

An aerial photograph of a city waterfront, likely Amsterdam, showing a mix of modern and traditional architecture, a river with boats, and a bridge. A red banner is overlaid across the center of the image.

Accelerating the transition towards Circular Economy

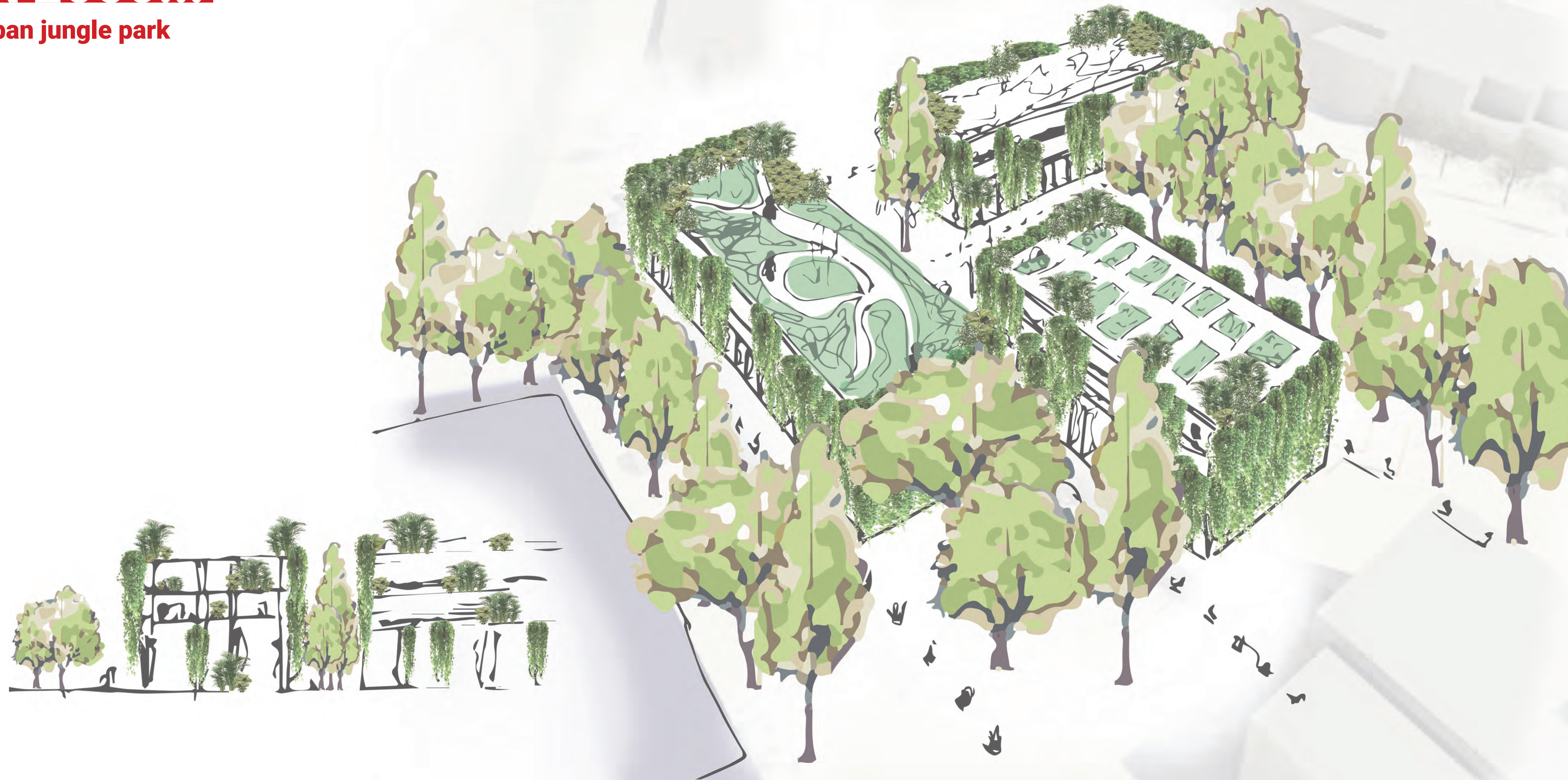
MARC BOLIER - 4283066

P5 PRESENTATION - ARCHITECTURAL ENGINEERING - 1-FEBUARI-2019

TUTURS: ROEL VAN DE PAS, ENGBERT VAN DER ZAAG, DAVID PECK, FRITS VAN LOON

IN 2050...

Urban jungle park



2050

2055

2060

2065

2070

2075

2080

2085

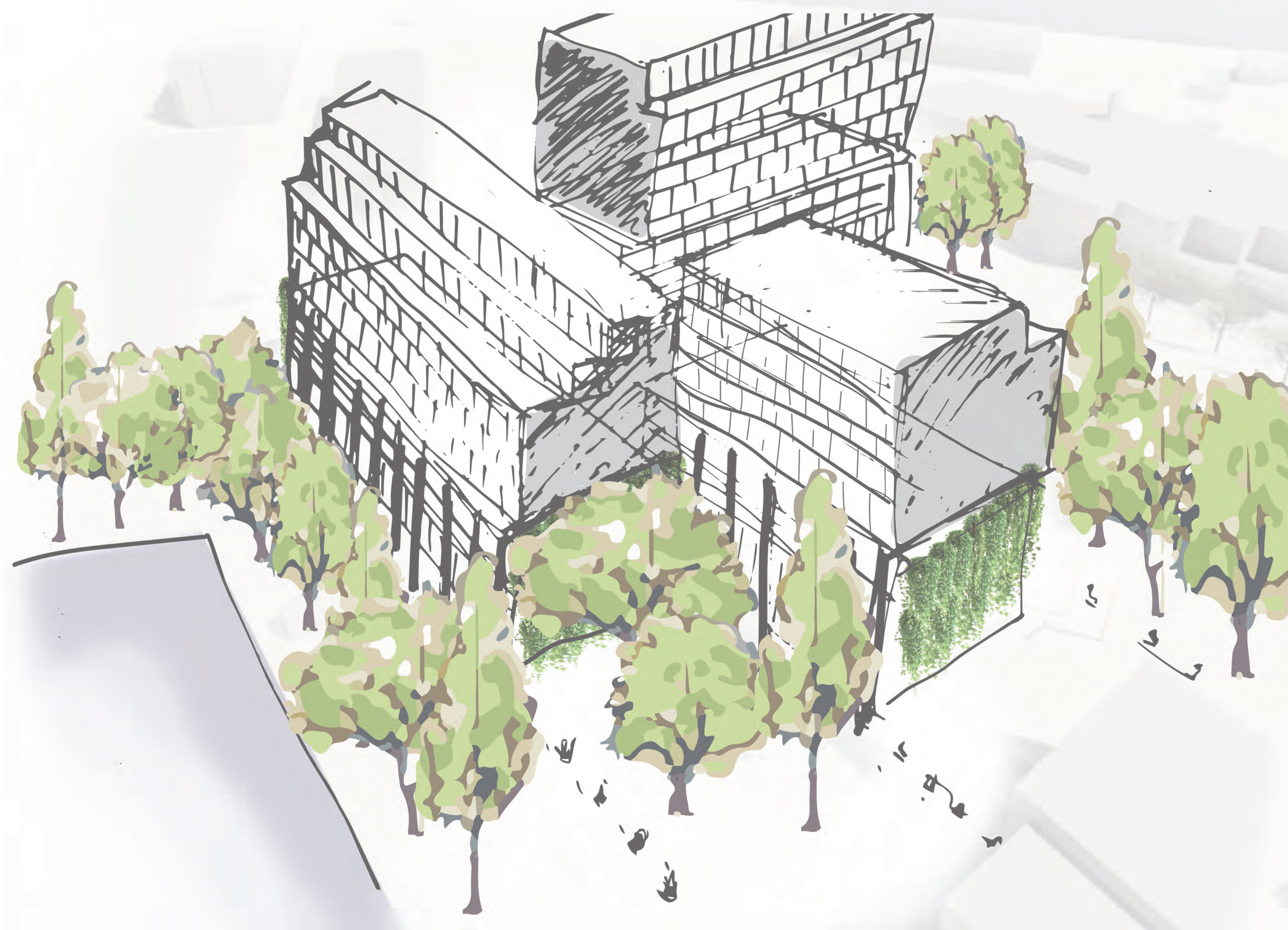
2090

2095

2100

IN 2050...

Or stacking



2050

2055

2060

2065

2070

2075

2080

2085

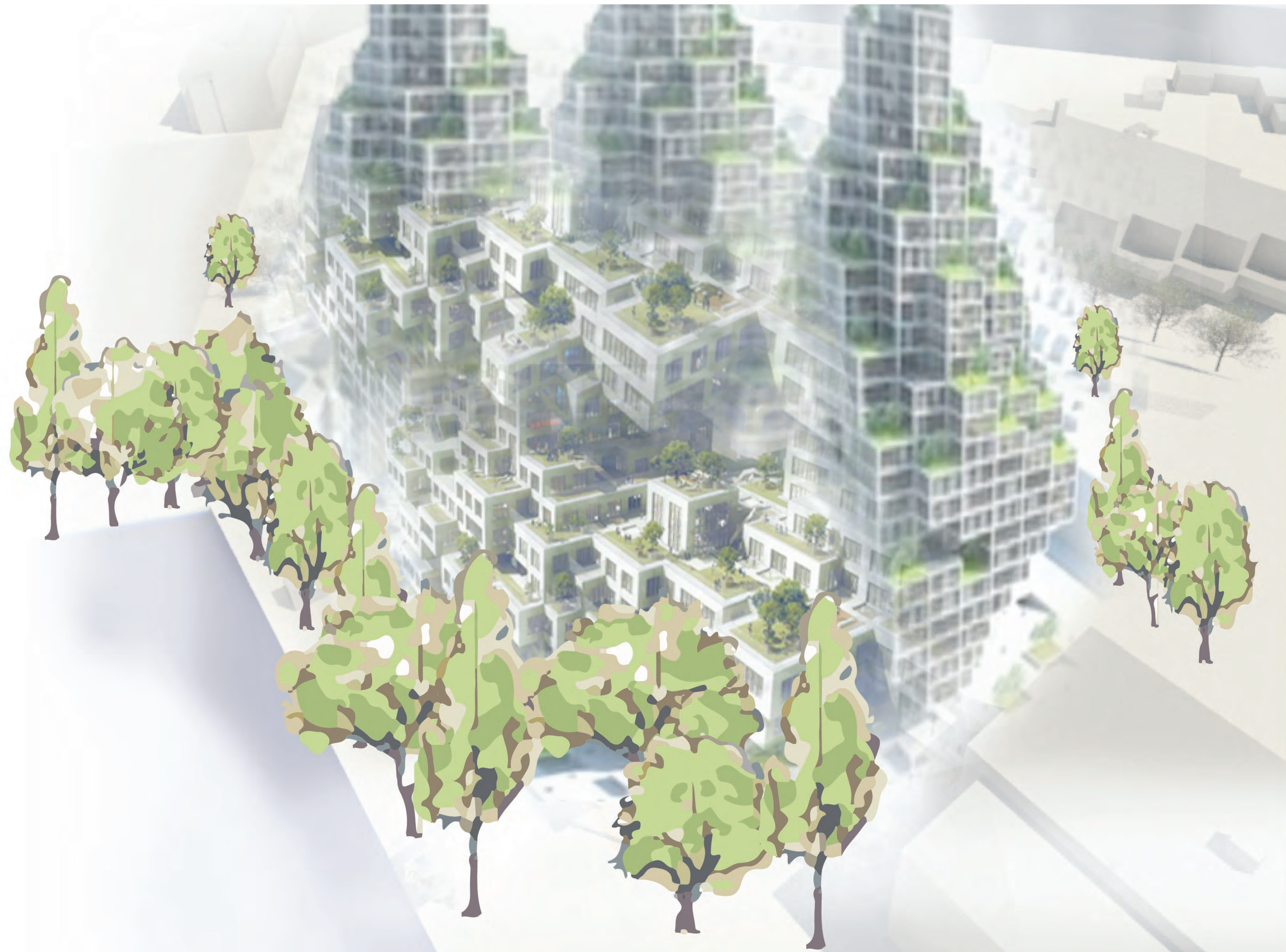
2090

2095

2100

IN 2050...

Or MVRDV/BIG



2050

2055

2060

2065

2070

2075

2080

2085

2090

2095

2100

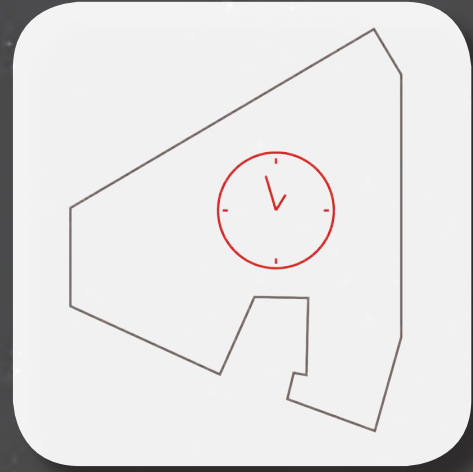
BUT FIRST...



2050 2055 2060 2065 2070 2075 2080 2085 2090 2095 2100



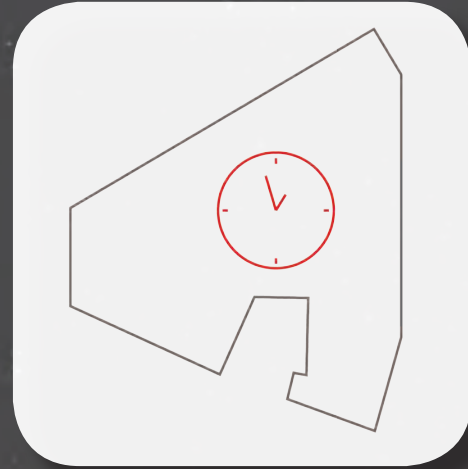
PROPOSED SCENARIO



Temporary



PROPOSED SCENARIO



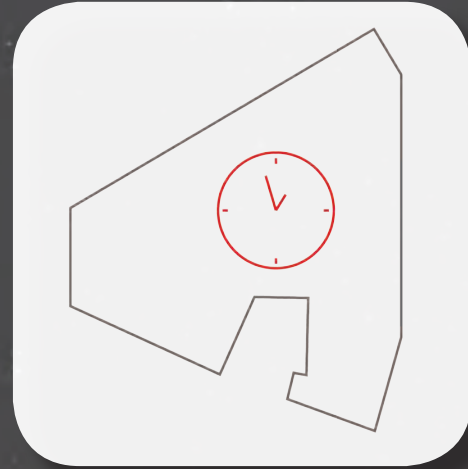
Temporary



Circular



PROPOSED SCENARIO



Temporary



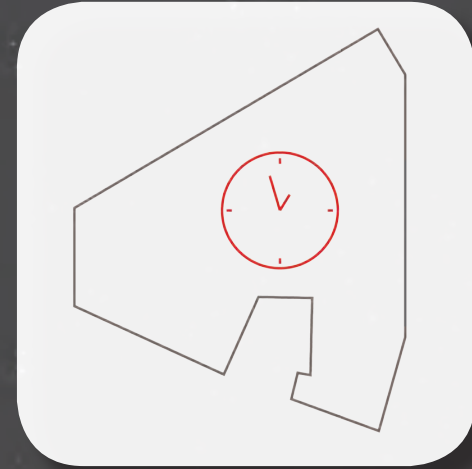
Circular



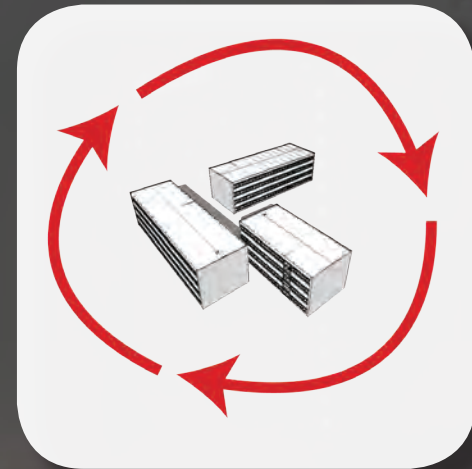
By an integrated team



PROPOSED SCENARIO



Temporary



Circular

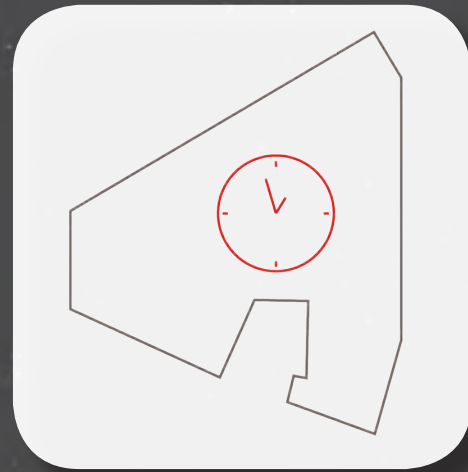


By an integrated team



Celebrating the history

PROPOSED SCENARIO



Temporary



Circular

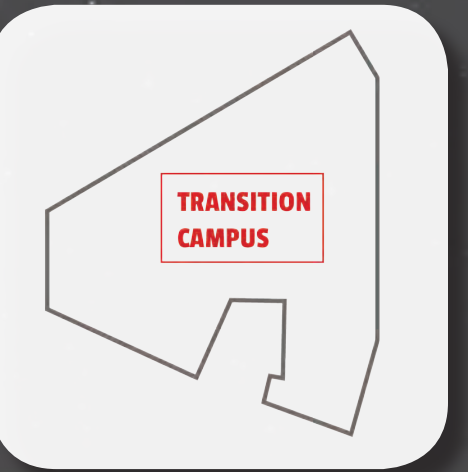


By an integrated team

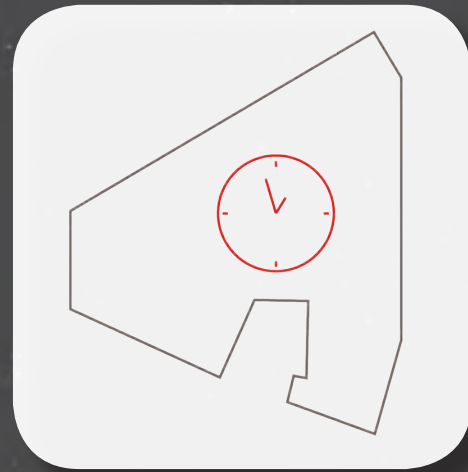


Celebrating the history

Combining the whole site
into a transition campus



PROPOSED SCENARIO



Temporary



Circular

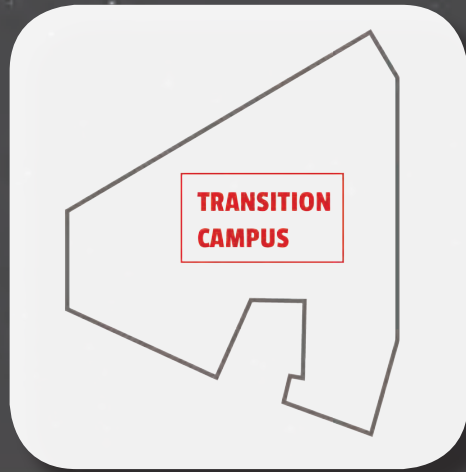


By an integrated team



Celebrating the history

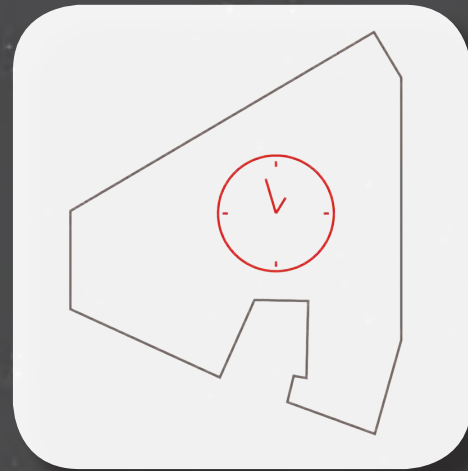
Combining the whole site
into a transition campus



Providing the missing necessities



PROPOSED SCENARIO



Temporary



Circular

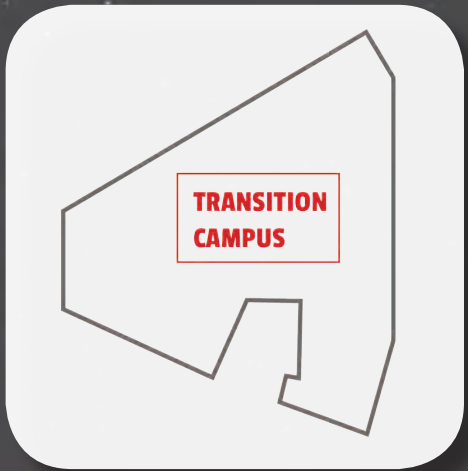


By an integrated team



Celebrating the history

Combining the whole site into a transition campus



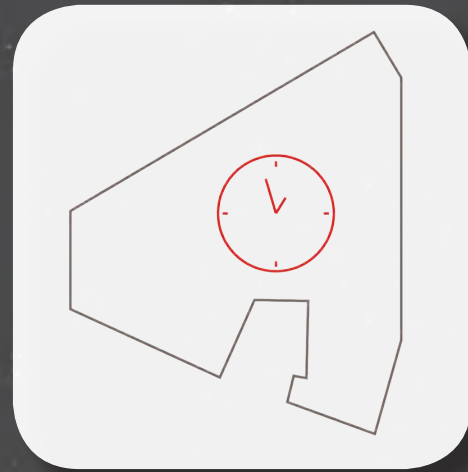
Providing the missing necessities



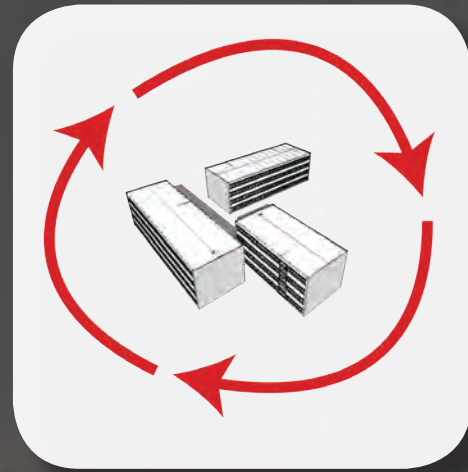
Providing a testing ground



PROPOSED SCENARIO



Temporary



Circular

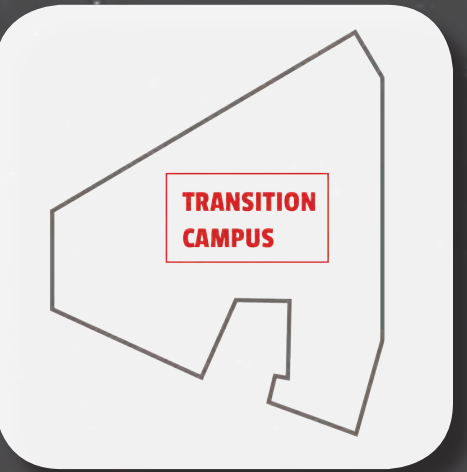


By an integrated team



Celebrating the history

Combining the whole site into a transition campus



Providing the missing necessities



Providing a testing ground

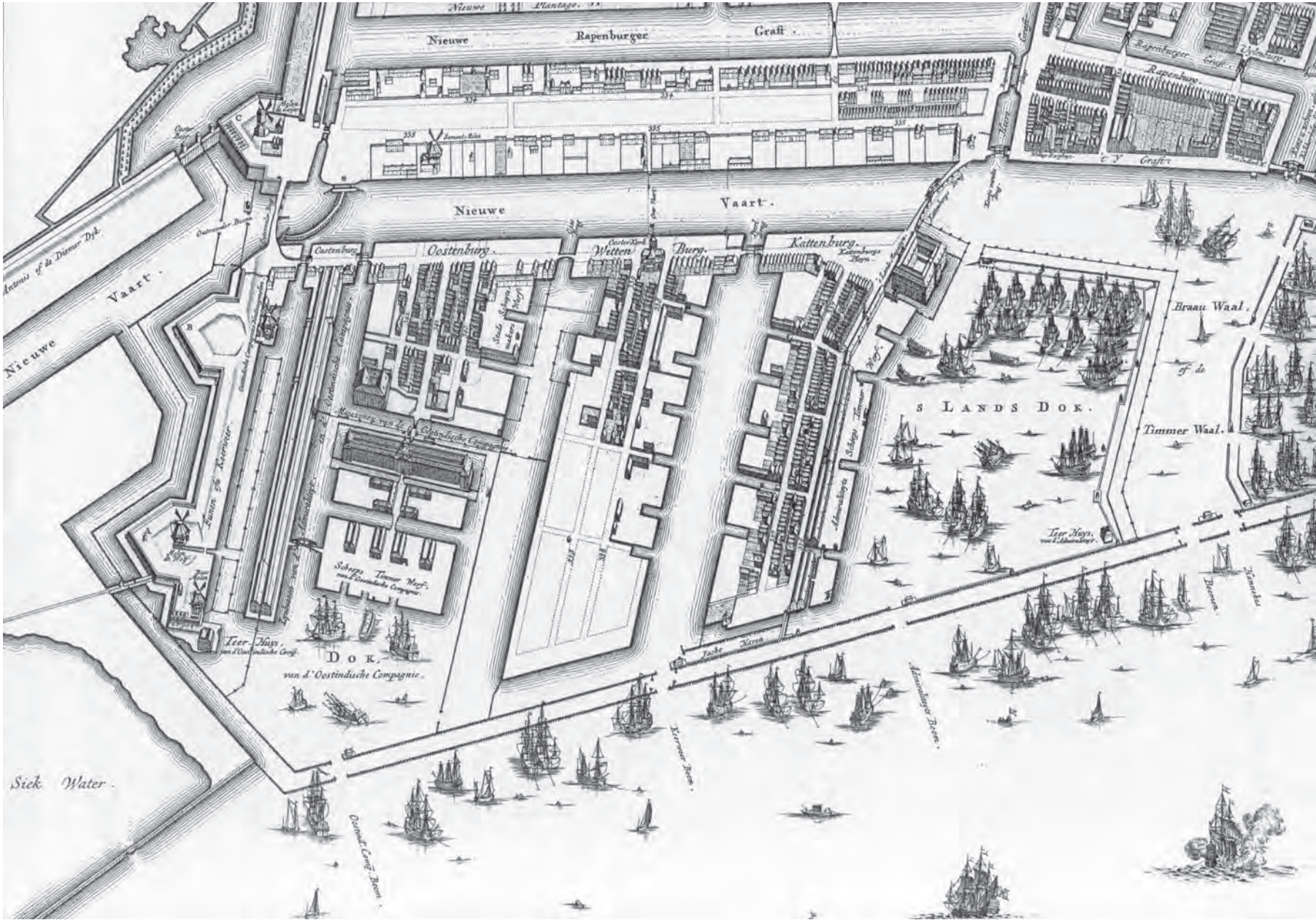


Facilitating interlinkages between niche-innovations



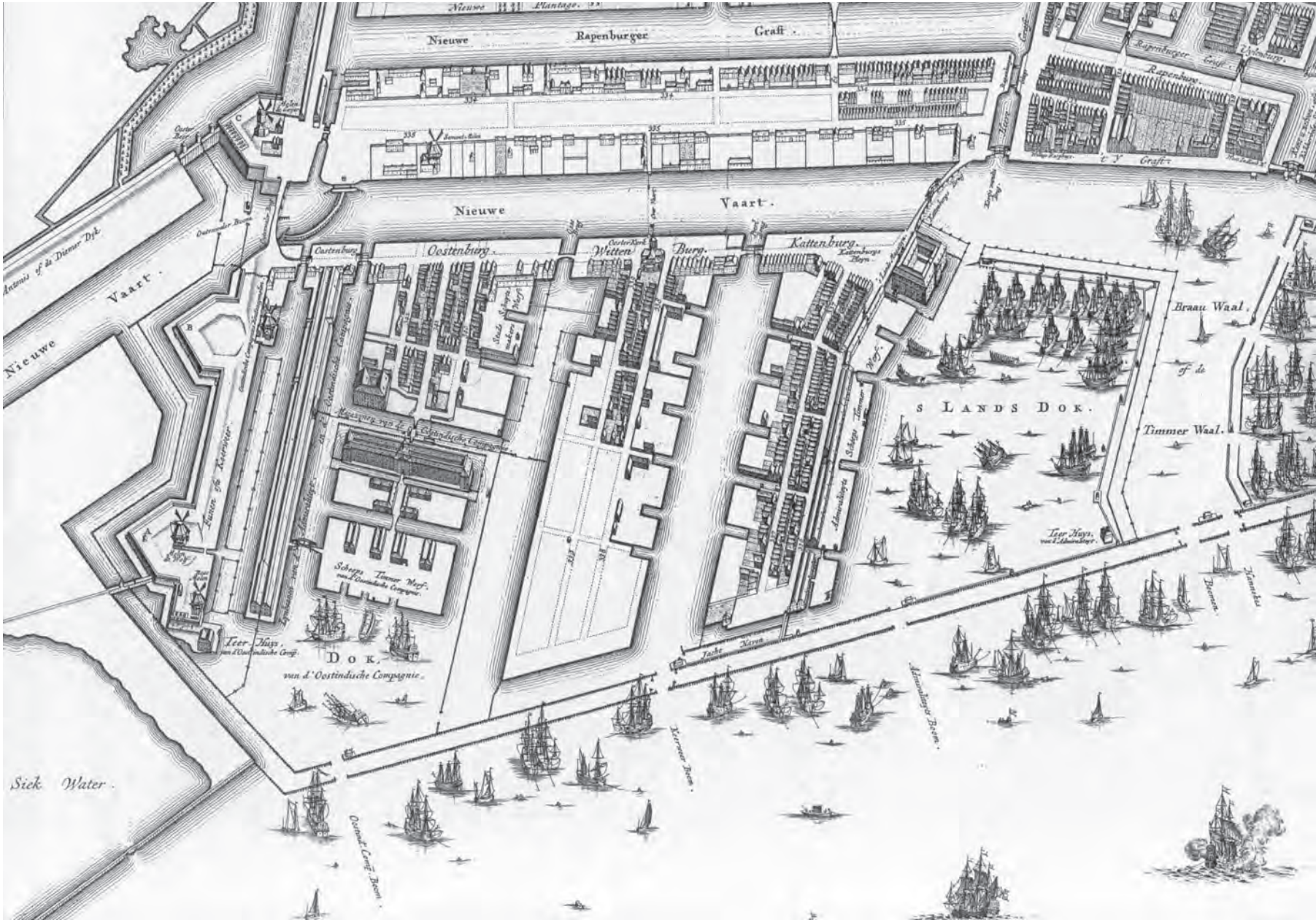
MARINETERREIN

History and development



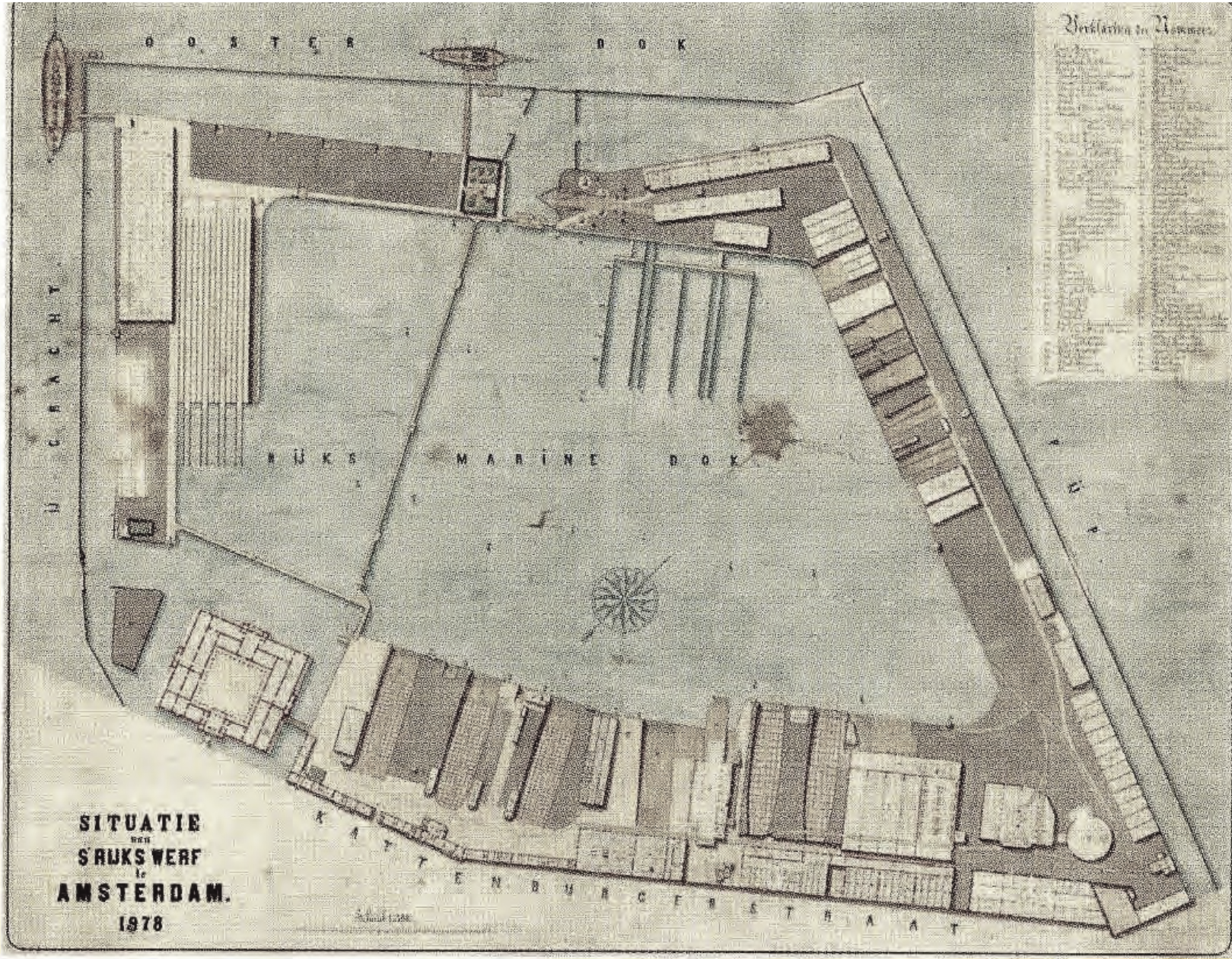
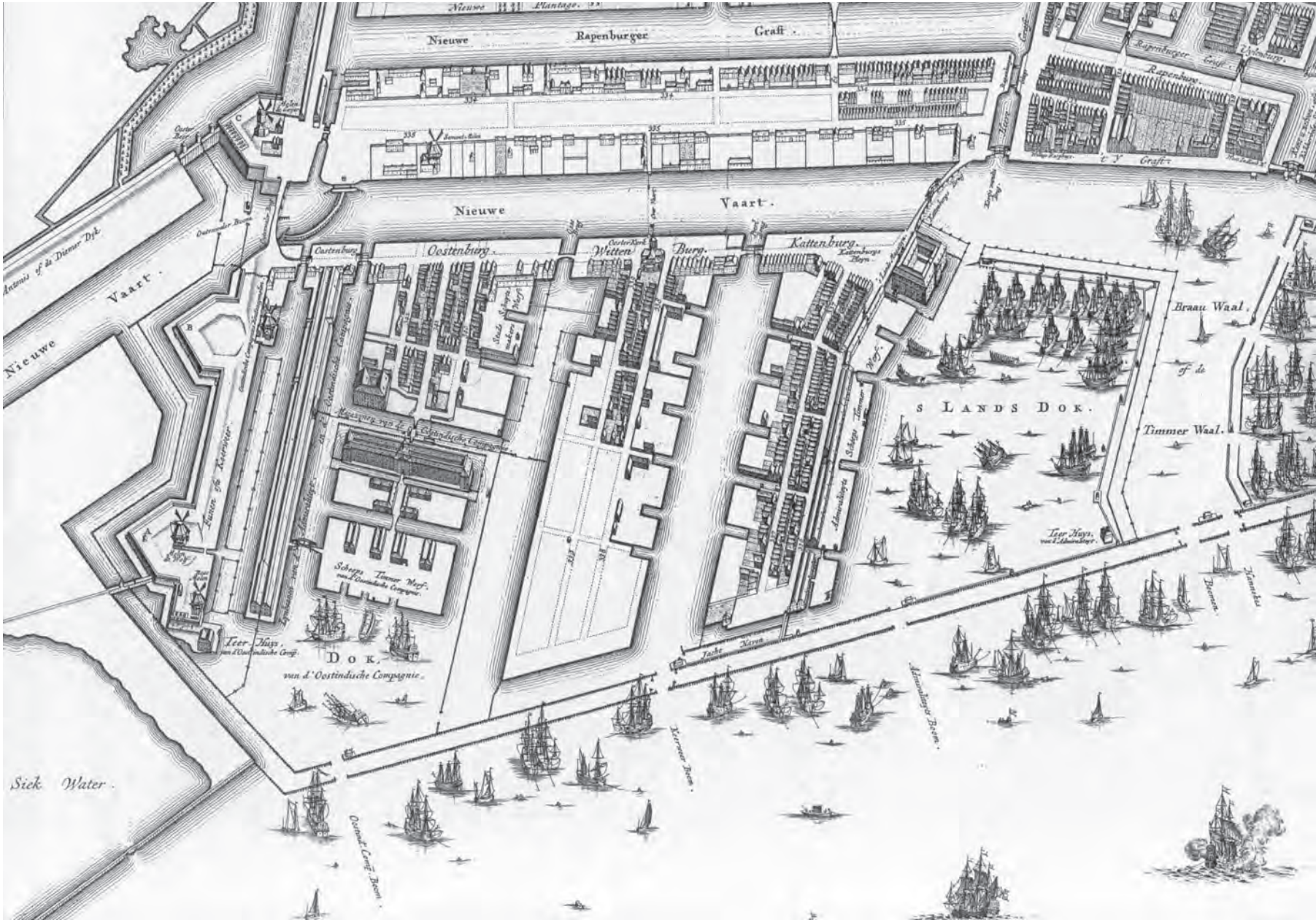
MARINETERREIN

