

Rehabilitation Centre "Sumy"



a space where resilience takes shape



Currently, there is no full-fledged Rehabilitation Center in Sumy region with the ability to manufacture and select prostheses for patients who have lost limbs.



In **2024**, 7,183 people received rehabilitation services in Sumy region.

In **2025**, such a need for rehabilitation services of varying complexity will already amount to more than 9,000 people only in the hospitals.

And in **2026-2030**, according to forecasts, this number will be at least 10,000 people annually.

The need for rehabilitation treatment of **disturbances in the functioning of the musculoskeletal system** in Sumy region will grow rapidly and may amount to 90% of all combatants returning from the war in 2026-2030, which could be up to 50,000 people annually, or even more.

Potential target audience of the future Center: military personnel, veterans, civilians injured as a result of hostilities, and patients with injuries that led to the loss of limbs.



We plan to renovate a building of **Regional specialized dispensary for radiation protection of the population** with a total area of 3,500 sq. m, located in the immediate vicinity of the hospital complex, and transform it into a multifunctional Rehabilitation Centre.

The medical building of the dispensary was built in the 80s of the last century according to the design of the sanatorium and has a block system of medical wards with separate toilet rooms, but today the complex needs major repairs.

The inpatient ward will be expanded to 50 beds, which will allow us to treat up to 1,500 patients annually. Also, 120-150 people will be able to receive outpatient treatment at the same time.





Today the non-profit enterprise of the Sumy Regional Council "Sumy Regional Specialized Dispensary for Radiation Protection of the Population" provides specialized inpatient, outpatient, rehabilitation, and psychological medical care for a wide range of patients.



The structure of the Specialized Dispensary:

- **An outpatient clinic**, with the possibility of 90 patient visits per day, based on which doctors in almost 20 specialties (therapy, surgery, endocrinology, neurology, otolaryngology, psychotherapy, ophthalmology, gynecology, dermatology, urology, cardiology, pulmonology, gastroenterology, rheumatology, vascular surgery and others) conduct appointments, and there is also a Medical and Psychological Rehabilitation Center
- **Inpatient departments** with 150 beds (therapeutic, cardiological, neurological, surgical, rehabilitation), in 2024 - 6,856 patients were treated; in 6 months of 2025 - 5,234 patients were treated
- **Diagnostic units** (X-ray examination: 2024 - 6,957, 6 months of 2025 - 3,518; ultrasound examination: 2024 - 22,508, 6 months of 2025 - 6,952; endoscopy: 2024 - 572, 6 months of 2025 - 342; CLD examination: 2024 - 271,825, 6 months of 2025 - 142,782)

Medical personnel with many years of experience in treating patients with multi-organ chronic pathology.

Admission, consultations and medical support are provided by 21 doctors of the highest category.

In 2023-2025, graduates of medical universities worked at the hospital, including: an endocrinologist, a gastroenterologist, an obstetrician-gynecologist, a therapist, and a doctor of physical and rehabilitation medicine.



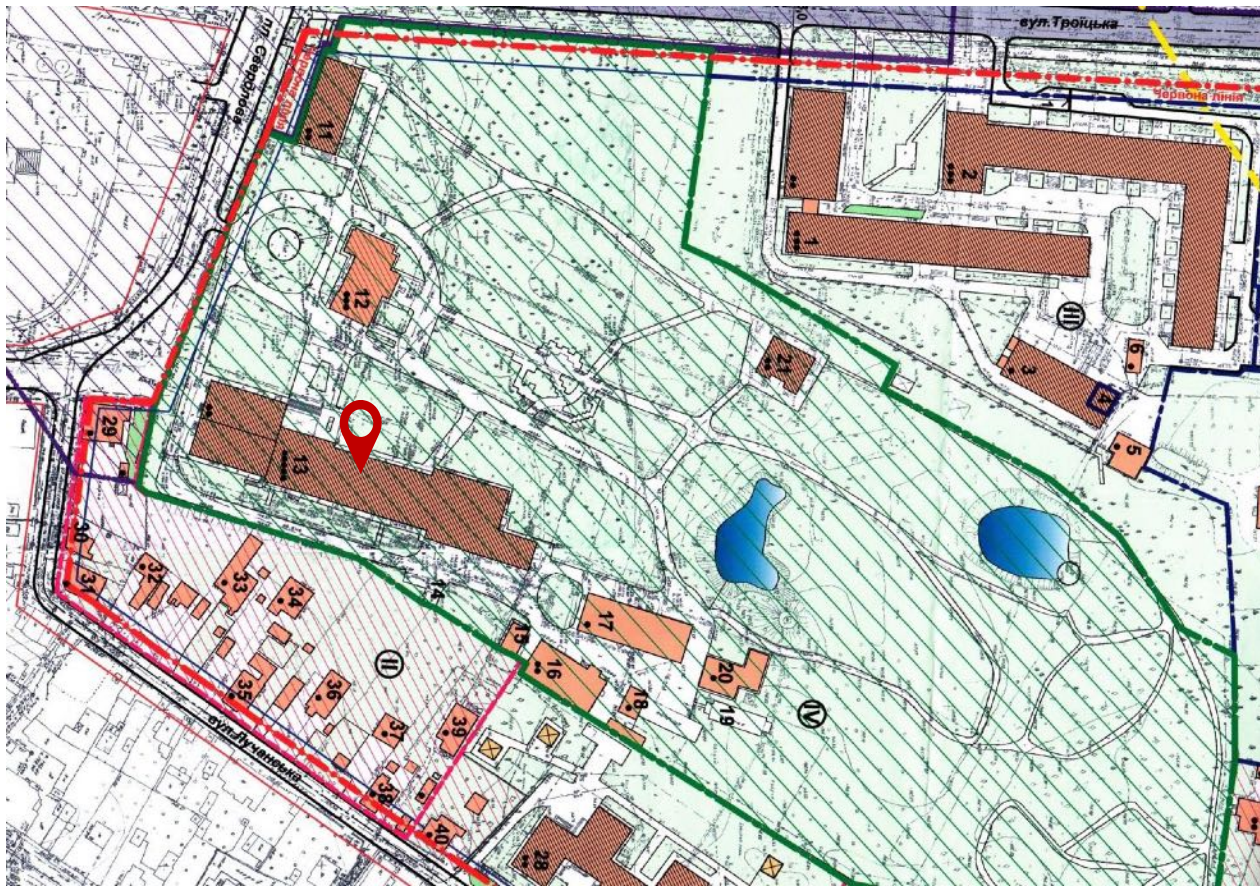
For 2025, contracts have been concluded with the **National Health Service of Ukraine** for 9 packages:

