

**ARK626 -
Architectural
Transformation and
Environmental care**

Fall 2021 MPARC Chalmers
School of Architecture



Damage report

Damage report

The following report documents Orust Återbruk buildings damages that can be detected by superficial studies as of October 202. Large parts of the building were inacssable and thus the building most likely has more damages and a comprehensive study should be performed. The document is arranged by rooms and illustrated with examplatory images.

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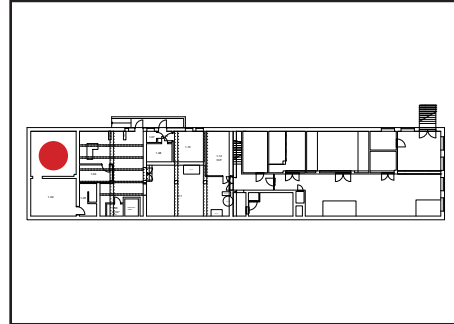
Room 01-01

Room use: -

Qualities: -

Installations: -

Colours: -



Damages: The room is not accessible

Reperations: The room is not accessible

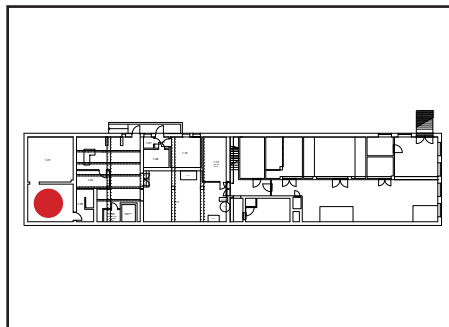
Room 01-02

Room use: -

Qualities: -

Installations: -

Colours: -



Damages: The room is not accessible

Reperations: The room is not accessible

Room 01-03

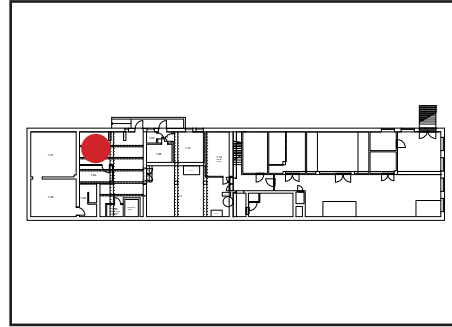
Room use: storage

Materials: concrete, plaster

Qualities: entrance

Installations: drain- water pipes, electricity board

Colours: white, green, gray



Damages: Major: Leaking pipes, glass missing on window, smell, sewage pipe running over the floor is in the way, concrete fundamentals on the floor, walls are flaking, mold

Reperations: Sewage pipe that is running over the floor needs to be moved, walls needs to be fixed (add moisture barrier), leaking piped needs to be repaired, dehumidification



Room 01-04

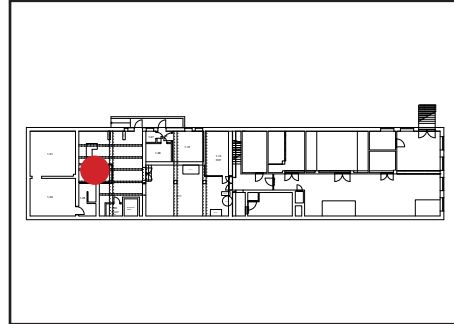
Room use: storage

Materials: concrete, plaster

Qualities: no windows

Installations: pipes in the roof

Colours: white, gray



Damages: Major: mold on pillar, leakage, pipe is blocking the door

Reperations: new surface layers (walls, ceilings and floor) dehumidification, move pipe that is blocking the door



Room 01-05

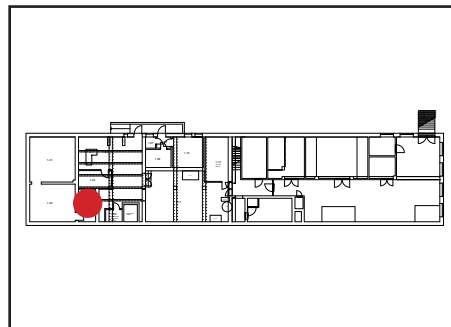
Room use: -

Materials: -

Qualities: -

Installations: -

Colours: -



Damages: The room is not accessible

Reperations: The room is not accessible

Room 01-06

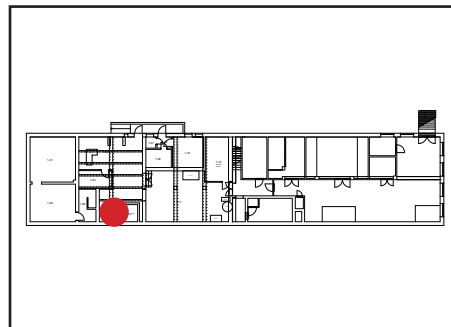
Room use: lift

Materials: concrete, plaster

Qualities: -

Installations: lift control room

Colours: green, grey



Damages: Moderate: walls are flaking, accessibility (high edge)

Reperations: New surface layers (walls ceiling and floor)