History and development



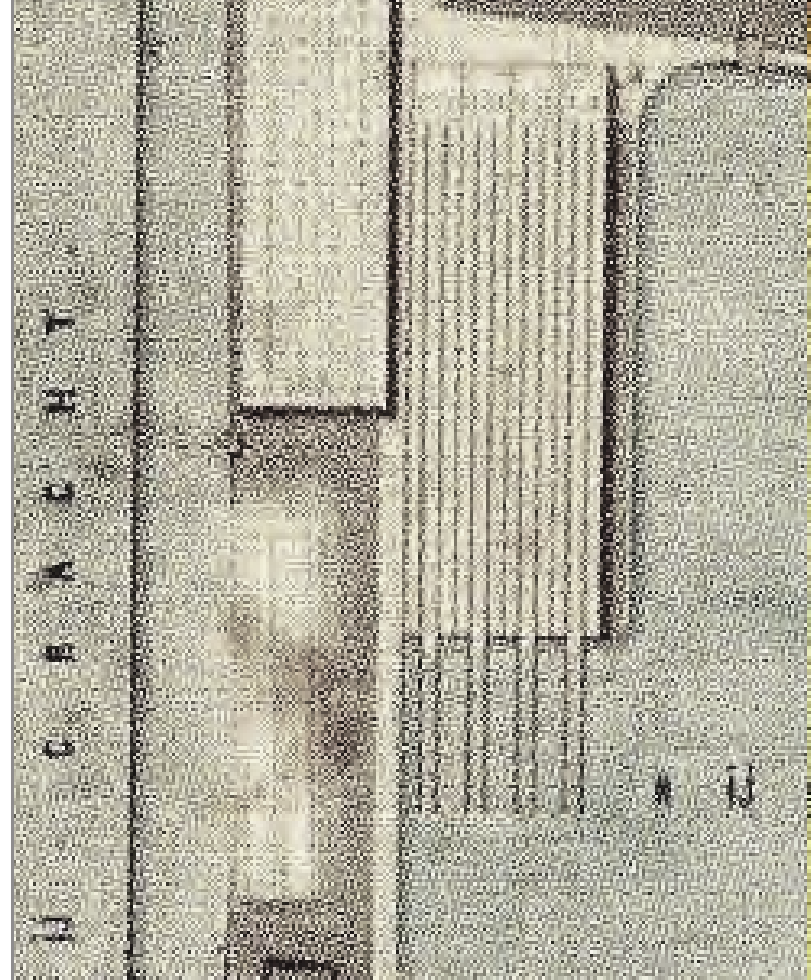
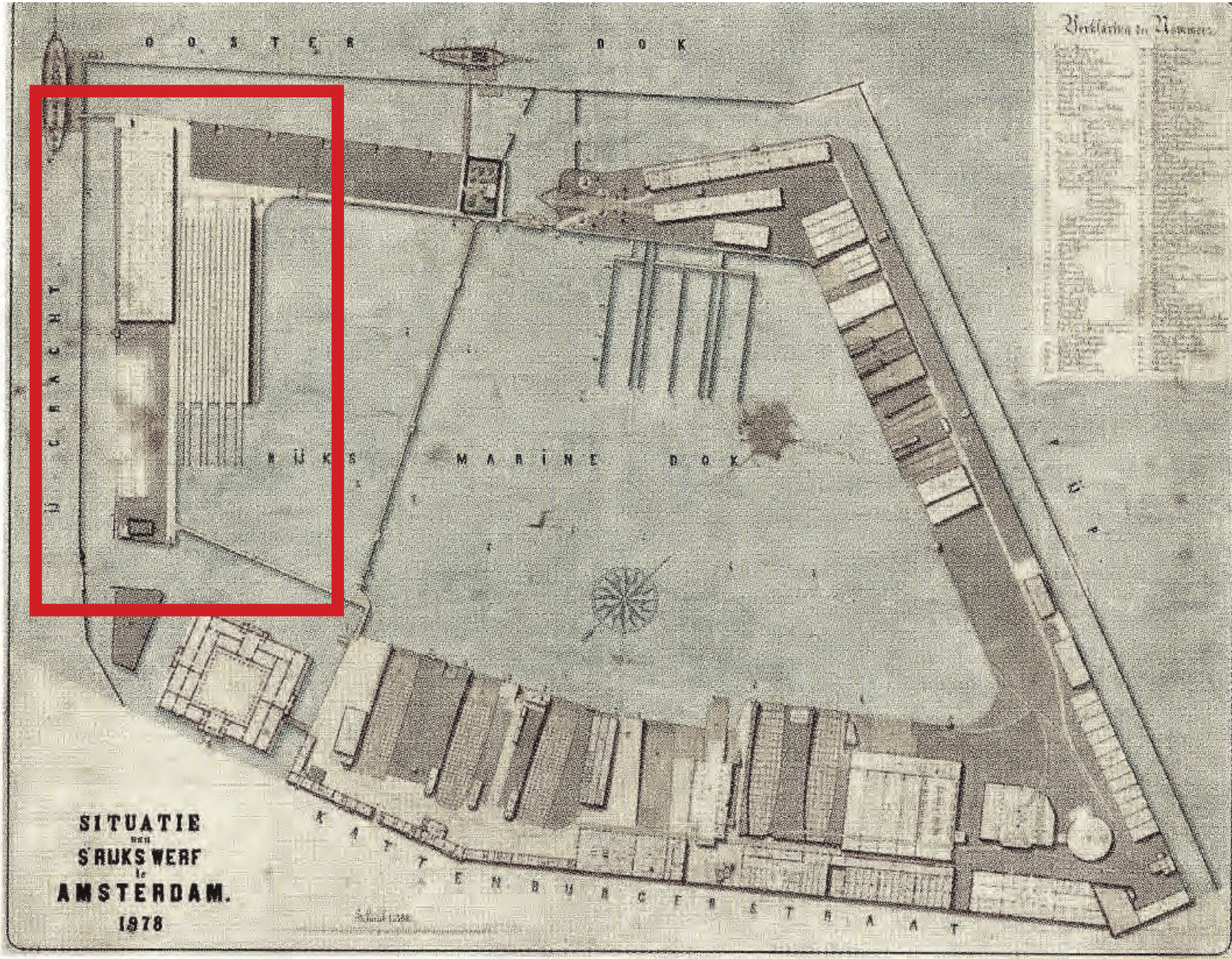
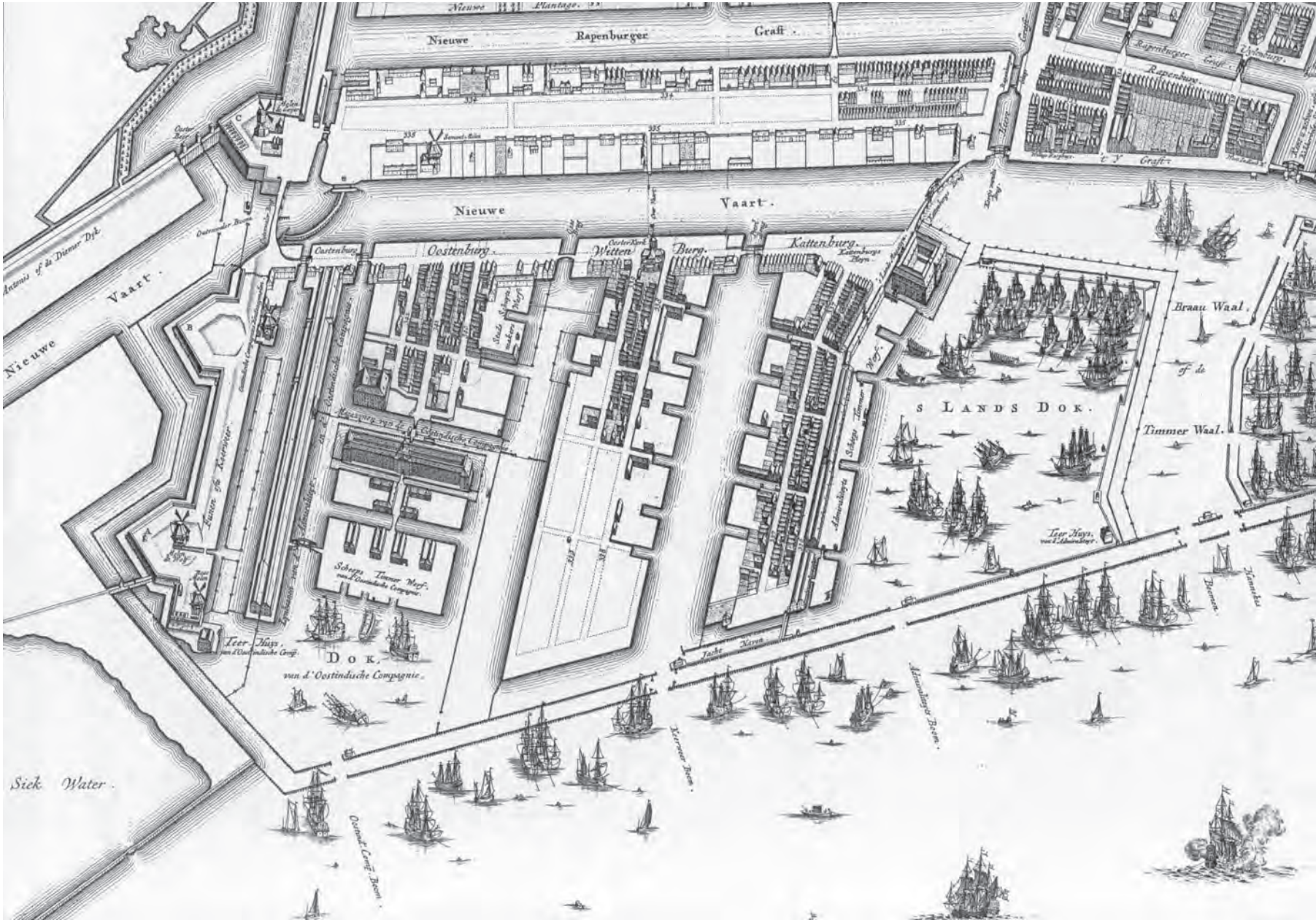
MARINETERREIN

History and development



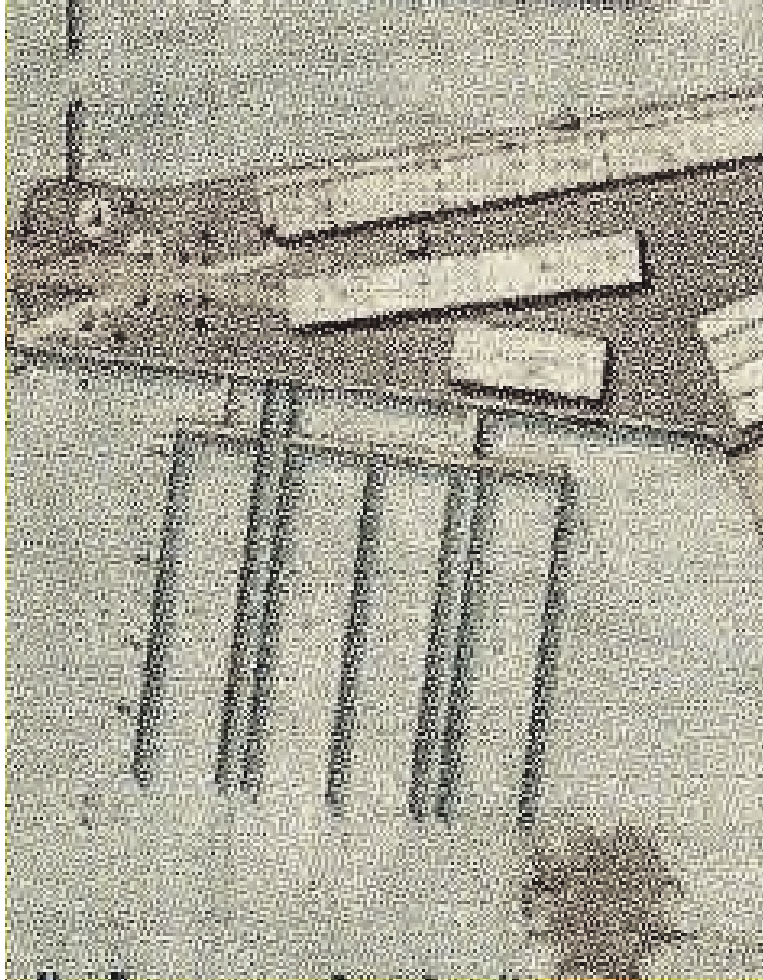
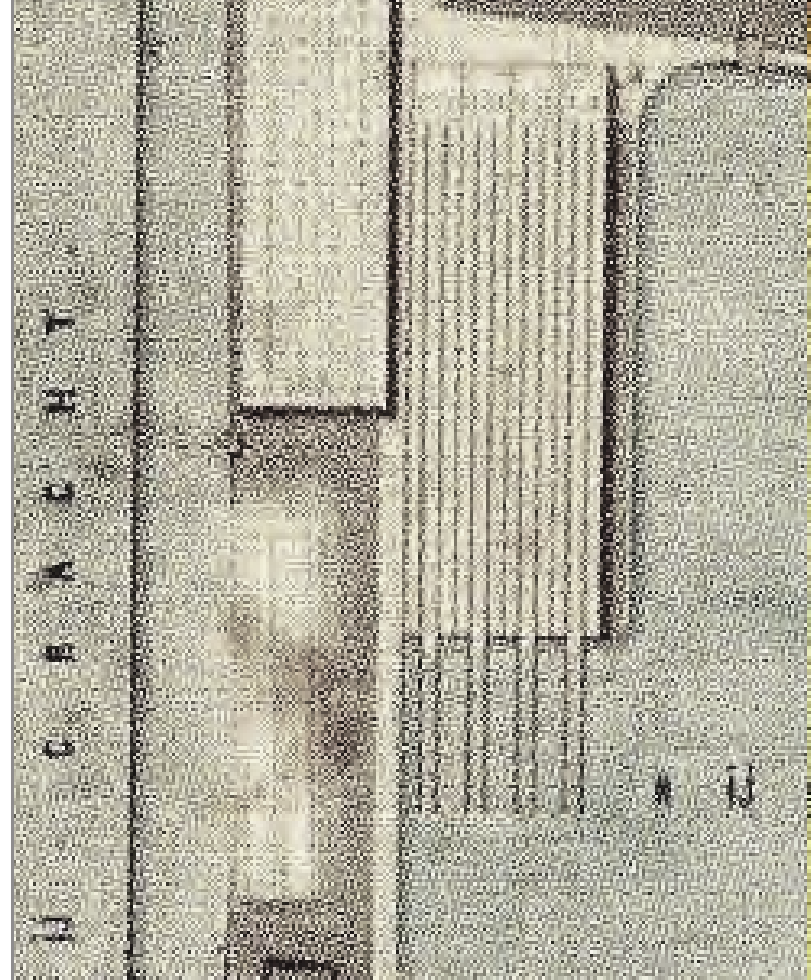
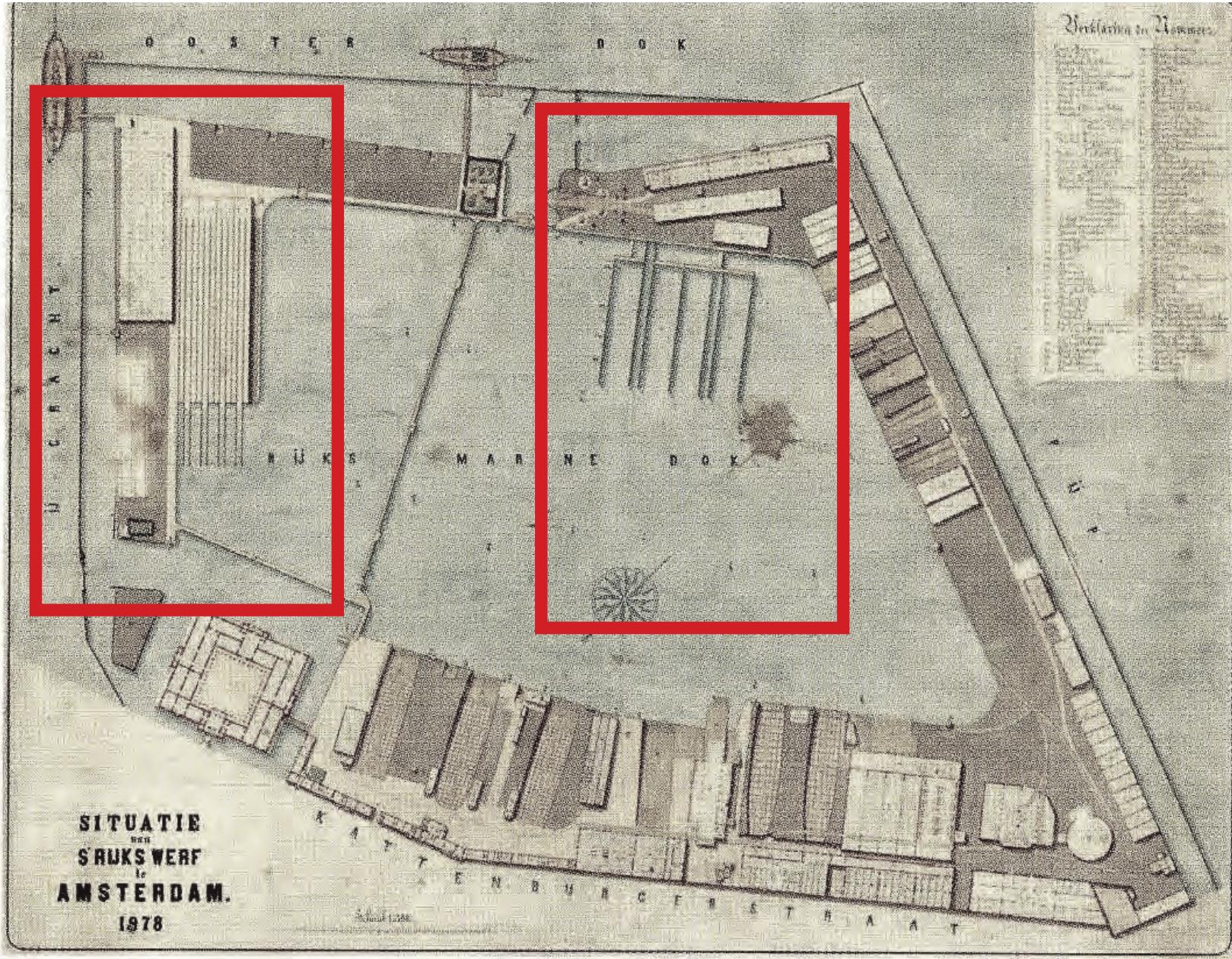
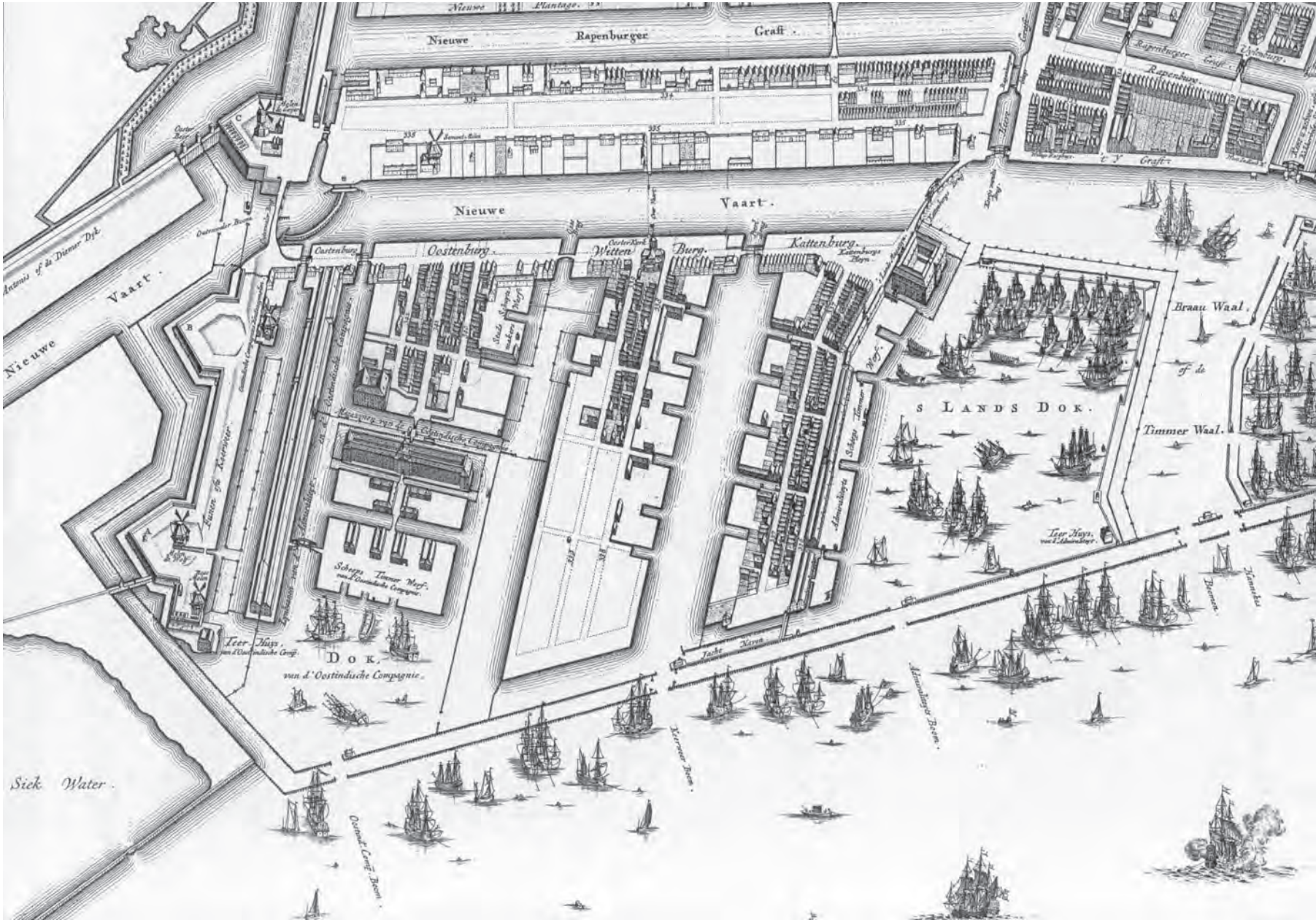
MARINETERREIN

History and development



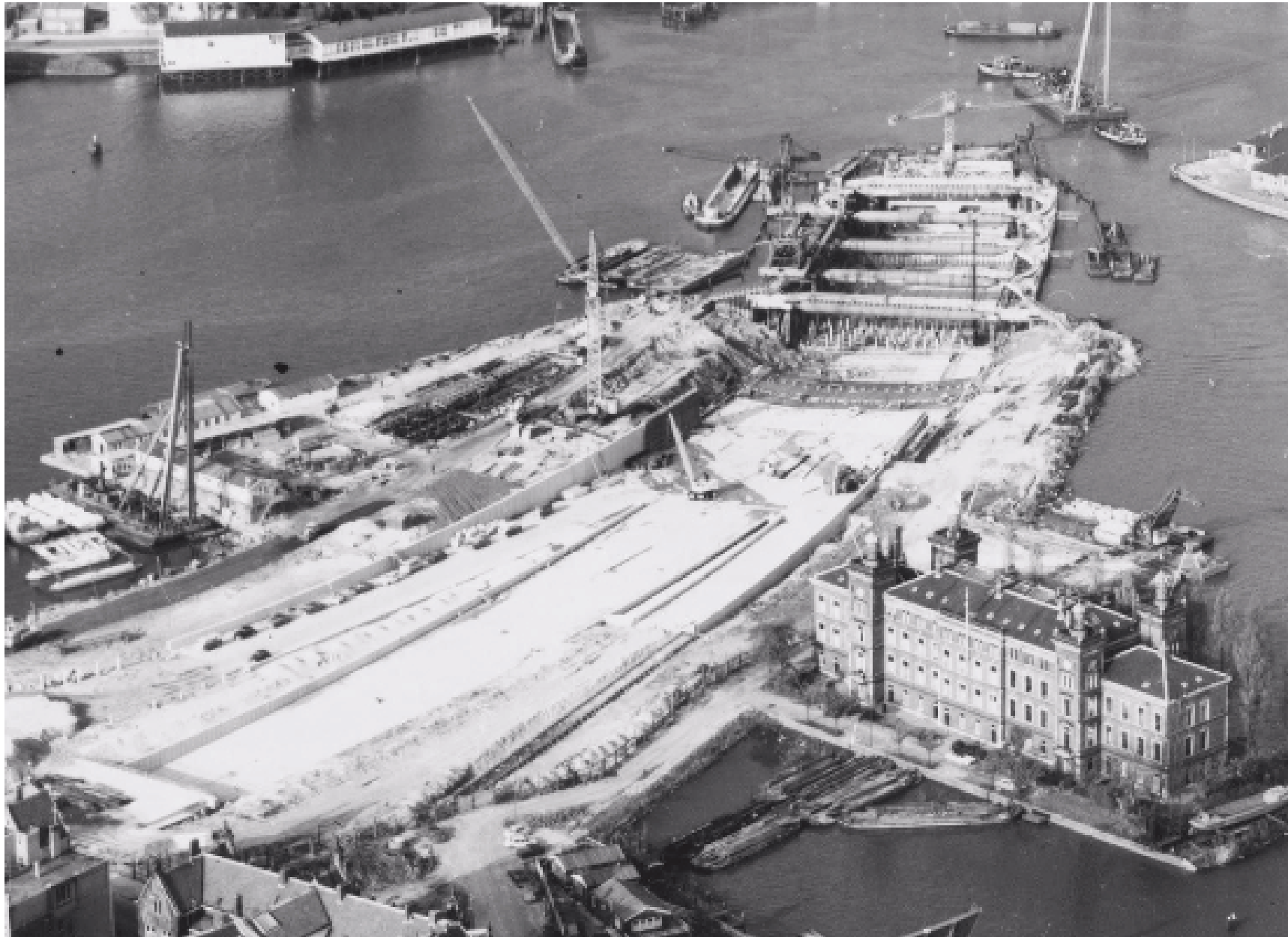
MARINETERREIN

History and development



MARINETERREIN

History and development



1500

2018

2019

2020

2021

2022

2023

2024

2025

2026

2027

2028

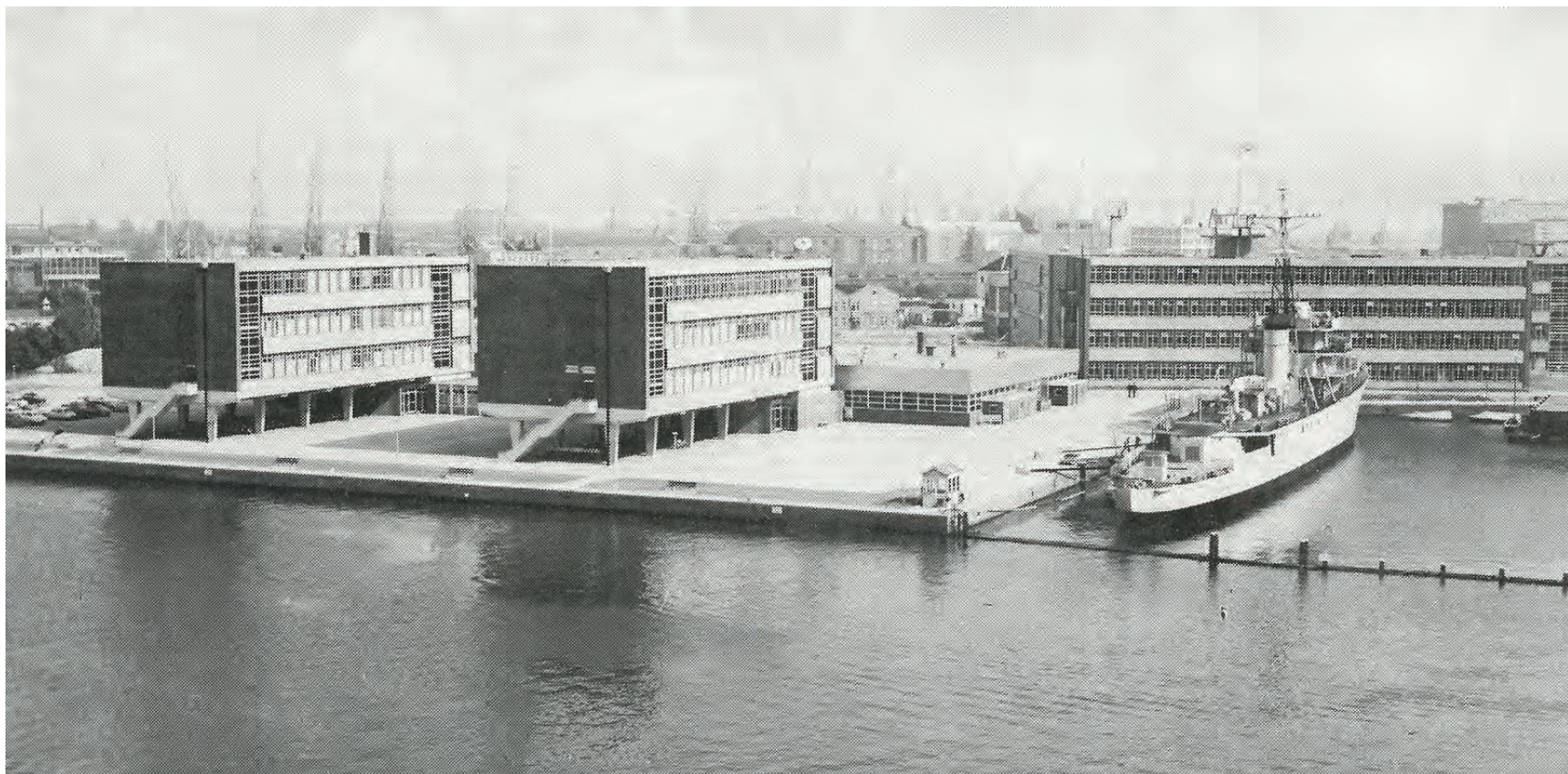
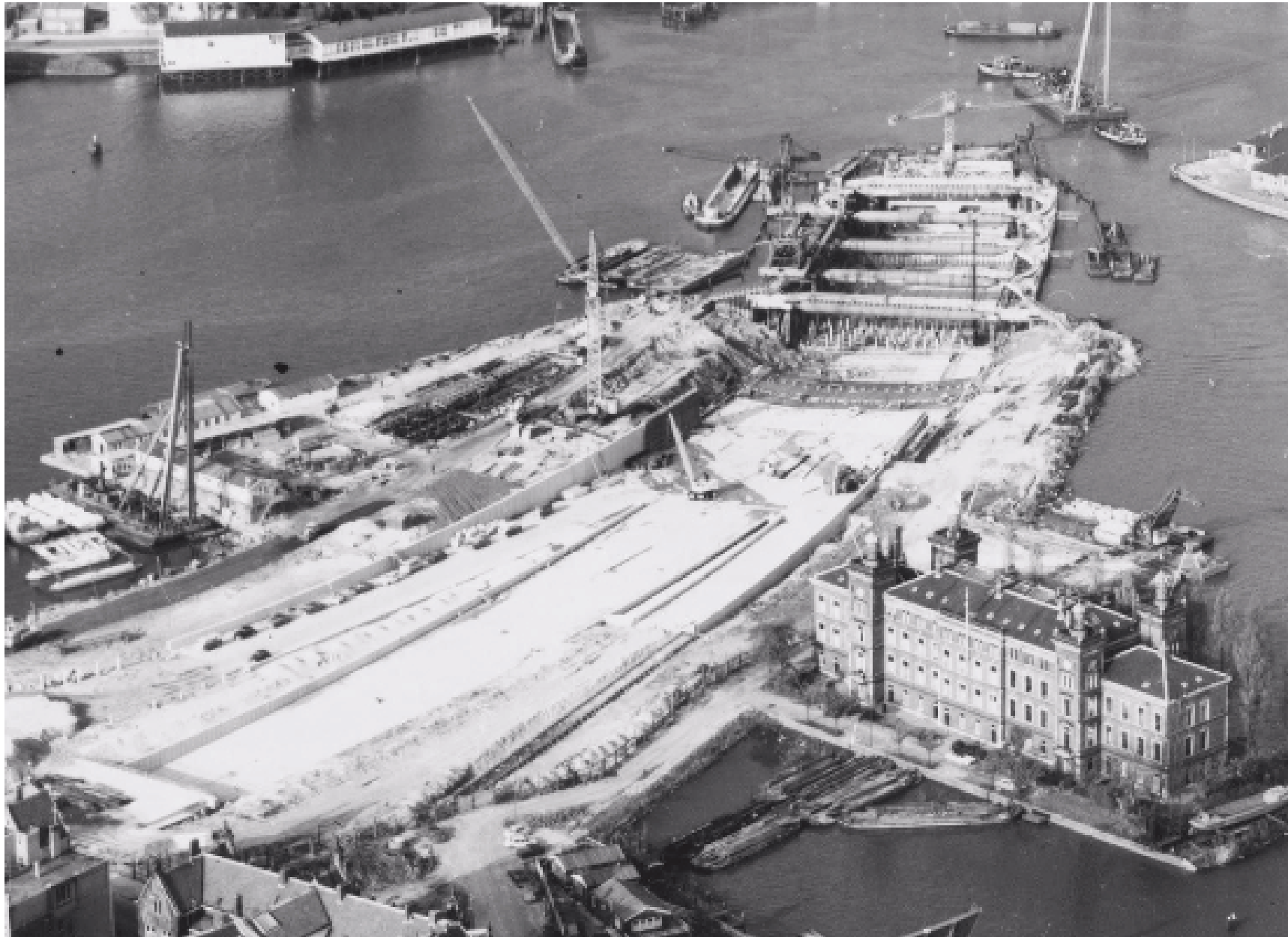
2029