1. Prevention, diagnostics, observation, treatment and rehabilitation of patients in outpatient settings
2. Esophagogastroduodenoscopy
3. Mobile palliative medical care for adults and children
4. Surgical operations for adults and children in inpatient settings
5. Surgical operations for adults and children in inpatient settings for one day
6. Inpatient care for adults and children without surgical operations
7. Rehabilitation care for adults and children in inpatient settings
8. Rehabilitation care for adults and children in outpatient settings
9. Ensuring the human resource potential of the healthcare system by providing medical care with the involvement of interns

The purpose of creating a Rehabilitation Center is to provide conditions for high-quality recovery and/or maintenance of optimal physical and mental health of military personnel, veterans, survivors of captivity, torture, and occupation. As well as restoring the health of family members of the deceased, prisoners of war, missing persons, and other persons with injuries and recurrent disorders caused by the war.

Separate rooms will be designed for group and individual work with patients. This will allow for continuous professional development of doctors from the multidisciplinary rehabilitation team in Sumy, without the need to travel to other large cities of Ukraine or seek their professional realization abroad.





The hospital is in the historical part of the city of Sumy, on the territory of the Asmolv Park with an area of 5.3 hectares.

This allows you to use the park for the design and location of a sports ground for practicing adaptive sports for veterans with disabilities, a path along the perimeter of the park for walking in wheelchairs, separate areas for organizing meetings with loved ones, etc.



The Hospital generally has the conditions for rehabilitation and restorative treatment:

- 2 gyms with an area of 97 sq. m and 279.6 sq. m are equipped
- There is some equipment for the rehabilitation of patients with musculoskeletal, cardio-respiratory and nervous systems, after surgical interventions





Multidisciplinary rehabilitation teams provide outpatient and inpatient medical rehabilitation with the development of individual rehabilitation plans for a wide range of pathologies.

The team includes: a doctor of physical rehabilitation medicine, an occupational therapist, a physical therapist, their assistants, doctors and specialists in related specialties (neurologist, orthopedist, cardiologist, psychotherapist, psychologist, speech therapist)





Today the non-profit enterprise of the Sumy Regional Council "*Sumy Regional Specialized Dispensary for Radiation Protection of the Population*" provides specialized inpatient, outpatient, rehabilitation, and psychological medical care for a wide range of patients.



