

Diploma thesis

**Faculty of architecture
Czech Technical University in Prague**

Studio: Stempel - Benes
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A. INTRODUCTION

ANNOTATION

The diploma project deals with the existing primary school area, and the buildings that make up the school. The proposal seeks to rationalize the current operation and address the future operation of the school, which does not correspond to today's teaching conditions.

Based on thorough analysis of the condition, volume and layout of each building, it proposes complete reconstruction of the non-conforming volumes of the canteen and gym, to improve them to today's conditions and regulations. Given the evolving needs of a vital demographic group within the society, it is imperative to provide a solution that caters to the well being of children and serves to the broader interests to the community.

B. ANALYTICAL PART



BASIC INFORMATION

The school, situated in Prague 6 within the Liboc district, has stood as a notable landmark since its construction in 1956. It is owned by the municipality of Prague 6 and up to recently, the building was leased to Prague's British International School, where it functioned as a facility for second-grade education as part of the school's network of campuses across the city.

With the lease now concluded, the municipality intends to reintegrate the school into the public education system. The aim is to serve the neighborhood not only as a school but also as a hub for community gatherings and other local events. However, to fulfill this vision, the school building needs substantial reconstruction to accommodate 270 students and comply with current educational standards and regulations. This reconstruction effort and modernization are the central focus of this diploma project.



Aerial map



LOCATION

The school is located within the Libuš district. Characteristic about the school location is the triangular shape of the plot, resembling a center point in a wide residential area that surrounds it. It is bordered by three streets, main street Vlastina, and secondary streets U Silnice and Houstounská. Spanning on an approximately 1.2 hectares, this location offers ample space for the school's diverse needs. The extensive ground in the back of the school, offers area for outdoor activities, playgrounds and green spaces, that offer a holistic educational environment.



ORTHOPHOTO MAP 1938



ORTHOPHOTO MAP 1956

HISTORY

The first written mention of Liboc is found in a forgery of the founding charter of the Břevnov Monastery from 993.

In terms of the urban development of the Liboc area, from the 19th century onward, Liboc became increasingly influenced by Prague, turning into a popular excursion spot, which led to the construction of villas by the city's nobility. The continuation of building the residential area can be seen in the following periods between 1920's and 1950's, when a further expansion occurred to what is now Evropska street. By the 1970s, many local farms and properties along Libocká Road were demolished, replaced by panel buildings, which widened the residential area within the district.

With the growing residential area, the school was built, in the year of 1956. The school building characterizes with the style of the social realism, which can be evident from the buildings facade, with detail elements around the window frames and the brown color of the facade, the proportion and rhythm of the windows, makes the perfect form of the school. The orientation of the school within the building also corresponds to this period. Long central hall marks the floor plans, oriented to the main street on north, whereas the classrooms can be found in the opposite side, overlooking the calmer garden of the school plot

ORTHOPHOTO MAP 1966



ORTHOPHOTO MAP 1988-90



EDUCATION SYSTEM IN THE CZECH REPUBLIC

The Czech education system has a long-standing tradition dating back to 1774, when compulsory schooling was introduced, and today boasts a literacy rate of over 99%. Education progresses through preschool, elementary, secondary, university, and post-graduate levels, offering diverse pathways for students to pursue academic or vocational goals.

Preschool education is optional but widely attended, typically starting at age 4. It focuses on fostering early learning habits, social skills, and logical thinking to prepare children for elementary school. Elementary education, which is compulsory and lasts nine years (ages 6–15), is divided into a primary stage (grades 1–5) and a lower secondary stage (grades 6–9). After the 5th or 7th grade, students may transition to six- or eight-year gymnasiums, conservatories specializing in the arts, or special schools designed for children with disabilities. Upon completing elementary education, students achieve a qualification known as ¹ basic education.

Secondary education, which is not mandatory, typically lasts four years and offers both general and vocational tracks. Gymnasiums provide a strong academic foundation for university-bound students, while vocational schools equip students with practical skills for the workforce. Many students pursue multi-year gymnasiums, which combine elements of elementary and secondary education.

Tertiary education is open to students who complete secondary school and pass entrance exams. Universities offer bachelor's, master's, and doctoral programs. Bachelor's degrees usually take three years, providing a broad foundation in a specialized field, while master's degrees, which build on bachelor's studies, focus on advanced specialization. Doctoral programs emphasize research and expertise in specific areas.