2030

2050

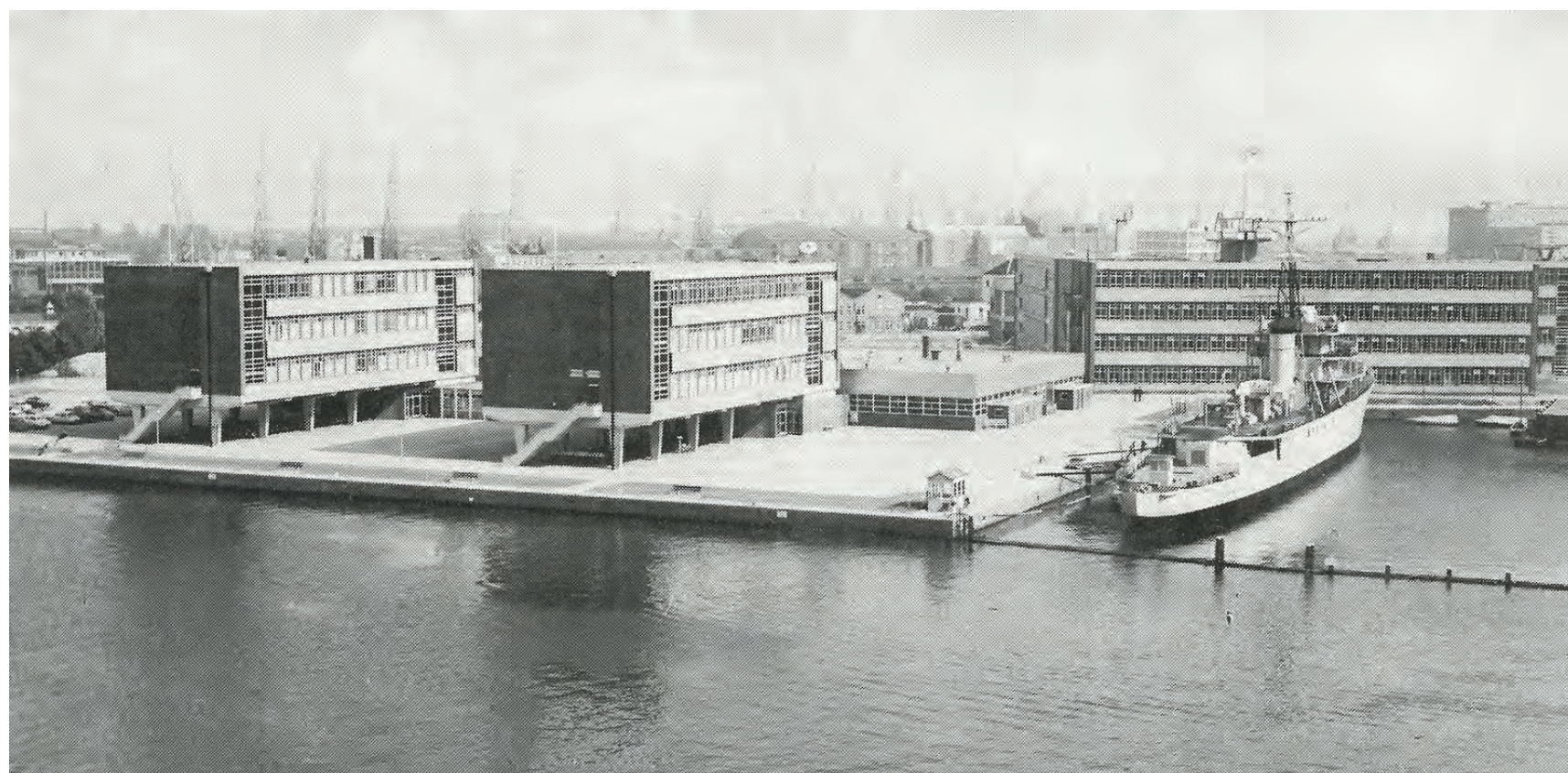
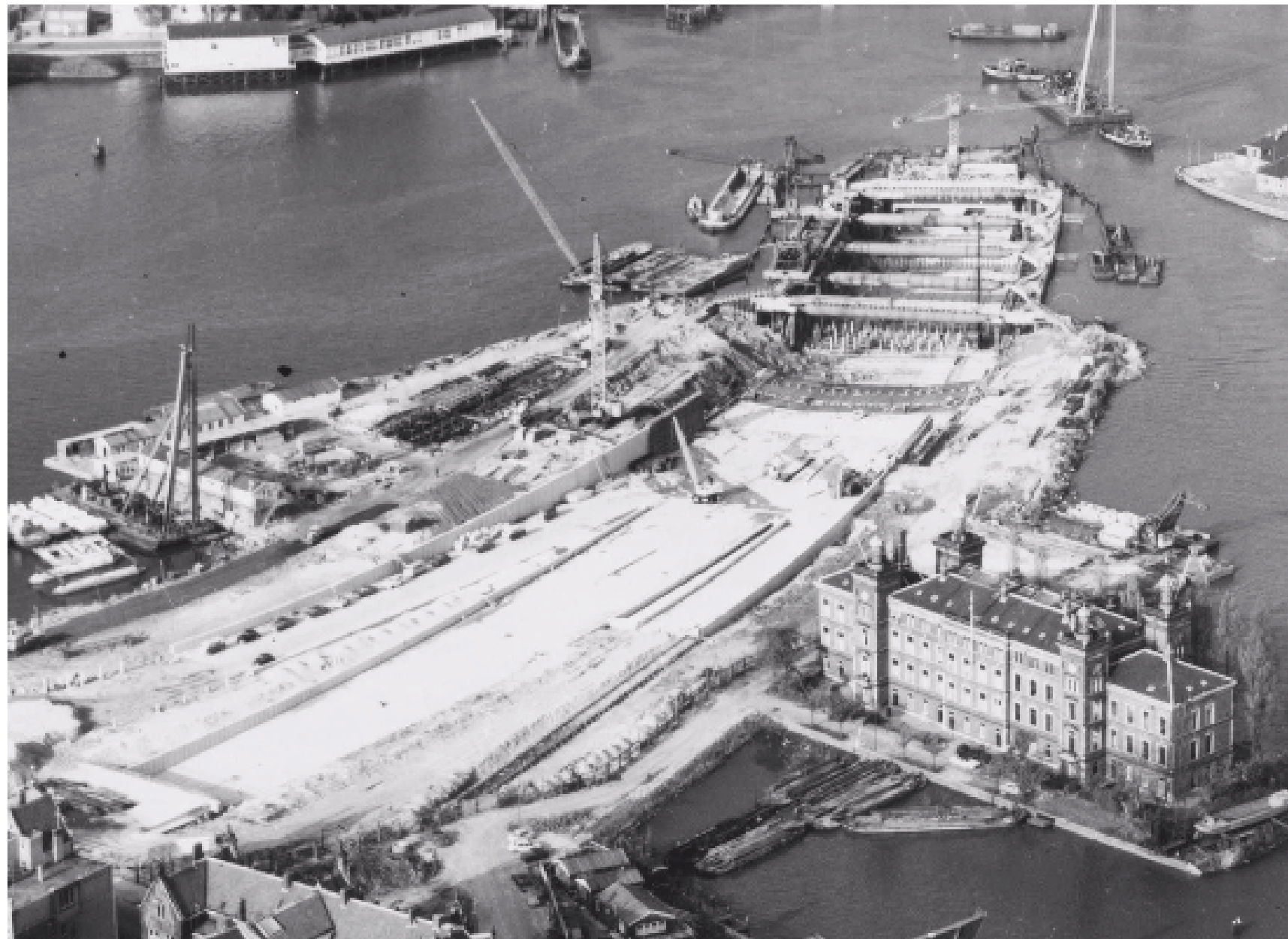
MARINETERREIN

History and development



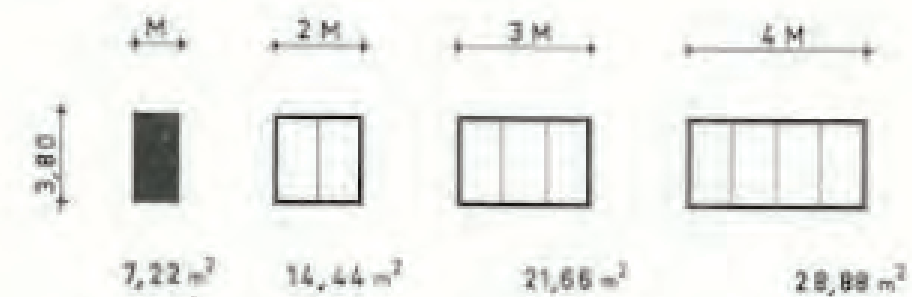
MARINETERREIN

History and development

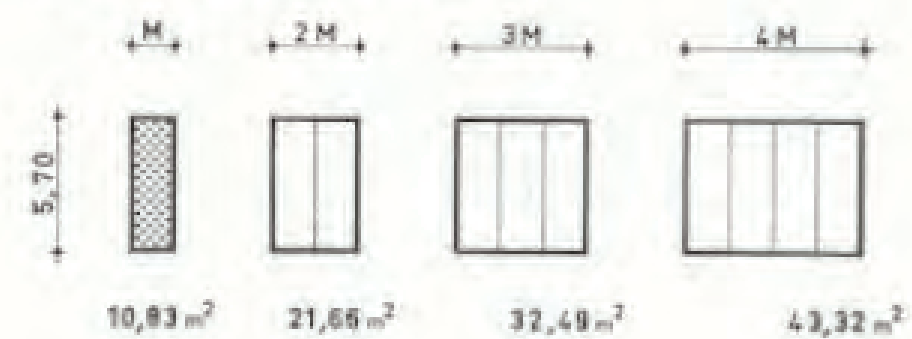


3 Relatie modulmaat, oppervlakte en overspanning

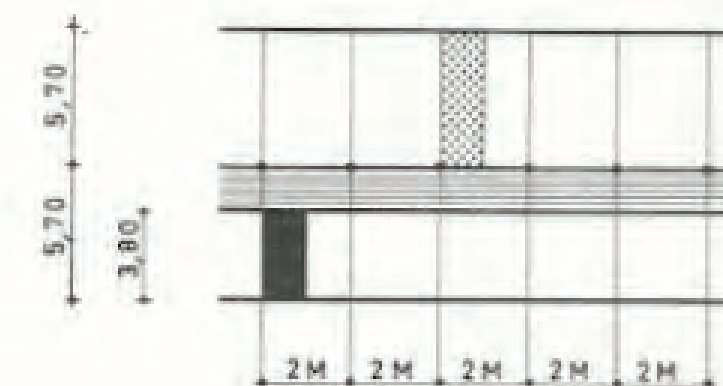
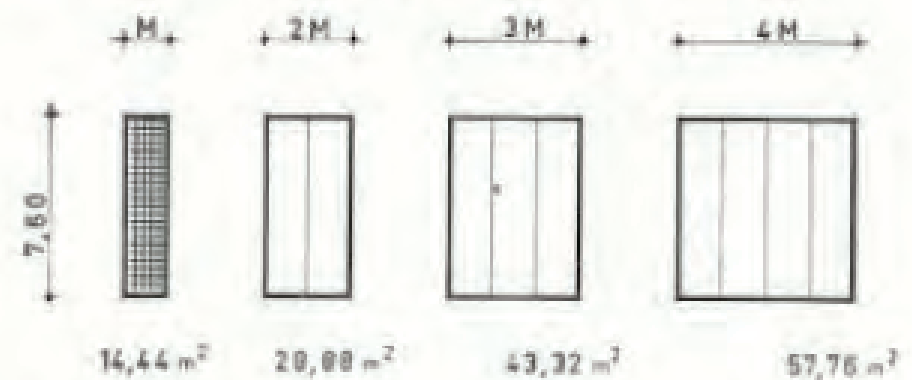
MODULMAAT = $M = 1,90\text{ m}$



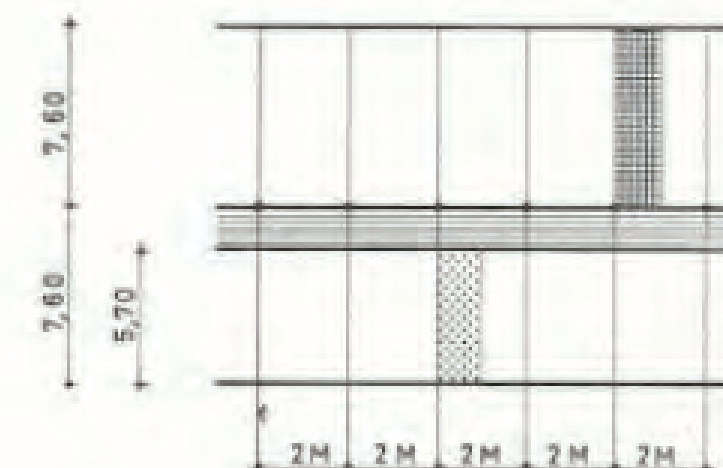
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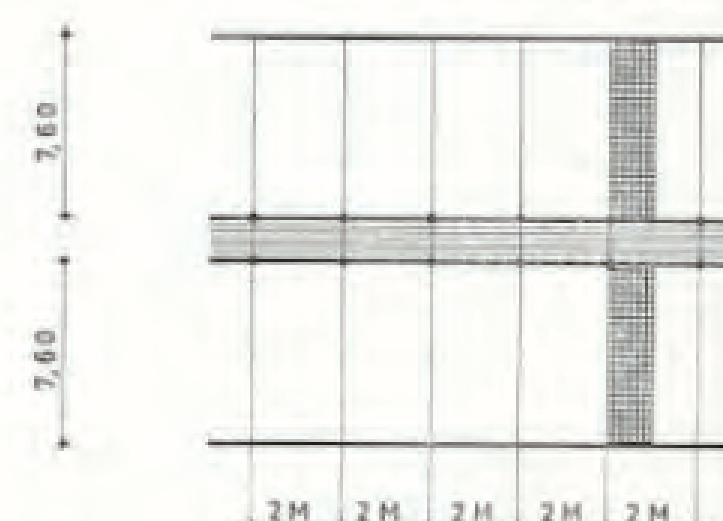
MODULMAAT = $M = 1,90\text{ m}$



KANTOORGEBOUWEN
INTERVALLEN 7 m^2 EN 10 m^2



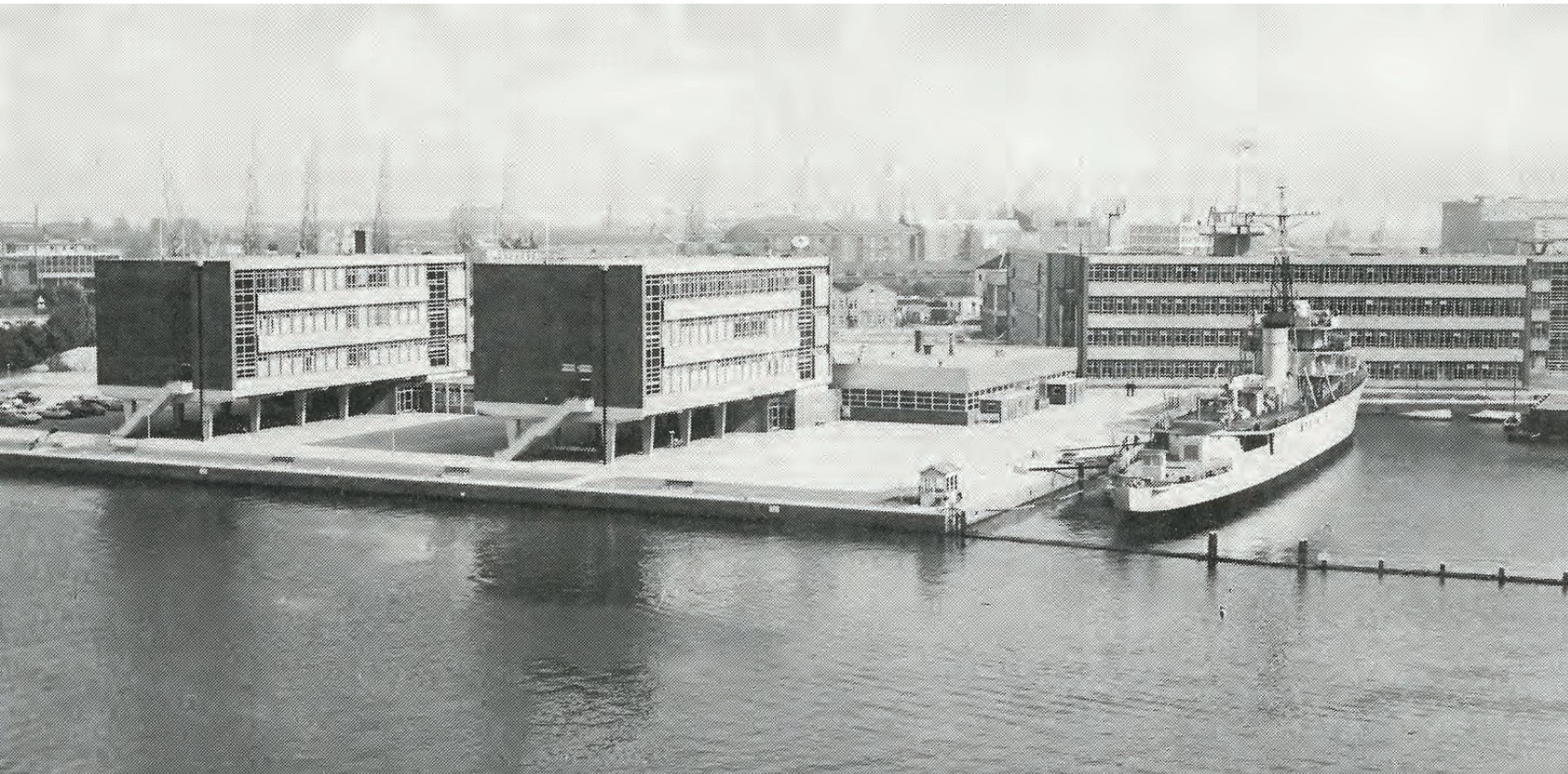
LESGEBOUWEN
INTERVALLEN 10 m^2 EN 14 m^2



LEGERINGSGEBOUWEN
INTERVALLEN 14 m^2

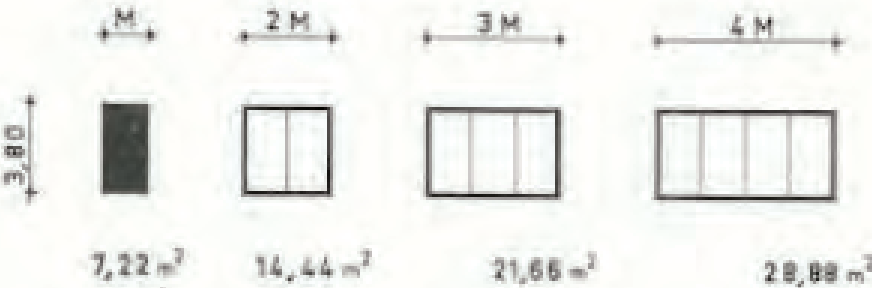
MARINETERREIN

History and development

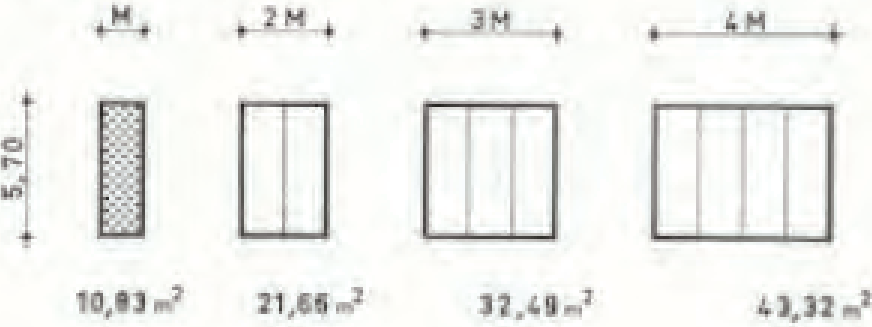


3 Relatie modulmaat, oppervlakte en overspanning

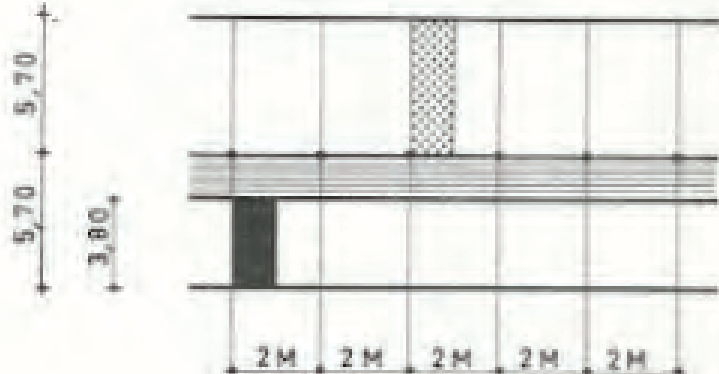
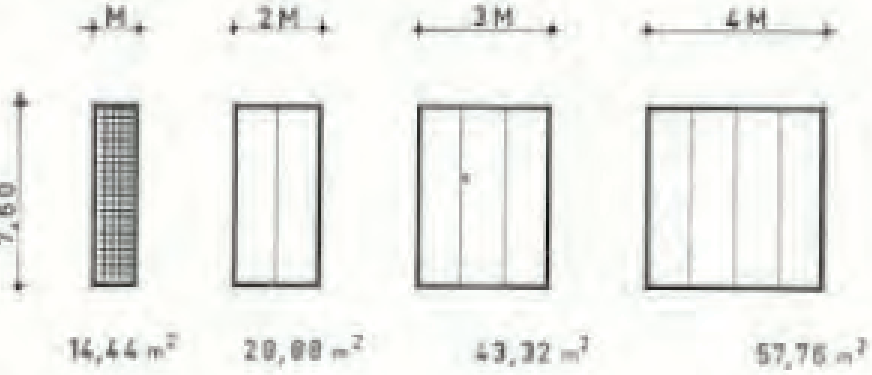
MODULMAAT = $M = 1,90\text{ m}$



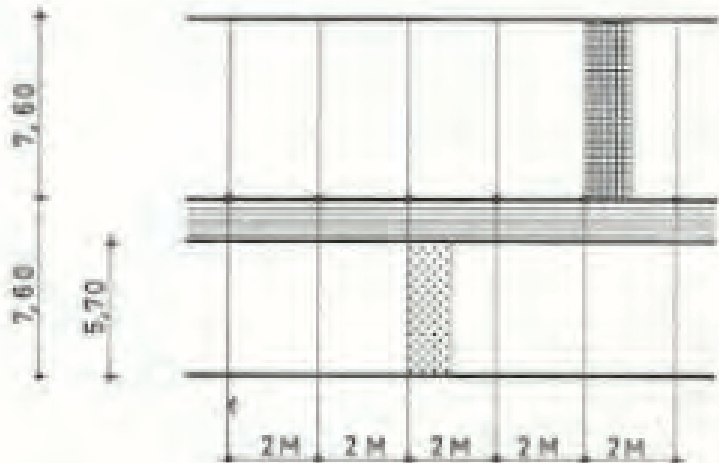
MODULMAAT = $M = 1,90\text{ m}$



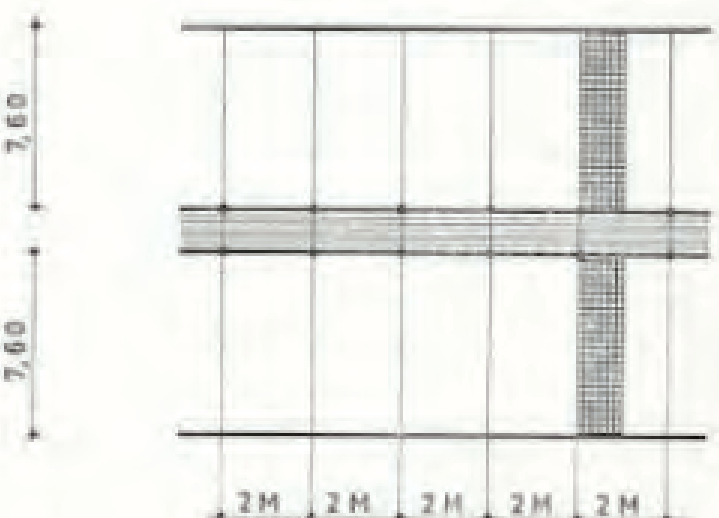
MODULMAAT = $M = 1,90\text{ m}$



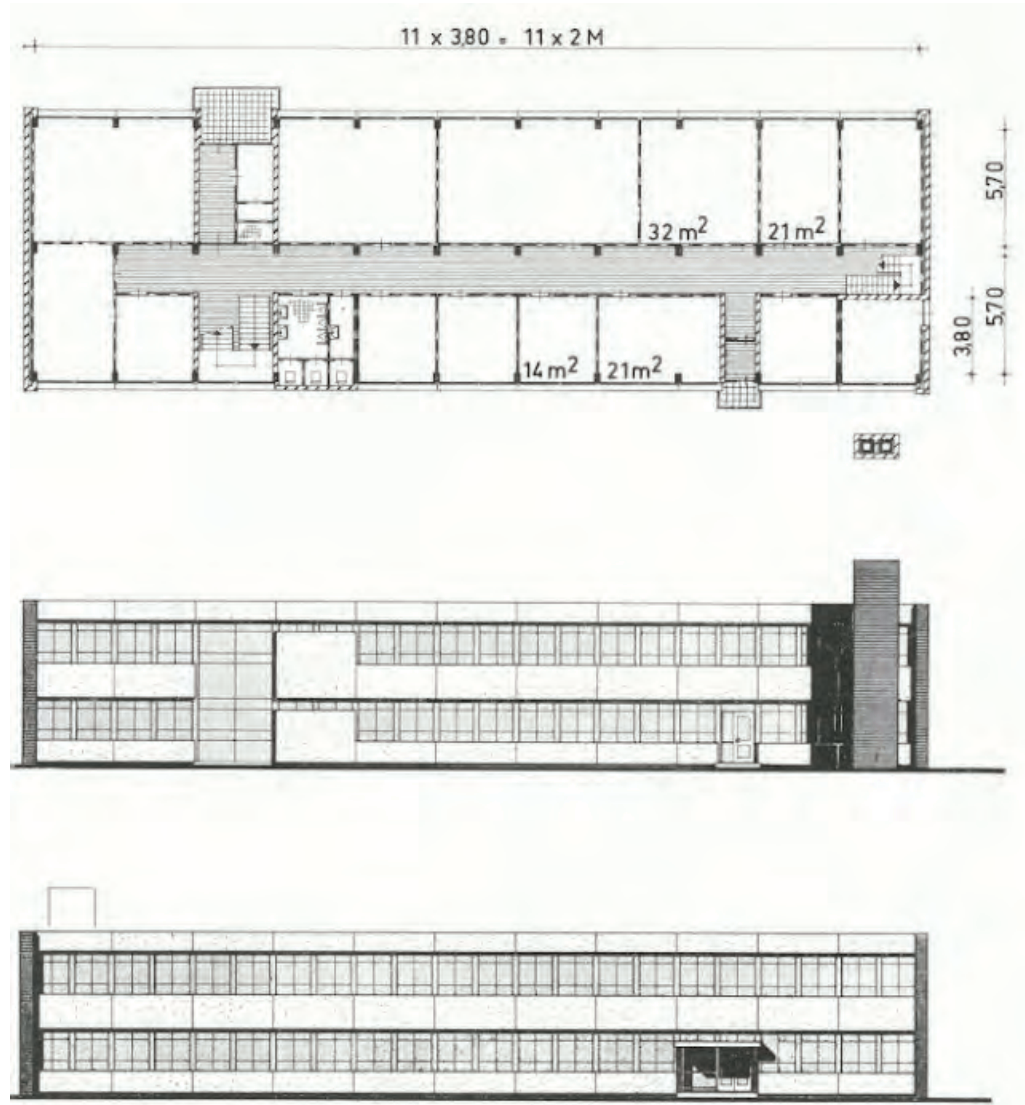
KANTOORGEBOUWEN
INTERVALLEN 7 m^2 EN 10 m^2