Техніко-економічні показники

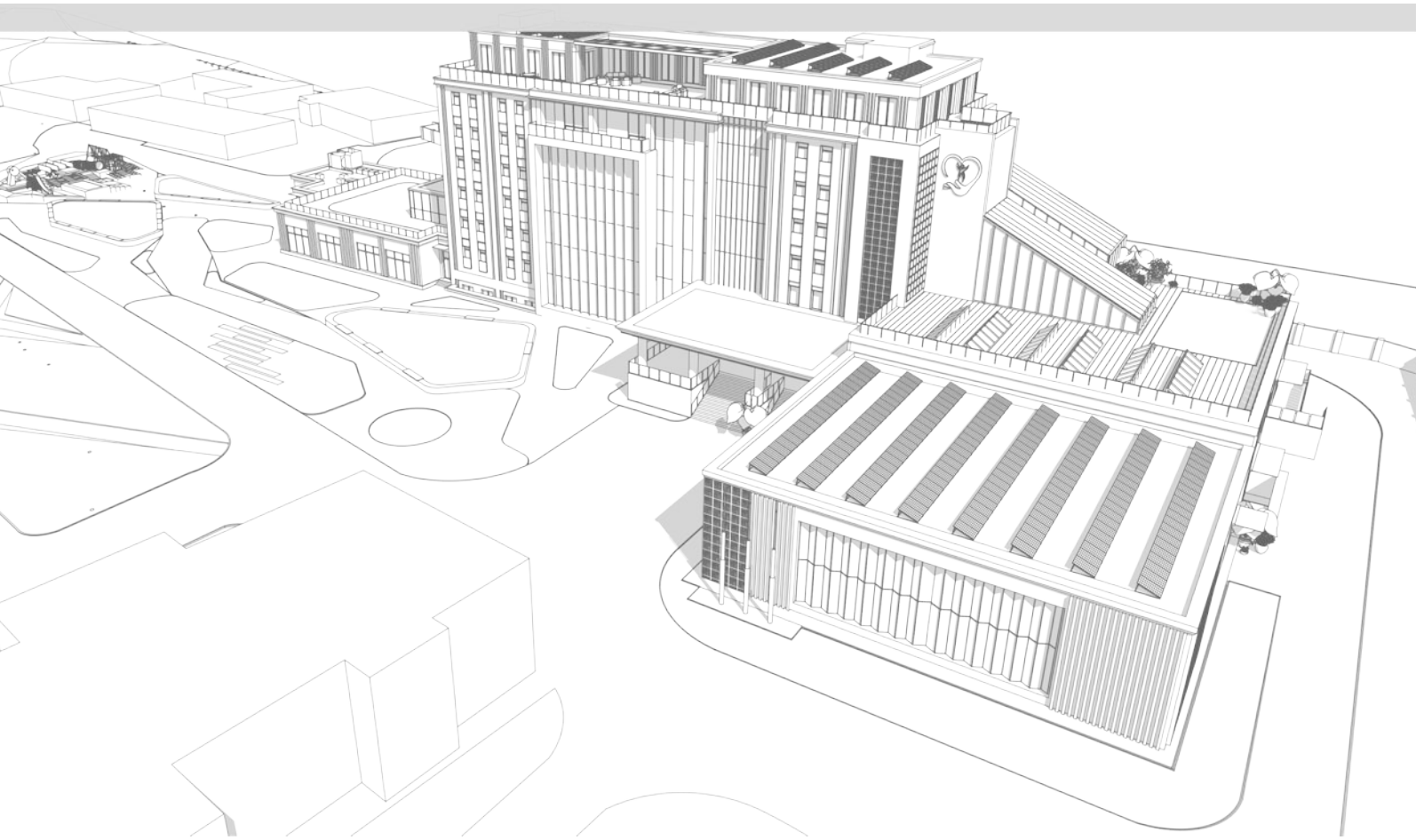


П.п.	Найменування	Од. вим.	До реконструкції	Після реконструкції	Примітки
			Кількість	Кількість	
1	Найменування об'єкта будівництва, місце його розташування	Реконструкція реабілітаційного відділення КНП СОР «СОСДРЗН» за адресою: м. Суми, площа Троїцька, 14			
2	Вид будівництва	Реконструкція			
3	Загальна кошторисна вартість	тис. грн.			
4	Поверховість	пож.	5	7	
5	Ступінь зношеності будівлі	ок.	II	II	
6	Площа ділянки	га	5,3452	5,3452	
7	Площа озеленення	м²	46 499,1	45 983,5	
8	Площа забудови	м²	2 248,8	2 764,4	В т.ч. СПП - 314,47 м²
9	Потужність, місткість, пропускну спро.	кВт./засел.	—	150	
10	Загальна площа	м²	6 467,0	6 831,99	В т.ч. СПП - 278,3 м²
11	Корисна площа	м²	3 533,2	3 939,17	В т.ч. СПП - 184,3 м²
12	Опалювальна площа	м²	5 423,2	6 064,66	
13	Будівельний об'єм	м³	21 312,55	23 489,92	В т.ч. СПП - 1 352,22 м³
14	Опалювальний будівельний об'єм	м³	—	22 809,76	
15	Кількість створених робочих місць	міс.	—	85	
16	Річні витрати ресурсів:				
16.1	- паливо	тис.т.	—	—	
16.2	- водопостачання	тис.м³	—	6,265	
16.3	- електроенергія	МВт·год	—	934,74	
16.4	- теплова енергія	Гкал/ч.	—	0,8382	
17	Клас енергетичної ефективності	кл.	С		
18	Тривалість будівництва	міс.	12		
19	Термін першого планового обстеження		2028 р.		
20	Рекоменд. періодичність обстежувань		1 раз на 10 років		
21	Перелік конструкцій категорії відпов. А та Б	А-фундаменти, колонні, плити перекриття, несучі цегляні стіни, стіни скляно-ліфтового блоку, скляні марші; Б-зовнішні і внутрішні ненесучі стіни, перегородки, огороження балконів і терас.			
22	Граничне експлуатаційне (ГЕН) та граничне розрахункове (ГРН) значення навантажень, для конструкцій перекриття та покриття	ГЕН на типову плиту перекриття складає 0,71т/м2. ГРН на типову плиту перекриття складає 0,73т/м2. ГЕН на плиту покриття складає 0,59т/м2. ГРН на плиту покриття складає 0,83т/м2. Значення навантажень подані без врахування власної ваги плит перекриття та покриття			

