# Durolux Building and Remise Building



# **General Project Information**

The project includes the conversion of an existing building (Durolux Building) and the construction of a new building (Remise Building). Both buildings are part of the certified "2000-Watt-Areal Papieri, Cham". Each construction area has been individually verified according to SIA 2040, demonstrating compliance with target values and ensuring compatibility with the SIA efficiency pathway.

Increased soundproofing requirements according to SIA 181 are aimed for all building components, while standard soundproofing requirements are guaranteed.

#### **Heritage Protection**

The Durolux Building, constructed in 1955, is classified as a historical monument of regional significance and is protected under cantonal heritage regulations. The protection scope includes the location, exterior appearance, and load-bearing structure, including the staircase. Existing window systems will be preserved as much as possible and complemented with interior wooden windows. New doors and glazing will be added in the base area. Canopies will be preserved, reconstructed, or extended. The heritage authority must be consulted for tenant fit-out approvals.

# Accessibility

Barrier-free access according to SIA 500 is ensured for rental units D04 to D09 and R01 to R03. Units D01, D02, and D03 have three levels, with staircases planned between these levels. If commercial spaces D01–D03 are intended for public use, a lifting platform must be installed per SIA 500 requirements. A wheelchair-accessible WC will be constructed in the entrance area as part of the base building setup, available to all rental units. Additional wheelchair-accessible WCs are optional tenant fit-out elements indicated in the plans.

# **General Building Information**

# Construction

The existing load-bearing structure consists of a reinforced concrete skeleton in the lower floors, with brickclad facades. The upper section and roof of the Durolux Building are made of steel construction. Existing ceilings are reinforced con-

crete, with internal structural stiffening provided by brick and concrete walls. The upper floor of the former production hall will receive a new intermediate wooden floor, creating an additional level. The existing staircase will remain as the main vertical access, with an additional staircase leading to the new upper floor. To meet emergency escape requirements, a bridge will be constructed on the 2nd floor, connecting the hall to the northern part of the site.

## **Load Capacity**

The floor load capacity of all rental spaces in the Durolux Building and Remise Building is  $300 \, \text{kg/m}^2$ .

#### Facade

The facade consists of cement stone infill within a reinforced concrete skeleton structure. Thermal performance improvements are achieved through internal insulation. A new graffiti protection coating is applied.

#### Windows

Existing aluminum profile windows with single glazing will be complemented by interior wooden windows with triple insulating glazing. New interior windows: Wood finish in silver, following the architects' color concept.

Existing exterior windows: Restored glazing, partial reconstruction of aluminum frames, glass replacement where needed. Modifications: Additional profiles in the parapet area of the 2nd floor. New windows on the upper floor (East/West) in the same style as existing windows. Assumed material for additional profiles: Aluminum, matched to existing elements.

Atrium skylight: Replacement of the existing skylight. New steel construction and profiles. Insulated and sun-protection glazing according to building physics specifications. Grid and mullion width corresponding to the existing design.

#### **Sun Protection**

New internal sun protection within box windows: Textile vertical blinds with cable guidance, motorized. All metal parts untreated, hot-dip galvanized. Control by tenant, override via central building automation system (wind, sun, frost, hail, etc.).

Skylight: New internal horizontal textile sunshade, motorized, matching the box window system.





#### **Exterior Doors**

Main entrance (Durolux Building): Restoration of the existing steel exterior door with glazed insert to match the original condition. Installation of locking components in accordance with the security concept. Steel surfaces painted dark green, matching the original historical color scheme.

Ground floor entrances (rental units D01–D03) and 2nd floor emergency exit (to bridge): Steel profile doors, with glass insert, raw, hot-dip galvanized, integrated intercom system.

#### **Interior Doors**

Rental units: Solid wood block frame doors, door leaf in wood composite panel. Paint finish according to the architects' color concept.

Staircase (emergency exit doors, 1st to 3rd floor): Steel frame with wooden door leaf and glass insert. Paint finish in dark green, following the architects' color concept.

# Roof

New roof covering in the roof edge area (reconstruction). New roof structure according to building physics and structural engineering requirements. Photovoltaic system and lightning protection system installed.

Canopies: Main entrance south (Durolux Building): Existing trapezoidal sheet metal, raw aluminum.

New canopies (south entrances, Durolux Building): Raw steel sheet, hot-dip galvanized.