At the same time, so-called alternative schools (mostly private) are represented in the Czech Republic, which use the programs of the national or general school. These include, for example, the Waldorf school, the Montessori school, the Dalton school, the Jena plan or integrated thematic teaching. Home education has been legislated as one of the forms of individual education for first-year elementary school students since January 1, 2005.



DEVELOPMENT TRENDS

Our society is experiencing profound transformations fueled by progress in science, technology, and economic development. These changes are reshaping every aspect of life, placing new demands on people of all ages. As a result, education has become a central focus, with increased attention on improving its quality and effectiveness.

Primary education plays a vital role as the foundation for lifelong learning and is the only stage of education that every child is required to complete. For children aged 6 to 11, this phase emphasizes building essential skills and habits in a stable environment, usually under the guidance of one teacher in a primary classroom. Beyond the classroom, many children participate in school clubs or groups that offer additional opportunities for learning and personal growth.

For students aged 11 to 15, education shifts toward subject-specific instruction, with specialized teachers providing deeper knowledge in various fields. This stage seeks to broaden their understanding and prepare them for more advanced academic or vocational paths. The goal is to create a more interactive learning environment, where students engage actively rather than passively absorbing information.

Modern classrooms are evolving to meet these needs by becoming adaptable and versatile. They are designed to support a wide range of activities, from whole-class instruction to small group work, paired collaboration, and individual tasks. This flexibility helps accommodate diverse learning styles, talents, and intelligences, ensuring that education is inclusive and responsive.

Teaching methods are also changing, moving away from traditional, lecture-based approaches to more dynamic, student-centered models. These methods encourage active participation, critical thinking, and problem-solving. The aim is to foster an engaging and supportive learning atmosphere that equips students not only with knowledge but also with the skills needed to navigate and contribute to a rapidly changing world.



Classroom layouts and teaching methods have evolved significantly, reflecting changes in educational philosophies, societal needs, and technological advancements.

Traditional classrooms are often rectangular with rows of desks arranged to face the teacher, who serves as the primary source of knowledge. This setup offers simplicity, clarity, and efficient use of space, making it easier for teachers to manage large groups. However, this model limits flexibility, creativity, and interaction between students, especially for those seated further from the teacher.

Despite these limitations, traditional classrooms remain widely used, particularly in resource-limited settings, as they require minimal infrastructure and provide a structured learning environment. They focus on standardized curriculums and direct instruction, which can help students develop discipline and excel in foundational subjects. However, critics argue this approach does not adequately address diverse learning styles or promote critical thinking and collaboration.

Modern classrooms prioritize flexibility, collaboration, and technology integration. Furniture is often modular and movable, allowing for diverse seating arrangements such as clusters, circles, or individual zones. This adaptability supports group work, individualized tasks, and student-led learning.

Technology plays a central role in modern classrooms, with tools like tablets, smartboards, and learning management systems enabling personalized, interactive, and engaging learning experiences. Flexible seating, such as bean bags and standing desks, enhances comfort and focus, while project-based learning (PBL) encourages problem-solving and creativity through real-world challenges.

The inclusion of social and emotional learning (SEL) programs and collaborative activities fosters teamwork and communication, essential skills for future careers. Furthermore, by exposing students to technology-rich environments, modern classrooms prepare them for a digital future.

Classroom shapes and sizes are becoming more diverse, moving beyond the traditional rectangular design. Square or open-plan classrooms allow for better acoustics and flexible layouts. Efforts are being made to integrate natural light and ventilation through skylights or dual-sided windows, creating healthier and more inviting spaces. Schools are also repurposing large corridors and outdoor areas for teaching, relaxation, and self-study, maximizing every available space.

Attention to colors and materials in classrooms has also increased, as these elements influence student well-being and focus. Acoustic-friendly materials reduce noise, while warm or calming colors create an environment conducive to learning.