Room 01-07

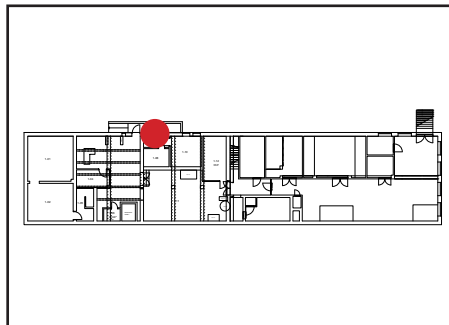
Room use: -

Materials: -

Qualities: -

Installations: -

Colours: -



Damages: The room is not accessible

Reperations: The room is not accessible

Room 01-08

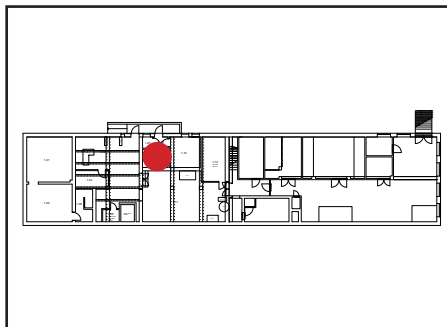
Room use: -

Materials: -

Qualities: -

Installations: -

Colours: -



Damages: The room is not accessible

Reperations: The room is not accessible

Room 01-09

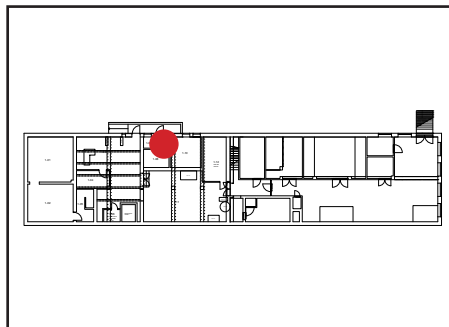
Room use: -

Materials: -

Qualities: -

Installations: -

Colours: -



Damages: The room is not accessible

Reperations: The room is not accessible

Room 01-10

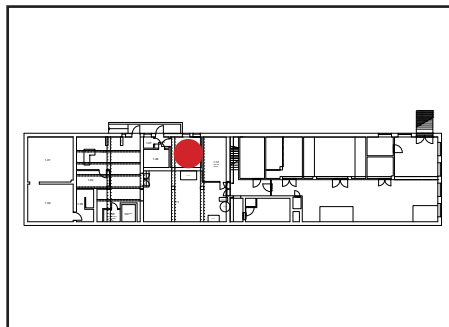
Room use: -

Materials: -

Qualities: -

Installations: -

Colours: -



Damages: The room is not accessible

Reperations: The room is not accessible

Room 01-11

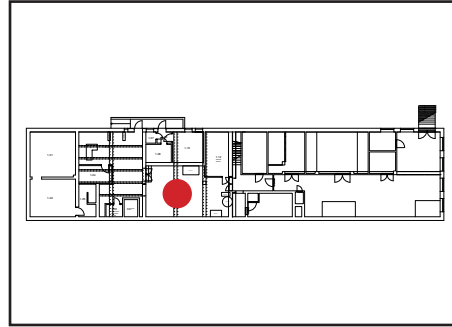
Room use: bicycle storage

Materials: concrete, plaster

Qualities: height to ceiling, wall lamps, room size

Installations: pipes in the roof, electricity, ventilation

Colours: white, grey



Damages: Moderate: sewage smell, pipe is hanging down, hole for sewage close to stairs, concrete fundamentals on the floor that can be in the way, high humidity, pipes leaking

Reperations: New surface layers, pipe on floor close to the stairs has to be moved, dehumidification



Room 01-12

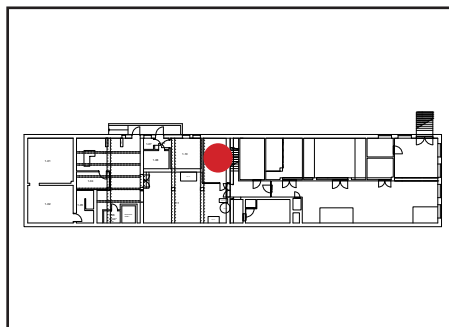
Room use: storage

Materials: concrete, plaster, steel

Qualities: no windows

Installations: boiler room

Colours: white, gray, red brick



Damages: Moderate: unfinished wall, but if you want to change the room's purpose a lot of installations have to be moved

Reperations: rust on door, new surface layers,



Room 2-01

Room use: furniture store

Materials: Concrete, brick, plaster, glass brick, wood

Qualities: windows (natural light), large open space, external entrance

Installations: pipes under the ceiling, ventilators + ventilation unit, electric wiring, lightning, water drainage in the floor

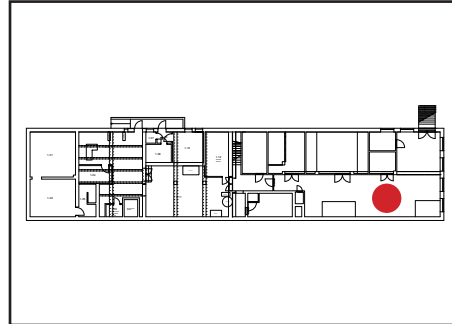
Colours: white, gray, yellow strips

Damages:

minor: damaged plaster - on walls and ceiling; pipe system damage

moderate: holes in the walls and ceiling from the pipes, missing small amount of concrete layer on the ceiling

Reperations: Walls and ceiling plaster, parts of celing concrete layer, pipe system replacement + holes in the walls from the pipes, dehumidification, poorly installed new windows





Room 2-02

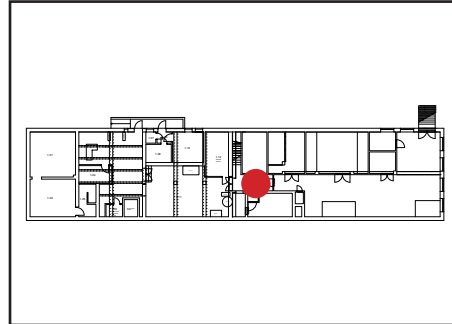
Room use: corridor

Materials: Concrete, brick, plaster, tile

Qualities: no window, staircase (connection to the groundfloor), railing, tiling

Installations: pipes under the ceiling, electricity wires, lightning

Colours: white, yellow, glazed, gray



Damages:

minor. damaged plaster, wall colour, pipe insulation, water marks on the wall and door

moderate: holes in the walls from the pipes

Reperations: Walls and ceiling plaster, pipe system replacement + holes in the walls from the pipes, door frame, partition wall clading, fireproof door replacement



Room 2-03

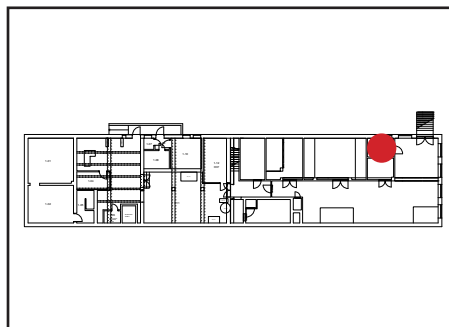
Room use: storage

Materials: Concrete, brick, plaster, tile (light blue)

Qualities: window (natural light)

Installations: pipes, ventilation shaft, electricity wires

Colours: white, blue, gray



Damages:

minor: plaster on the walls, water marks; moderate: broken glass (window)

Reperations: window, plaster (surfaces)



Room 2-04

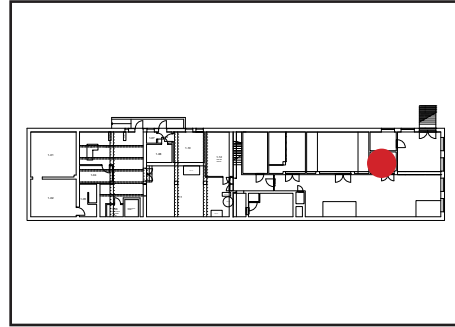
Room use: storage

Materials: Concrete, brick, plaster

Qualities: no windows

Installations: ventilation, ventilation shaft, electricity wires

Colours: white, green, gray



Damages:

minor: walls (color), ceiling plaster

Reperations: new surfaces



Room 2-05

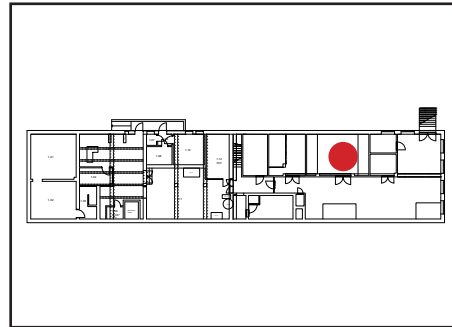
Room use: storage

Materials: Concrete, brick, plaster

Qualities: no windows

Installations: pipes under the ceiling, sewage line, electric wiring, ventilation shaft, large shaft, gas pipes

Colours: white, gray



Damages:

minor: ceiling plaster, leaking sewage pipes, rusty pipe grid on the ceiling;

moderate: holes in the walls from the pipes

major: hole in the wall - missing bricks

Reperations: new surfaces, new pipe system, holes in the walls and rebuild part of the wall



Room 2-06

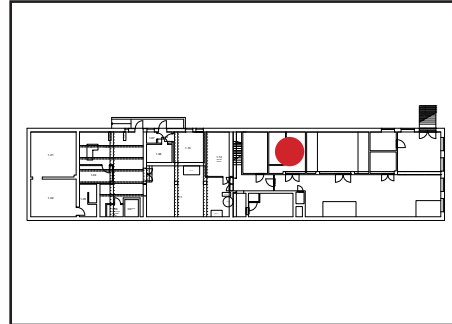
Room use: storage

Materials: Concrete, brick, plaster

Qualities: no windows, pillar, concrete blocks on the floor

Installations: pipes under the ceiling, sewage line, electric wiring, ventilation shaft