LESGEBOUWEN
INTERVALLEN 10 m^2 EN 14 m^2

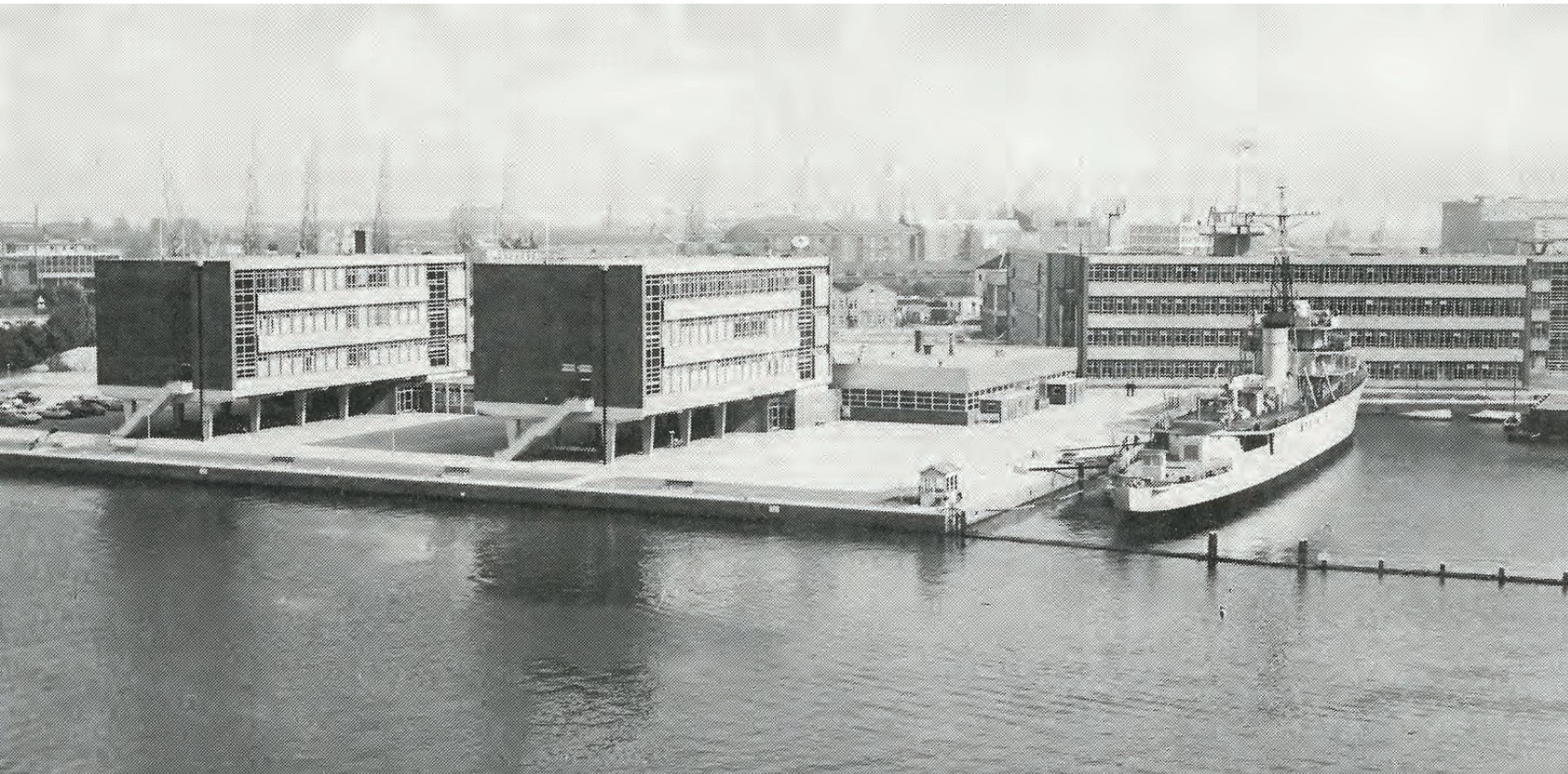


LEGERINGSGEBOUWEN
INTERVALLEN 14 m^2



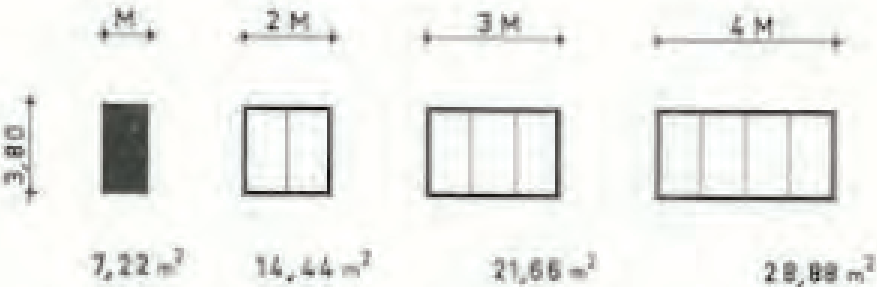
MARINETERREIN

History and development

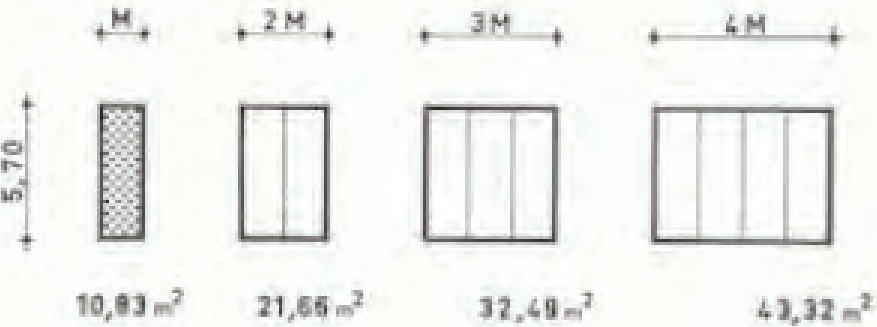


3 Relatie modulmaat, oppervlakte en overspanning

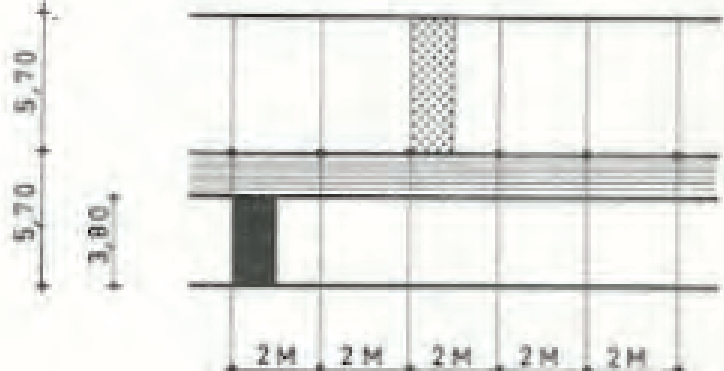
MODULMAAT = $M = 1,90\text{ m}$



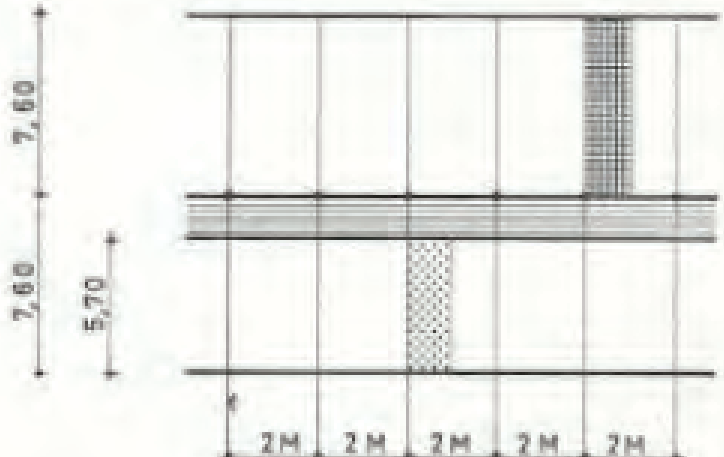
MODULMAAT = $M = 1,90\text{ m}$



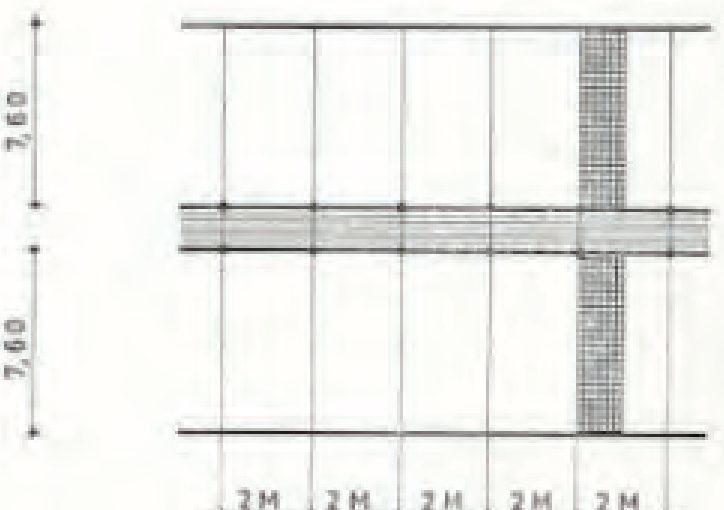
MODULMAAT = $M = 1,90\text{ m}$



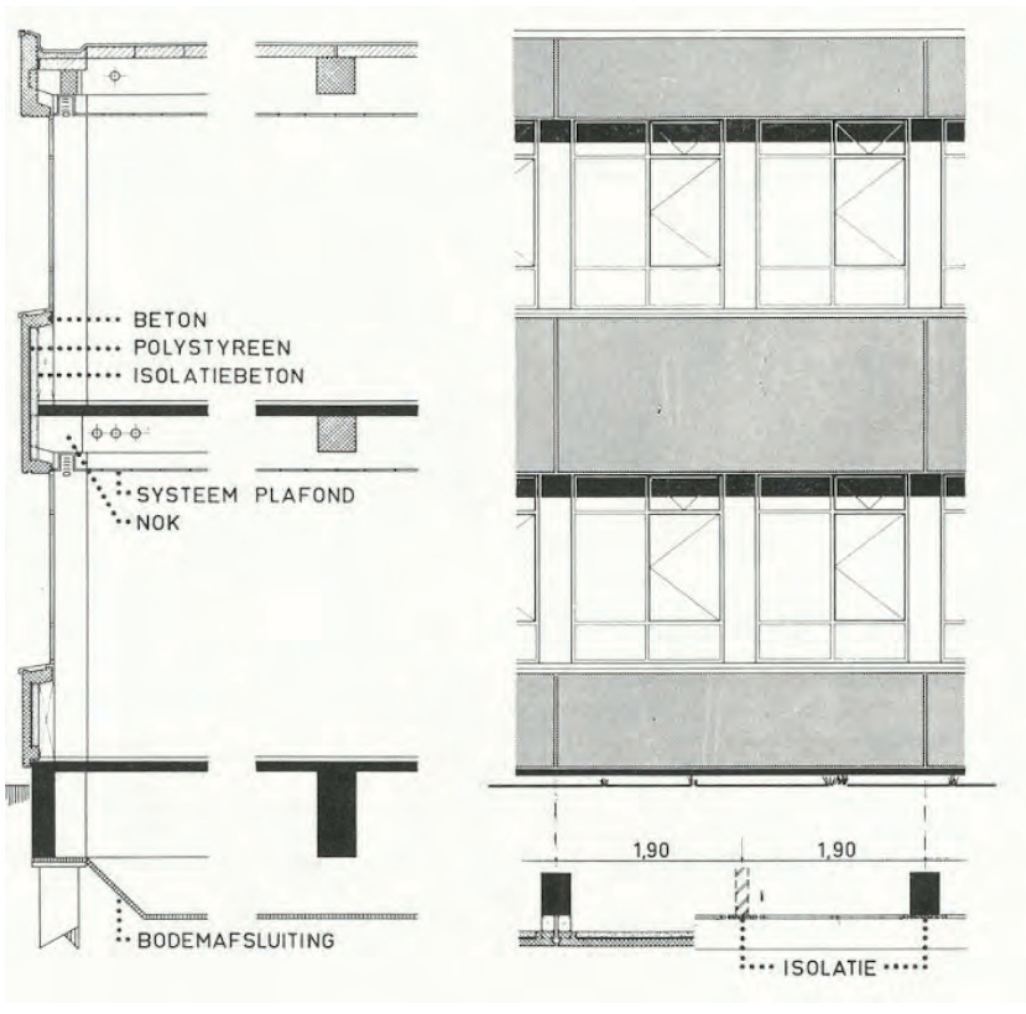
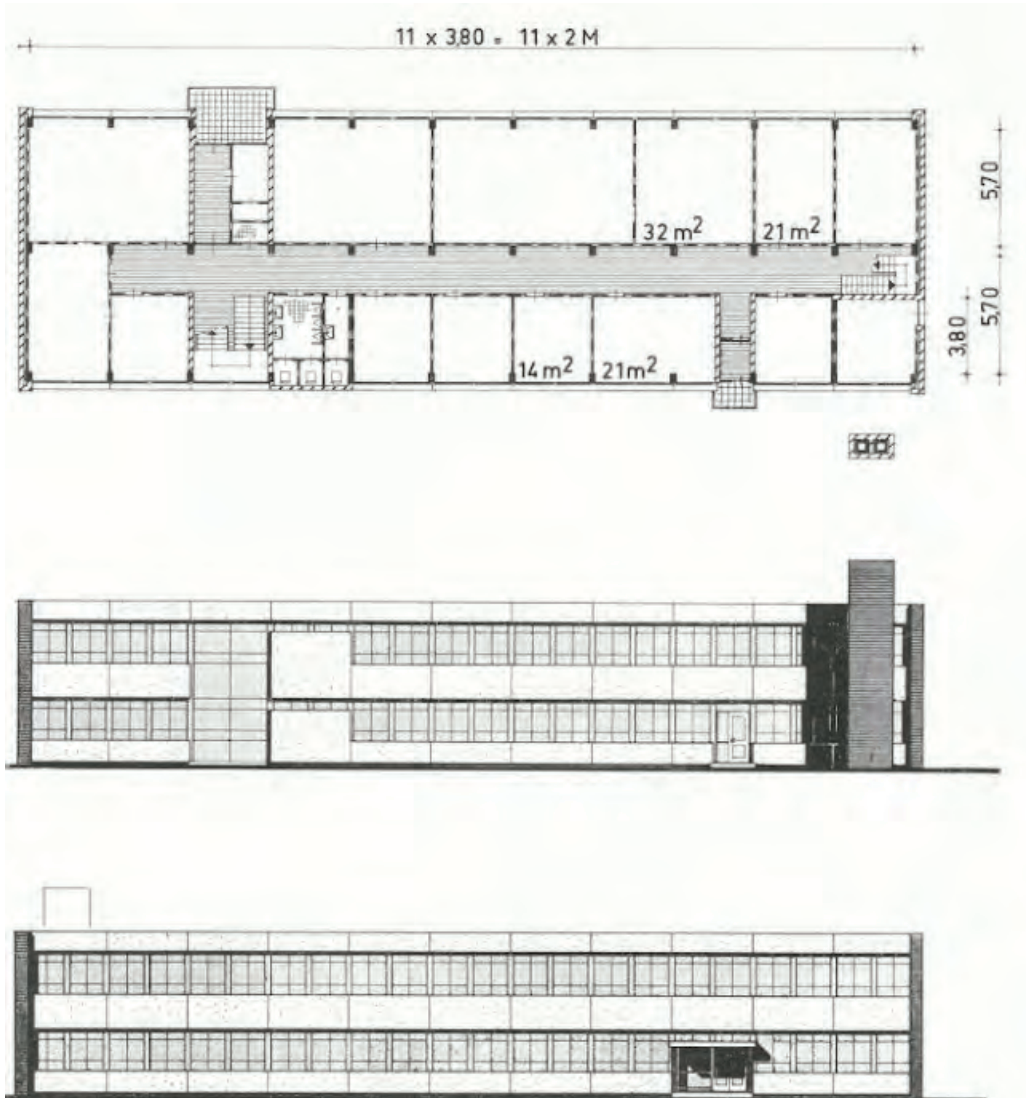
KANTOORGEBOUWEN
INTERVALLEN 7 m^2 EN 10 m^2



LESGEBOUWEN
INTERVALLEN 10 m^2 EN 14 m^2

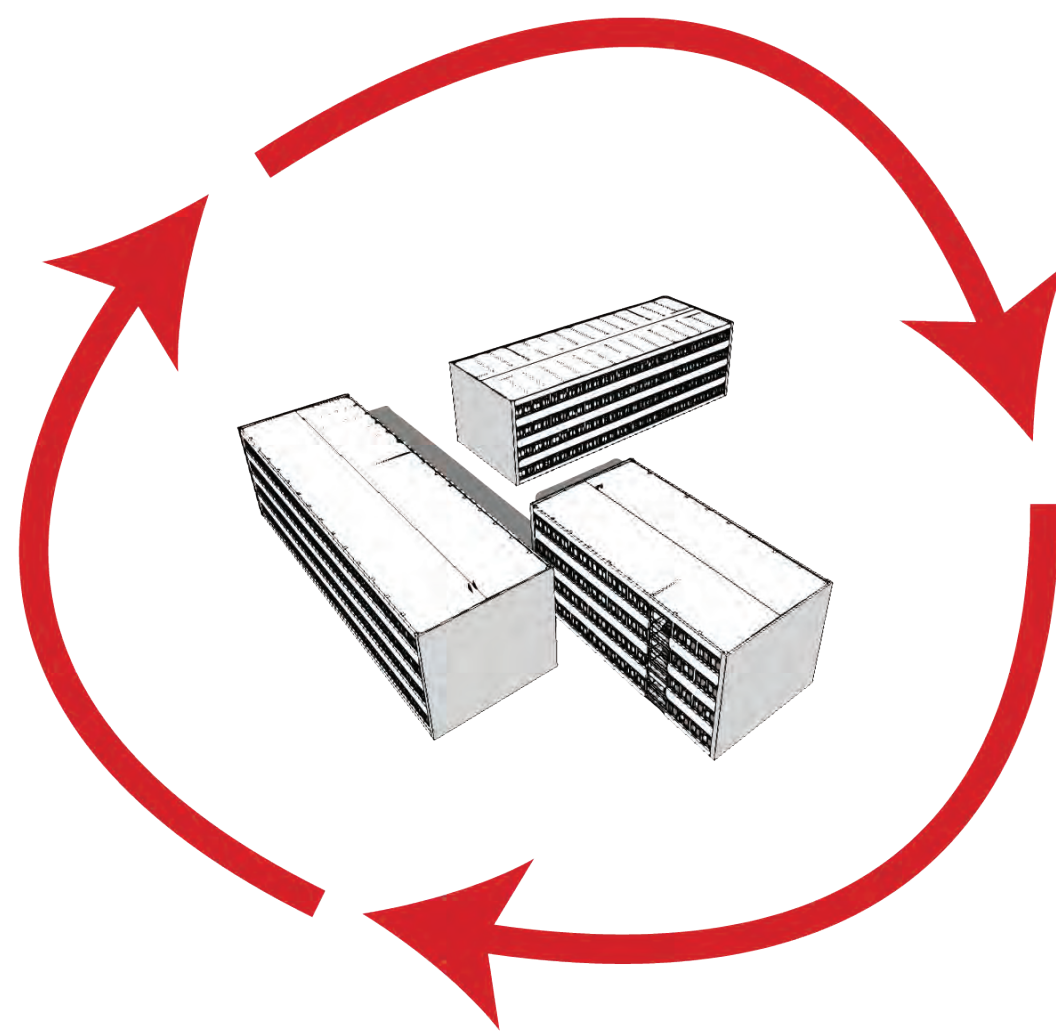


LEGERINGSGEBOUWEN
INTERVALLEN 14 m^2



THEORY

Circularity



THEORY

Circularity - butterfly model

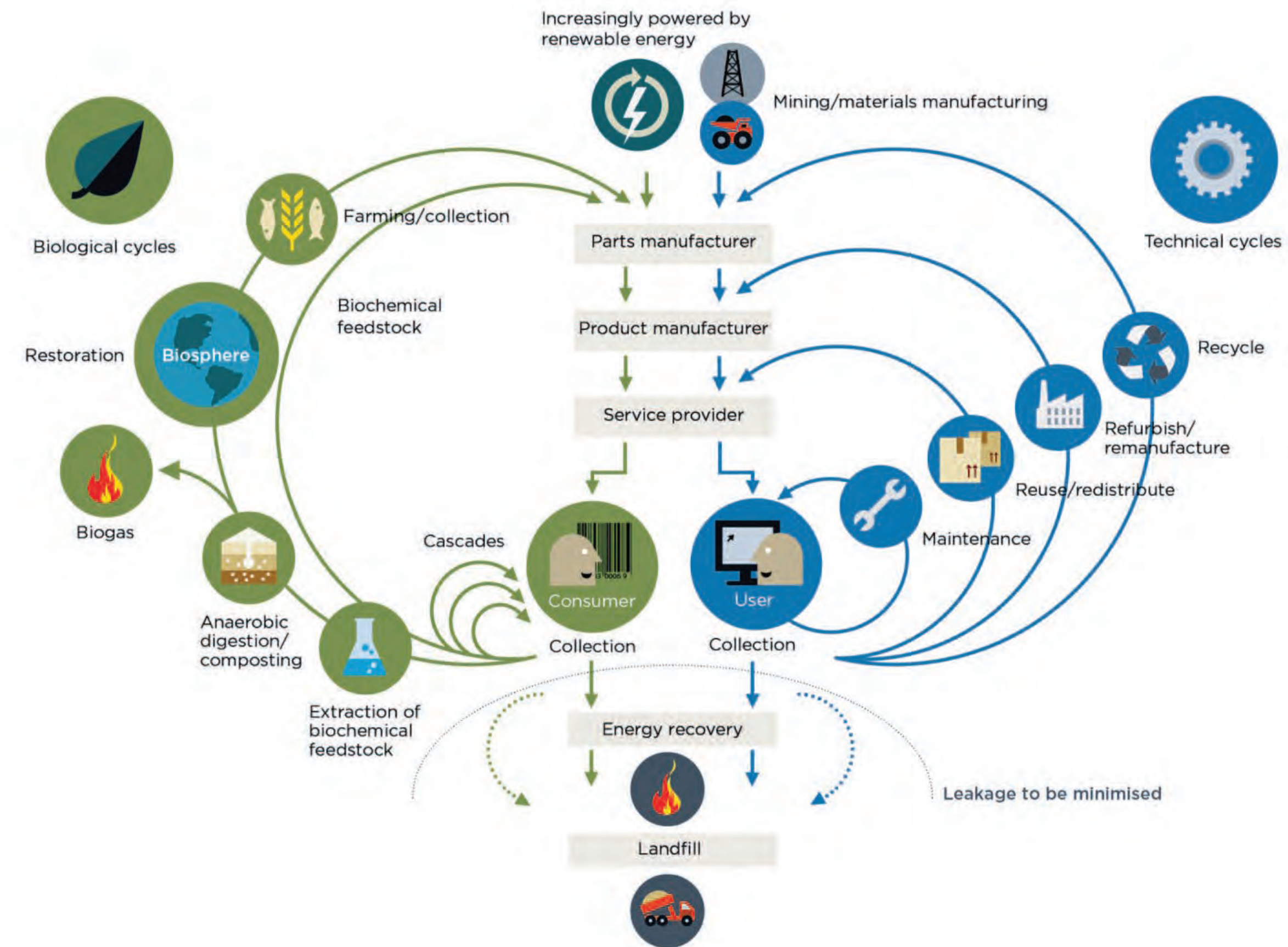


Illustration by: EMF, E. M. F. (2015).
Towards a circular economy: business
rationale for an accelerated transition.

THEORY

Transitions

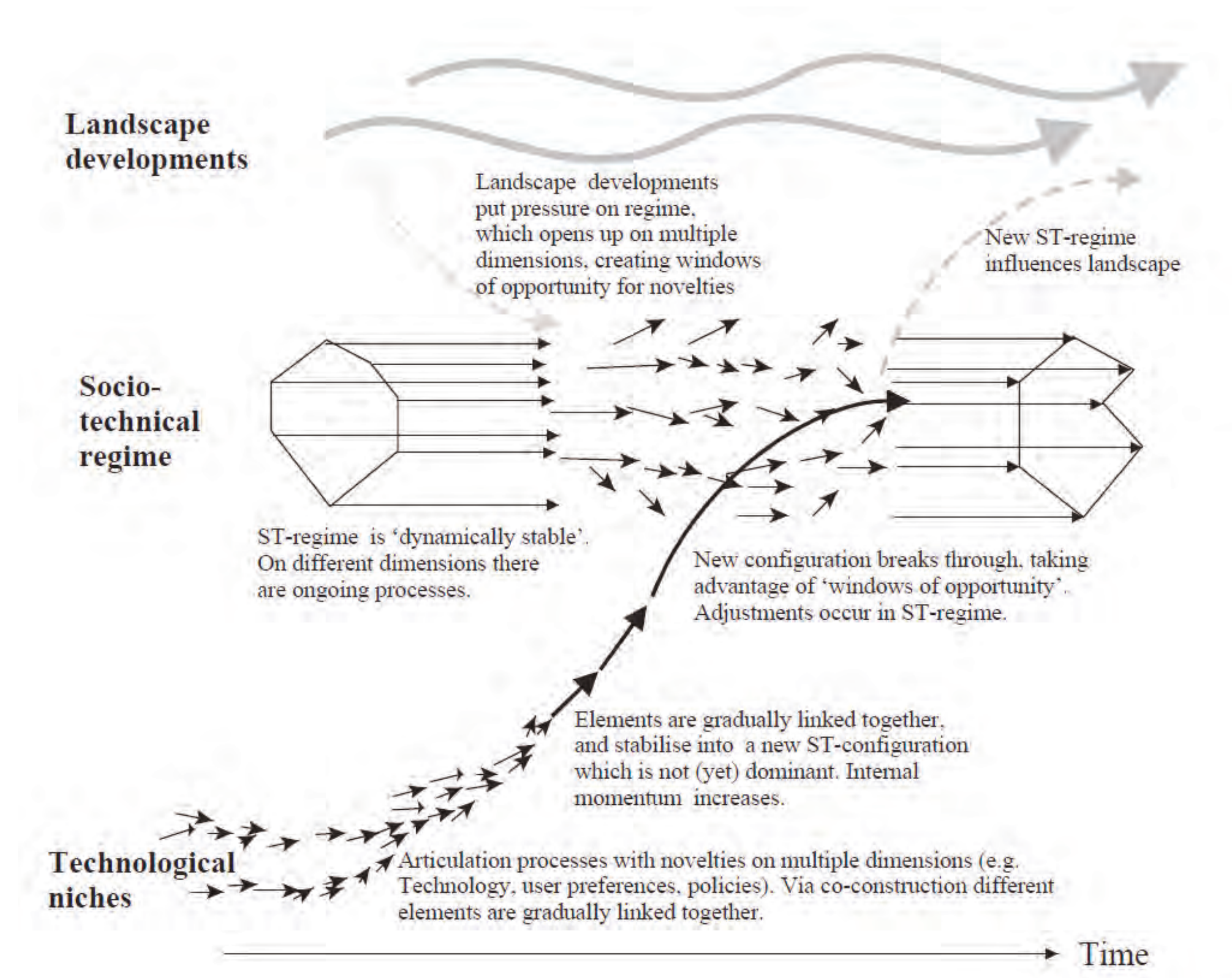
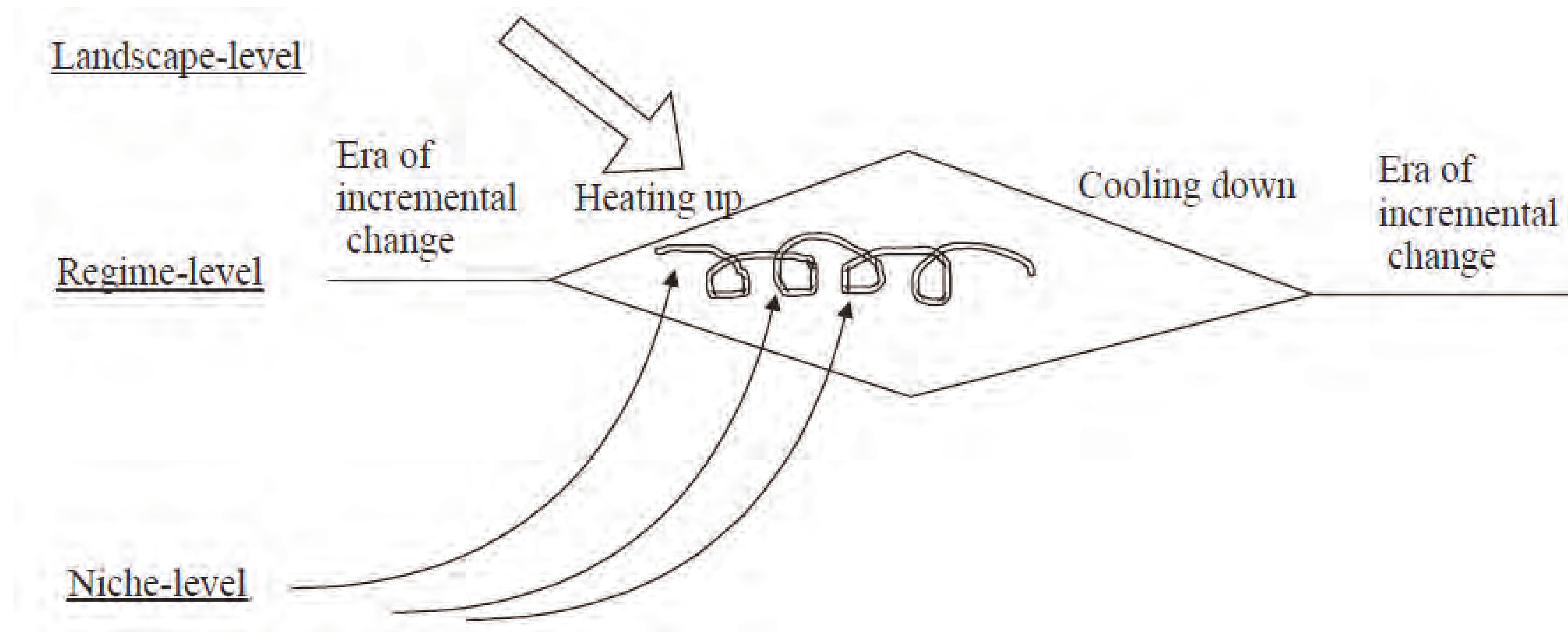


Illustration by Geels. (Geels, 2005)

THEORY

Transitions



Wider transformation route in systems innovations. (Geels, 2005)

THEORY

How can I put this to use?



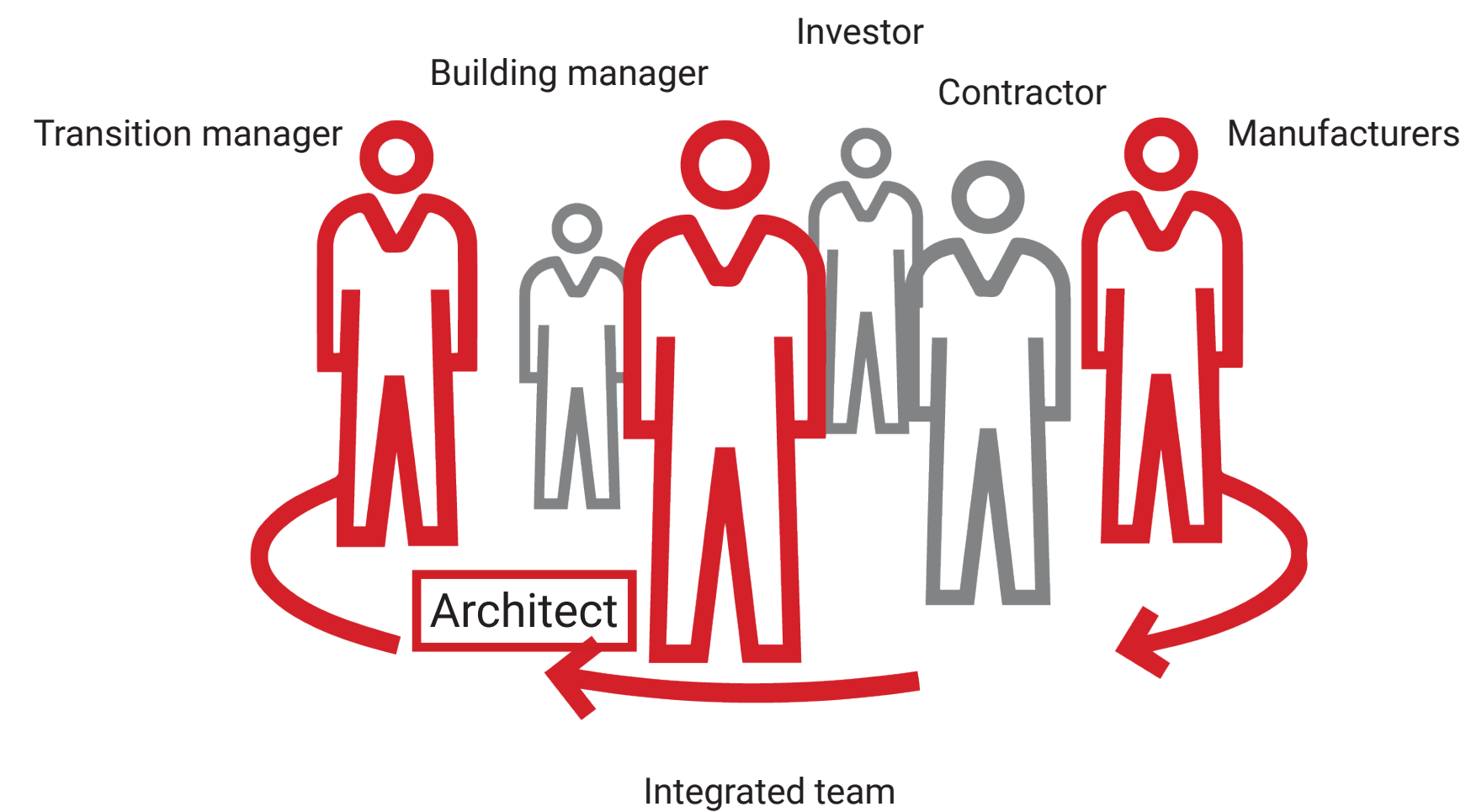
Actively steer the transition

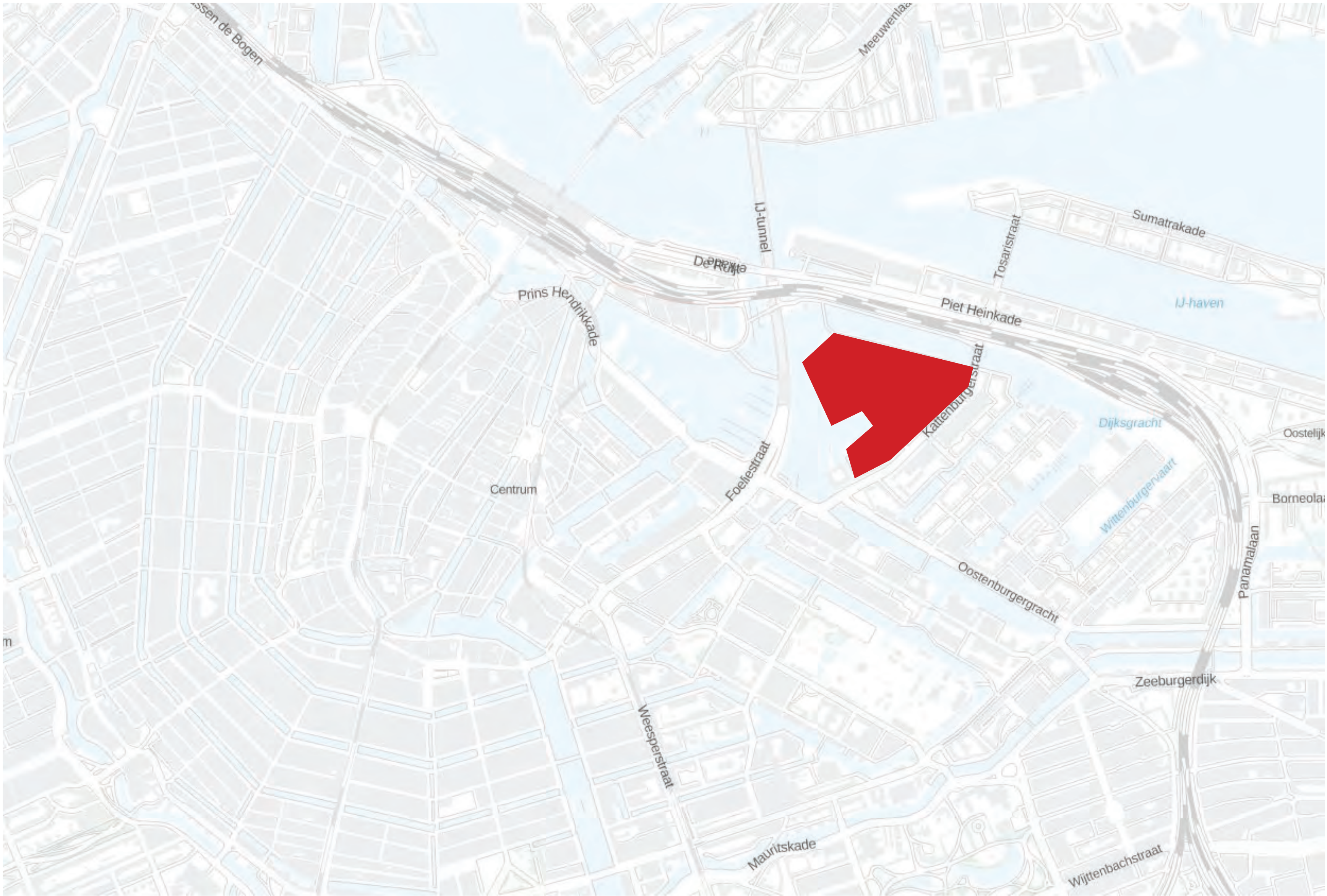
THEORY

How can I put this to use?



Actively steer the transition





A photograph of the Marineterrein building, a large brick structure with a central arched entrance and a triangular pediment. A red banner at the top left says "SITE". A red banner across the entrance says "Marineterrein opens its gates". A timeline at the bottom shows years from 1500 to 2050.

A photograph of the Marineterrein building, a large brick structure with a central arched entrance and a triangular pediment. A red banner at the top left says "SITE". A red banner across the entrance says "Marineterrein opens its gates". A timeline at the bottom shows years from 1500 to 2050, with 2023 highlighted.

A photograph of the Marineterrein building, a large brick structure with a central arched entrance and a triangular pediment. A red banner at the top left says "SITE". A red banner across the entrance says "Marineterrein opens its gates". A timeline at the bottom shows years from 1500 to 2050.