New canopy (east terrace, Durolux Building): Primary structure in wood, silver finish. Connection and bracing elements in raw, hot-dip galvanized steel. Covering with polycarbonate double-wall panels. Aluminum profile edging, natural anodized.

# Intercom/Mailbox

Intercom and door communication systems with video transmission, including electric door openers or motorized locks for main entrance doors. Video intercoms can be operated via app on smartphones or tablets.

 $Simple intercom \, system \, with \, gong \, for \, rental \, spaces \, in \, the \, Remise \, and \, Durolux \, Building \, with \, individual \, exterior \, doors.$ 

Durolux mailboxes: New mailbox system or restoration and upgrade of existing locker cabinets.

Remise mailboxes: New mailbox system at central location near the underground garage entrance.

# **Locking System**

Installation of access control systems as specified by door planning specialists.

## Signage/Facade Labeling

According to the Papieri-Areal signage concept. Tenant-specific facade signage (as part of tenant fit-out), subject to regulatory approval.

#### **Electrical Installations**

Staircase and common areas: General lighting and socket installations. Sockets for cleaning equip-ment.

Emergency exit signage in the staircase and 2nd/3rd floor corridors up to the lift pre-zone. Rental space is the land-lord's responsibility.

Facade: Spotlights on the facade for outdoor lighting.

Ruilding access: Lighting and video intercom system.

Building access: Lighting and video intercom system installed.

Rental spaces (Ground floor/1st floor and Remise): Electrical supply up to the tenant's sub-distribution within the rental space. Electric meters located in the main distribution board (basement).

Rental spaces (2nd/3rd floors): Electrical supply prepared, with electric meters and fuses in the floor distribution boards (2nd and 3rd floors).

All rental spaces: Tenant fit-out includes sub-distribution and installations. Pathway from BEP (basement) to rental space prepared for fiber optic connection (cable pulling by tenant). Basic setup for heating/cooling control installed. KNX integration for lighting control possible.

# **Sanitary Facilities**

WC facilities in the ground floor, 2nd, and 3rd-floor staircase (Durolux Building, base build, shared use): Fully equipped restrooms. Wheelchair-accessible WC (ground floor) includes necessary sup-port/angle grips.

Shower facility on the 1st floor (staircase, Durolux Building, base build, shared use): Two fully equipped showers. General sanitary finishes: Walls: Ceramic tiles, silver color. Floor: Seamless PU coating, aubergine color. Ceiling: Plastered in silver color. Fittings and fixtures: Black where pos-





# **Heating and Cooling**

The Durolux Building is connected to the Papieri-Areal energy network to meet its heating and cooling demand. Installation of an efficient, convective "Kegel Climate System", conditioning indoor air via convectors along the facade. This system ensures consistent room temperatures while minimizing energy consumption. The system provides both heating and cooling. Additional cooling for IT, server racks, etc., can be installed as part of the tenant fit-out.

Each room is equipped with a room sensor. The building automation system allows setting the desired room temperature within a defined range: Supply air in summer: 20°C, designed for max. 26°C room temperature. Supply air in winter: 22°C, designed for 21–23°C room temperature.

#### Ventilation

Supply and exhaust air distribution runs vertically through built-in shafts, with some exposed ducts visible between the ground and 1st floors. Air is only supplied to central interior zones or directly to rental units where necessary. From the interior zone, air is distributed to individual rooms via integrated wall fans. Supply air enters at the lower level, while exhaust air exits through the upper part via wall fans, returning to the interior zone and being extracted through wet rooms.

Airflow rates:

Durolux Ground Floor/1st Floor: 2250 m³/h

Durolux 2nd/3rd Floors: 4800 m³/h

Durolux Mezzanine (Rental Unit D04): 2200 m³/h

Any modifications or extensions to the ventilation system due to tenant-installed partitions or fit-outs are the tenant's responsibility.

#### Lift Systems

Passenger lift in the staircase, two-sided access, wheel-chair accessible. 4 stops, designed for 15 people or 1150 kg, 1.0 m/s speed. Cabin dimensions (special size): Approx. 1.20 m × 2.42 m (depth) × 2.10 m (height). Machine room-less design, no rooftop structure. Passenger lift in the staircase, two-sided access, wheelchair accessible.

4 stops, designed for 15 people or 1150 kg, 1.0 m/s speed. Cabin dimensions (special size): Approx. 1.20 m $\times$ 2.42 m (depth)  $\times$  2.10 m (height).