Colours: white, gray, green



Damages:

minor: ceiling plaster, rusty pipe grid on the ceiling, concrete blocks fall apart, damaged door

moderate: holes in the walls from the pipes

major: hole in the wall - missing bricks

Reperations: new door, new surfaces, new pipe system, holes in the walls and rebuild part of the wall, repair/remove concrete blocks



Room 2-07

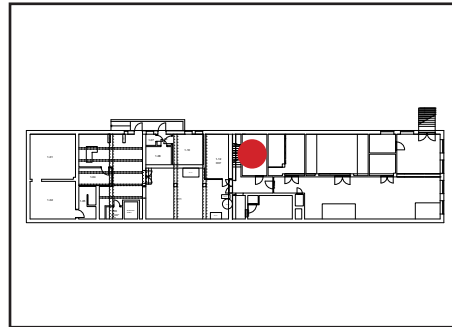
Room use: -

Materials: -

Qualities: -

Installations: -

Colours: -



Damages: The room is not accessible

Reperations: The room is not accessible

Room 2-08

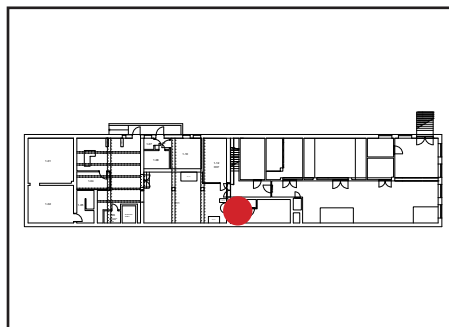
Room use: empty

Materials: Concrete, brick, plaster

Qualities: no windows

Installations: ventilation, electrical wires

Colours: white, gray



Damages:

minor: wall around the door

moderate: damaged ceiling, wall (water damage) - mold

Reperations: dehumidification, new surfaces, repairing the ceiling and the door frame



Room 2-09

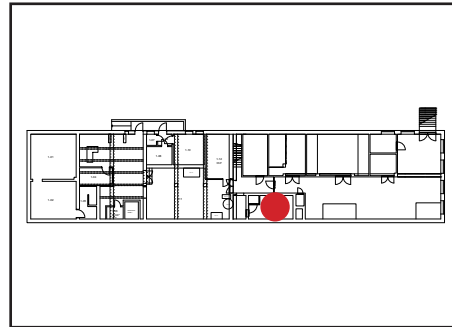
Room use: empty

Materials: Concrete, brick, plaster

Qualities: no windows

Installations: ventilation, electrical wires

Colours: white, gray



Damages:

minor: colour on the walls and the floor

moderate: water damage

Reperations: dehumidification, new surfaces



Room 2-10

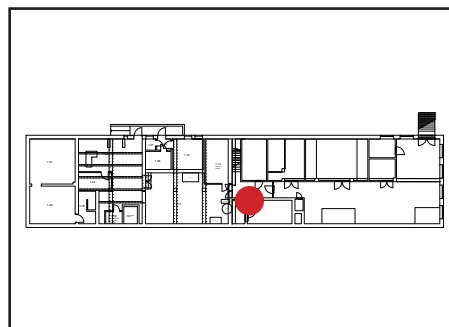
Room use: wc

Materials: Concrete, wood, plaster

Qualities: no windows, toilet

Installations: electrical wires

Colours: white, gray



Damages:

minor: colour on the walls and the floor

moderate: water damage

Reperations: dehumidification, new surfaces



Room 2-11

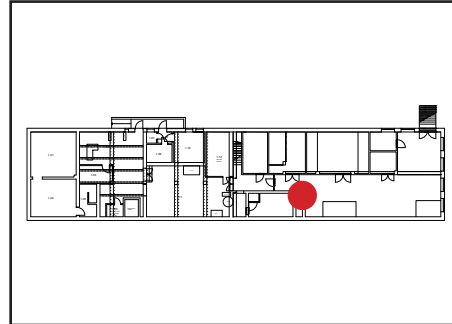
Room use: -

Materials: Concrete, plaster

Qualities: no windows

Installations: electrical wires

Colours: white, gray



Damages:

minor: colour on the walls and the floor

moderate: water damage

Reperations: dehumidification, new surfaces



Room 03-01

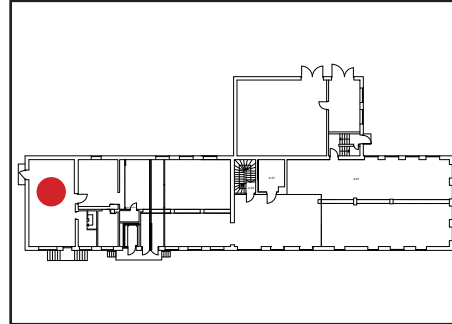
Room use: flat

Materials: Concrete, plaster

Qualities: Periodic tile pattern and colour from historical use of the building

Installations: Electricity central, Electricity racks, Plumbing fixtures and sinks, No ventilation

Colours: White, Brown, Metal



Damages:

Major : Discoloured with a yellow tone

Minor: Discoloured joints in some areas

Minor: Cracked tiles in some areas

Reperations: Some tiles has to be replaced. The joints has to be washed/painted. The discolor is perhaps difficult to fix.



Room 03-02

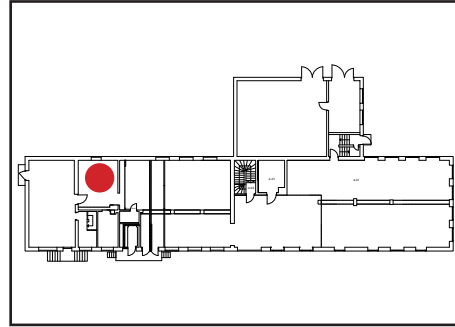
Room use: store

Materials: plaster, tile

Qualities: Overall a more well-maintained part of the building than the rest.

Installations: Ventilation ducts, external electricity installations, lighting

Colours: White, Red



Damages:

No major damage.

Reperations: Look for external signs of damage that might not be visible from the inside



Room 03-03

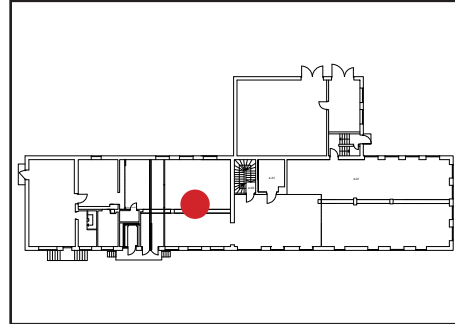
Room use: machine room

Materials: Concrete, plaster, tile, glass brick,

Qualities: Periodic tile pattern and colour from historical use of the building, natural light without glare

Installations: Electricity central, Electricity racks, Plumbing fixtures and sinks, No ventilation

Colours: White, Brown, Metal, Red, Transparent



Damages:

Major : discoloured tiles, drilled holes, cracked bricks, water damage on roof and walls