PHOTO ARCHIVE



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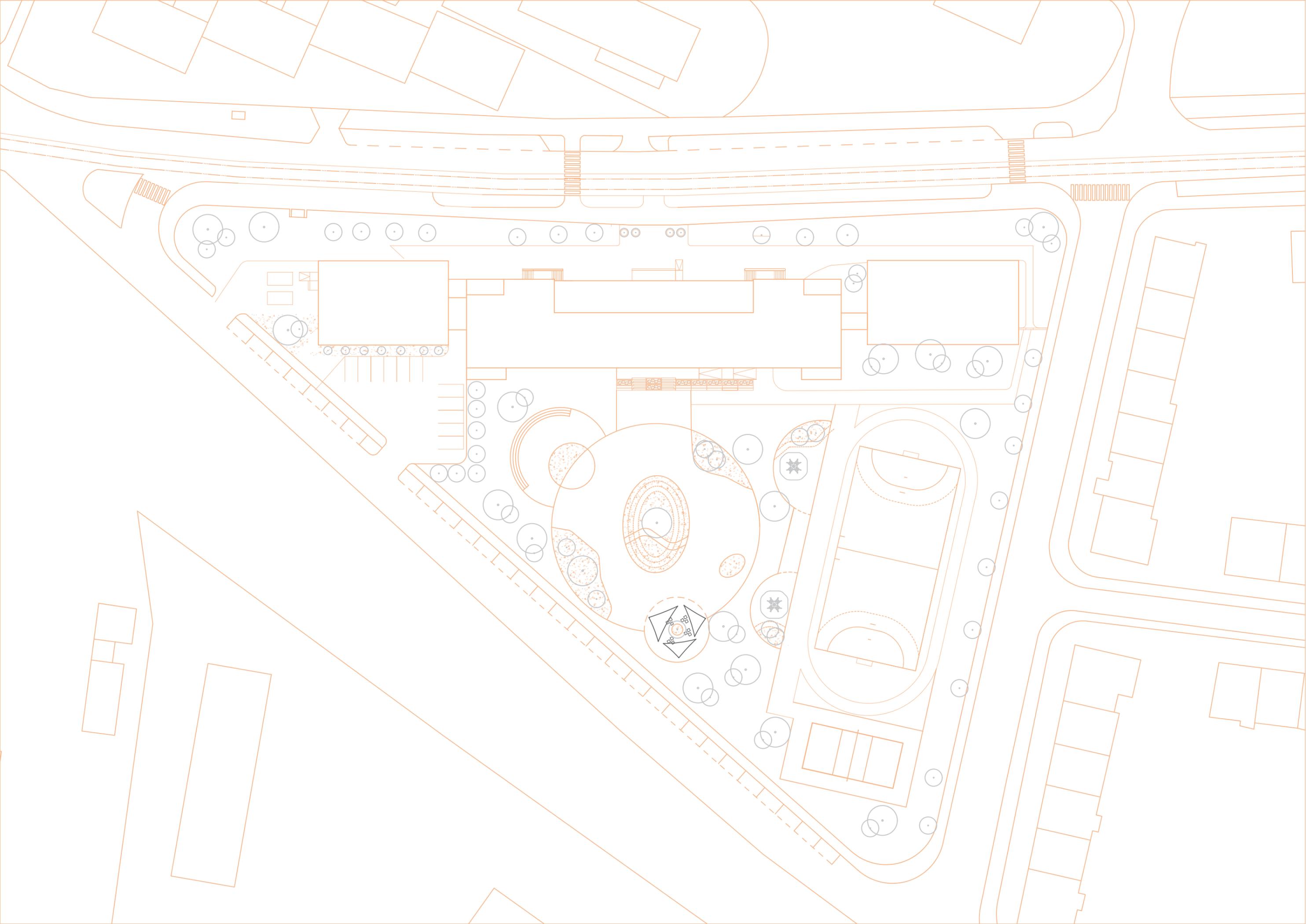
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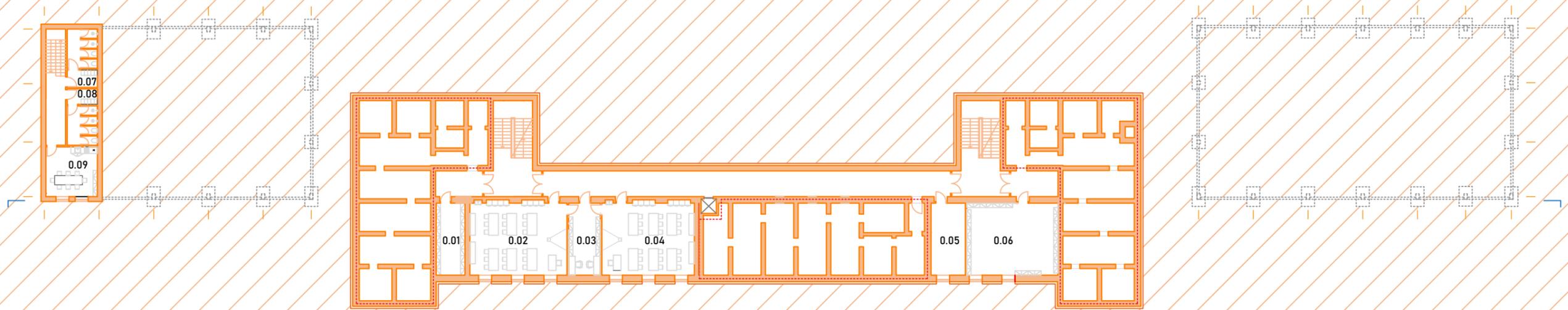
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PHOTO ARCHIVE