SITE

Municipality strategy - three pillars

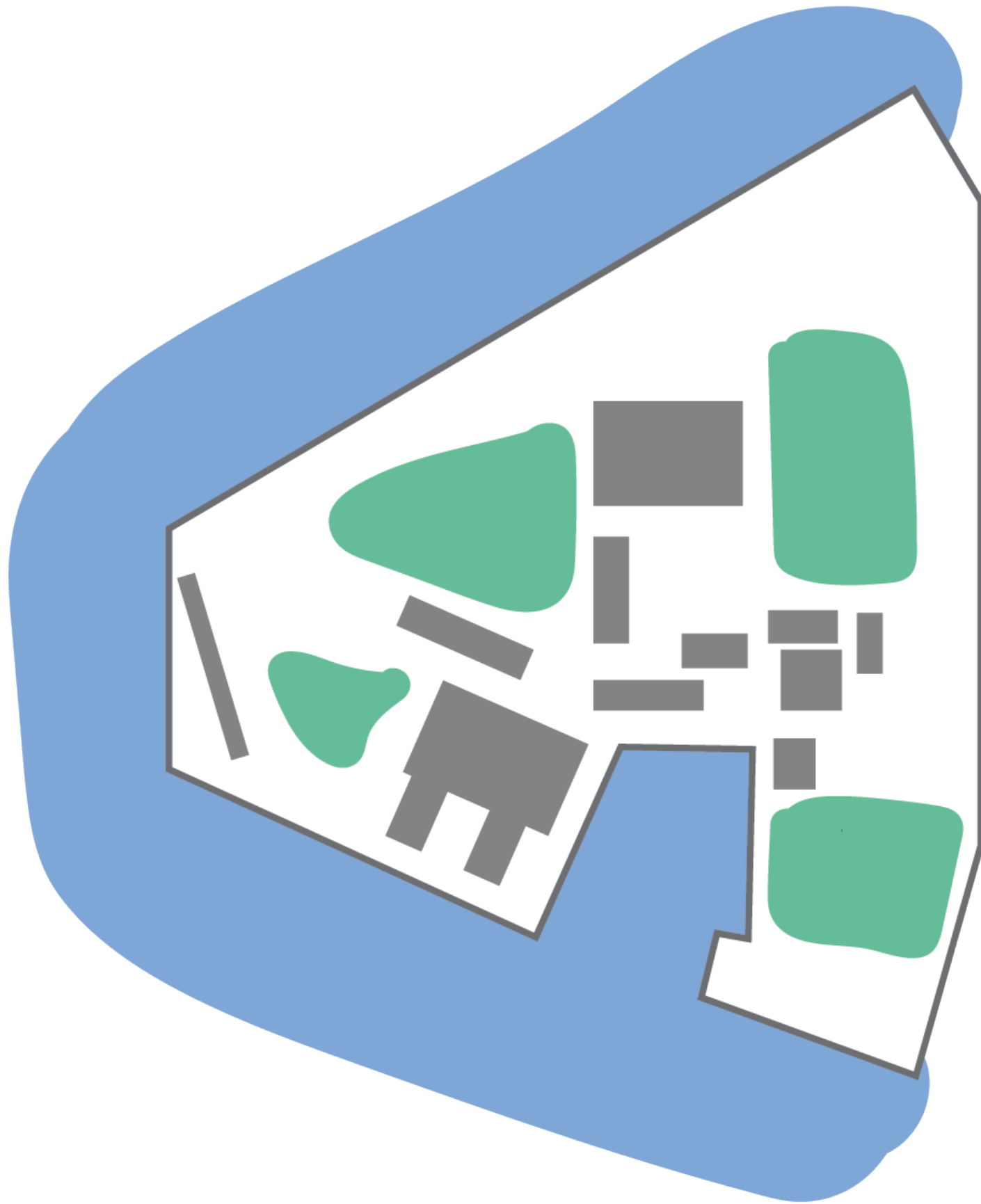
History

Innovation

Waterpark

SITE

Marineterrein as a campus



Marineterrein as a campus



Marineterrein as a campus

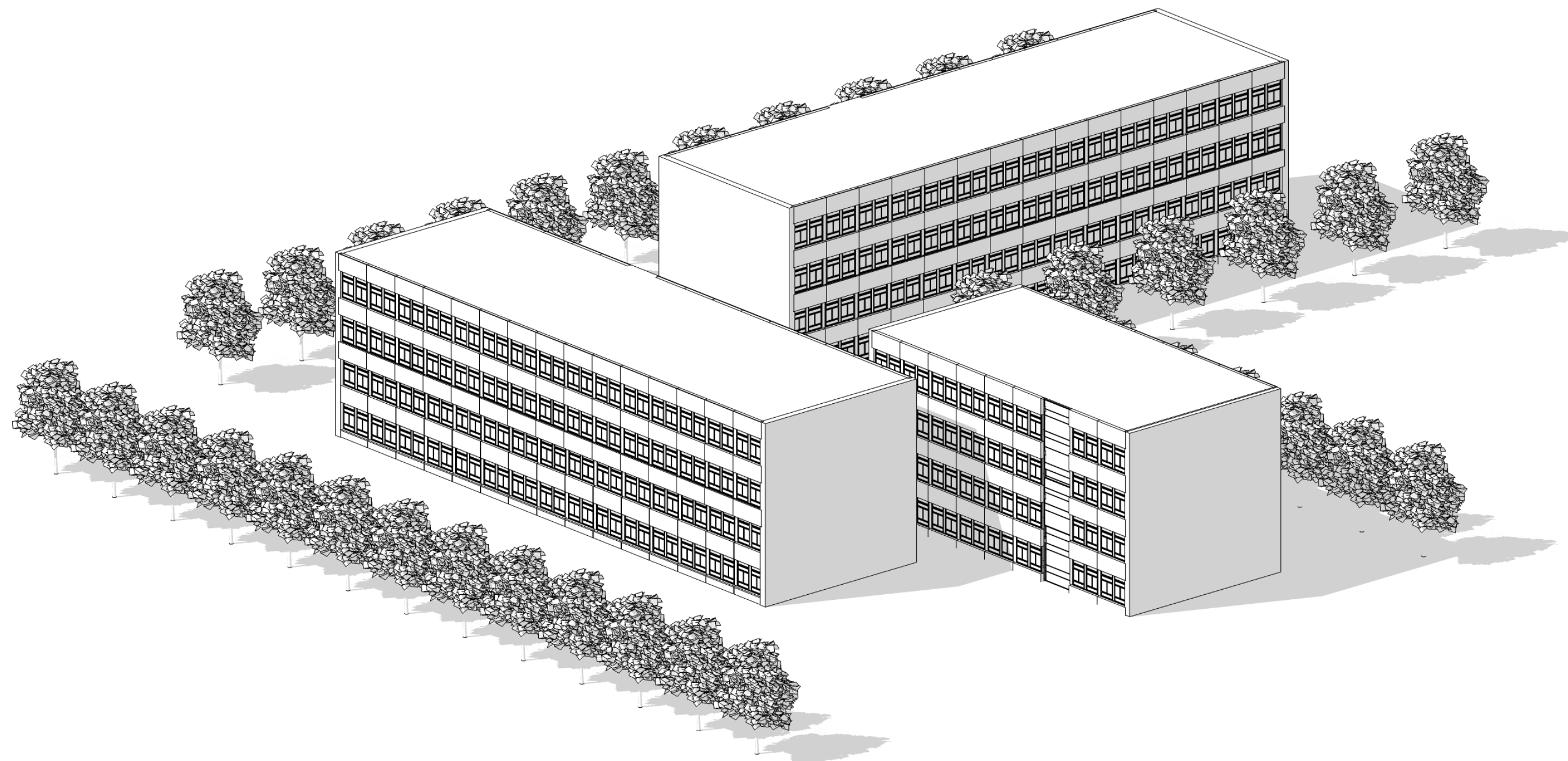


Marineterrein as a campus



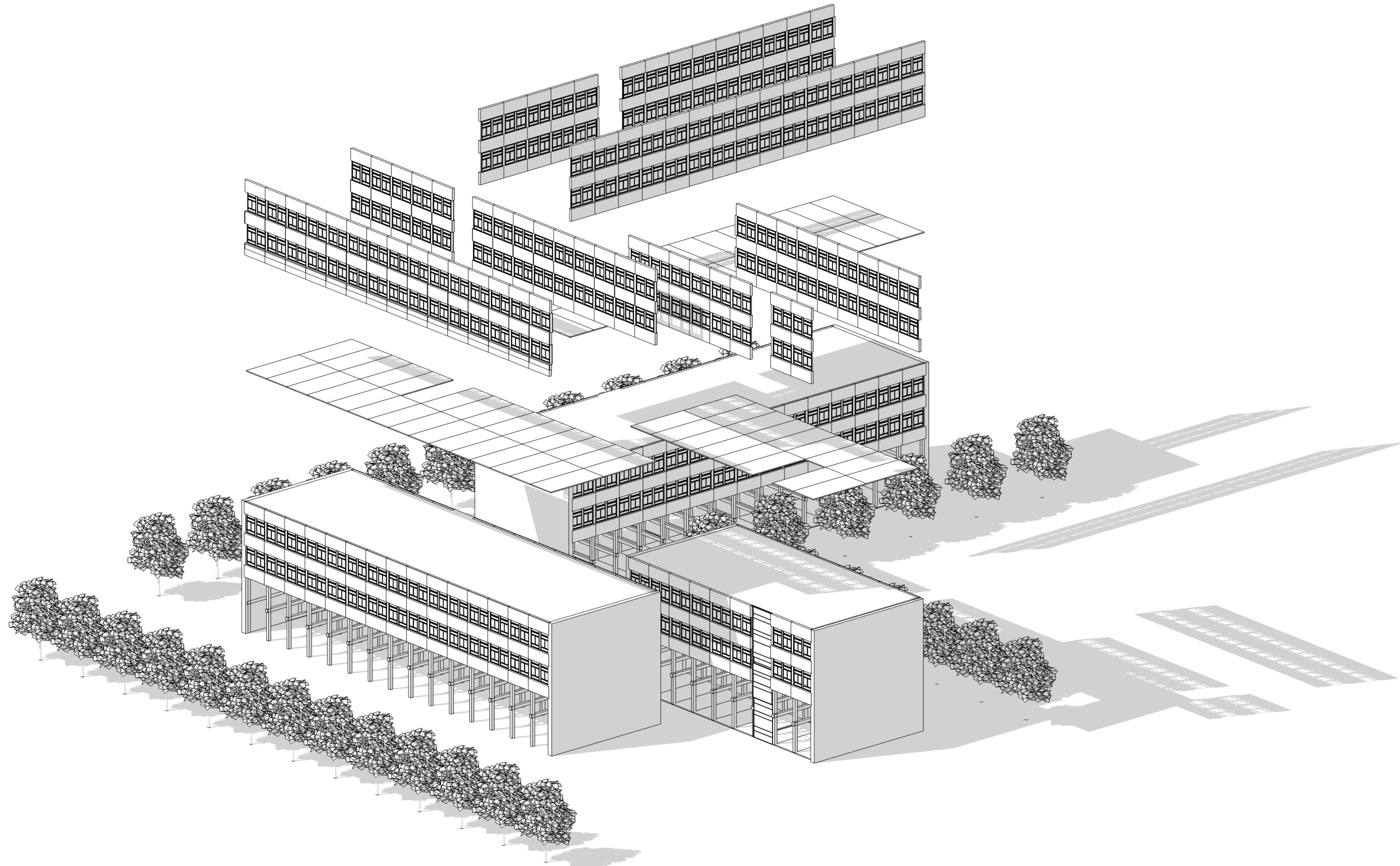
OUR INTERVENTION

Current situation



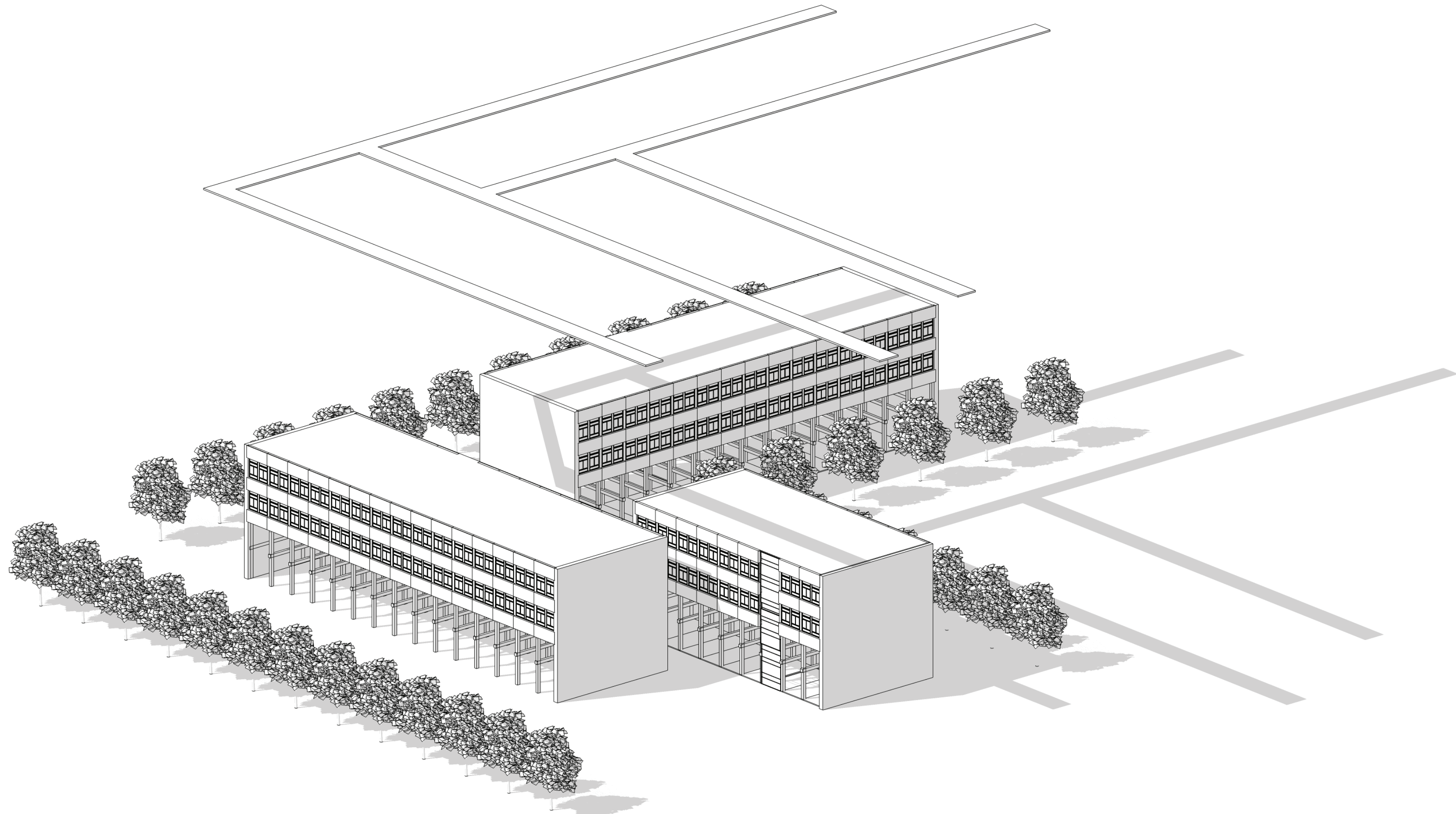
OUR INTERVENTION

Remove floor & facade



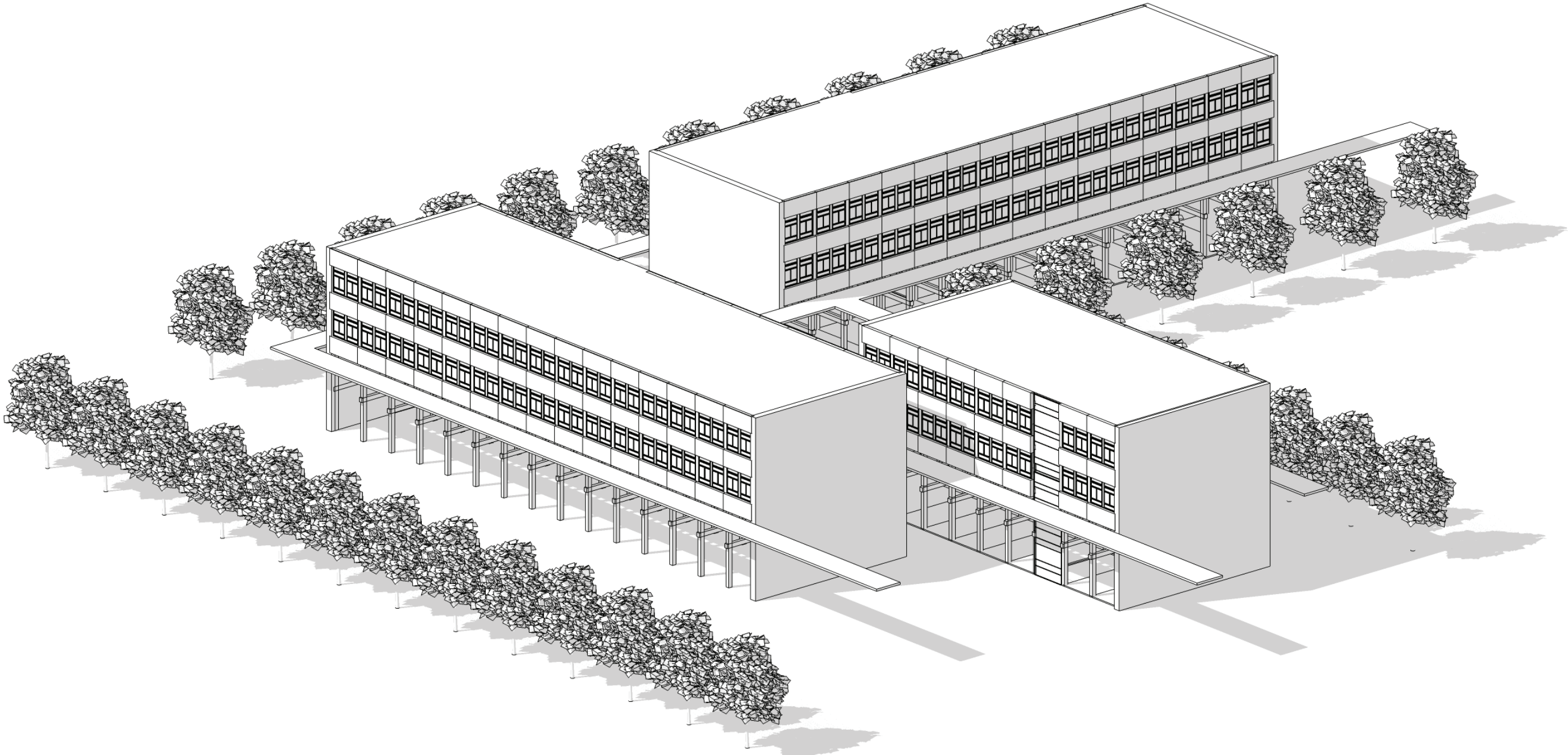
OUR INTERVENTION

Add walkway



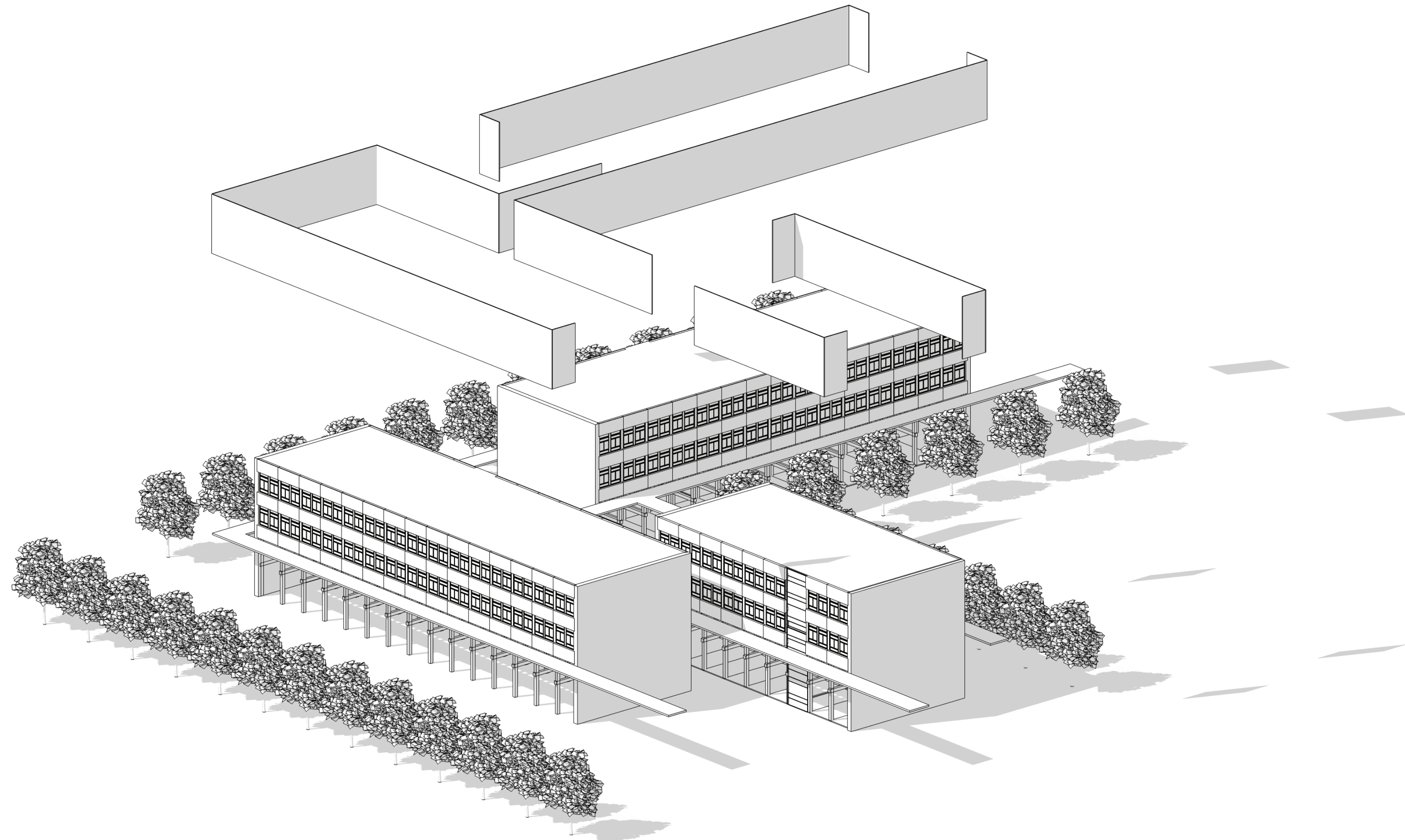
OUR INTERVENTION

Add walkway



OUR INTERVENTION

New facade



1500

2018

2019

2020

2021

2022

2023

2024

2025

2026

2027

2028

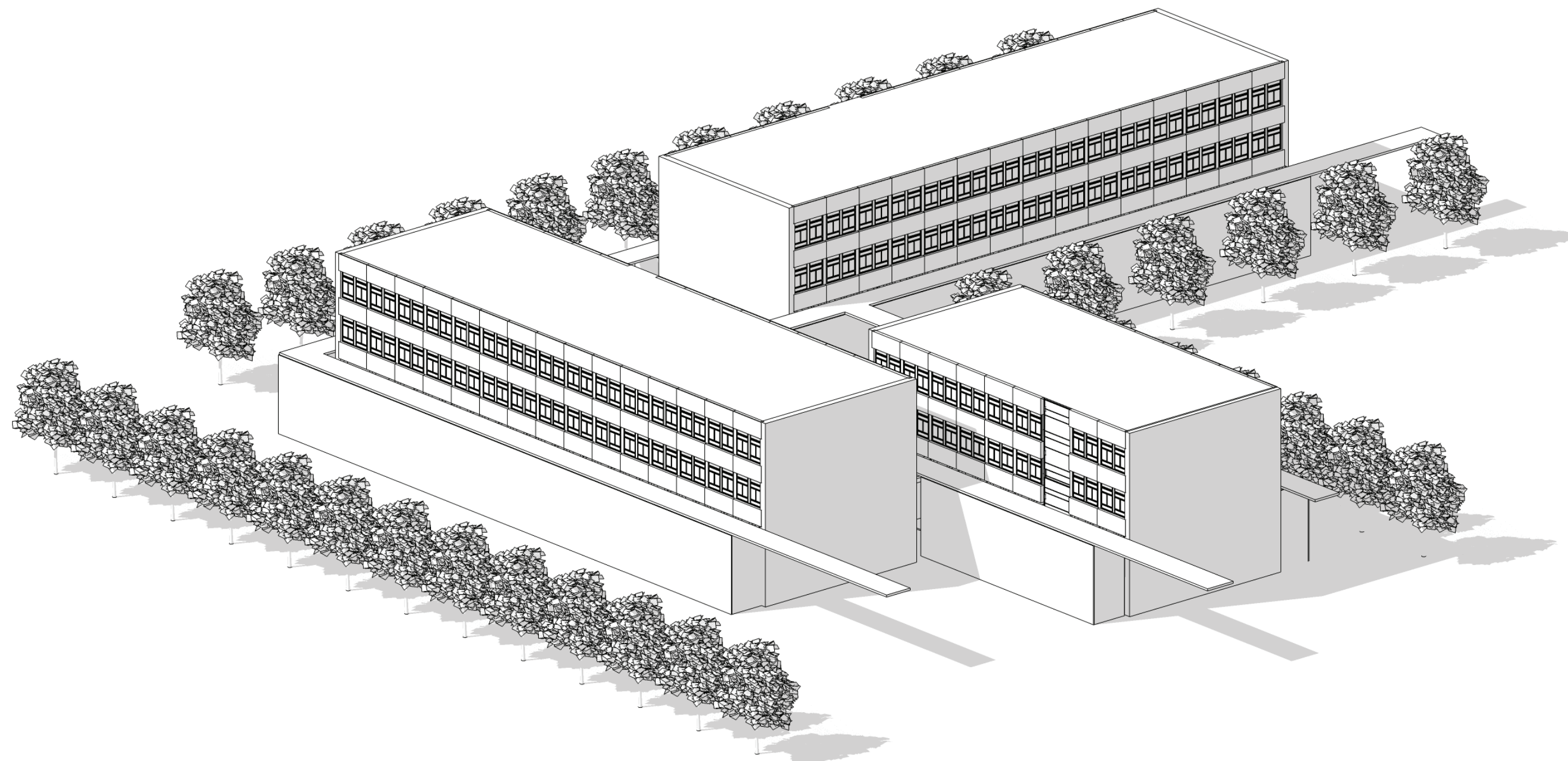
2029

2030

2050

OUR INTERVENTION

New facade



1500

2018

2019