Moderate: Different bricks

Minor: Discoloured joints, cracked tiles, plaster damage, dirt,

Reperations: Some tiles has to be replaced. The joints has to be washed/painted. The discolour is perhaps difficult to fix. Fill the plumbing holes and spackle the plaster. Replace some tiles or fill in with concrete. Clean windows, decide wether to change the difference in bricks, replace damaged or missing bricks. Open up to the boarded up window. Remove damaged parts, replace material and check underneath for further issues



Room 04-01

Room use: metal workshop

Materials: iron cast floor, tile, acoustic panel, brick, plaster

Qualities: Materiality in the iron cast floor, exposed structural system (pillars), large windows, high ceiling

Installations: Mechanical garage door, ventilation shafts, electricity

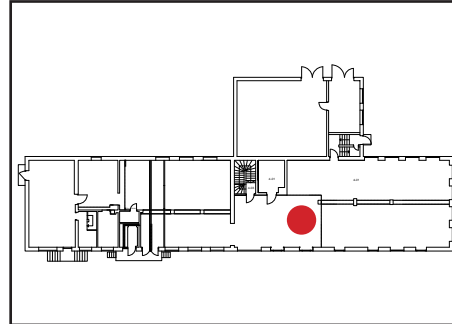
Colours: Dark brown, white

Damages:

Moderate: Rust, cracks and dents in the floor tiles, cracked tiles, worn off paint, graffiti, hole in facade, broken glass in windows, water damage in the ceiling

Renovated windows? Removed doors replaced with windows?

Reperations: Windows, ceiling, exterior walls





Room 04-02

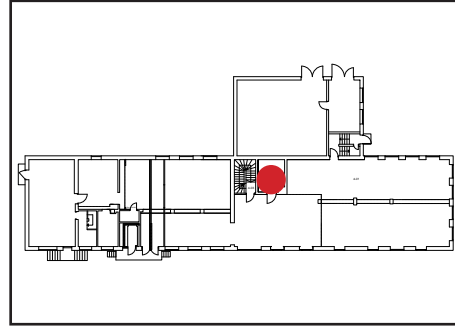
Room use: storage

Materials: iron cast floor, tile, brick, plaster

Qualities: Materials, door

Installations: Water, electricity, ventilation?? Fan??

Colours: Dark brown, white, red



Damages:

Moderate: Waterdamage from the ceiling down on the wall

Minor: Rusty door, rust and dents in the floor tiles

Reperations: Ceiling



Room 04-03

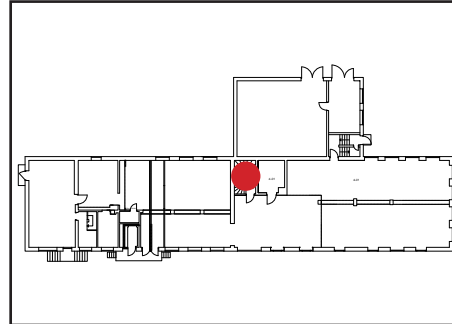
Room use: staircase

Materials: clay tiles, tiles, wood, steel, brick

Qualities: Window, detailing in railing, materials?

Installations: Electricity

Colours: Yellow, white, red

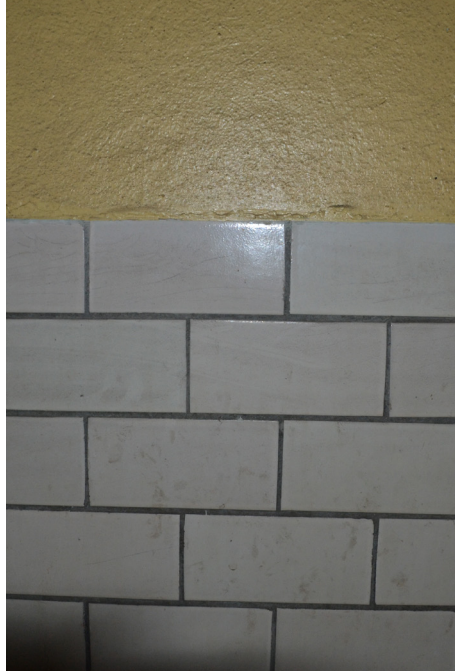


Damages:

Moderate: Holes in wall

Minor: Worn off plaster, tiles and floor tiles

Reperations: Walls



Room 04-04

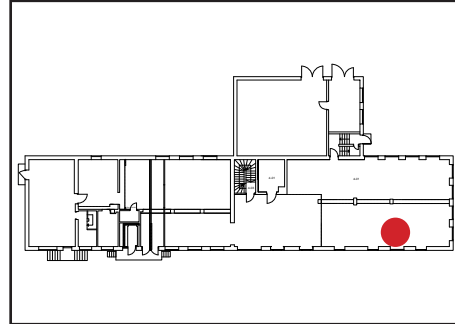
Room use: removed

Materials: -

Qualities: -

Installations: -

Colours: -



Damages:

Room has been removed

Reperations: Room has been removed

Room 05-01

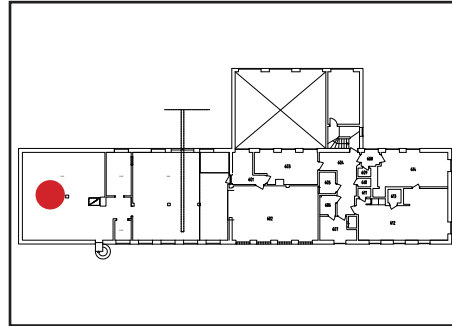
Room use: storage room

Materials: brick, concrete

Qualities: dark, no windows, high ceilings, access to attic through a hatch

Installations: semi permanent steel hangers

Colours: white, raw concrete

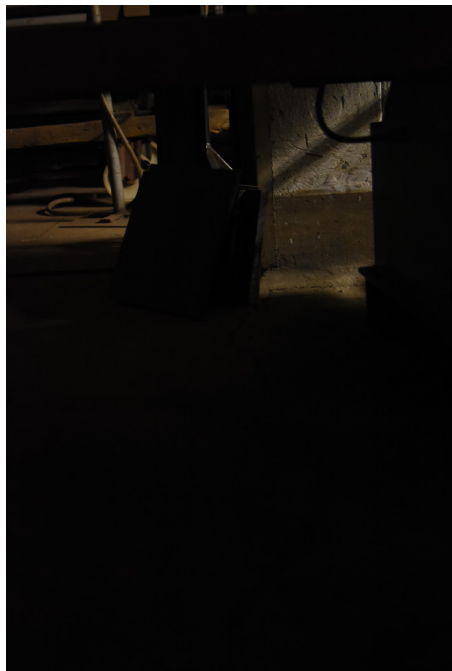
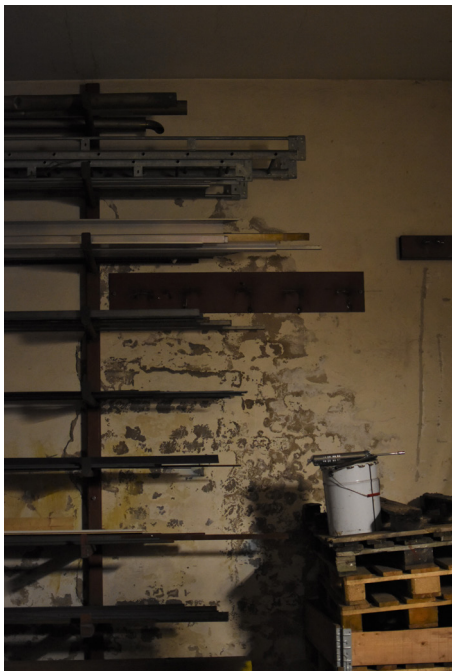