Machine room-less design, no rooftop structure.

#### **Surfaces**

Color Concept: The existing color scheme of the spaces – gradations of green and gray tones – will be transferred to new building elements and expanded with additional colors. Staircase: Existing concrete staircase with terrazzo overlay will be retained and extended with an additional staircase to the new upper floor. New steel stringer staircase (2nd-3rd floor): Tread steps and landings made of polished concrete elements on a steel substructure. Existing metal railing will be supplemented with a metal panel. Walls finished with a new textured surface and painted light green.

# **Surroundings**

Shared use of the high-quality landscaped environment of the Papieri-Areal, including paved surfaces, Trees, green areas, underground waste container systems

# **Parking**

Parking spaces available in the pooling area of the underground garages on the Papieri-Areal. Visi-tor parking above ground along Papieri-Ring or in the publicly accessible sections of the underground garages. All parking spaces are managed. Some parking spaces are equipped with EV charging stations.

# **Bicycle Parking**

Bicycle racks with stands at Trafoplatz. 80 covered bicycle parking spaces for employees in the ground-level bike storage area in the Remise (shared with the Trafo Building).

# **Construction Cleaning**

The building will be handed over broom-clean for the tenant fit-out.





# Remise Building (Rental Units R01–R03)

#### Construction

Load-bearing structure underground: Reinforced concrete. Facade support structure: Steel column grid. Ceiling: Hybrid construction with steel beams and glued laminated timber beams, topped with a reinforced concrete overlay slab.

#### Facade

East/West facades: Walls and ceilings in exposed concrete (formwork type 4). Graffiti protection applied.

South facade: Post-and-beam system: Exterior: Raw, hot-dip galvanized steel. Interior: Wooden posts, painted silver. Cladding: Ventilated steel panels.

#### Roof

Intensively greened, without photovoltaic system, fall protection installed.

New canopy (South, Remise): Supporting structure: Raw, hot-dip galvanized steel hollow profiles, painted yellow. Covering: Hot-dip galvanized steel trapezoidal sheet metal. Underside painted yellow.

#### **Windows and Exterior Doors**

New windows and doors in raw, hot-dip galvanized steel. Triple glazing. Transom windows motorized.

Seating Bench (Kegel System): All visible surfaces made of joinery panels with veneer layer, color-sprayed in green variations (matching Durolux).

# Sun Protection

External textile vertical blinds with cable guidance, motorized, silver-gray color. Covering: Semi-circular steel sheet. All metal parts raw, hot-dip galvanized.

#### Ventilation

The Remise rooms are ventilated with a mechanical ventilation system. Airflow is demand-controlled based on measured air quality. All rooms are monitored, and air supply is adjusted collectively according to the lowest air quality reading.

Airflow volumes:

Total ventilation capacity for commercial spaces in the Remise:  $1300\,\text{m}^3/\text{h}$ .

#### Walls

Partition walls between rental units: Lightweight wall system with exposed wood composite panels, painted green.

#### Floor

Self-leveling anhydrite screed, polished and sealed, cement gray color. Can be used as a final surface or prepared for tenant-installed flooring. Dirt trap in recessed floor section (anhydrite screed): Coir fiber mat, anthracite color.

# Ceiling

Wood-concrete composite ceiling. Acoustic profiling with integrated softwood fiberboard as sound absorber. Elementjoints feature recesses for electrical cable routing. Covered with steel sheet. Wood and steel elements painted.





# Durolux Building Rental Units D01–D03 (Ground Floor–1st Floor)

#### Walls

New interior walls: lightweight wall system with wood composite panels. Walls lined with veneered joinery panels. Lower section painted dark green, upper section light green (base build).

Existing columns and beams: concrete, repainted in silvergray (beams) and light/dark green.

Seating Bench (Kegel Ventilation Element): Joinery panels with veneer layer, color-sprayed in dark green and silvergray.

#### Floor

Self-leveling anhydrite screed with 2% black pigment. Interior Staircase (Ground Floor – Mezzanine – 1st Floor), Solid wood staircase. Treads and risers in oak. Stringers and balustrades in wood composite panels (base build). Balustrade: Laminated wood panels, painted in dark and light green.

Exterior Staircase (North): Steel substructure. Step covering in fiber-reinforced concrete angle elements. Railings in steel, with welded mesh infill. All metal parts raw, hot-dip galvanized.