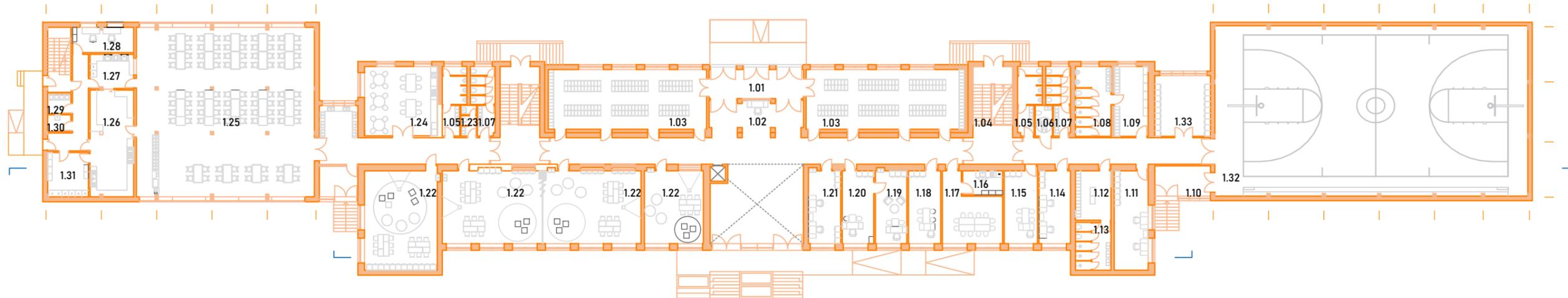




UNDERGROUND FLOOR -3.90

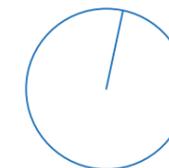
- 0.01 Storage
- 0.02 Workshop for working with metal
- 0.03 Teacher's cabinet
- 0.04 Workshop for working with wood
- 0.05 Boiler room
- 0.06 Storage of school furniture
- 0.07 Changing room & showers - men
- 0.08 Changing room & showers - women
- 0.09 Day room

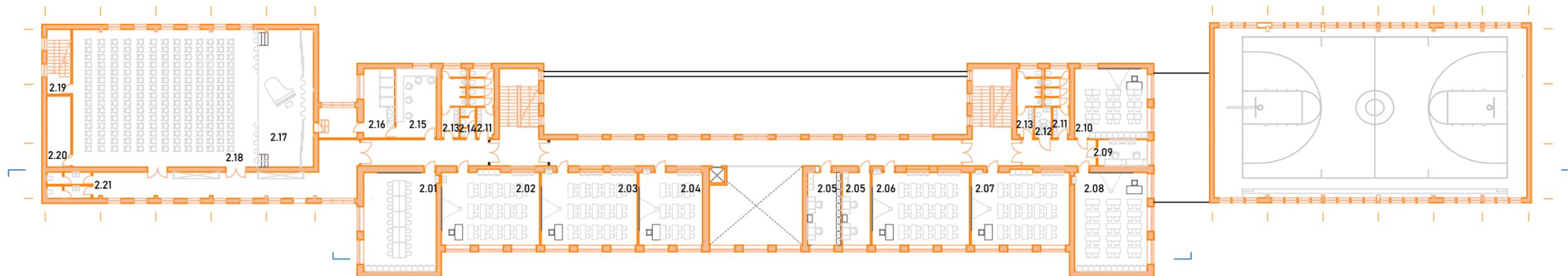




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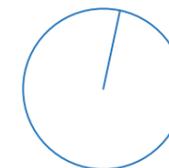
1.01	Entrance	1.11	Sport's teacher cabinet	1.21	Finance & Administration	1.31	Storage
1.02	Security guard	1.12	Changing room for girls	1.22	After-school care classroom	1.32	Gym
1.03	Cloakroom	1.13	Shower room	1.23	Toilet for teachers	1.33	Storage for gym equipment
1.04	Communication core	1.14	IT office	1.24	Buffet		
1.05	Toilet for boys	1.15	Pedagogical office	1.25	Dinning room		
1.06	Barrier free toilet	1.16	Kitchen	1.26	Kitchen		
1.07	Toilet for girls	1.17	Meeting room	1.27	Dishwashing room		
1.08	Shower room for boys	1.18	Deputy Director Office	1.28	Office		
1.09	Changing room for boys	1.19	Directors office	1.29	Waste area		
1.10	Vestebule	1.20	Secretary of director's office	1.30	Sanitary facilities		