Damages:

Major: Water damage in ceiling, non accessible. Crack in concrete following all way around the room (floor, wall, ceiling)

Minor: Possible door to exterior fire exit, non accessible. All walls include markings in varying levels

Reperations: Water damage needs futher investigation. Large crack needs further investigation to determine the severity of the damage. New finishes on surfaces depending on future use



Room 05-02

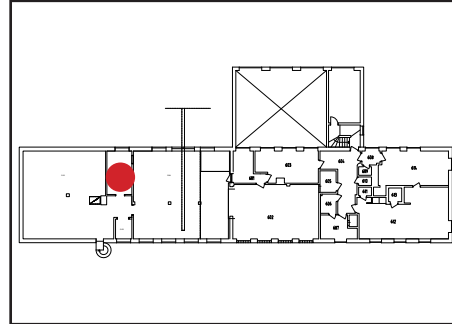
Room use: storage room

Materials: glass brick, concrete, metal

Qualities: light compared to other rooms, window prominent, high ceiling

Installations: ventilation shafts, steel hatch in the floor

Colours: white, raw concrete, blue, milkglass

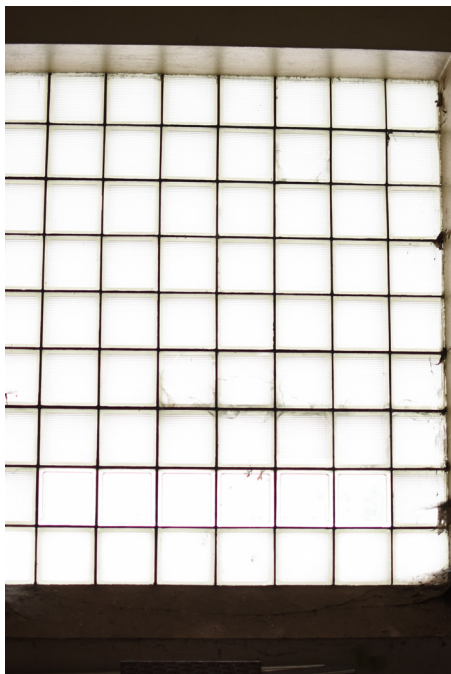
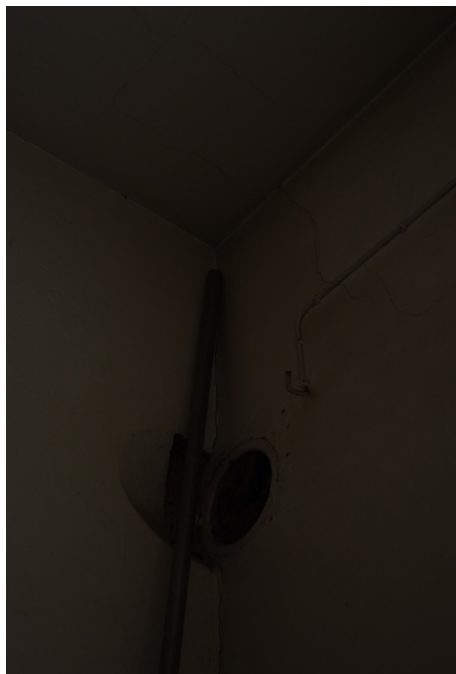


Damages:

Major: broken window bricks.

Moderate: ventilation cared into a wall, disturbs airflow. Water damage in the roof, no access to inspect if an ongoing issue. Crack starting from window leading to the ceiling

Reperations: Windows need to be changed, water damage and reason for the crack need inspection



Room 05-03

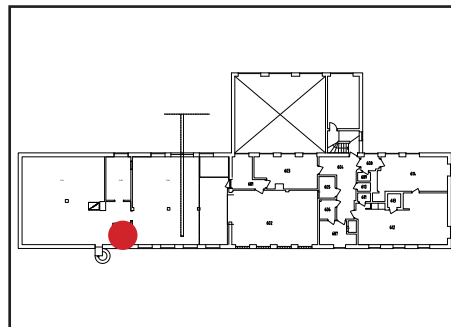
Room use: lift

Materials: concrete, metal

Qualities: non-accessible

Installations: lift

Colours: grey, white



Damages:

Lift does not work

Reperations: Lift is not working, hence needs reparing



Room 05-04

Room use: workshop

Materials: concrete, metal, tiles, glass brick

Qualities: Large open space, connection to other rooms, industrial feel from addition that could be used in further uses. Large 'french' balcony.

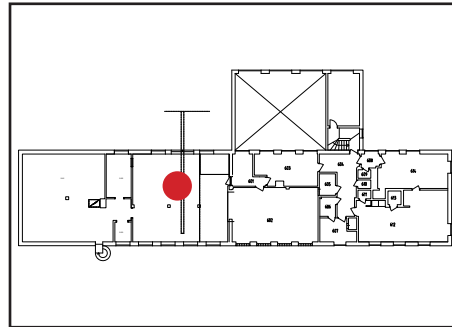
Installations: Added ventilation shaft, crane mounted on the roof, electricity operation board on the wall, newer double metal doors

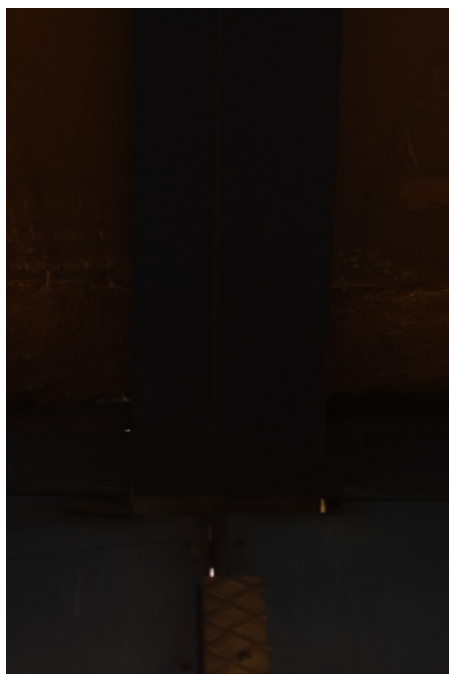
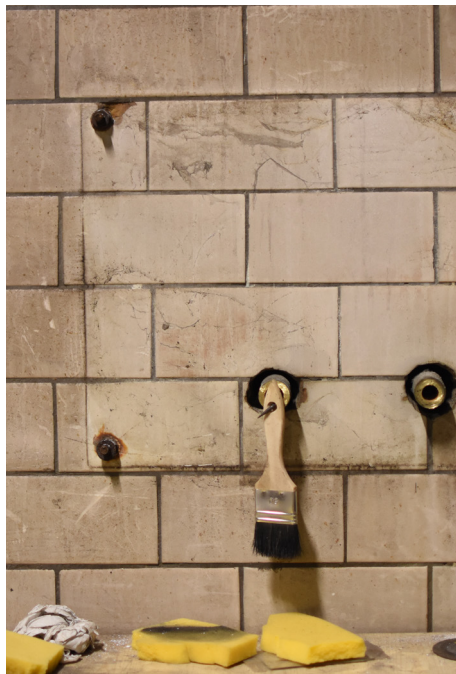
Colours: grey, white, red, milk-glass, blue

Damages:

Major: Broken window bricks. Hole in exterior wall for temporary (?) ventilation. Large hole in surface of wall from installation. Potential water damage in exterior walls (mainly around exterior door). Hole in wall to adjacent room for cable ladder. Moderate: Walls pierced by numbers of pipes and rods, damaging concrete and wall tiles. Hole in wall to adjacent room, patched up with concrete. Concrete beam cut to fit heavy duty crane (needs inspection to determine severity of impact on structure). Wall tiles broken. Minor: Floor tiles missing (concrete infill). Surface finish missing in places on all walls. Scrapings in ceiling from exterior door. I beams cut off over opening to adjacent room. Unused pipes in several areas. Construction of concrete foundation from adjacent room damaged wall tiles.