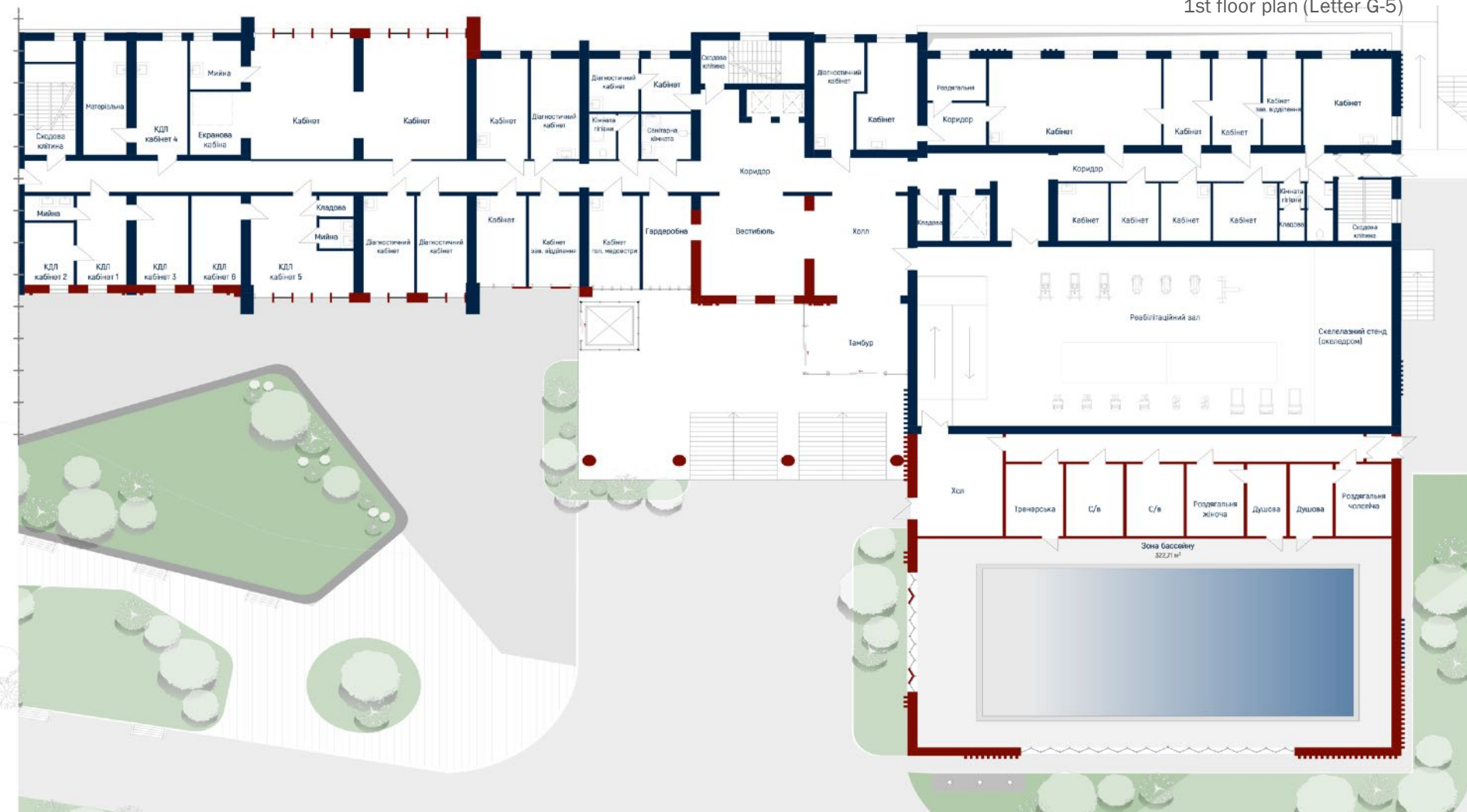
3D perspective visualisation







1st floor plan (Letter G-5)





Perspective vision (Main building of the hospital)



Perspective vision (Main building of the hospital)



Perspective vision (Main building of the hospital)



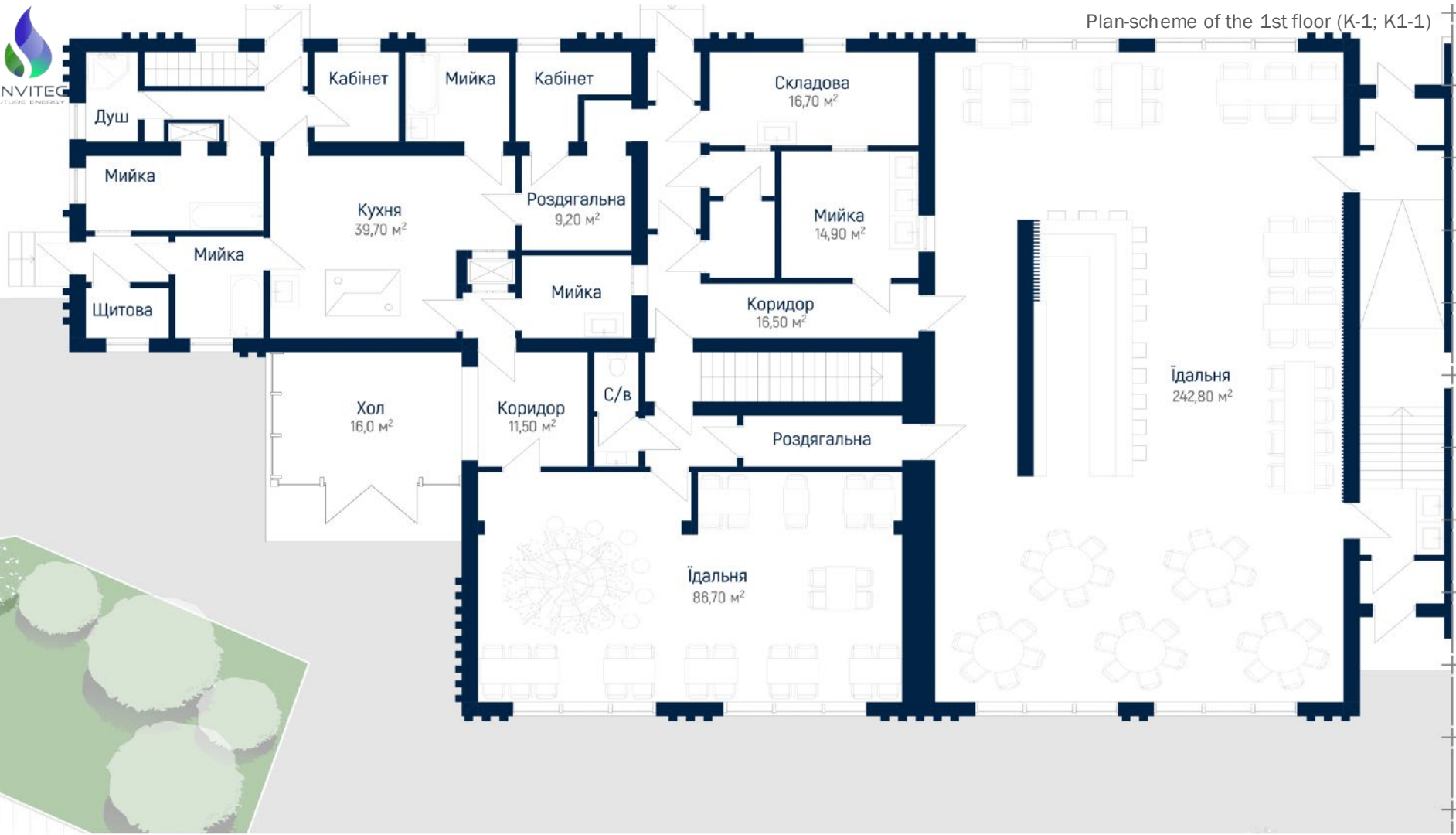
Perspective vision (Main building of the hospital)



