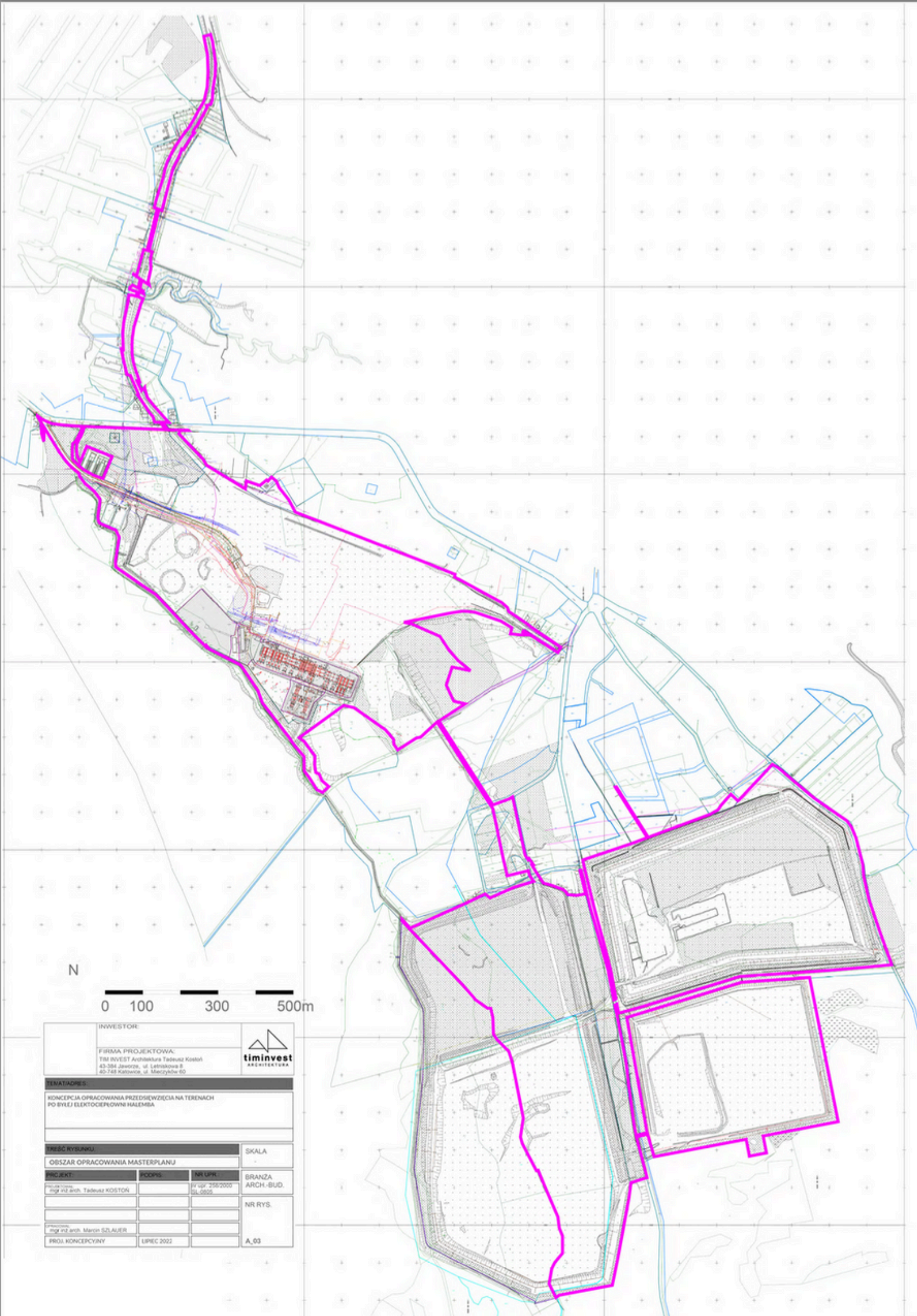
**INFRASTRUKTURA FARMY PV
2 pola PV o łącznej mocy 83,6 MW**