2020

2021

2022

2023

2024

2025

2026

2027

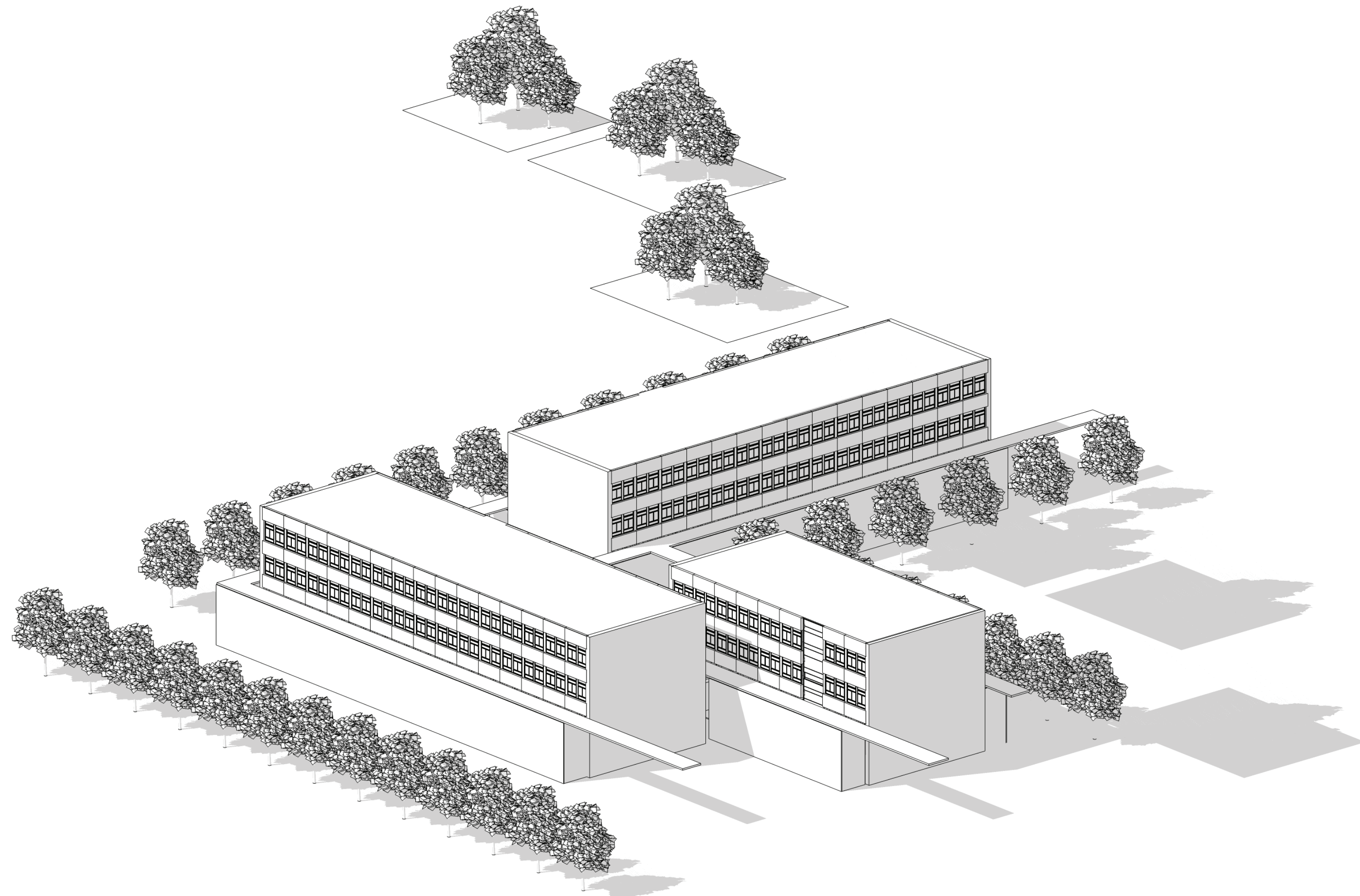
2028

2029

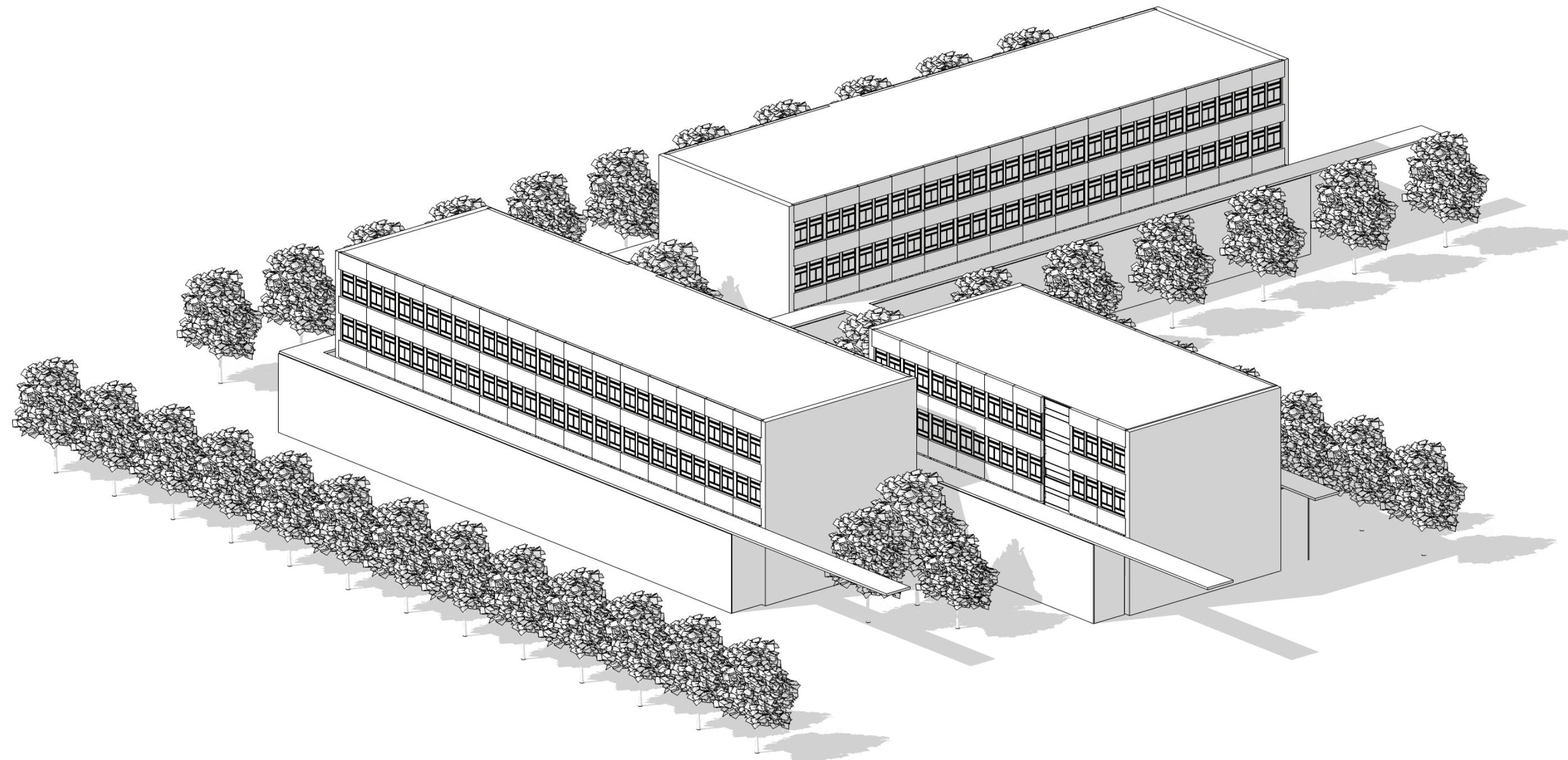
2030

2050

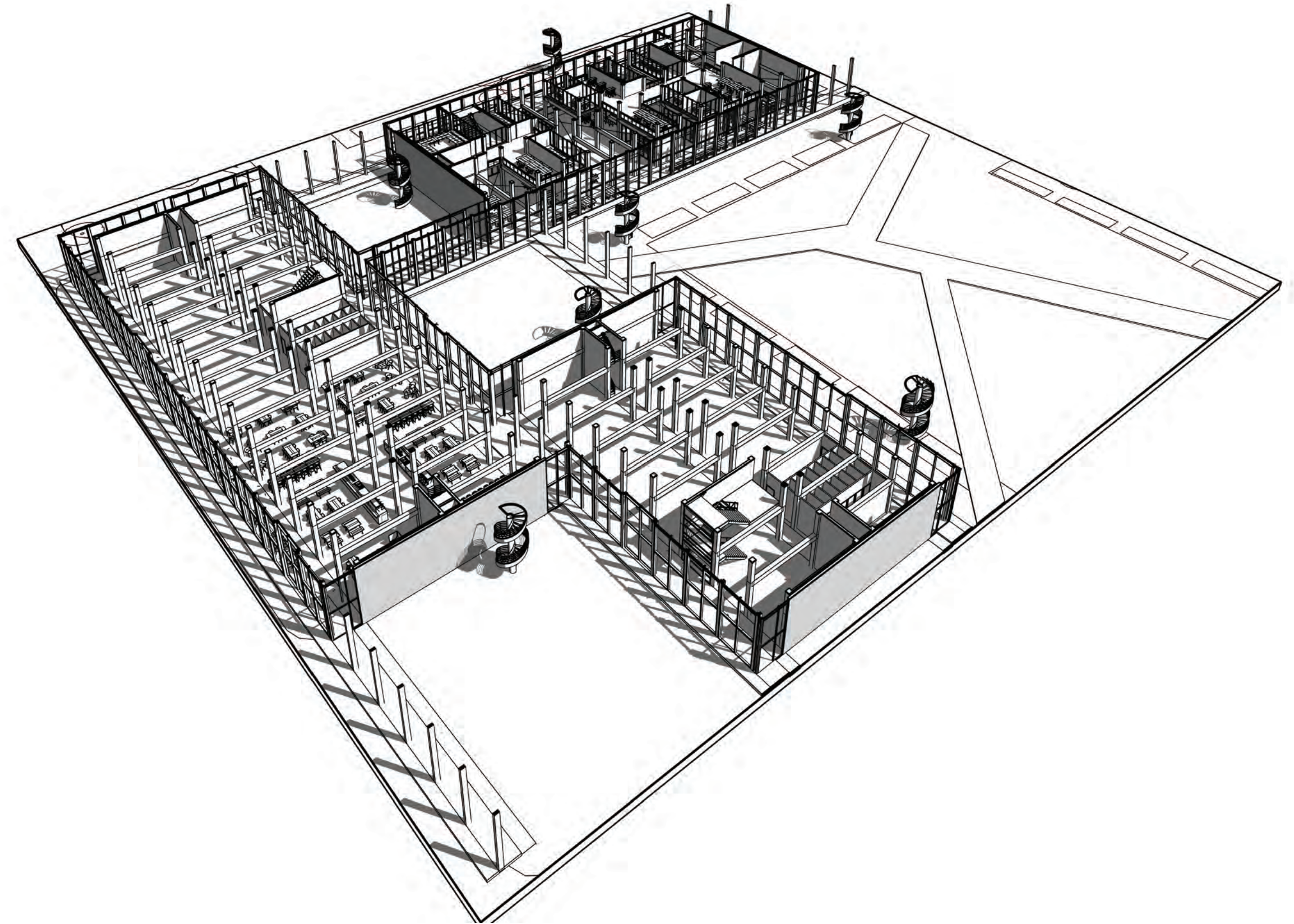
Patio's



Patio's

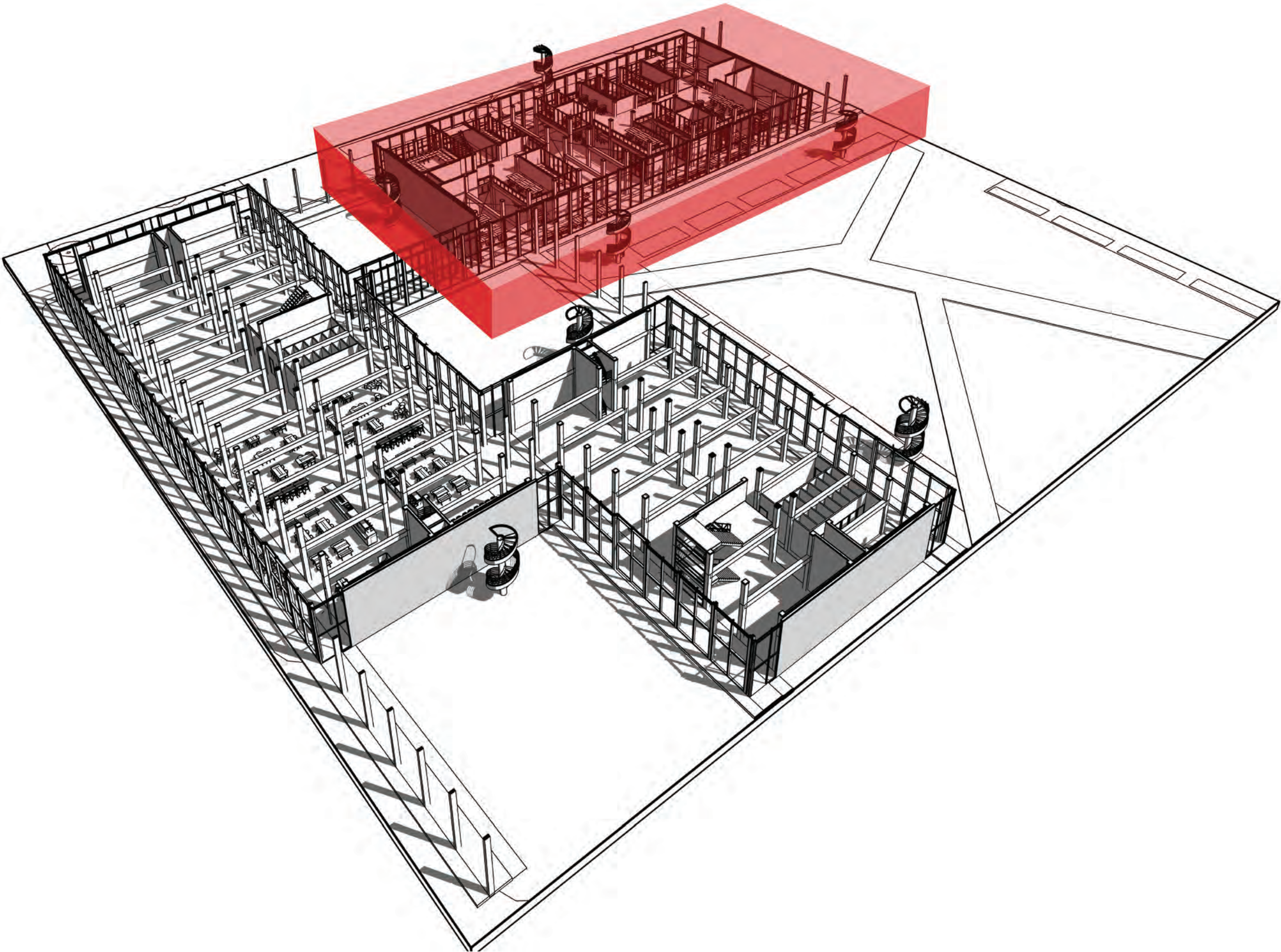


Organisation



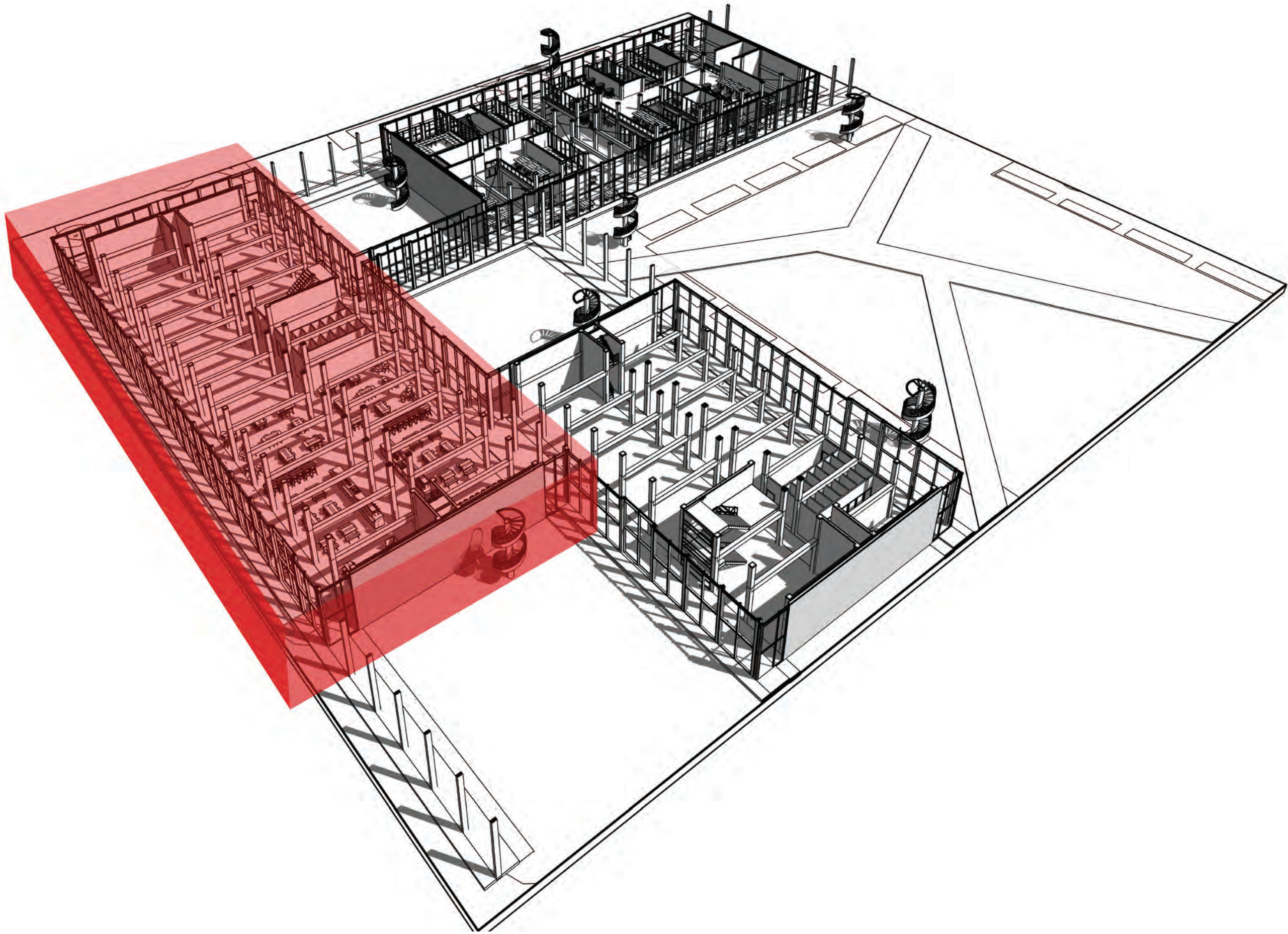
FUNCTIONING OF THE BUILDING

Organisation



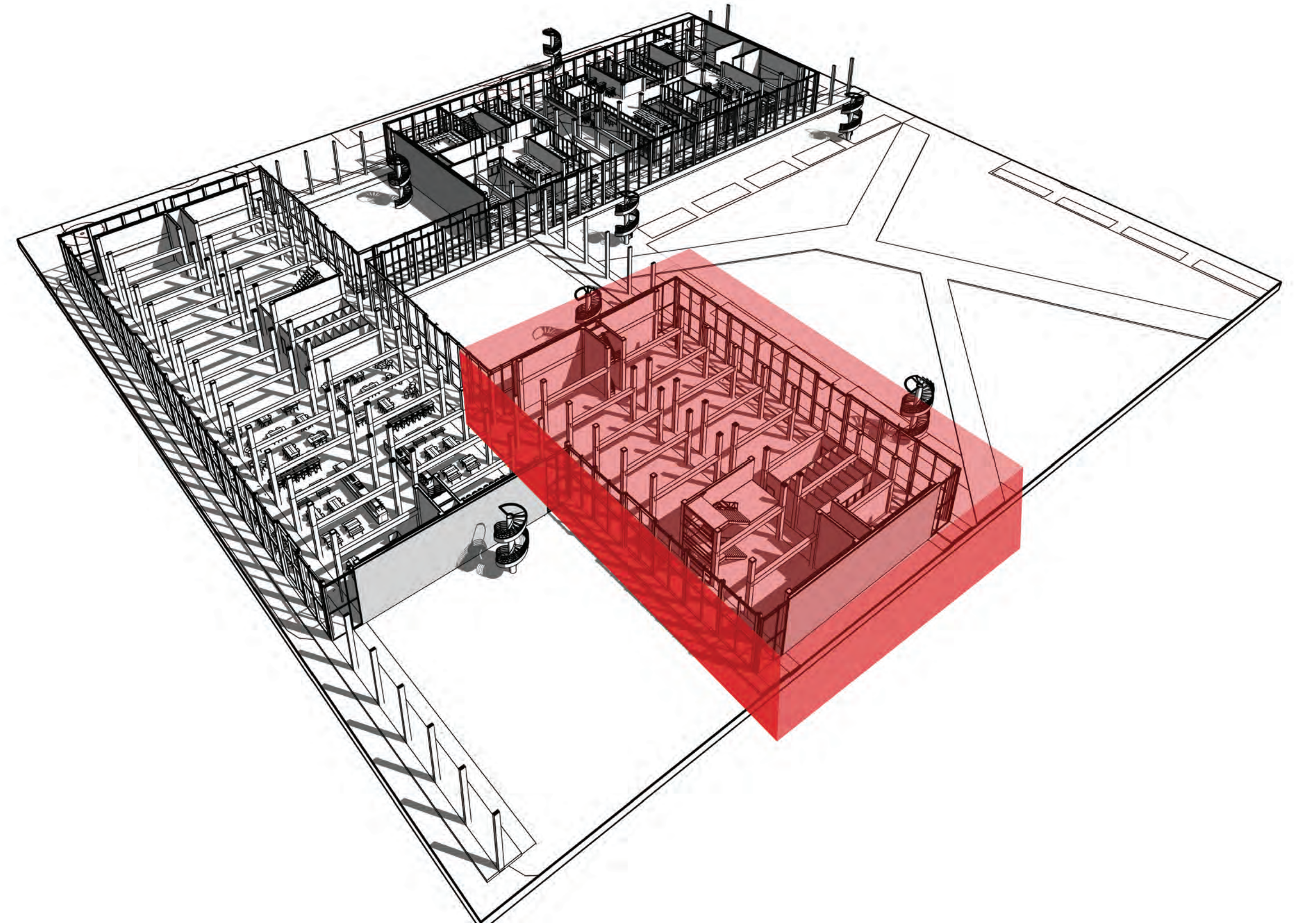
FUNCTIONING OF THE BUILDING

Organisation

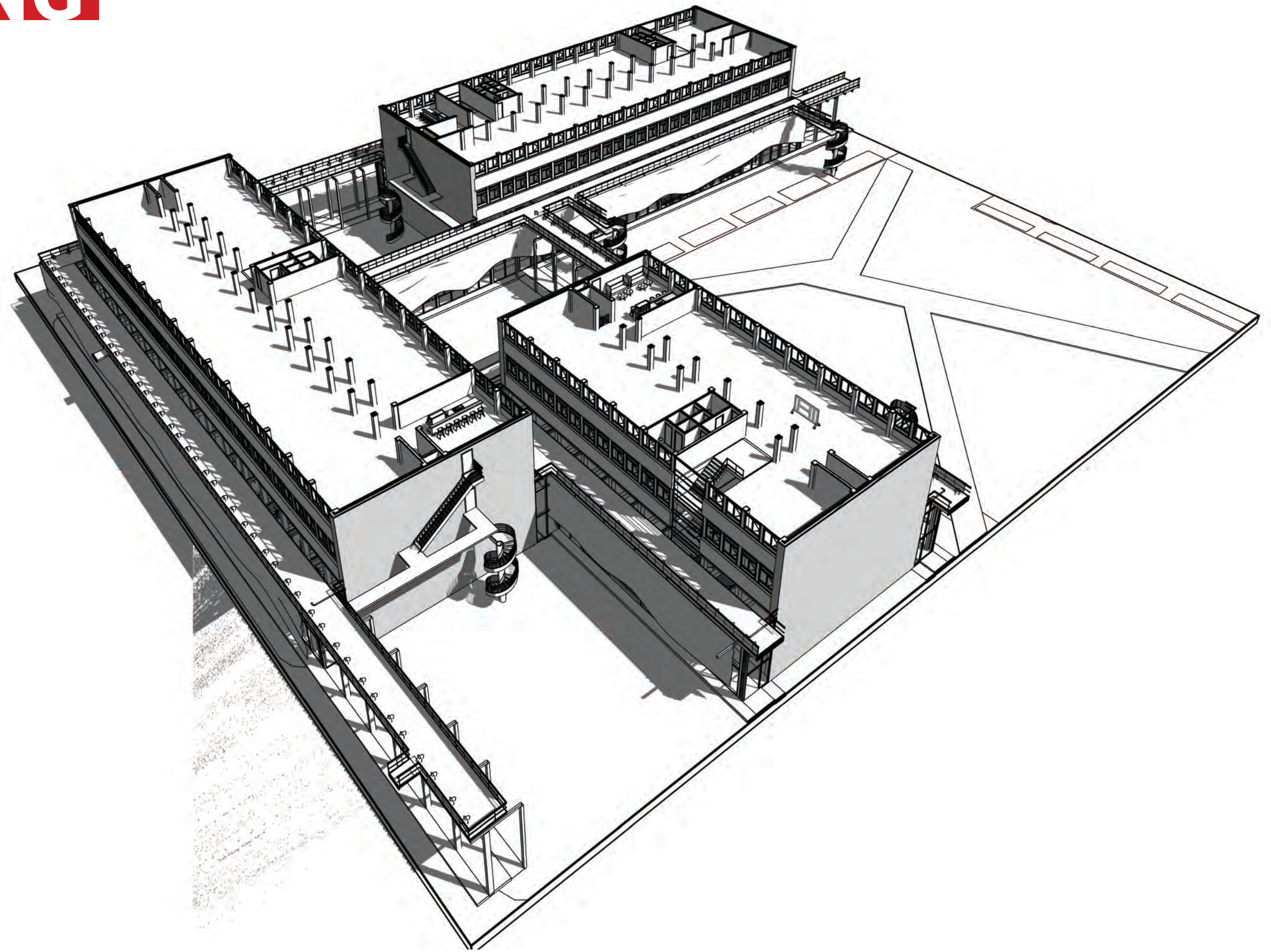


FUNCTIONING OF THE BUILDING

Organisation



Organisation



1500

2018

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2025

2026

2027

2028

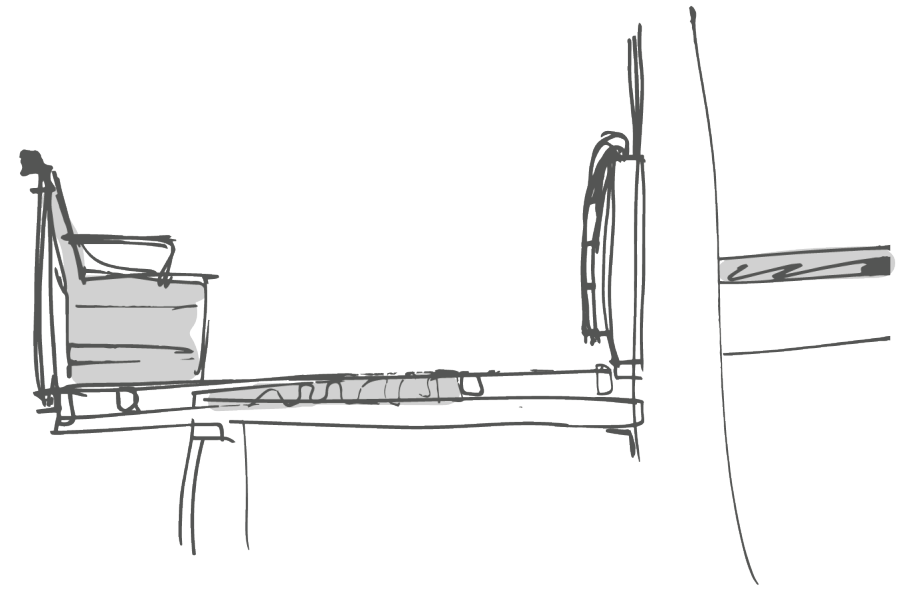
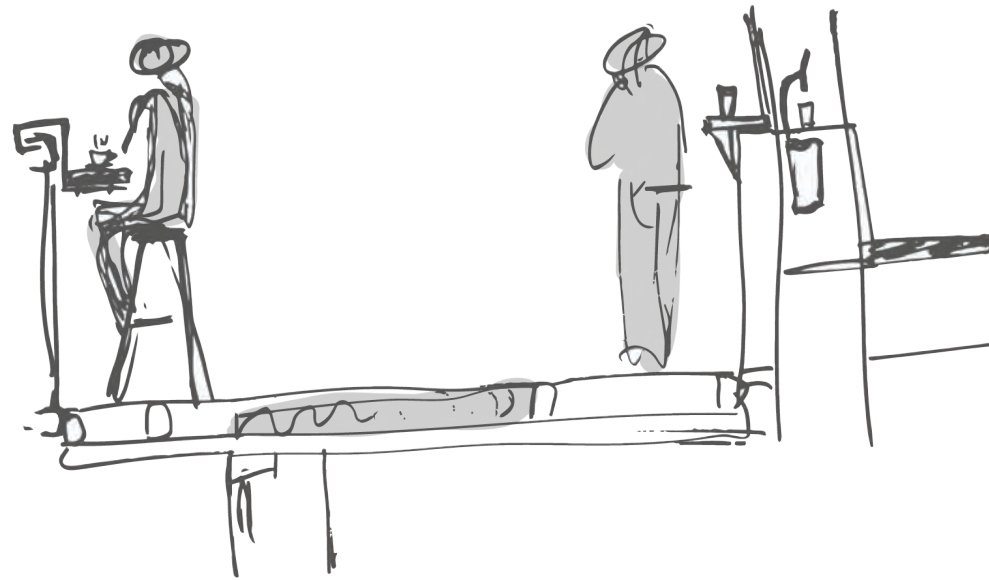
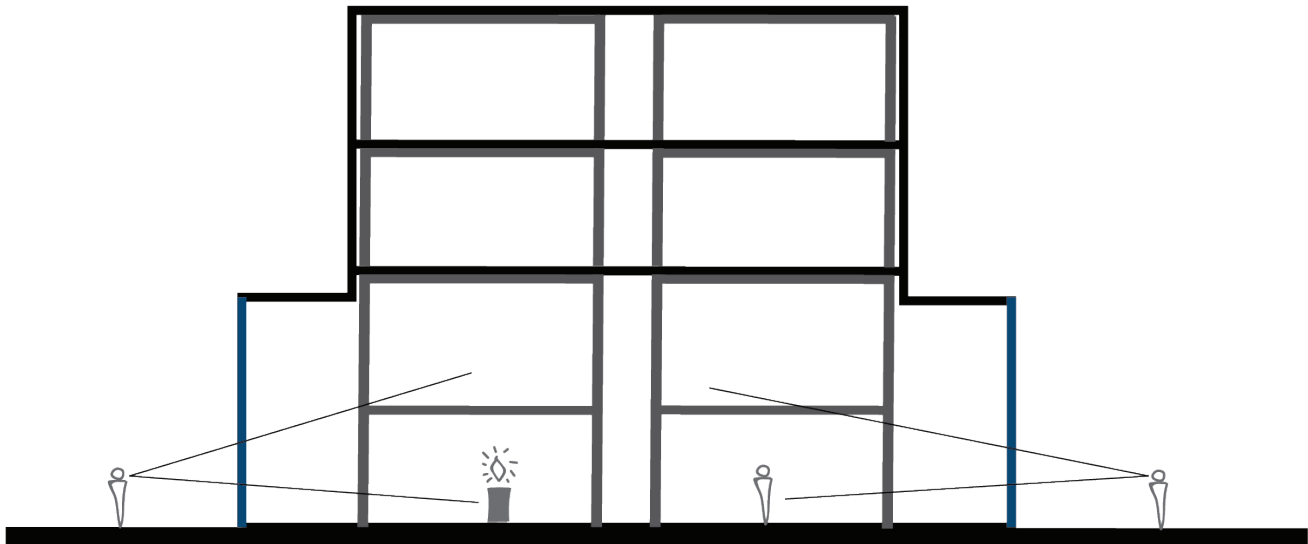
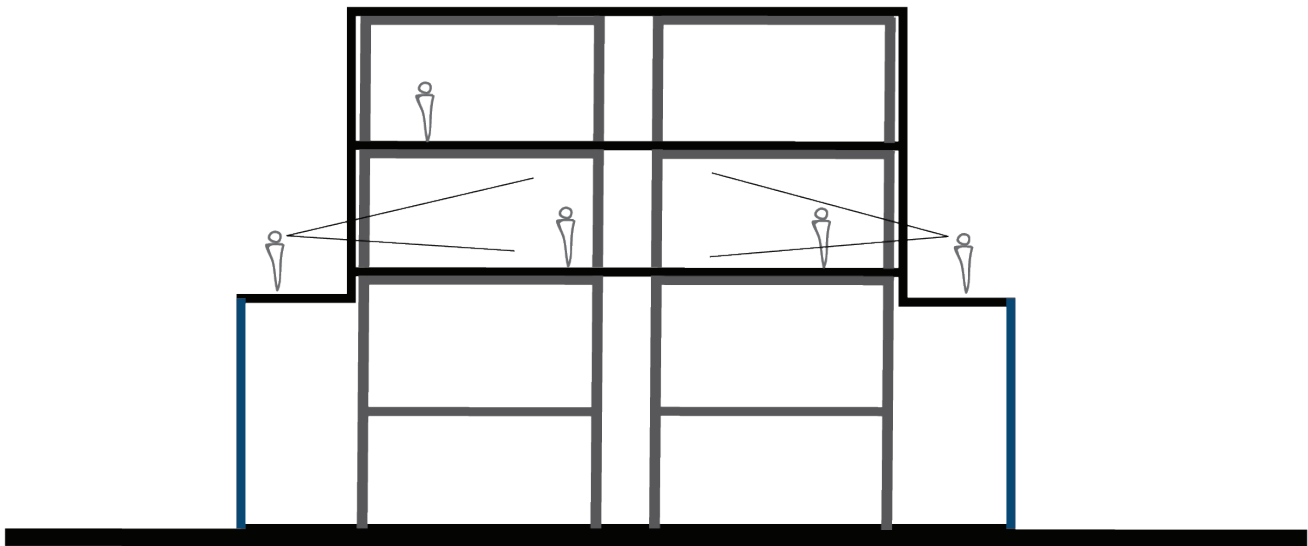
2029