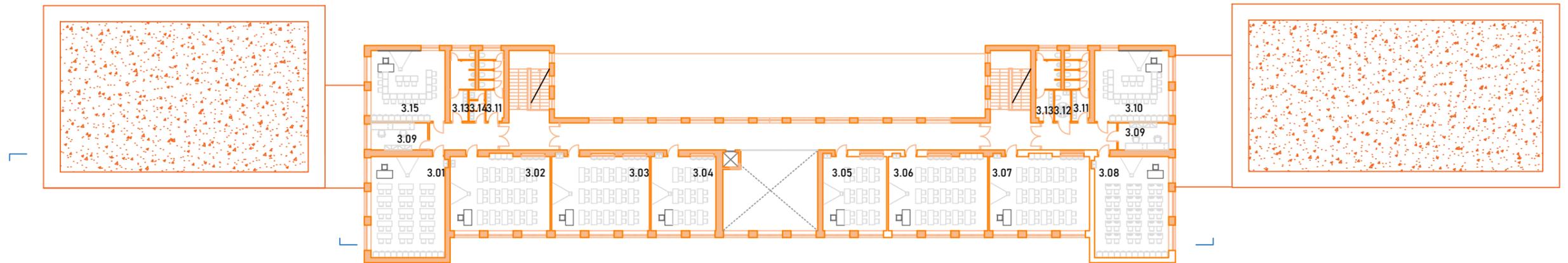




1ST FLOOR +3.90

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|------|------------------------|------|----------------------|------|---------------------|
| 2.01 | Main teacher's cabinet | 2.11 | Toilet for girls | 2.21 | Toilet for visitors |
| 2.02 | 1st grade classroom | 2.12 | Barrier free toilet | | |
| 2.03 | 2nd grade classroom | 2.13 | Toilet for boys | | |
| 2.04 | Language classroom 1/6 | 2.14 | Toilet for teachers | | |
| 2.05 | Teacher's cabinet | 2.15 | Make-up room | | |
| 2.06 | 3rd grade classroom | 2.16 | Changing room | | |
| 2.07 | 4th grade classroom | 2.17 | Podium | | |
| 2.08 | 5th grade classroom | 2.18 | Multifunctional hall | | |
| 2.09 | Teacher's Cabinet | 2.19 | Communications | | |
| 2.10 | Language classroom 2/6 | 2.20 | Storage | | |





2ND FLOOR +7.80

- | | | | |
|------|------------------------|------|------------------------|
| 3.01 | PC classroom | 3.11 | Toilet for girls |
| 3.02 | 6th grade classroom | 3.12 | Barrier free toilet |
| 3.03 | 7th grade classroom | 3.13 | Toilet for boys |
| 3.04 | Language classroom 3/6 | 3.14 | Toilet for teachers |
| 3.05 | Language classroom 4/6 | 3.15 | Language classroom 6/6 |
| 3.06 | 8th grade classroom | | |
| 3.07 | 9th grade classroom' | | |
| 3.08 | PC classroom | | |
| 3.09 | Teacher's cabinet | | |
| 3.10 | Language classroom 5/6 | | |





3D FLOOR +11.70

- | | | | |
|------|---------------------------------|------|-----------------------|
| 4.01 | Kitchen training classroom | 4.11 | Library |
| 4.02 | Music classroom | 4.12 | Toilet for girls |
| 4.03 | Ceramics classroom | 4.13 | barrier -free toilet |
| 4.04 | Visual arts classroom | 4.14 | Toilet for boys |
| 4.05 | Storage for classroom | 4.15 | Teacher's toilet |
| 4.06 | Storage of school equipment | 4.16 | Teacher's cabinet |
| 4.07 | Geography and biology classroom | 4.17 | Storage for classroom |
| 4.08 | teacher's cabinet | | |
| 4.09 | Chemistry & Physics classroom | | |
| 4.10 | Teacher's cabinet | | |