N

0 100 300 500m

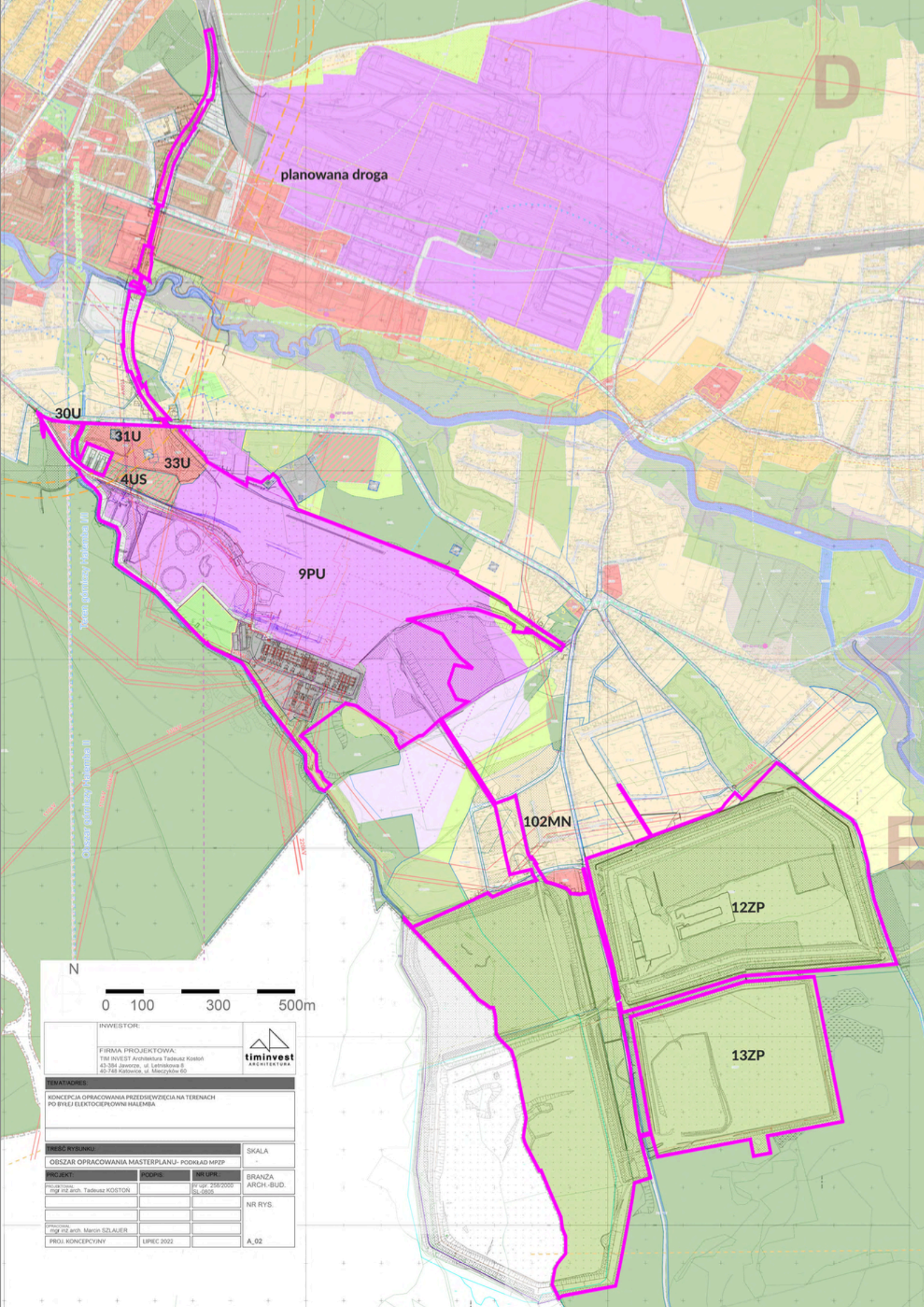
INWESTOR:		
FIRMA PROJEKTOWA: TM INVEST Architektura Tadeusz Kosiński 43-384 Jaworzno, ul. Letniskowa 8 40-749 Katowice, ul. Marysiowej 60		
TEMAT ADRES:		
KONCEPCJA OPRACOWANIA PRZEDSIĘWZĘCIA NA TERENACH PO BYLEJ ELEKTROCIĘPOWNI HALEMBA		
TREŚĆ RYSUNKU:		SKALA -
KONCEPCJA MASTERPLANU		
PROJEKT:	POCIS:	NR UPH:
mgr inż. arch. Tadeusz KOSIŃSKI		nr upr. 258/2005 04.0005
mgr inż. arch. Marcin SZLAJER		
PROJ. KONCEPCYJNY	LIPIEC 2022	
		BRANŻA ARCH.-BUD.
		NR RYS.
		A 09



N

0 100 300 500m

INWESTOR:			
FIRMA PROJEKTOWA: TIM INVEST Architektura Tadeusz Kościół 43-584 Jaworzno, ul. Leśnikowa 8 40-748 Katowice, ul. Marzyńskiego 60			
TEMATYKA:			
KONCEPCJA OPRACOWANIA PRZEDSIĘWZIĘCIA NA TERENACH PO BYLEJ ELEKTROCIĘPOWNI HALEMBA			
TREŚĆ RYSUNKU:			SKALA -
OBSZAR OPRACOWANIA MASTERPLANU			
PROJEKT:	PODPIS:	NR UPR.	BRANŻA ARCH.-BUD.
mgr inż. arch. Tadeusz KOŚCIÓŁ		nr upr. 258/2000 24.5905	
			NR RYS.
mgr inż. arch. Marcin SZLAUER			
PROJ. KONCEPCYJNY	LIPIEC 2022		A_03



30U

31U

33U

4US

9PU

102MN

12ZP

13ZP

N

0 100 300 500m

INWESTOR:		
FIRMA PROJEKTOWA: TIM INVEST Architektura Tadeusz Kostoń 43-384 Jaworze, ul. Leśnikowa 8 40-148 Katowice, ul. Masyżowa 60		
TERENIADRES:		
KONCEPCJA OPRACOWANIA PRZEDSIĘWZIĘCIA NA TERENACH PO BYLEJ ELEKTROCIĘPŁOWNI HALEMBA		
TRESC RYSUNKU:		SKALA
OBSZAR OPRACOWANIA MASTERPLANU- PODKŁAD MPZP		
PROJEKT:	PODPIS:	NR UPK:
mgr inż arch. Tadeusz KOSTOŃ		nr upr. 255/2000 SL/0005
PROJ. KONCEPCYJNY	LIPIEC 2022	A_02