Reparations: Windows need to be changed, water damage and cut-off beam need inspection. Surface reparations depend on future use. Holes in walls need reparation. Broken tiles need to be replaced.





Room 05-05

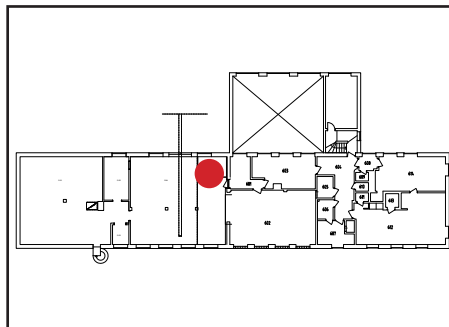
Room use: removed

Materials: raw concrete

Qualities: -

Installations: raised concrete floor

Colours: -



Damages:

Room has been removed

Reperations: Room has been removed

Room 06-01

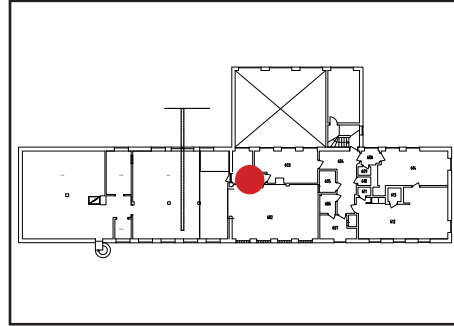
Room use: staircase

Materials: concrete, plaster, tile, wood

Qualities: The tiles, stair structure, natural light

Installations: Ventilation, electrical wires

Colours: Yellow, white, brown



Damages:

Major: holes in the exterior wall (in the stairs), broken wall plaster, minor: cracked paint, damaged window

Reperations: Walls, window



Room 06-02

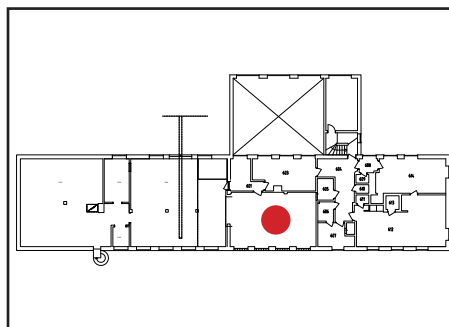
Room use: metal workshop

Materials: concrete, plaster, glass brick, wood

Qualities: Large room without pillars, natural light

Installations: Ventilation (?), pipe, electrical wires

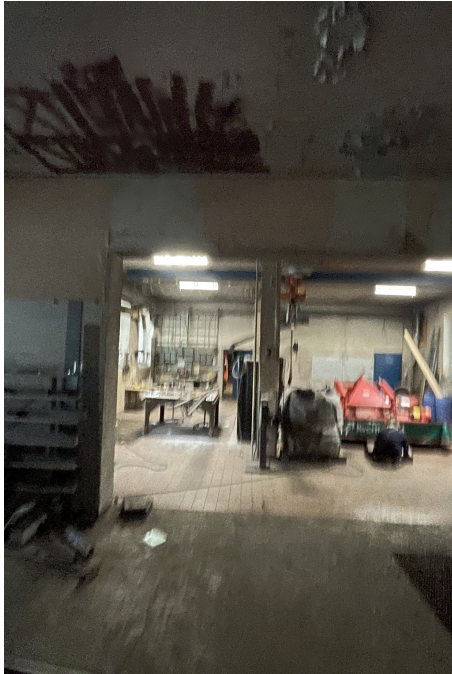
Colours: Raw concrete, white, grey, pink



Damages:

Broken windows, metal residue on ceiling, broken wall plaster, cracked paint

Reperations: Walls, ceiling, windows



Room 06-03

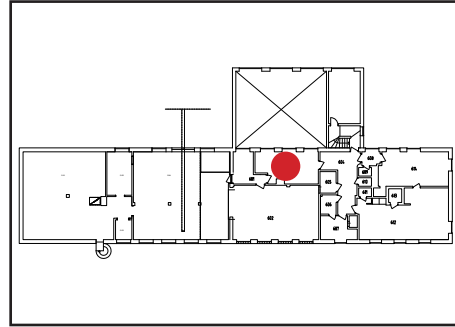
Room use: office

Materials: tile, wood

Qualities: Wooden doors, tile flooring

Installations: Electricity distribution board, ventilation, Kitchen sink

Colours: Grey, white, wood



Damages:

-

Reperations: Possibly change windows, wooden bases



Room 06-04

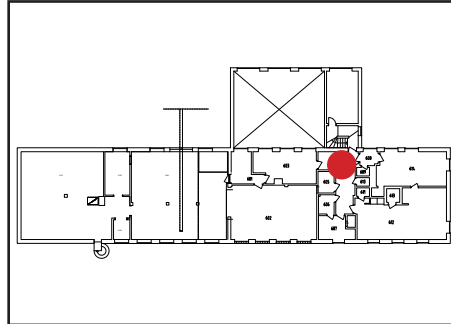
Room use: hallway

Materials: stone tile, wood

Qualities: Stone tile floor

Installations: Electricity distribution board, ventilation, electrical wires, water pipes

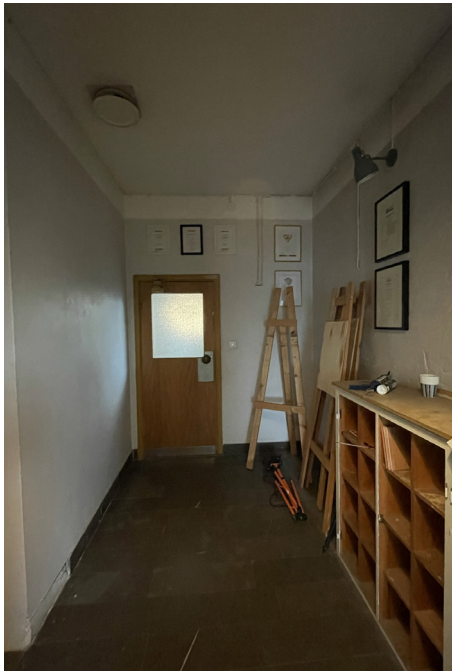
Colours: Grey, white, wood



Damages:

Minor: Broken bases, doors

Reperations: Bases, doors, repaint



Room 06-05

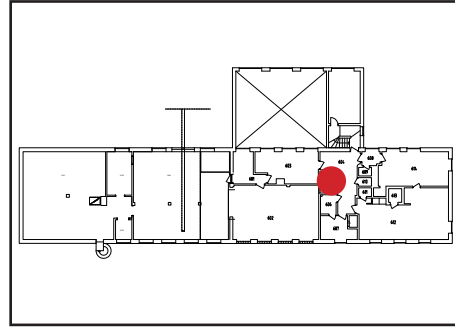
Room use: storage

Materials: concrete

Qualities: -

Installations: -

Colours: raw concrete, white



Damages:

Minor: Material surfaces

Reperations: Replastering?