### Ceiling

Existing ceilings repainted in light green

#### Facade

Existing windows restored and retained (aluminum frames remain, new glazing installed). New inner-layer windows in silver-painted wood.

New entrance doors in hot-dip galvanized steel, matching the window design.

# **Optional Tenant Fit-Out**

Partition walls; Acoustic suspended ceiling (suggested: perforated spruce three-layer panels, silver-gray); Lighting (suggested: LED pendant lights); Acoustic curtains; Lifting platform with steel frame construction, WC installation near staircase (pre-installed connections available).





# Durolux Building Rental Unit D04 (Mezzanine Floor)

#### Walls

Walls lined with veneered joinery panels. Lower section painted dark green, upper section light green.

#### Floor

Polished self-leveling anhydrite screed with 2% black pigment applied over the existing substrate.

#### Ceiling

 ${\sf Existing}\, ceilings\, repainted\, in\, silver-gray.$ 

Above Terrace is a large canopy structure made of steel and wood. Intermediate sections infilled with transparent double-wall polycarbonate panels. Wooden beams painted silver.

#### Facade

Full-width window front divided into two sections. New foldable metal-framed window elements fully open to the terrace.

## Terrace

Cantilevered staircase with checker plate steps on a steel substructure. Terrace flooring made of pre-weathered larch planks. Steel railing with hollow profile handrail. Railing infill made of welded mesh panels. All metal parts raw, hot-dip galvanized.

# **Optional Tenant Fit-Out**

Kitchen; Sanitary facilities (including wheelchair-accessible WC). Ventilation system is extended to the rental unit in the base build; air distribution within the unit is the tenant's responsibility.





# Durolux Building Rental Units D05–D09 (2nd and 3rd Floor)

#### Walls

New interior walls: Lightweight wall system with wood composite panels. Walls lined with veneered joinery panels. Lower section painted dark green, upper section light green (base build).

New steel columns painted light green.

Parapet (Kegel ventilation element, base build): Joinery panel with veneer layer, color-sprayed in dark green and silvergray.

# Floor

New self-leveling anhydrite screed with 2% black pigment. Delivered as a finished surface in the base build, with the option for additional flooring in tenant fit-out.

Connecting staircase (2nd–3rd floor, unit 05) included in base build (Wooden staircase, with solid wood stringers and balustrades painted dark green).

#### Ceiling

Ceiling 2nd Floor: New acoustic laminated timber ceiling elements painted silver. Joints with cable routing recesses (covered with steel sheet, silver-gray color). New steel beams, painted light green.

Ceiling 3rd Floor: Existing steel beams, repainted light green. Existing wooden roof rafters, repainted silver. New acoustic elements installed between wooden rafters.

#### Facade

Existing windows restored and retained (aluminum frames remain, new glazing installed). New inner-layer windows in silver-painted wood.

# **Optional Tenant Fit-Out**

Partition walls. Connecting staircase (2nd–3rd floor) for units 06–09.

Lighting. Acoustic curtains.





# Durolux Building Atrium DOO (2nd and 3rd Floor)

#### Walls

New timber post-and-beam construction with glass infills. Timber posts painted dark green and silver-gray. Doors: Wooden frame with glass infills, painted silver. Integrated ventilation panels with opaque wooden cladding, painted silver.

Parapet area (3rd floor): New wooden construction with wood composite panels, painted aubergine.

#### Floor

New self-leveling anhydrite screed, cement gray. Base build delivered as a finished surface, with the option for additional tenant-installed flooring.

# Ceiling

New ceiling installed. Acupor H acoustic panels, silver glazed, between timber rafter structure.

Existing steel beams (3rd floor) repainted light green. Existing wooden roof rafters repainted silver.

# Skylight

Newly reconstructed skylight with steel structure. Replacement of profiles and glass construction. Insulated and sunprotection glazing.

# Lighting

Atrium lighting included in the base build. Ceiling lighting: LED pendant lights and tube lights. Lighting on the overhead crane system for events: LED spotlights. Lighting integrated into the skylight frame: LED strip lights.

# **Optional Tenant Fit-Out**

Meeting room. Tea kitchen on the 1st floor. Additional WCs on the 3rd floor. Table surfaces mounted on the parapet facing the atrium void (3rd floor). Acoustic curtains.

#### Disclaimer

This short construction description is based on the current planning status and outlines only key aspects of the project. Any changes remain expressly reserved.