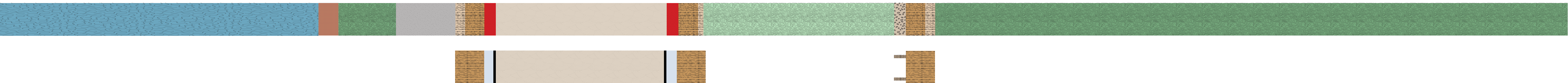
2030

2050

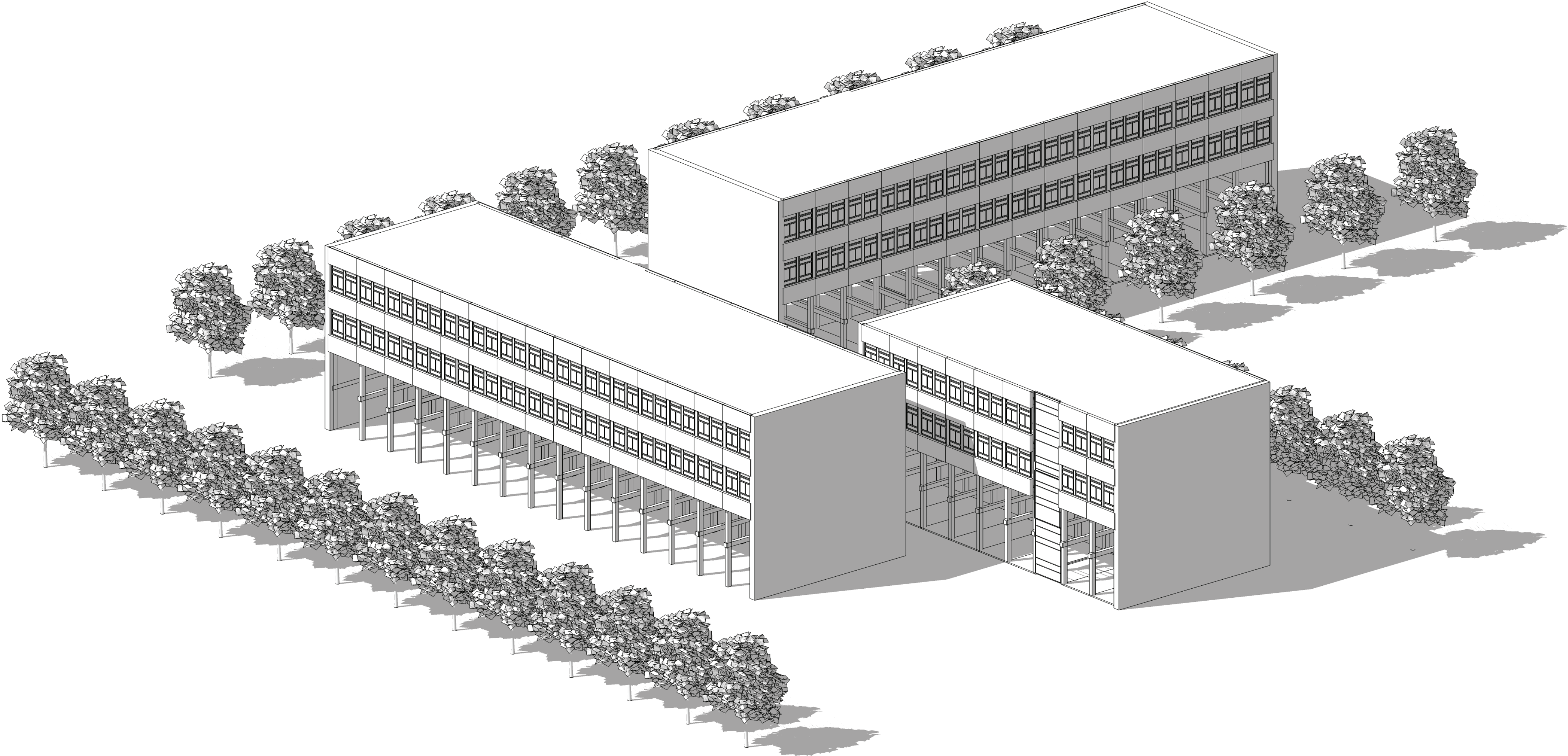
FUNCTIONING OF THE BUILDING

Walkway

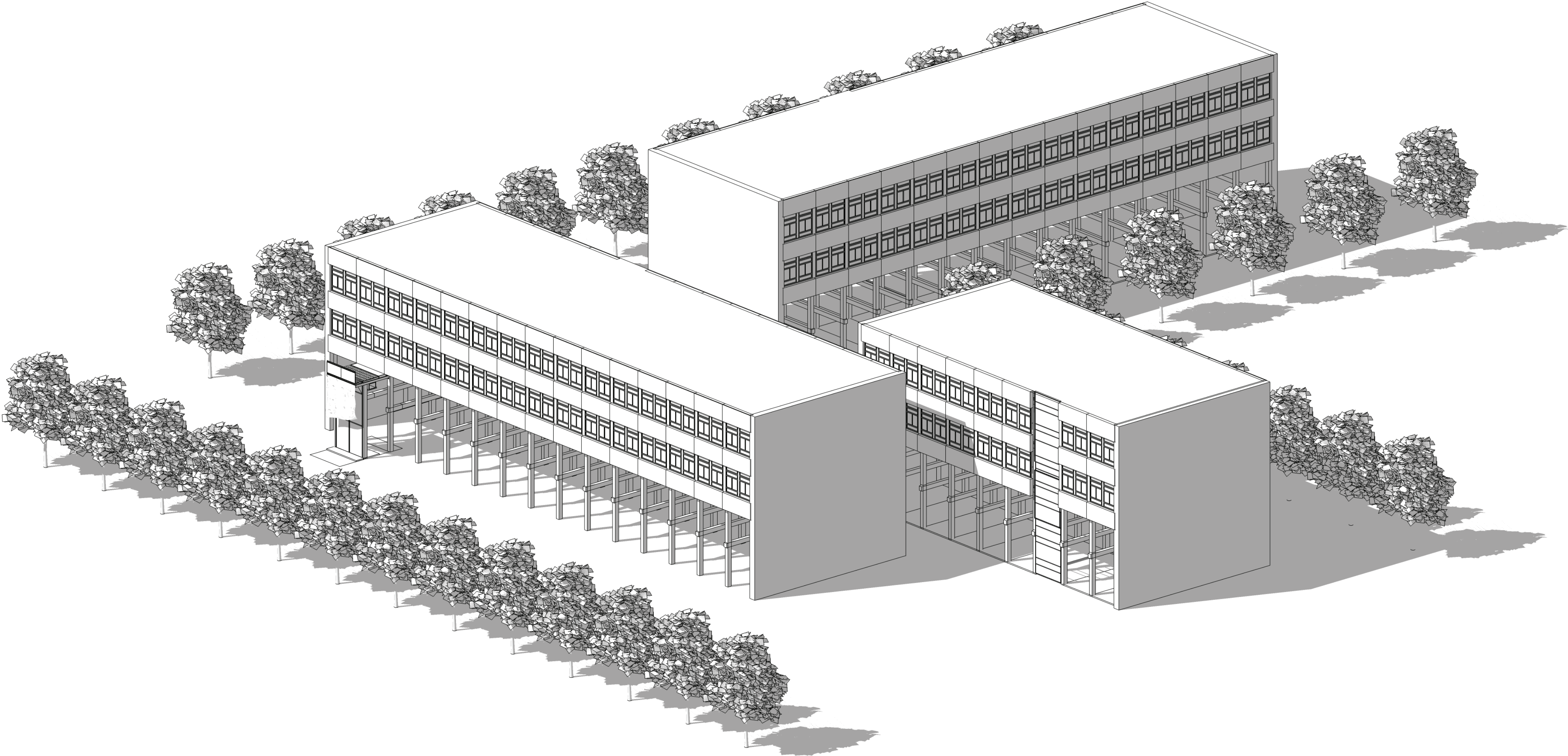




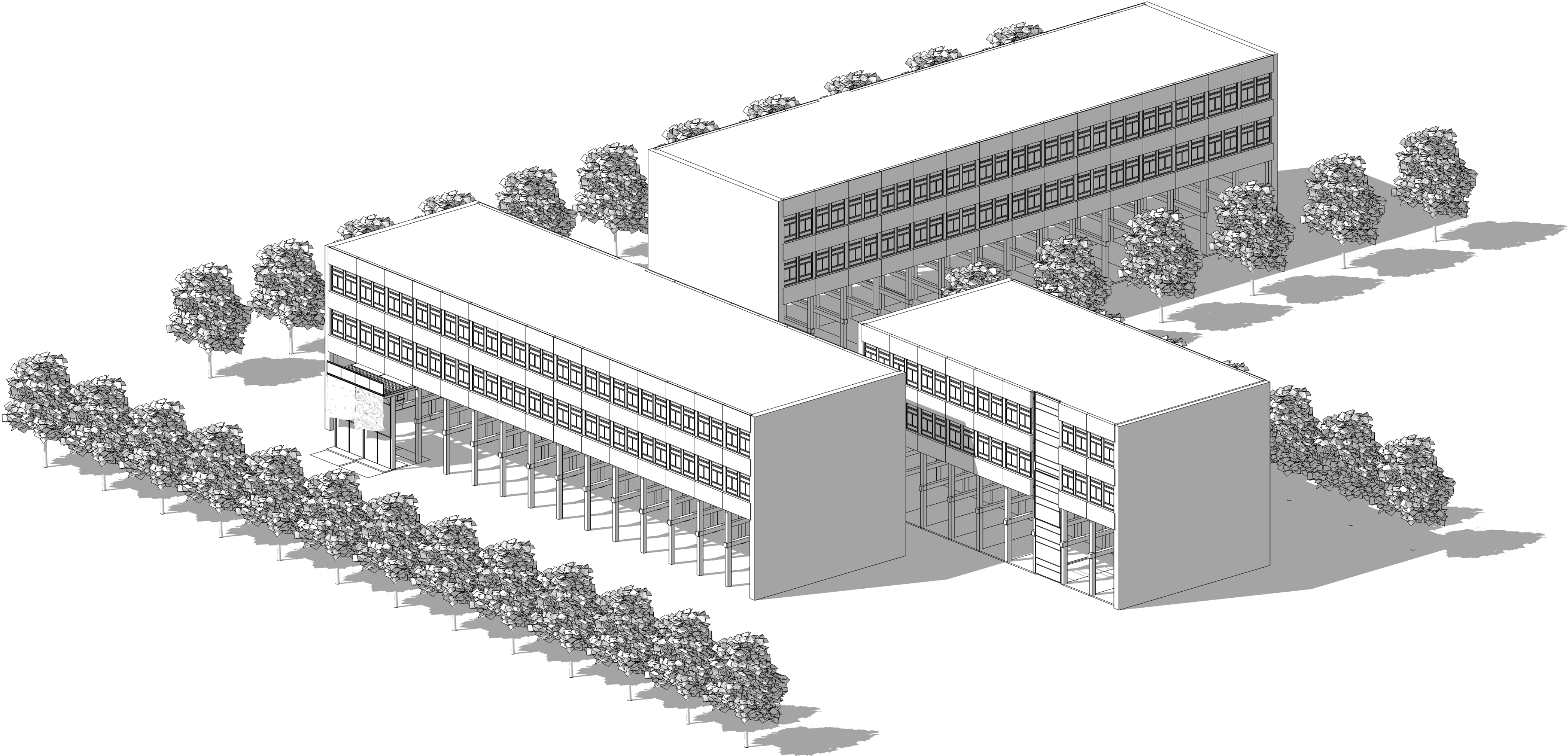
BUILDING MODULES



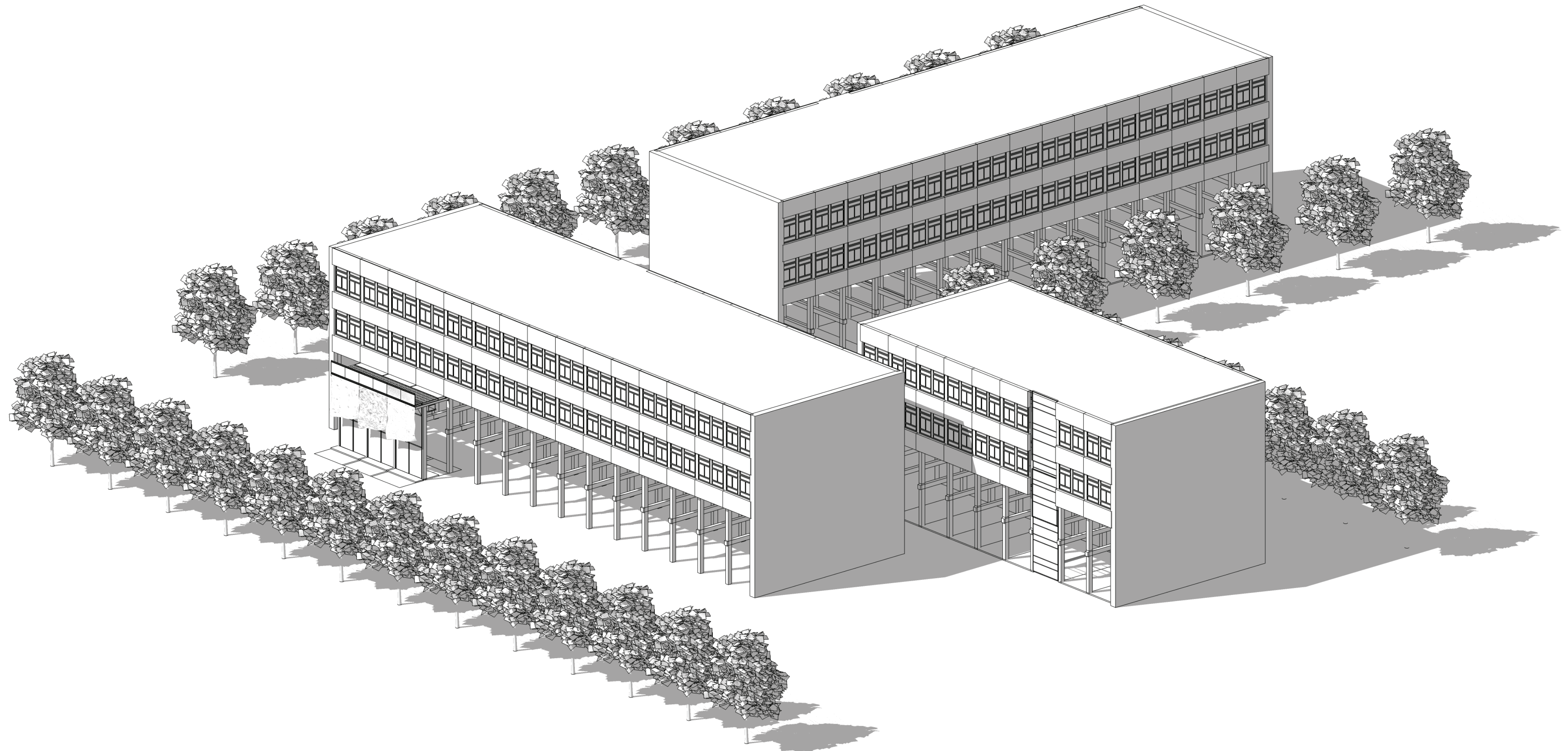
BUILDING MODULES



BUILDING MODULES

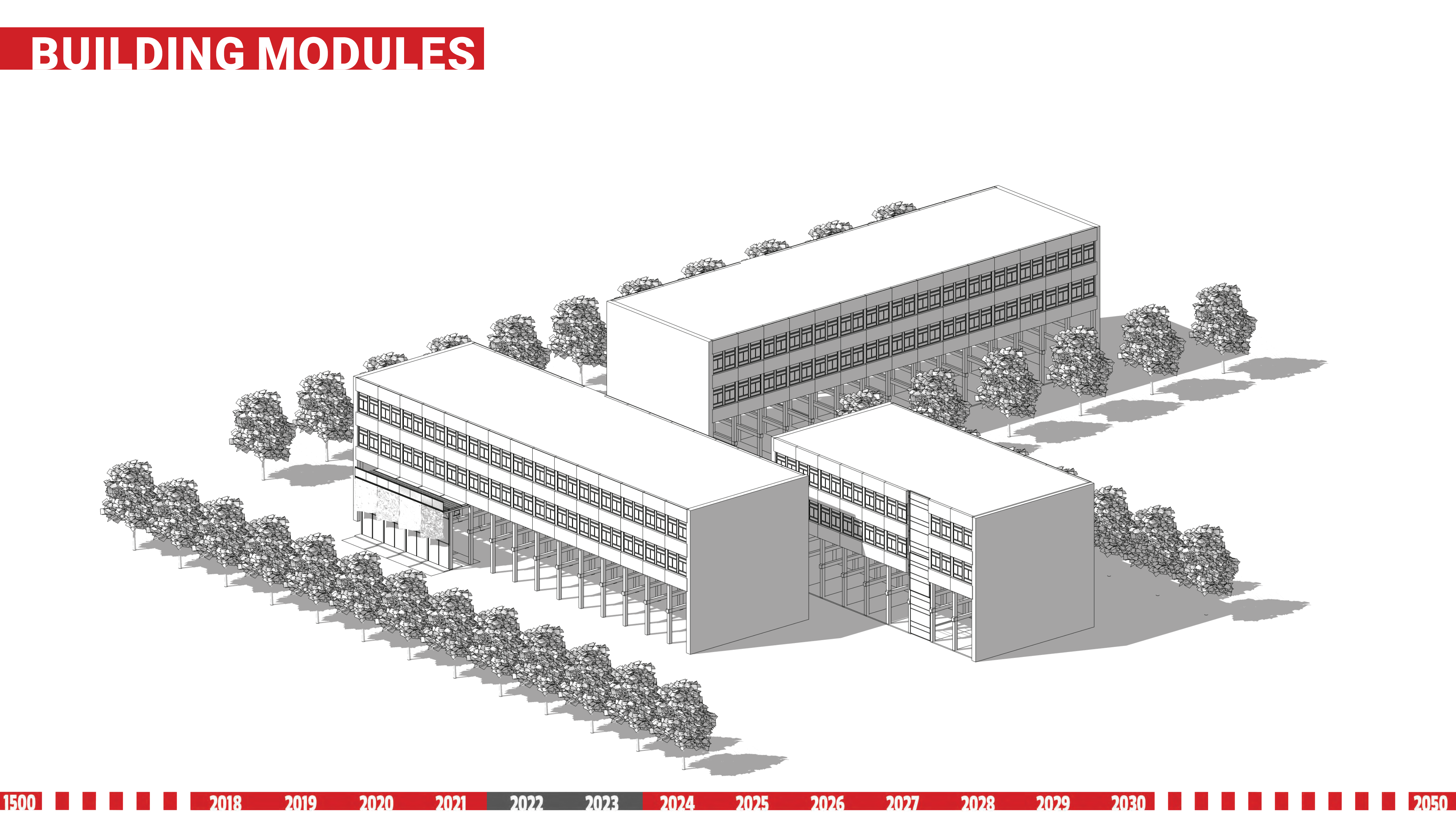


BUILDING MODULES



BUILDING MODULES

This 3D architectural rendering illustrates a modular building complex, likely a school or office building, composed of several interconnected rectangular modules. The building features a flat roof and a facade with a grid of windows. The modules are arranged in a U-shape, with a central courtyard area. The building is surrounded by landscaping, including trees and shrubs. A timeline at the bottom of the image spans from 1500 to 2050, with years marked every year. The timeline is a red bar with white text. The years 1500, 1501, 1502, 1503, 1504, 1505, 1506, 1507, 1508, 1509, 1510, 1511, 1512, 1513, 1514, 1515, 1516, 1517, 1518, 1519, 1520, 1521, 1522, 1523, 1524, 1525, 1526, 1527, 1528, 1529, 1530, 1531, 1532, 1533, 1534, 1535, 1536, 1537, 1538, 1539, 1540, 1541, 1542, 1543, 1544, 1545, 1546, 1547, 1548, 1549, 1550, 1551, 1552, 1553, 1554, 1555, 1556, 1557, 1558, 1559, 1560, 1561, 1562, 1563, 1564, 1565, 1566, 1567, 1568, 1569, 1570, 1571, 1572, 1573, 1574, 1575, 1576, 1577, 1578, 1579, 1580, 1581, 1582, 1583, 1584, 1585, 1586, 1587, 1588, 1589, 1590, 1591, 1592, 1593, 1594, 1595, 1596, 1597, 1598, 1599, 1600, 1601, 1602, 1603, 1604, 1605, 1606, 1607, 1608, 1609, 1610, 1611, 1612, 1613, 1614, 1615, 1616, 1617, 1618, 1619, 1620, 1621, 1622, 1623, 1624, 1625, 1626, 1627, 1628, 1629, 1630, 1631, 1632, 1633, 1634, 1635, 1636, 1637, 1638, 1639, 1640, 1641, 1642, 1643, 1644, 1645, 1646, 1647, 1648, 1649, 1650, 1651, 1652, 1653, 1654, 1655, 1656, 1657, 1658, 1659, 1660, 1661, 1662, 1663, 1664, 1665, 1666, 1667, 1668, 1669, 1670, 1671, 1672, 1673, 1674, 1675, 1676, 1677, 1678, 1679, 1680, 1681, 1682, 1683, 1684, 1685, 1686, 1687, 1688, 1689, 1690, 1691, 1692, 1693, 1694, 1695, 1696, 1697, 1698, 1699, 1700, 1701, 1702, 1703, 1704, 1705, 1706, 1707, 1708, 1709, 1710, 1711, 1712, 1713, 1714, 1715, 1716, 1717, 1718, 1719, 1720, 1721, 1722, 1723, 1724, 1725, 1726, 1727, 1728, 1729, 1730, 1731, 1732, 1733, 1734, 1735, 1736, 1737, 1738, 1739, 1740, 1741, 1742, 1743, 1744, 1745, 1746, 1747, 1748, 1749, 1750, 1751, 1752, 1753, 1754, 1755, 1756, 1757, 1758, 1759, 1760, 1761, 1762, 1763, 1764, 1765, 1766, 1767, 1768, 1769, 1770, 1771, 1772, 1773, 1774, 1775, 1776, 1777, 1778, 1779, 1780, 1781, 1782, 1783, 1784, 1785, 1786, 1787, 1788, 1789, 1790, 1791, 1792, 1793, 1794, 1795, 1796, 1797, 1798, 1799, 1800, 1801, 1802, 1803, 1804, 1805, 1806, 1807, 1808, 1809, 1810, 1811, 1812, 1813, 1814, 1815, 1816, 1817, 1818, 1819, 1820, 1821, 1822, 1823, 1824, 1825, 1826, 1827, 1828, 1829, 1830, 1831, 1832, 1833, 1834, 1835, 1836, 1837, 1838, 1839, 1840, 1841, 1842, 1843, 1844, 1845, 1846, 1847, 1848, 1849, 1850, 1851, 1852, 1853, 1854, 1855, 1856, 1857, 1858, 1859, 1860, 1861, 1862, 1863, 1864, 1865, 1866, 1867, 1868, 1869, 1870, 1871, 1872, 1873, 1874, 1875, 1876, 1877, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900, 1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908, 1909, 1910, 1911, 1912, 1913, 1914, 1915, 1916, 1917, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050.

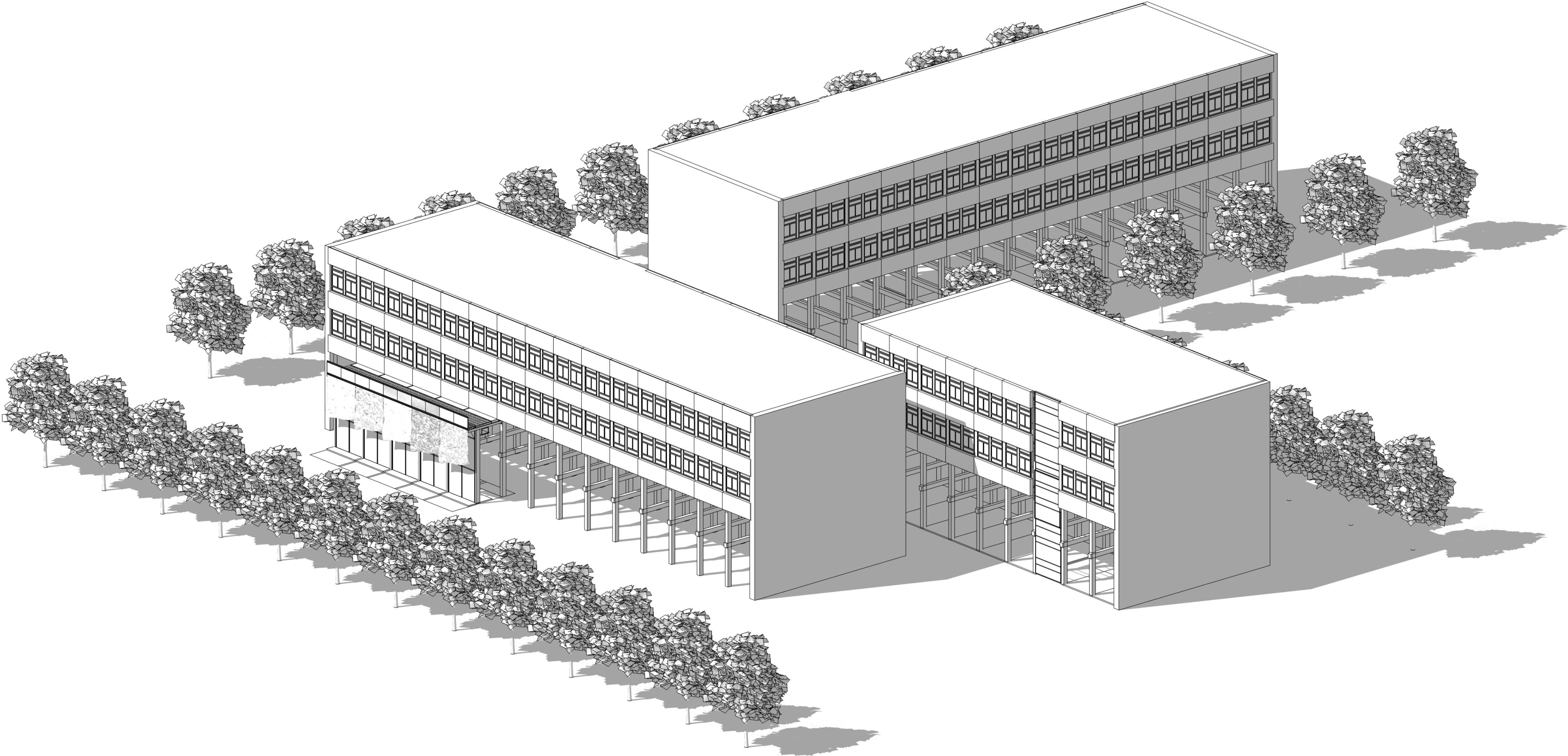


BUILDING MODULES

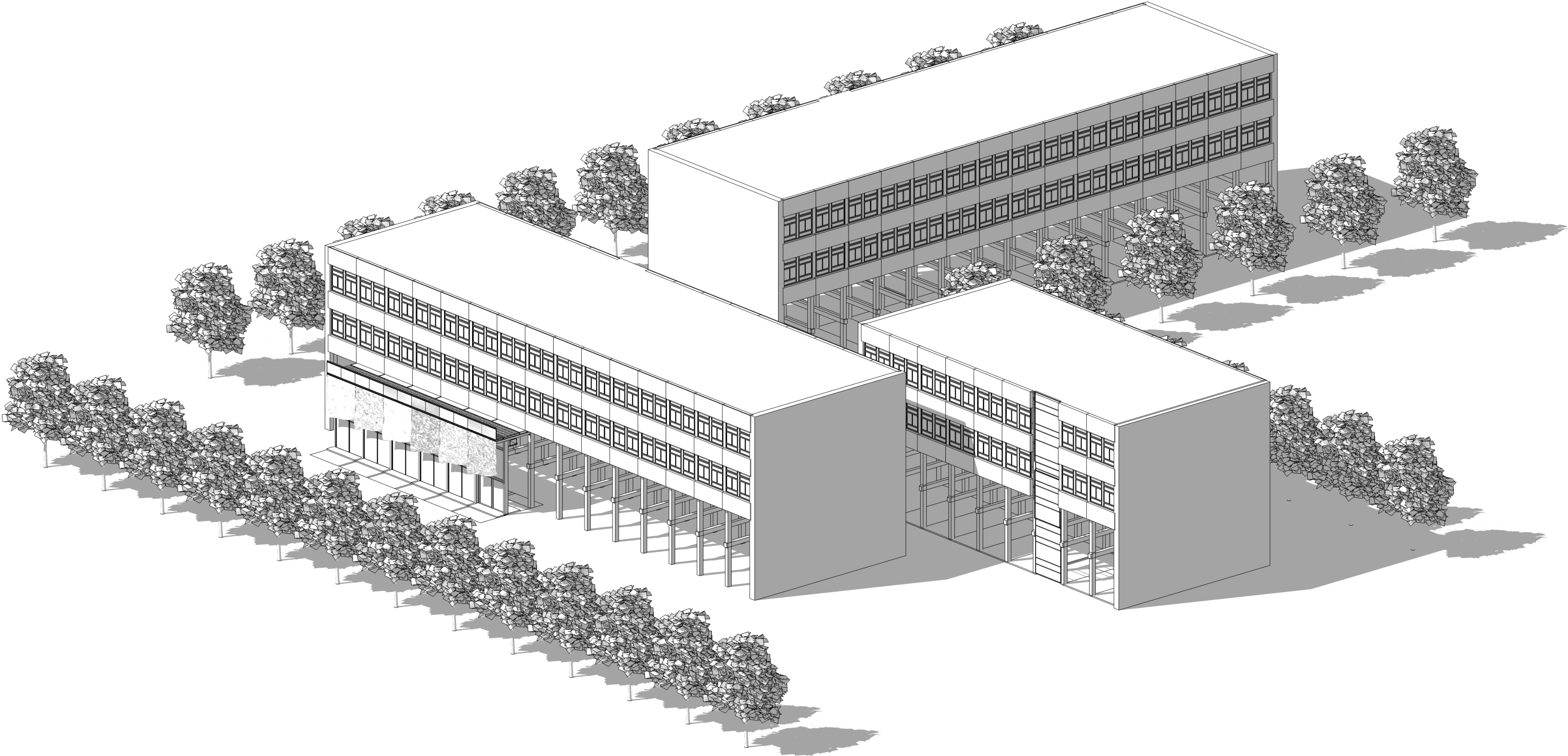
This 3D architectural rendering illustrates a building complex composed of several interconnected rectangular modules. The building is shown in a perspective view, highlighting its multi-story structure and extensive window patterns. The modules are arranged in a way that suggests a modular or expandable design. The building is surrounded by stylized trees and landscaping, including a long row of trees in the foreground and smaller clusters around the building. A timeline at the bottom of the image spans from 1500 to 2050, with specific years labeled: 1500, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, and 2050. The years 2022 and 2023 are highlighted in a darker shade, indicating the current or near-current period.

1500 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2050

BUILDING MODULES



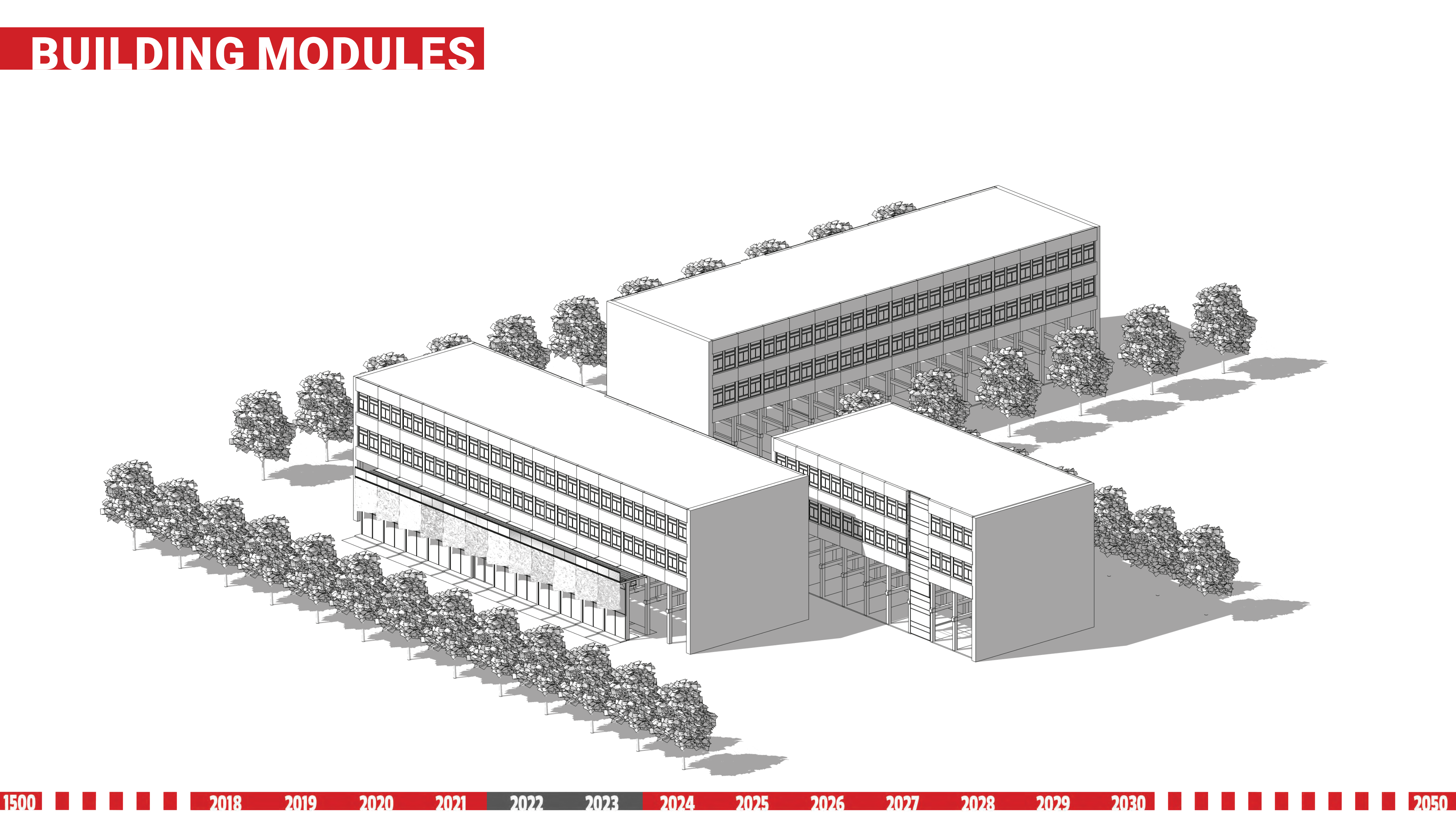
BUILDING MODULES



BUILDING MODULES

This 3D architectural rendering illustrates a building complex composed of several interconnected rectangular modules. The building is shown in a perspective view, highlighting its multi-story structure and extensive window patterns. The facade features a combination of solid panels and large glass sections, some of which are shaded to indicate different materials or functions. The building is surrounded by a landscape of stylized trees and shrubs, with shadows cast on the ground to provide a sense of scale and orientation. A prominent red timeline bar runs horizontally across the bottom of the image, marking the years from 1500 to 2050. The timeline is divided into segments, with the years 1500, 1510, 1520, 1530, 1540, 1550, 1560, 1570, 1580, 1590, 1600, 1610, 1620, 1630, 1640, 1650, 1660, 1670, 1680, 1690, 1700, 1710, 1720, 1730, 1740, 1750, 1760, 1770, 1780, 1790, 1800, 1810, 1820, 1830, 1840, 1850, 1860, 1870, 1880, 1890, 1900, 1910, 1920, 1930, 1940, 1950, 1960, 1970, 1980, 1990, 2000, 2010, 2020, 2030, 2040, and 2050 labeled. The years 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, and 2030 are also labeled. The timeline is a solid red bar with white text, and the years are spaced evenly along the bar.

1500 1510 1520 1530 1540 1550 1560 1570 1580 1590 1600 1610 1620 1630 1640 1650 1660 1670 1680 1690 1700 1710 1720 1730 1740 1750 1760 1770 1780 1790 1800 1810 1820 1830 1840 1850 1860 1870 1880 1890 1900 1910 1920 1930 1940 1950 1960 1970 1980 1990 2000 2010 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2040 2050

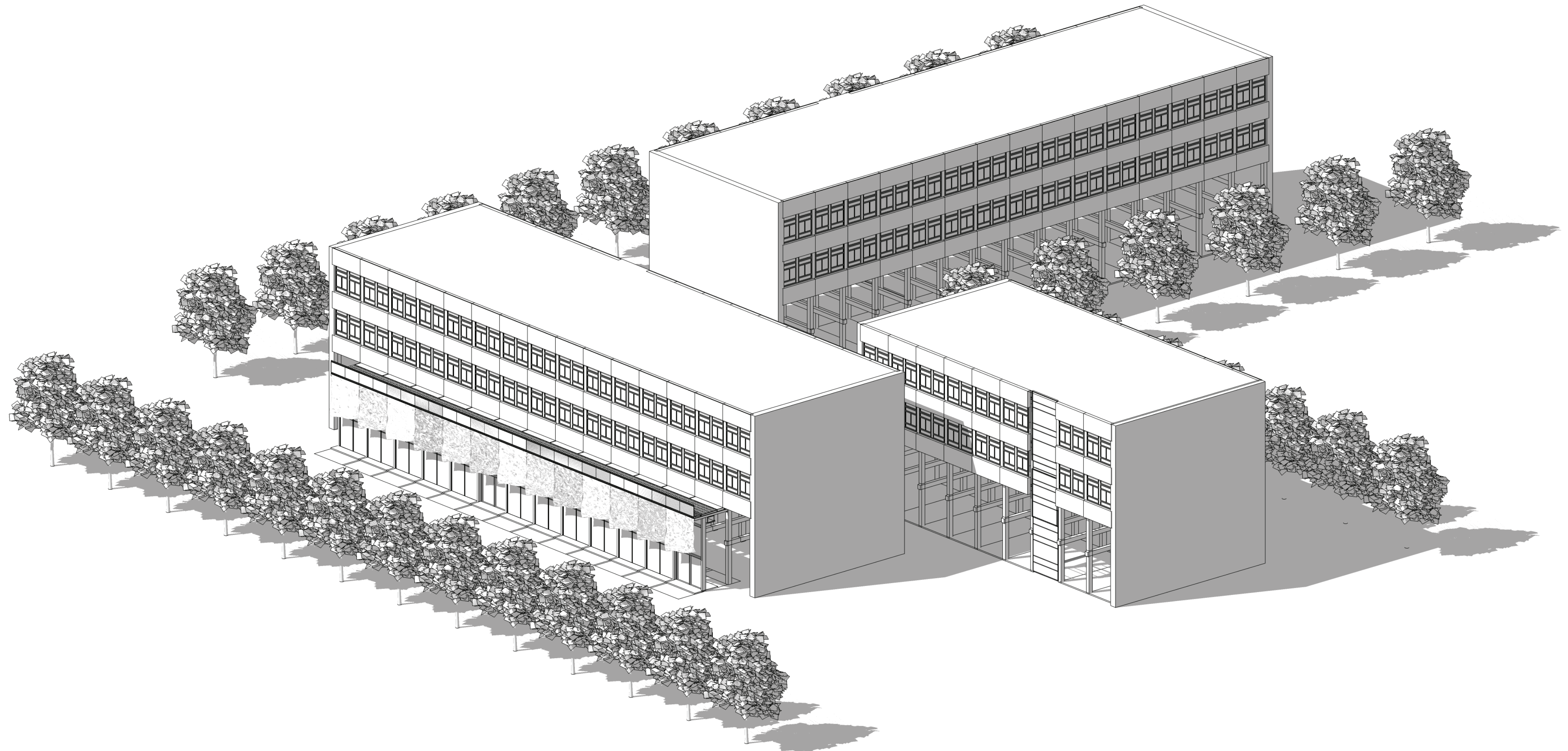


BUILDING MODULES

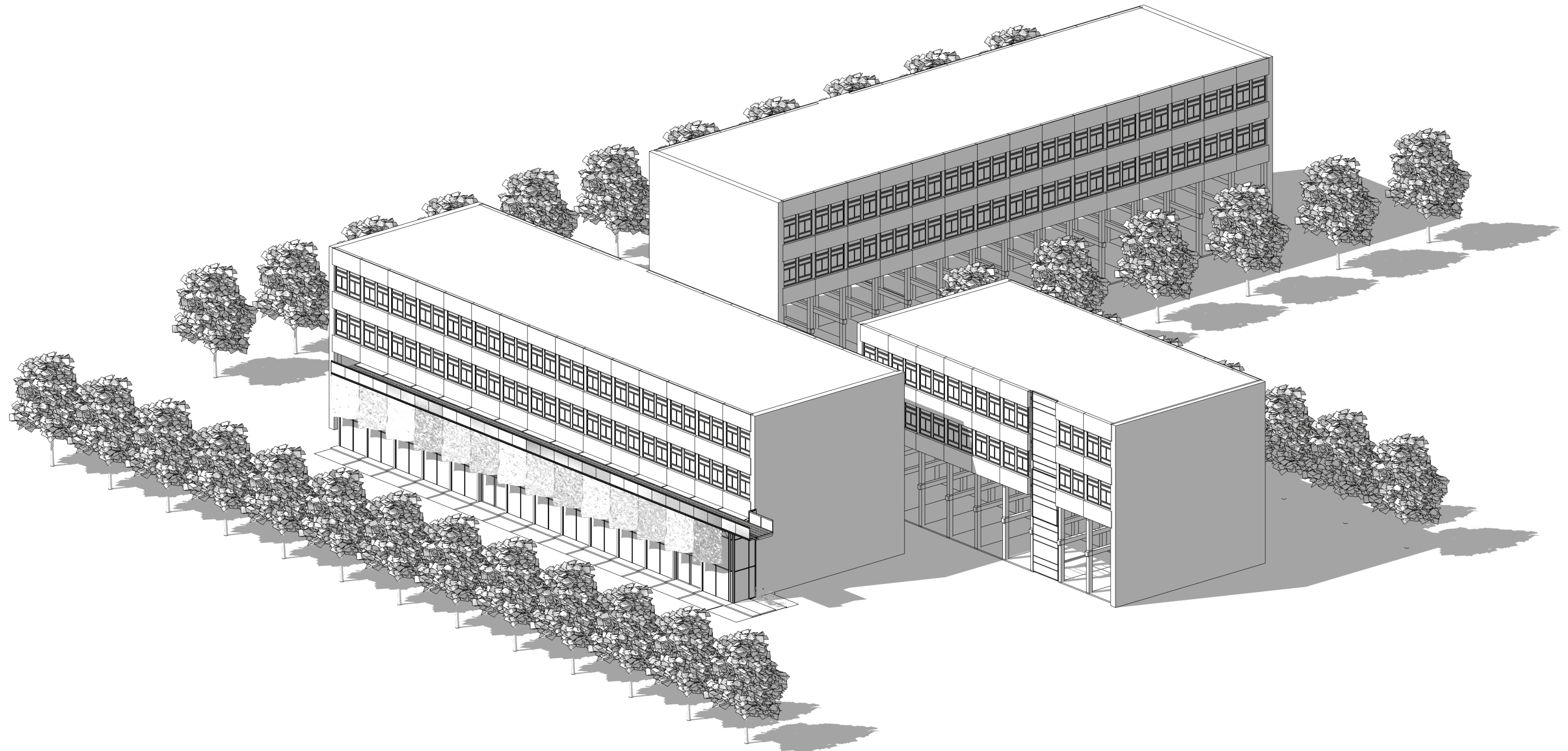
This 3D architectural rendering illustrates a building complex composed of several interconnected rectangular modules. The building is shown in a perspective view, highlighting its multi-story structure and extensive window patterns. The modules are arranged in a U-shape, with a central courtyard area. The building is surrounded by stylized trees and landscaping, suggesting an integrated green environment. A timeline at the bottom of the image spans from 1500 to 2050, with specific years marked in red boxes. The timeline includes 1500, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, and 2050. The years 2022 and 2023 are highlighted in a darker red, indicating a period of significant development or completion. The overall design is modern and functional, emphasizing a long-term, sustainable building strategy.