Room 06-06

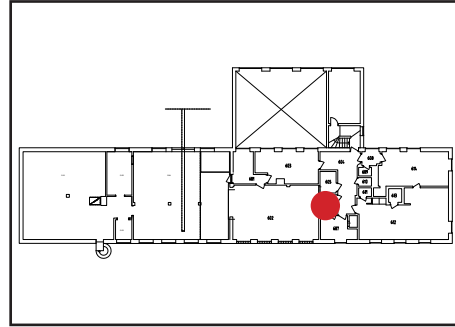
Room use: storage

Materials: tile, brick

Qualities: Green tile walls

Installations: Water heater,
water pipes

Colours: Green, white, brown



Damages:

Exposed brick in wall that's been teared down, exposed concrete in floor

Reperations: Floor, walls



Room 06-07

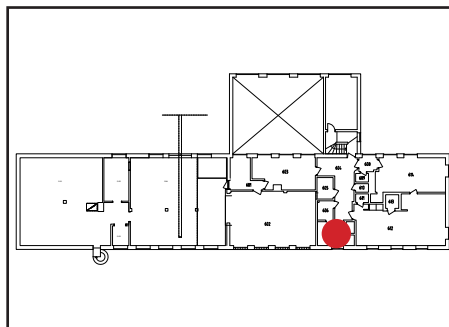
Room use: changing room

Materials: tile, brick

Qualities: Floor, tile walls,

Installations: Sink, washing machine, shower

Colours: Green, white, brown



Damages:

Window, exposed concrete

Reperations: Floor, window



Room 06-08

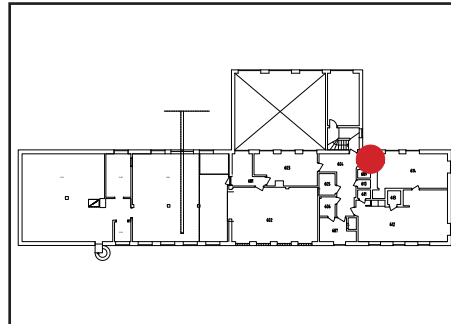
Room use: foyer

Materials: tile, brick

Qualities: Floor, tile walls, large window - natural light

Installations: -

Colours: Green, white, brown, grey



Damages:

Doors

Reperations: Doors, window



Room 06-09

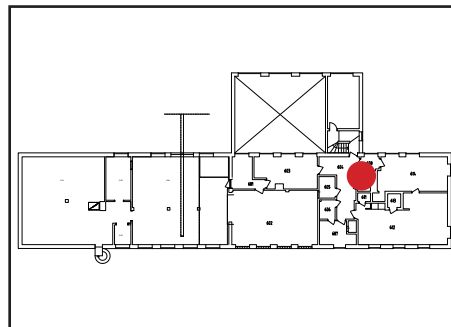
Room use: storage

Materials: tile, brick

Qualities: -

Installations: -

Colours: Brown, white



Damages:

Minor: damaged doorframe, floor surface?

Reperations: Change doorframe

Room 06-10

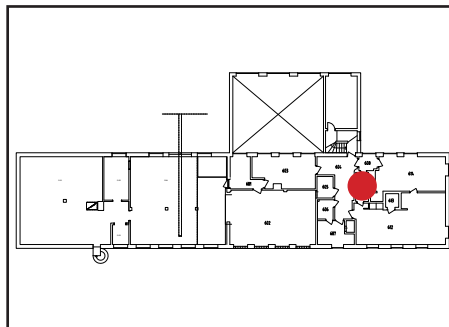
Room use: toilet

Materials: tile, brick, wood

Qualities: -

Installations: Sink, toilet, water pipes

Colours: Brown, white



Damages:

Minor: door broken

Reperations: Change door



Room 06-11

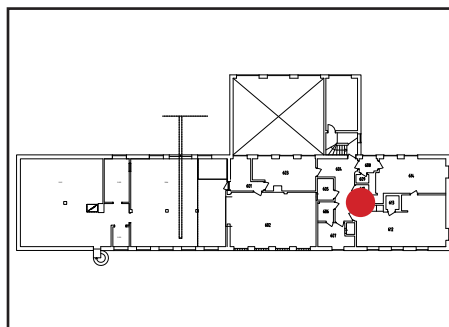
Room use: toilet

Materials: tile, brick, wood

Qualities: -

Installations: Sink, toilet, water pipes

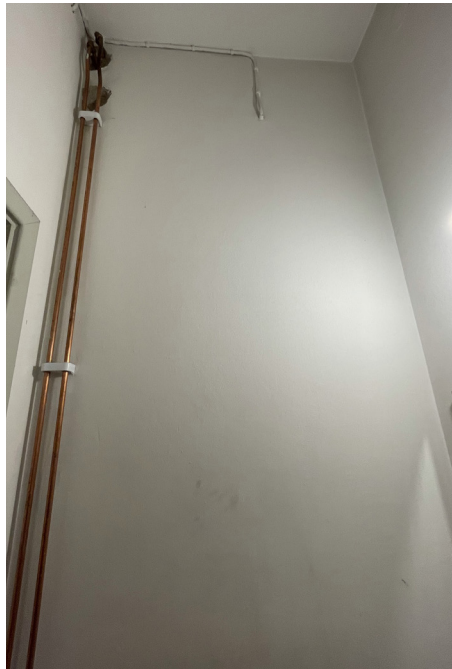
Colours: Brown, white, blue, wood



Damages:

-

Reperations: Repaint walls



Room 06-12

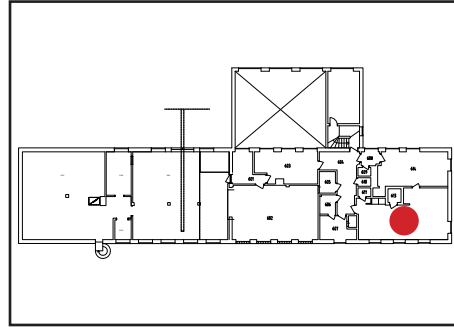
Room use: weaving room

Materials: linoleum, tile, wood

Qualities: Large room with natural light

Installations: Electrical wires

Colours: White, grey, beige, green, brown, wood



Damages:

Minor: exposed concrete between different floor surfaces (where there's previously been walls) Damaged windows

Reperations: Change or repair floor surface, change windows



Room 06-13

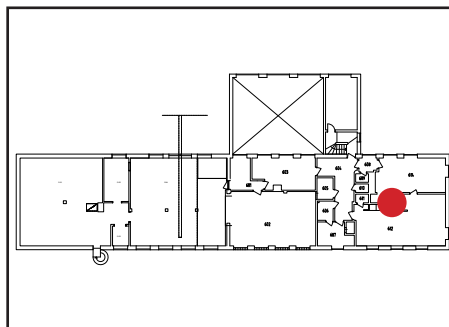
Room use: -

Materials: -

Qualities: -

Installations: -

Colours: -



Damages:

Room non-accessable

Reperations: Room non-accessable

Room 06-14

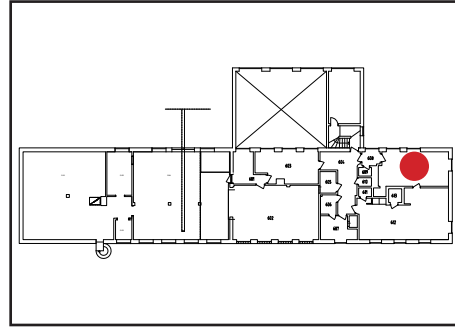
Room use: exhibition space

Materials: tile, wood

Qualities: Recently renovated part of the building, wall tiles

Installations: Water/drain pipes, electrical wires

Colours: White, green, wood, brown,



Damages:

Minor: damaged windows, damaged door, hole in the wall (ventilation?)