Perspective vision (Main building of the hospital)



Perspective vision (Main building, swimming pool)







Perspective vision(building terrace K-1; K1-1)





We envisioned the creation of a modern mental health center for military personnel, veterans, and their families.

The 6th and 7th floors of the complex are a modern safe space for mental recovery, where comfort and functionality are combined with innovative solutions.

All rooms create an atmosphere of trust, peace, and support, and thanks to innovative equipment, assistance is provided according to the best international practices.



The space is designed to make every visitor feel comfortable: wide doorways, no thresholds, medical anti-slip linoleum, and inclusive sanitary rooms with sufficient space for people in wheelchairs.

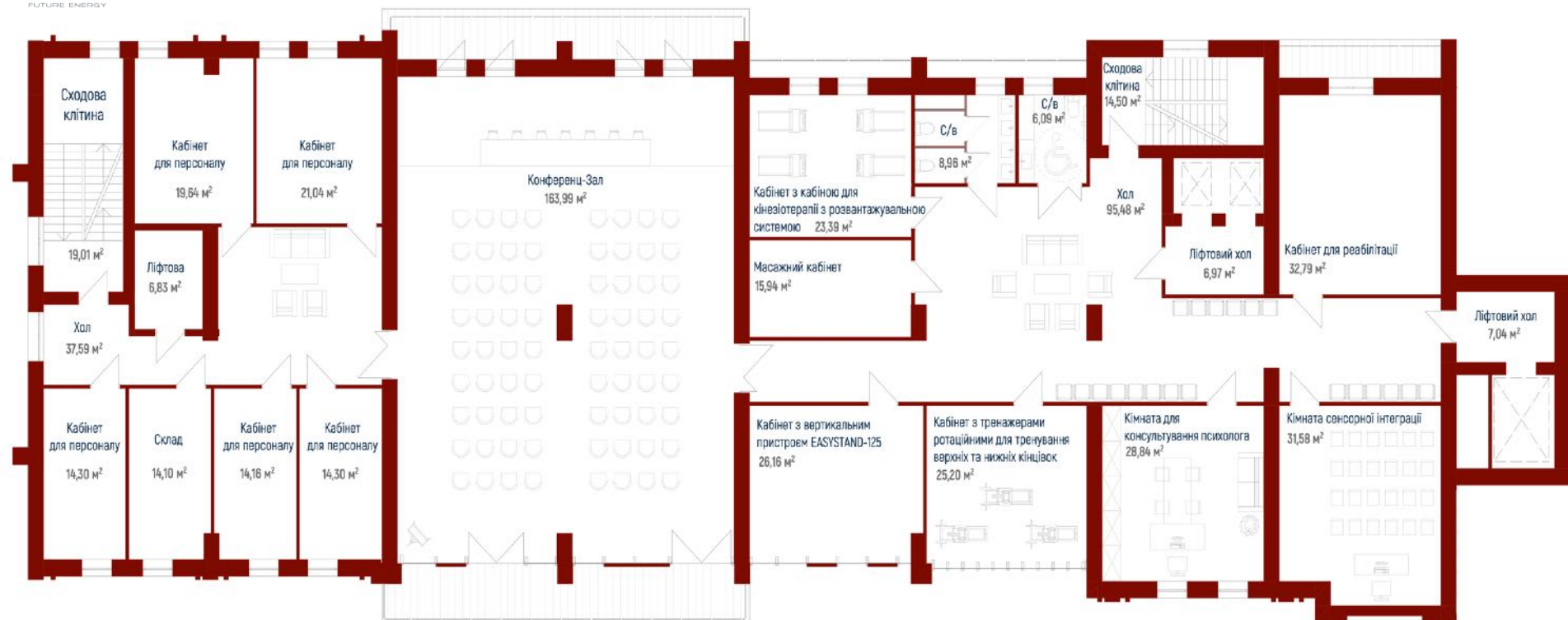
Everything necessary for comprehensive care is provided here: a reception with a waiting area, four specialist offices for individual, family, and psychiatric support, a group therapy room, single-bed day hospital wards with innovative multifunctional beds.