Reperations: Change or repair windows, change door



Room 07-01

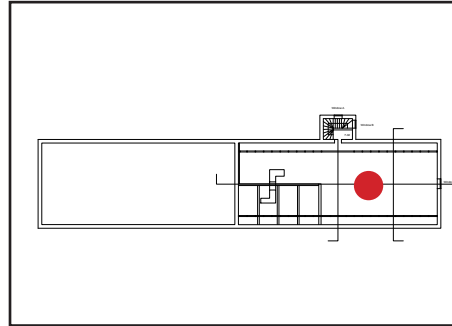
Room use: attic

Materials: wood, concrete,
brick, stone

Qualities: great floor, windows
--> light staircase

Installations: -

Colours: grey, yellow



Damages:

Minor : cracked paint and dirty space

Reperations: - windows need to be painted and wood to be treated



Room 07-02

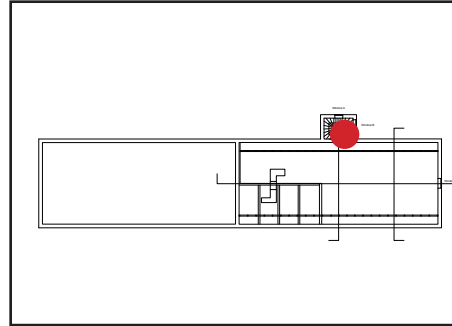
Room use: landing

Materials: wood, brick, pvc?

Qualities: wood frame, open space, dark area

Installations: ventilation pipes, chimney

Colours: brown



Damages:

Major : - huge crack along the gable next to the window (the upper part of the wall is attached to the truss and the lower part is getting pulled down because of the sinking building)
- important water leakage through the roof

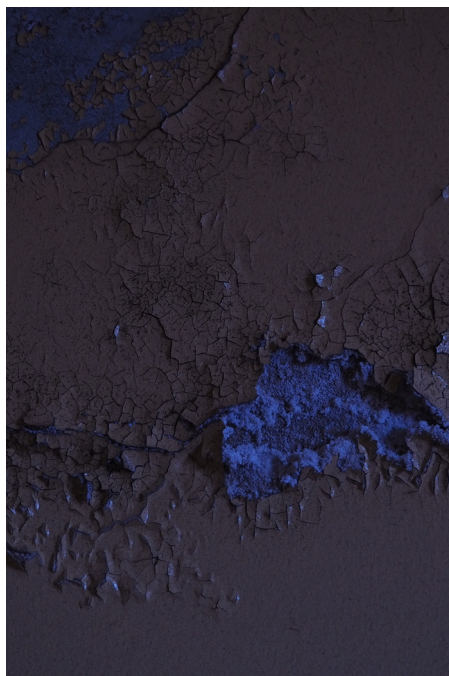
Moderate : - missing beams under a part of the floor

Minor : - bare walls, dirty space

Reperations: strengthen the floor
fix the leak

short term actions for the wall/gable : - add mortar to the crack

long term actions for the wall/gable : - stabilise foundations



Room 08-01

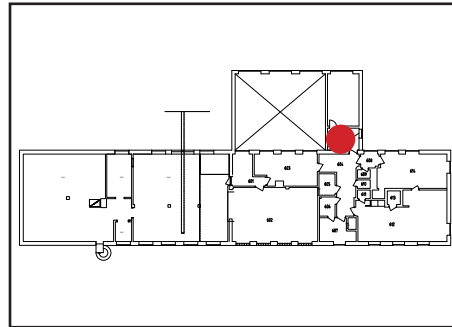
Room use: staircase

Materials: concrete, stone, glass, wood, metal

Qualities: natural light (windows), esthetic stair finishing (tiles, round ends walls)

Installations: heaters, electricity

Colours: yellow (walls), grey (stairs and floor), brown handrail



Damages:

minor : inner doors + stairs and floor need cleaning

Moderate : cracked paint and dirty space + entrance door -> gap between the frame of the door and the wall : need a clean finish + repaint the windows frames.

Major : heaters need check up, prepared, repaint and refixed (need a profesional) + open wirehole need to get fixed.

Reperations: new surface layers (walls, ceilings and floor).
long term actions : replace windows (stairs cage isn't the most urgent)

Room 08-02

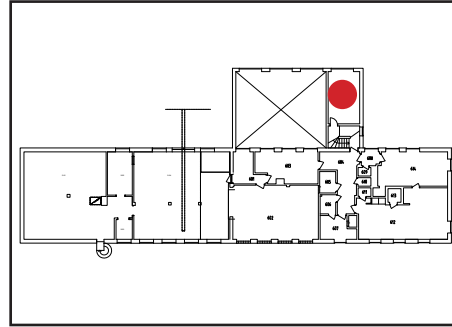
Room use: storage

Materials: concrete, glass, wood

Qualities: natural light, high rooms, opens directly on the outside

Installations: electricity (lamps and power)

Colours: white/grey red walls, grey tiles on the floor



Damages:

minor: windows, doors, floor need to get cleaned

moderate: Door - gap between the frame and the wall > insulation is coming out, walls need to get prepared and repainted, some holes in the walls need to get filled

major: insulation above the door has holes, no glass in the window frame

Reparations: new surface layers (walls, ceiling and floor). long term actions : replace windows/door, new insulation

Room 08-03

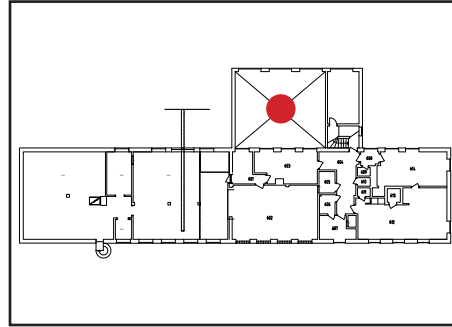
Room use: storage

Materials: concrete, glass, wood

Qualities: natural light, high room, size, opens directly on the outside

Installations: ventilation, ventilation pipes, electric cables, lamps

Colours: white/grey red walls, grey tiles on the floor



Damages:

minor: windows, doors, floor need to get cleaned

moderate: Door - gap between the frame and the wall > insulation is coming out, walls need to get prepared and repainted, some holes in the walls need to get filled, window frames need fixed, wires of the lamps hanging around

major: ventilation is partly gone - needs replacement, floor - tiles broken, big holes in floor, very uneven > replace tiles, fill holes, pipes are broken > new pipes

Reperations: new surface layers (walls, ceiling and floor) - new paint, new tiles, floor needs to get replaced > new, replace pipes
long term actions : replace windows/door, new insulation