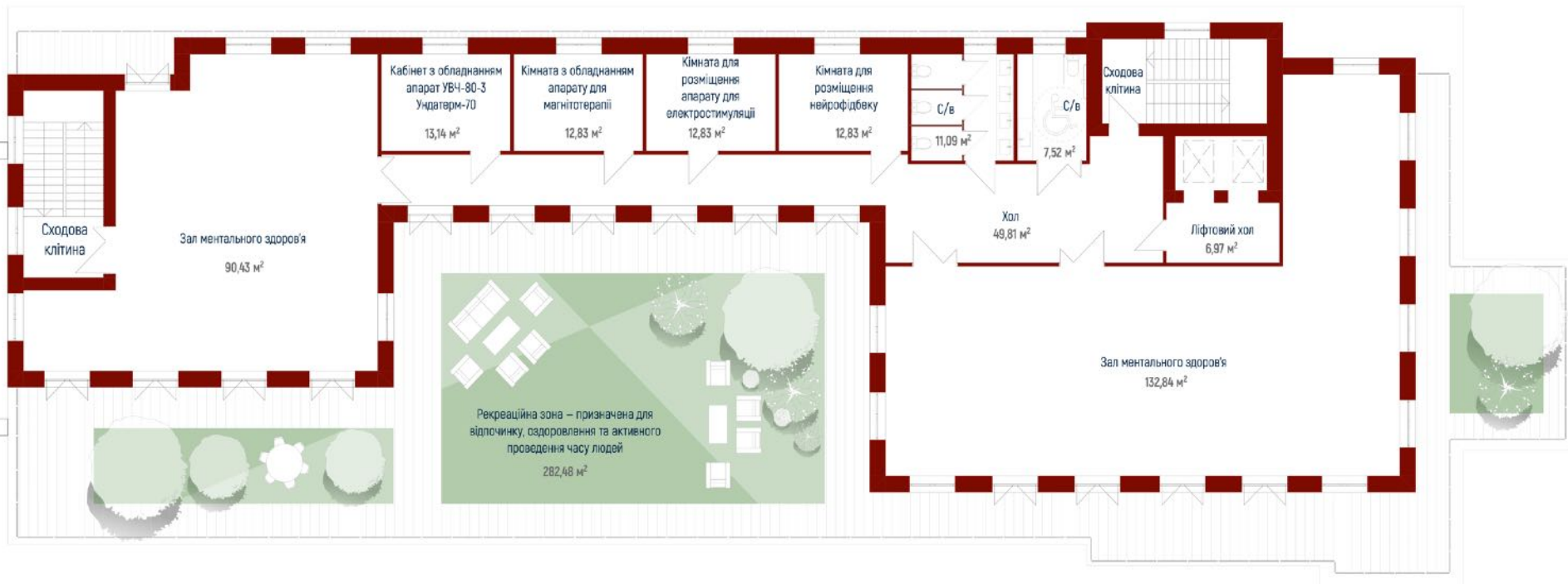
The center has a manipulation room, a doctor's office and inclusive sanitary rooms, accessible to visitors, including people in wheelchairs.



The key area of the specialists' work will be supporting people who are experiencing the effects of stress, anxiety disorders, depression, post-traumatic stress disorder (PTSD), adaptation and psychosomatic difficulties.

The team of specialists will use effective approaches, including cognitive-behavioral therapy, Gestalt therapy, trauma-focused therapy, EMDR therapy, stabilization and self-regulation techniques, as well as crisis counseling.







Disturbances in the functioning of the musculoskeletal system

Currently, the country's doctors are faced with a new problem in the rehabilitation of military personnel - the treatment of the consequences of prolonged use of armored protection by military personnel, which critically affects their respiratory and musculoskeletal systems, causing impaired respiratory and cognitive functions.

Studies using plethysmography and spirometry demonstrate that even without load, a bulletproof vest reduces functional residual lung capacity by 17%. Disturbances in the functioning of the musculoskeletal system are also critical.

Heavy armor sets and other loads (up to 60 kg) cause intervertebral hernias, lumbosciatica and chronic lower back and neck pain. Test results have shown a significant deterioration in shoulder mobility and musculoskeletal control. Constant stay in ground shelters very quickly worsens a person's physical balance, limits trunk movements, and contributes to chronic back pain. The body often experiences physiological stress due to general overheating, increased heartbeat, and increased energy expenditure even under low loads.

Such injuries are present in almost everyone who is actively involved in combat operations, and their treatment will require years of medical rehabilitation and constant support from specialists.

The scale of the needs assessment and deployment of such infrastructure should have been thought about yesterday.

The need for rehabilitation treatment of such disorders in the Sumy region alone will grow rapidly and may amount to **90% of all combatants returning from the war in 2026-2030, which could be up to 50,000 people or even more.**





Hydrotherapy as a method of evidence-based rehabilitation

Hydrotherapy as a method of evidence-based rehabilitation will be used for the rehabilitation of patients with injuries of the human musculoskeletal system. This is the use of the physical properties of water (temperature, pressure, buoyancy, resistance) for therapeutic and rehabilitation purposes. It is carried out in the form of therapeutic swimming, aqua therapy (exercises in water), hydromassage, contrast baths, showers (Charcot, circular, etc.).

Water treatment methods that will be used at the Rehabilitation Center

1. Aqua kinesiotherapy (aqua therapy/water exercises)

These are physical exercises performed in an aquatic environment for the purpose of treatment, rehabilitation and prevention. Usually the water temperature is 30–33°C. Training may include: walking in water, stretching exercises, strength, balance, special techniques (Halliwick, Ai Chi, Bad Ragaz).

2. Balneotherapy (baths)

This is bathing in natural or artificially enriched waters (30–38 °C). Mechanism of action: microelements are absorbed through the skin → anti-inflammatory effect, hot water reduces muscle spasticity, psycho-emotional relaxation, reduces anxiety.

3. Contrast baths / showers (Charcot, circular, Scottish shower)

Alternating application of hot (38–42°C) and cold (15–20°C) water or pressurized water jets. Duration — 5–15 min, alternating phases. Mechanism of action: causes vasoconstriction/vasodilation, stimulates capillaries, improves microcirculation and lymphatic drainage, activates the autonomic nervous system.

4. Hydromassage (jet bath, shower massage)

Mechanical effect of water jets (under pressure) on the skin and muscles. Used as part of complex physiotherapy or SPA programs. Mechanism of action: mechanical stimulation of receptors → muscle relaxation, improvement of venous and lymphatic outflow, partial imitation of manual massage.

5. Wound hydrotherapy (water cleansing)

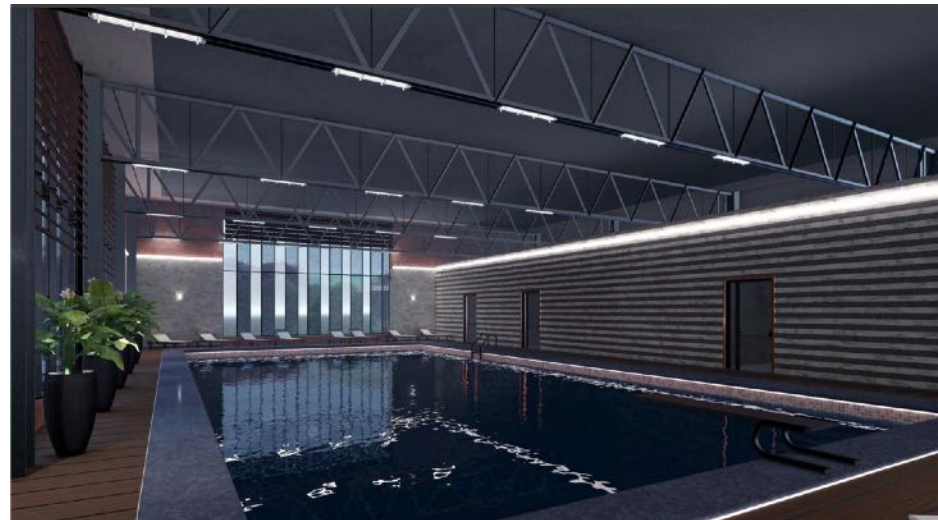
The essence of the method: cleansing the wound surface with sterile or antimicrobial water (for example, a pulsating jet, or baths). Mechanism of action: physical removal of bacteria, necrotic tissues, preparation for further treatment or dressing.

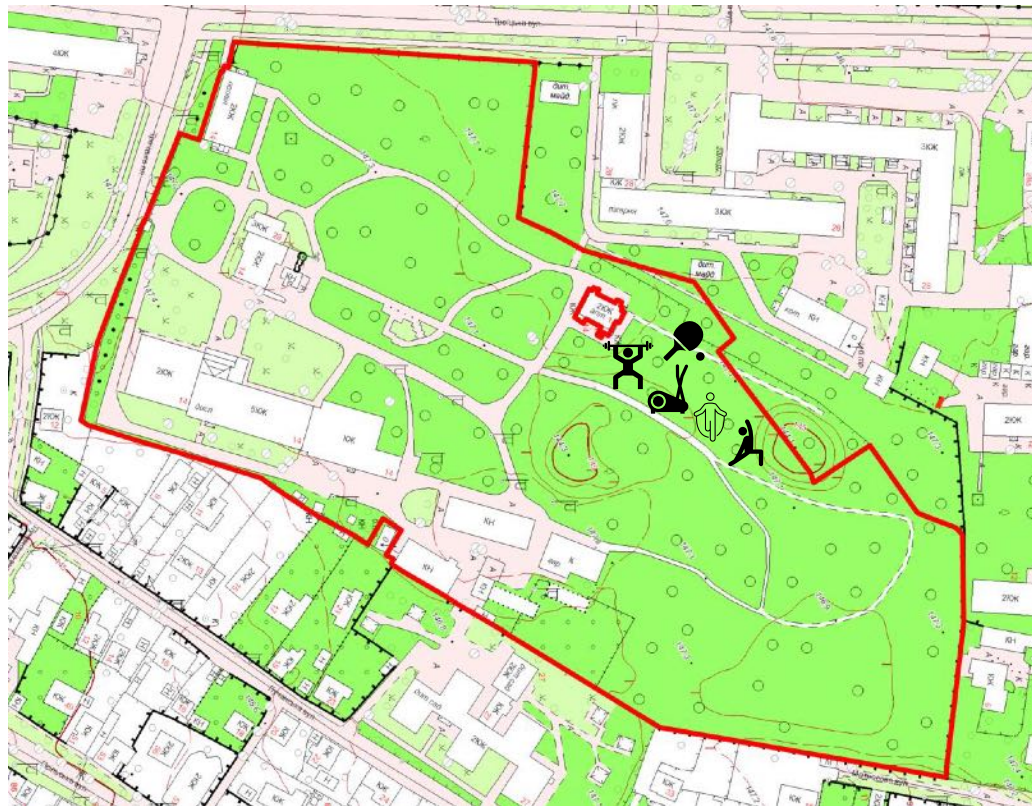
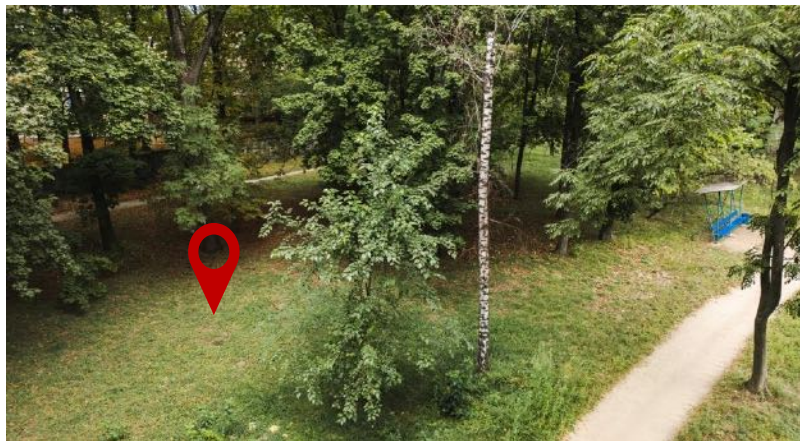


Perspective vision (Sports hall for rehabilitation)









We plan to create a park sports field for patients of the rehabilitation center, including adaptive tennis, rowing on simulators, sitting volleyball, etc.



Perspective vision (sports field in the park)

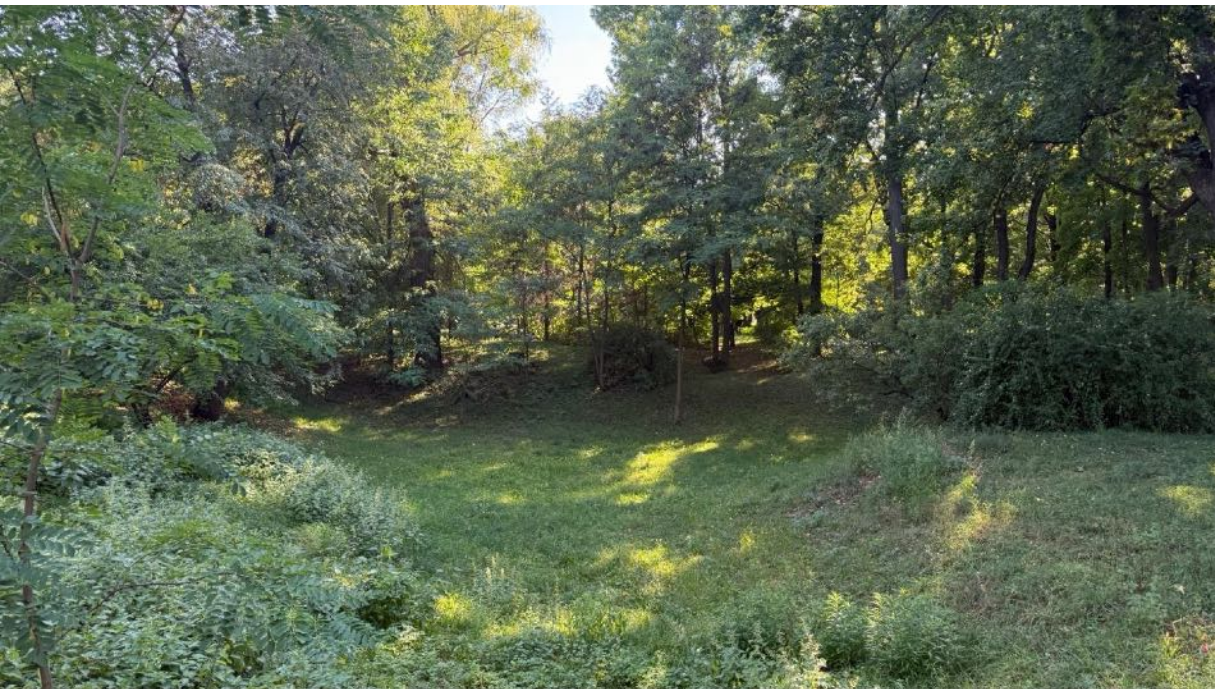


Perspective vision (sports field in the park)





Walking path and lake in the park





Perspective vision (park)



Perspective vision (park)





Perspective vision (Artificial reservoir, option 2)



Perspective vision (Artificial reservoir, option 2)



Perspective vision (Artificial reservoir, option 2)



Perspective vision (integration of the reconstruction object into the existing state)



● Perspective vision (integration of the reconstruction object into the existing state)

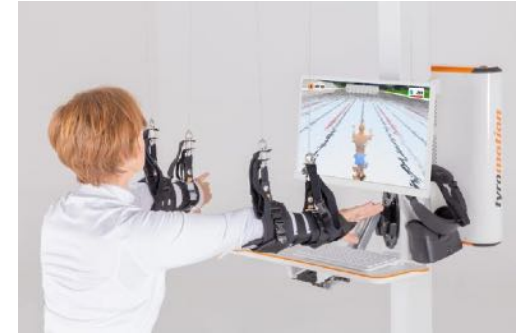
Occupational therapy equipment



Multisensory therapeutic device for motor and cognitive rehabilitation MYRO



Tirostation, a device for restoring cognitive impairments



Diego - a device for restoring upper limb motor skills and cognitive impairments



Exercise machine for active and passive use for upper and lower extremities



Universal exercise machine Norma-Trade (rehabilitation table)



Gloreha Crescendo upper limb rehabilitation device

Occupational therapy equipment



Robot simulator for upper limb rehabilitation



Busy board



Occupational therapy kitchen



Occupational therapy kitchen



Occupational therapy kitchen

Physical therapy equipment



Apparatus for passive development of the lower extremities



Rehabilitation bars with obstacles



Redcord system



Dynamic Staircases



Dynamic Staircases



Physical therapy equipment



Ceiling lift for water rehabilitation of patients



Rehabilitation treadmill



Ceiling lift



Ceiling lift



Ceiling lift



Ceiling lift

Physical therapy equipment



MTB Strength Training Equipment



MTB Strength Training Equipment



Orbitrek



Amoove 300 Stabilometric Systems



Lower limb extension exerciser

Physical therapy equipment



High-Intensity Magnetic Therapy BTL-6000 SUPER
INDUCTIVE SYSTEM ELITE



Multifunctional rehabilitation complex



Extracorporeal radial shockwave therapy



Balance boards for rehabilitation



Cycle ergometers with Ergoline ERS-2 system



Set of mechanotherapeutic equipment for
kinesiotherapy "GRAVITON"



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