1500 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2050

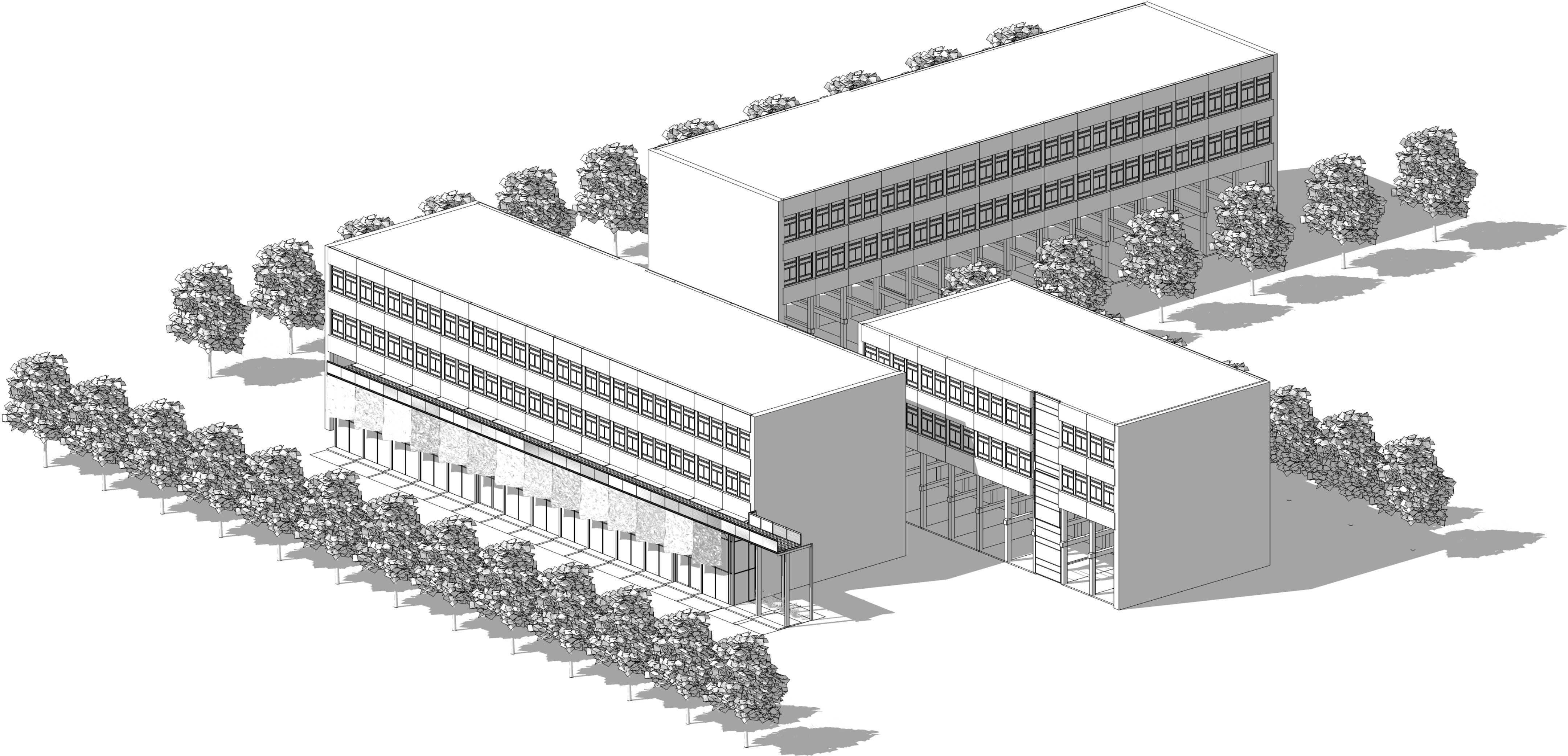
BUILDING MODULES



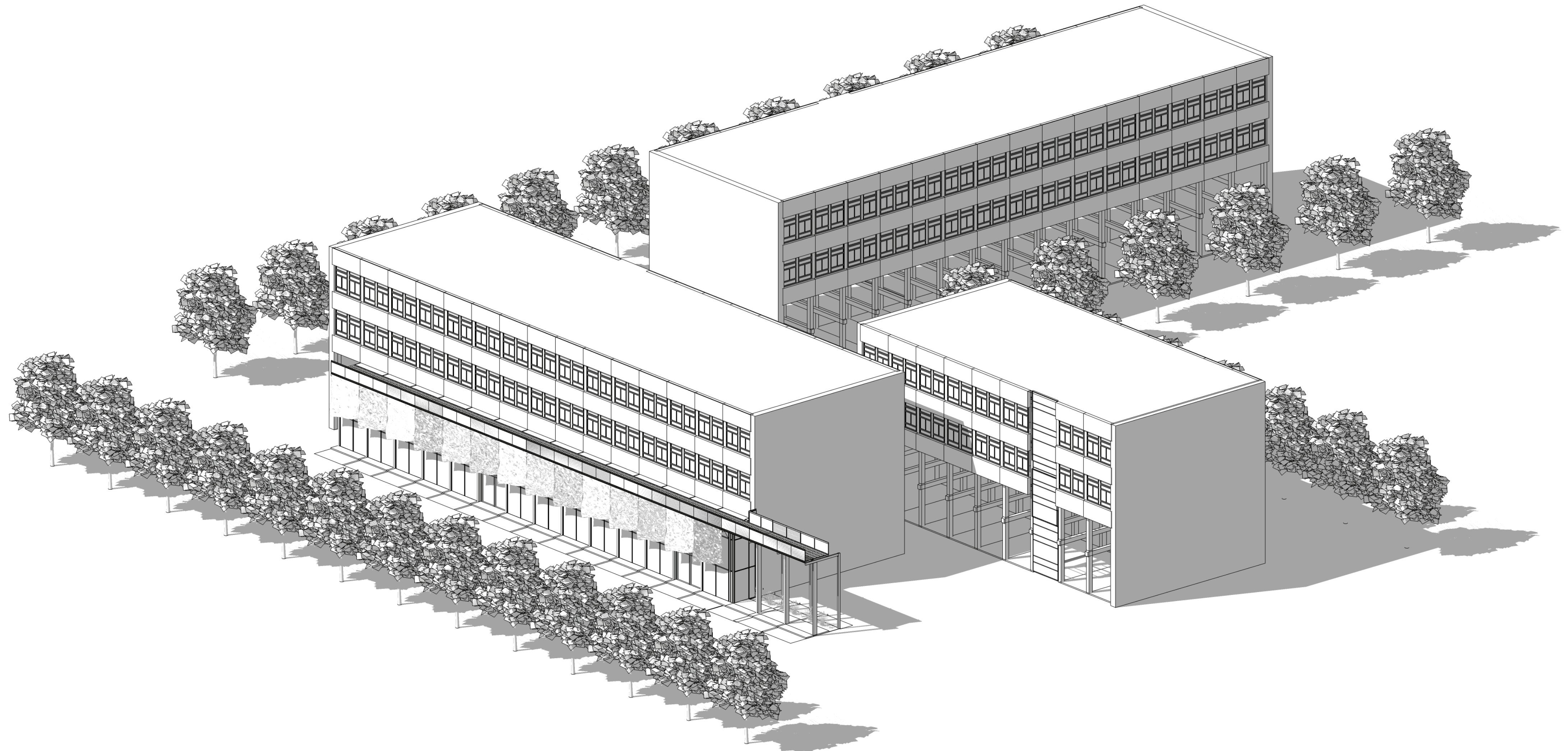
BUILDING MODULES



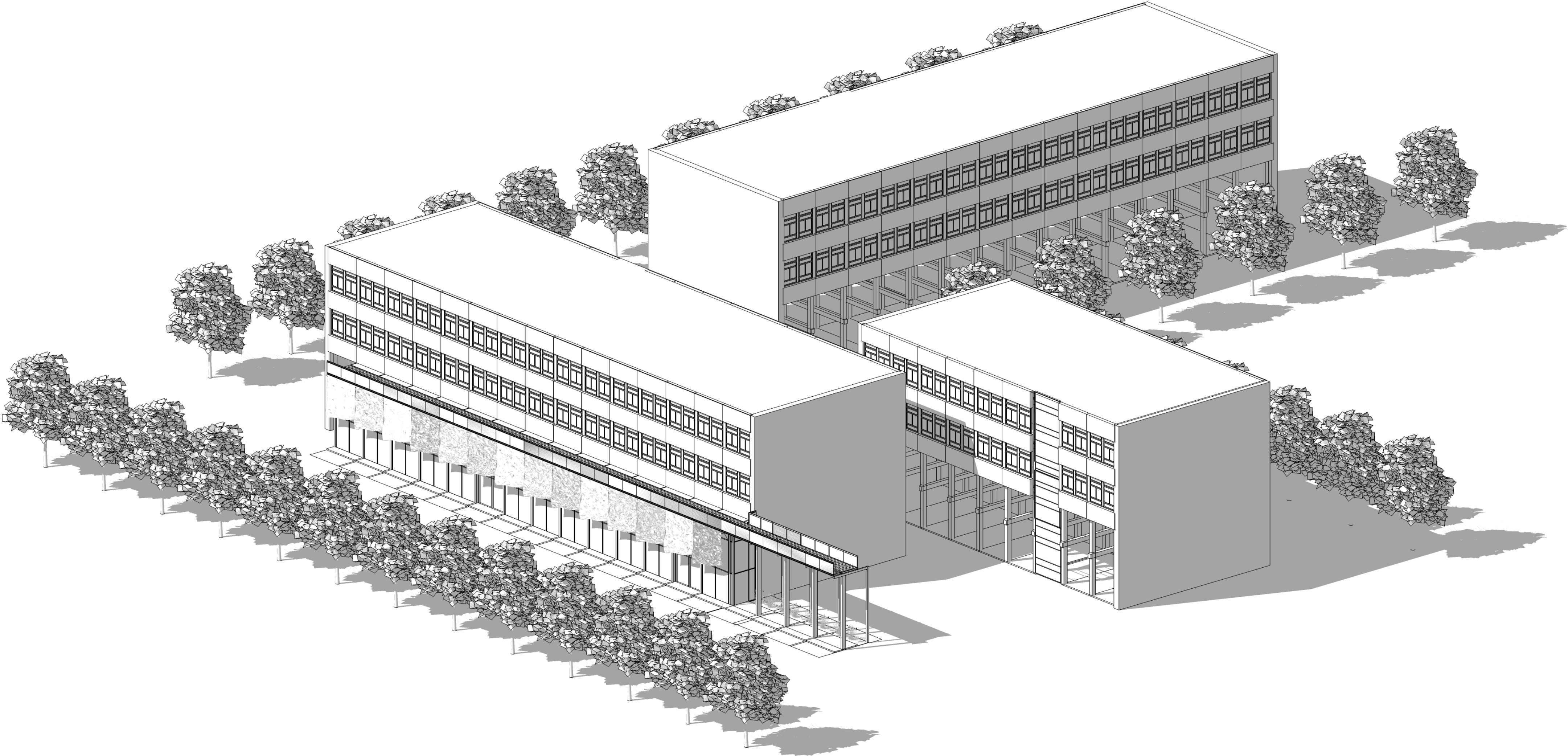
BUILDING MODULES



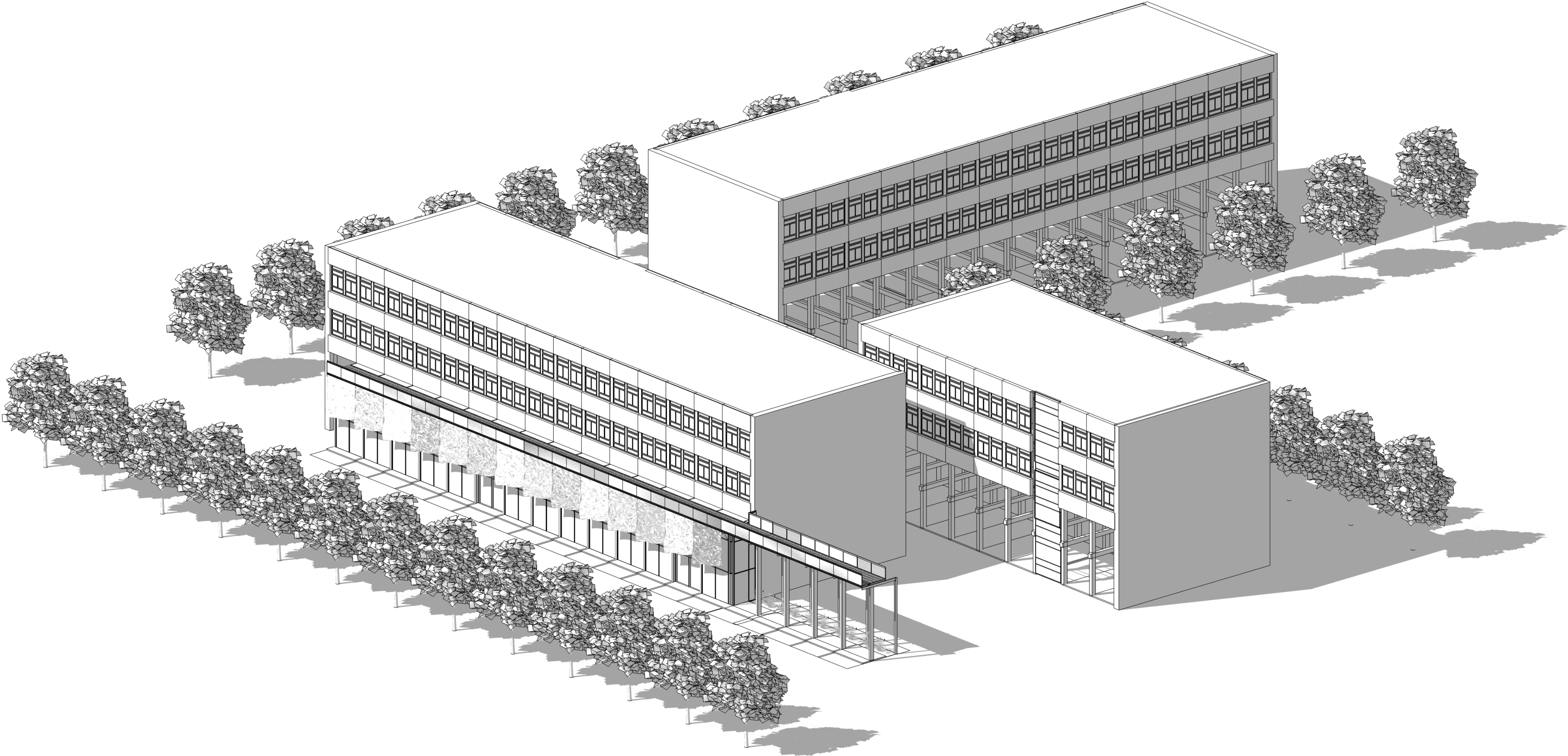
BUILDING MODULES



BUILDING MODULES



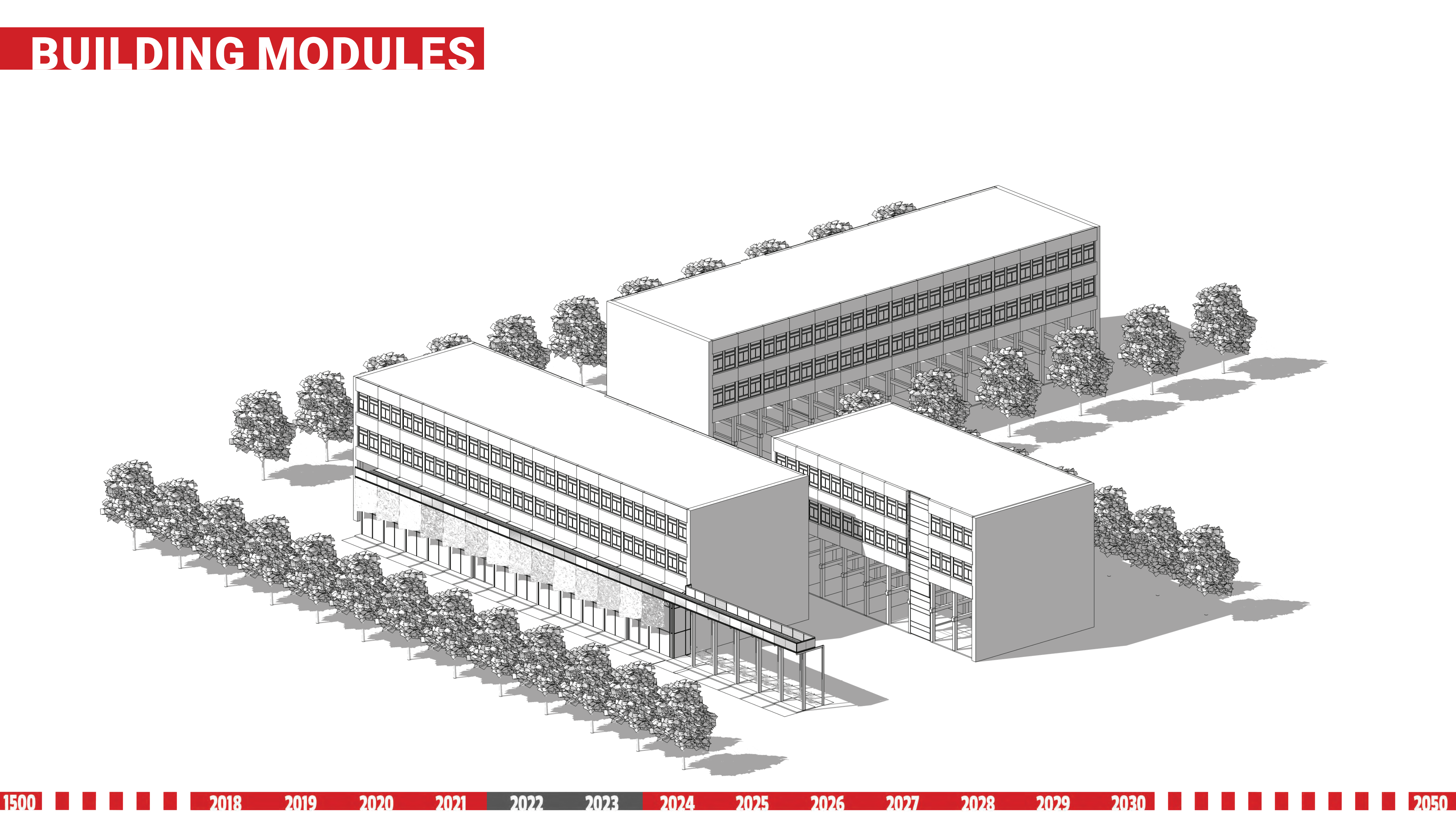
BUILDING MODULES



BUILDING MODULES

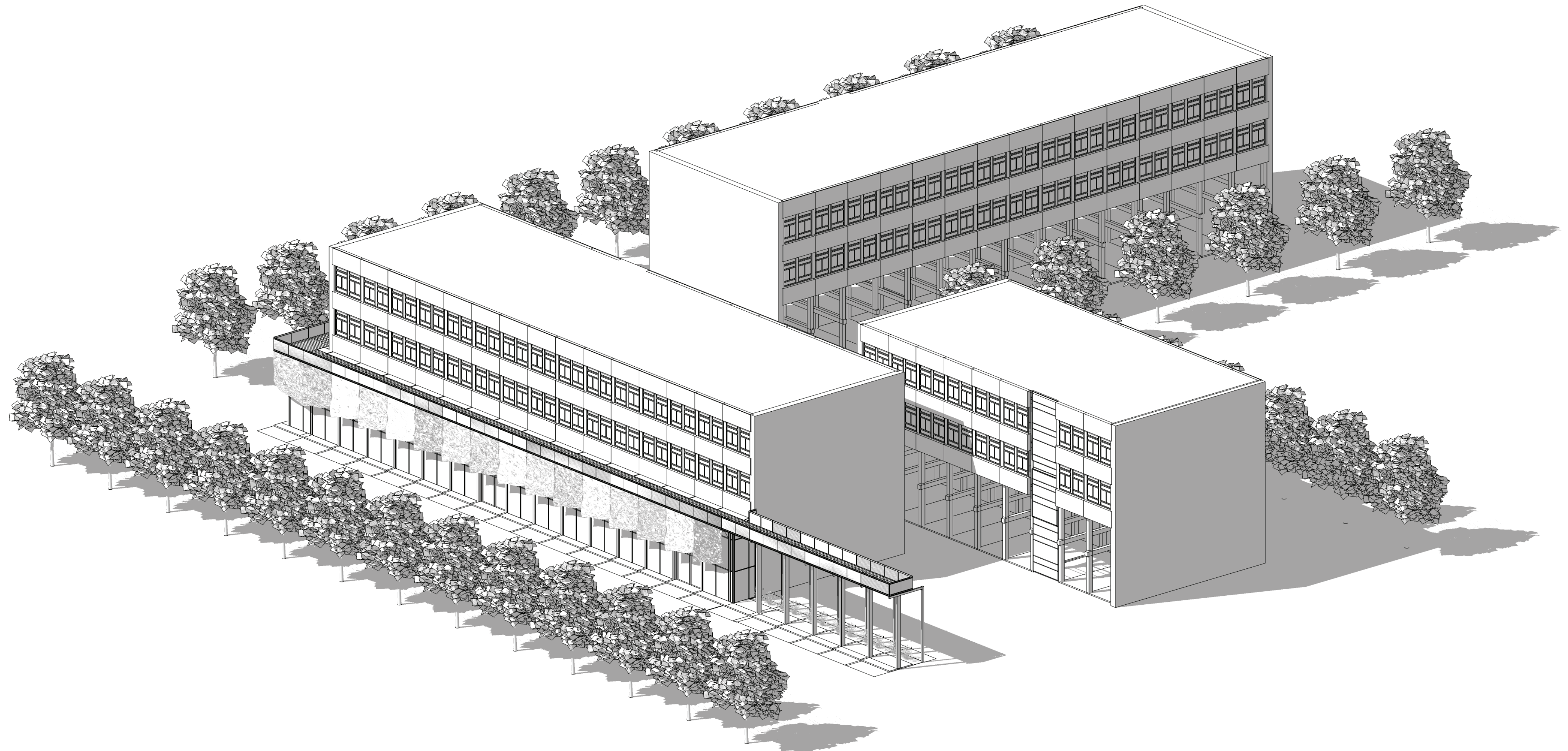
This 3D architectural rendering illustrates a building complex composed of several interconnected rectangular modules. The building is shown in a perspective view, highlighting its multi-story structure and extensive window patterns. The facade features a combination of solid panels and large glass sections, some of which are shaded to indicate different materials or finishes. The building is surrounded by a landscaped area with numerous trees of varying sizes and shapes, suggesting a green environment. A prominent timeline at the bottom of the image spans from the year 1500 to 2050, with specific years labeled in red boxes. The timeline includes 1500, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, and 2050. The years 2022 and 2023 are highlighted in a darker red, indicating the current or near-current period. The overall design is modern and functional, with a focus on sustainable architecture.

1500 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2050

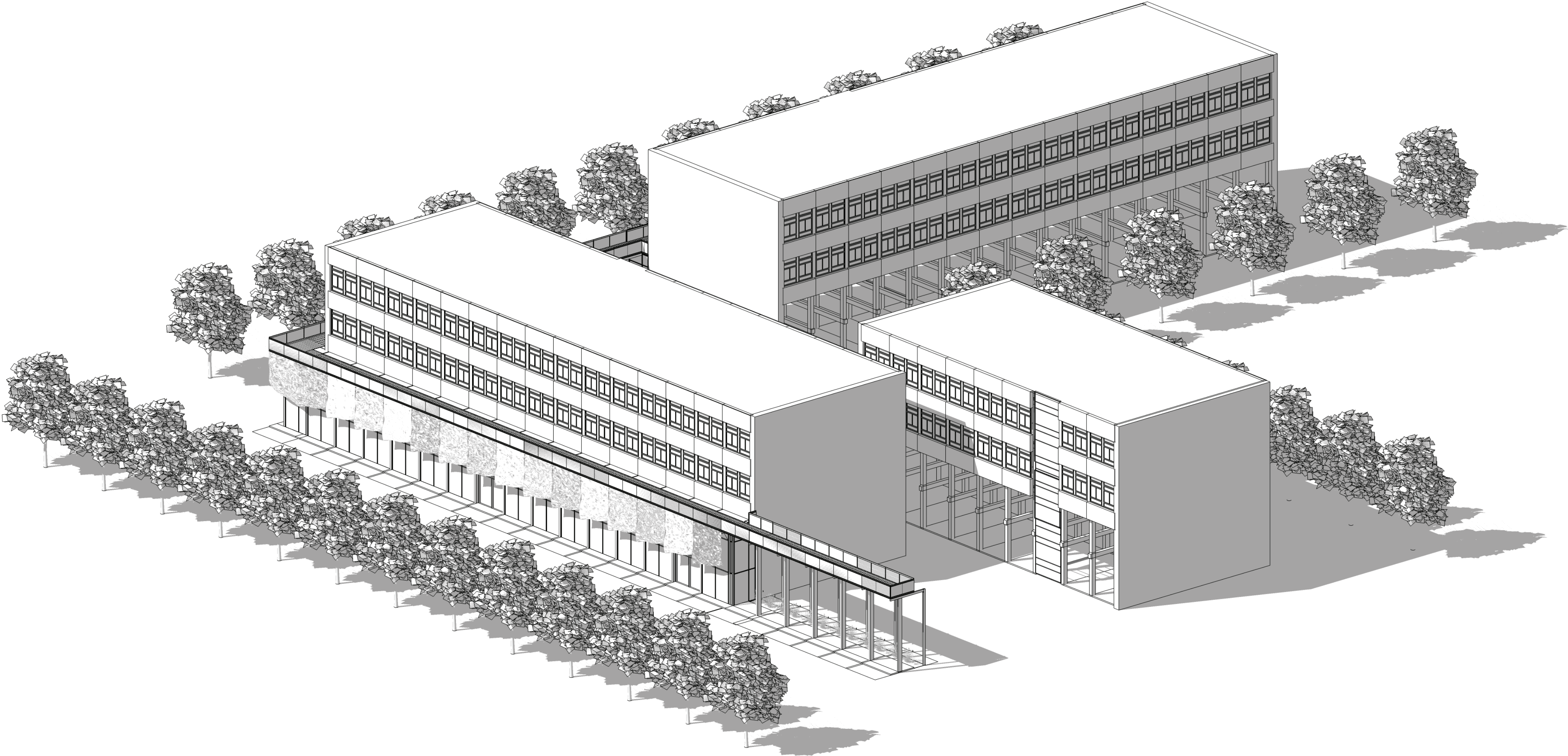


An architectural rendering of a modern building complex, likely a school or university campus. The complex consists of several interconnected rectangular buildings with flat roofs and large windows. The buildings are surrounded by numerous trees of varying sizes, some planted in rows and others more scattered. A timeline at the bottom of the image shows years from 1500 to 2050, with the year 2022 highlighted in a darker shade, indicating the current or target year for the project. The timeline is a red bar with white text for the years.

BUILDING MODULES



BUILDING MODULES



An architectural rendering of a modern building complex, likely a university or research facility. The complex consists of several interconnected rectangular buildings with flat roofs and large windows. The buildings are surrounded by landscaping, including trees and shrubs. A timeline at the bottom of the image shows the years from 1500 to 2050, with the year 2022 highlighted in a darker shade, indicating the current year or a specific point of interest.

A horizontal timeline bar spanning from 1500 to 2050. The years 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, and 2030 are highlighted in red. The years 2022 and 2023 are also highlighted in grey.

A horizontal timeline bar spanning from 1500 to 2050. The years 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, and 2030 are highlighted in red. The years 2022 and 2023 are also highlighted in grey.

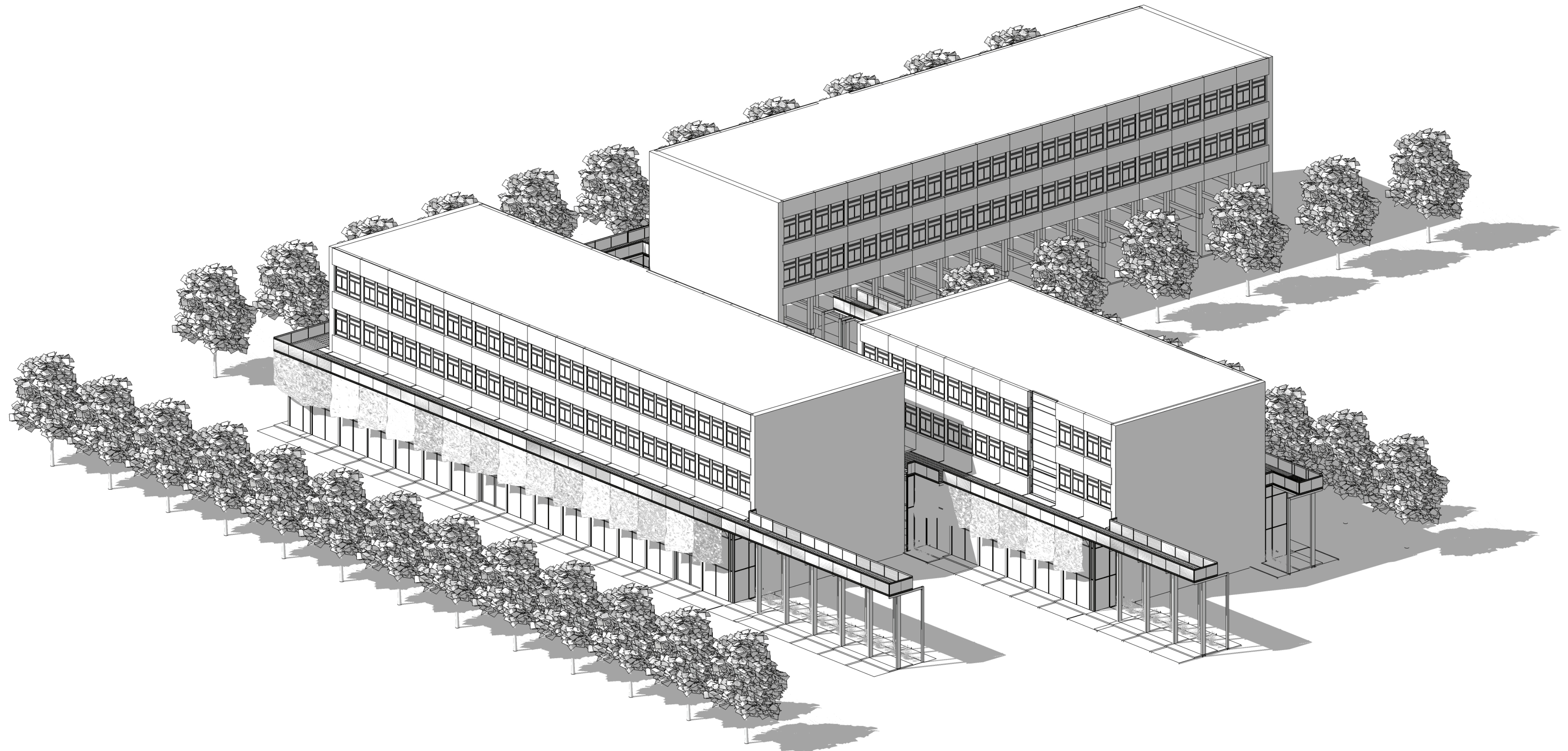
A horizontal timeline bar spanning from 1500 to 2050. The years 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, and 2030 are highlighted in red. The years 2022 and 2023 are also highlighted in grey.

A horizontal timeline bar spanning from 1500 to 2050. The years 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, and 2030 are highlighted in red. The years 2022 and 2023 are also highlighted in grey.

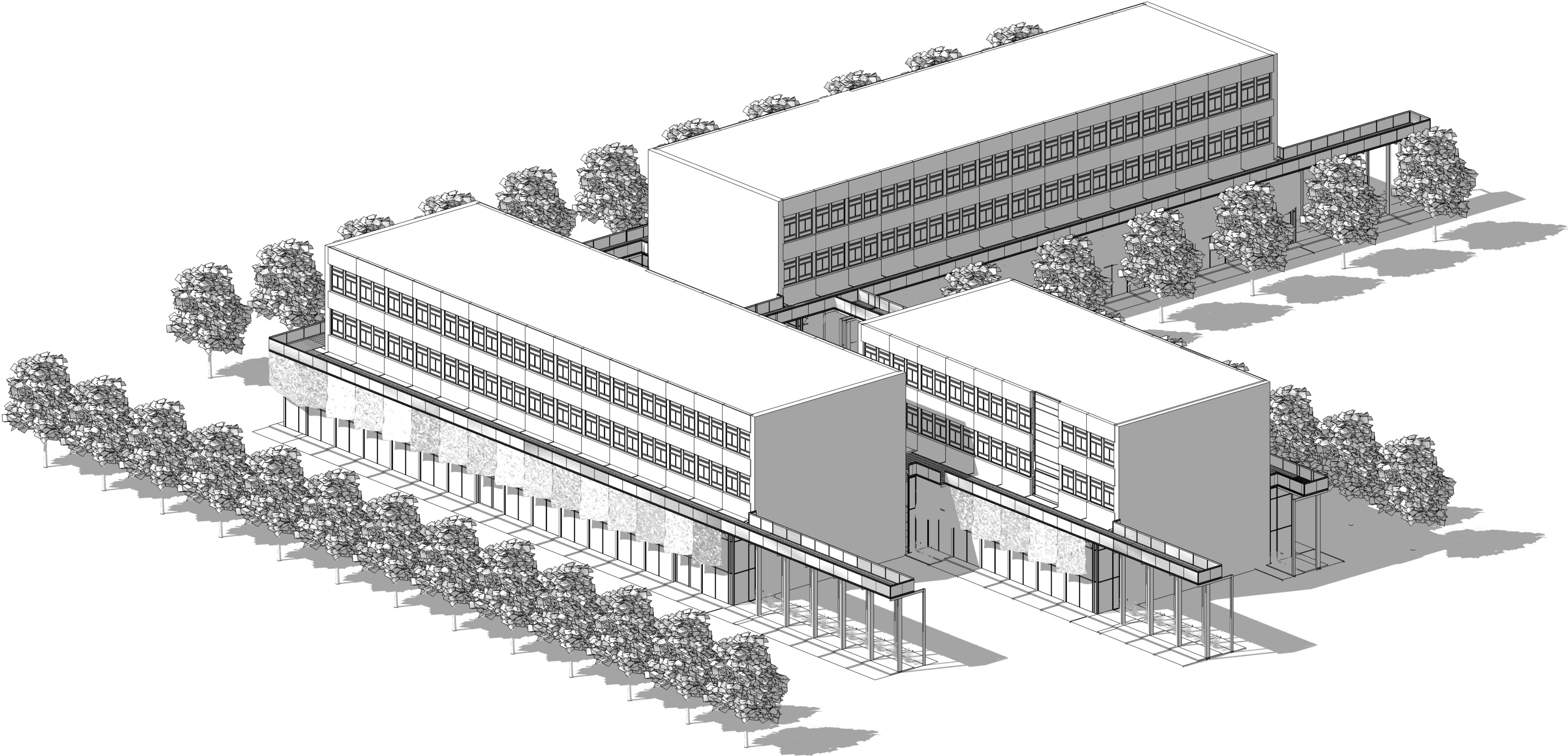
A horizontal timeline bar spanning from 1500 to 2050. The years 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, and 2030 are highlighted in red. The years 2022 and 2023 are also highlighted in grey.

A horizontal timeline bar spanning from 1500 to 2050. The years 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, and 2030 are highlighted in red. The years 2022 and 2023 are also highlighted in grey.

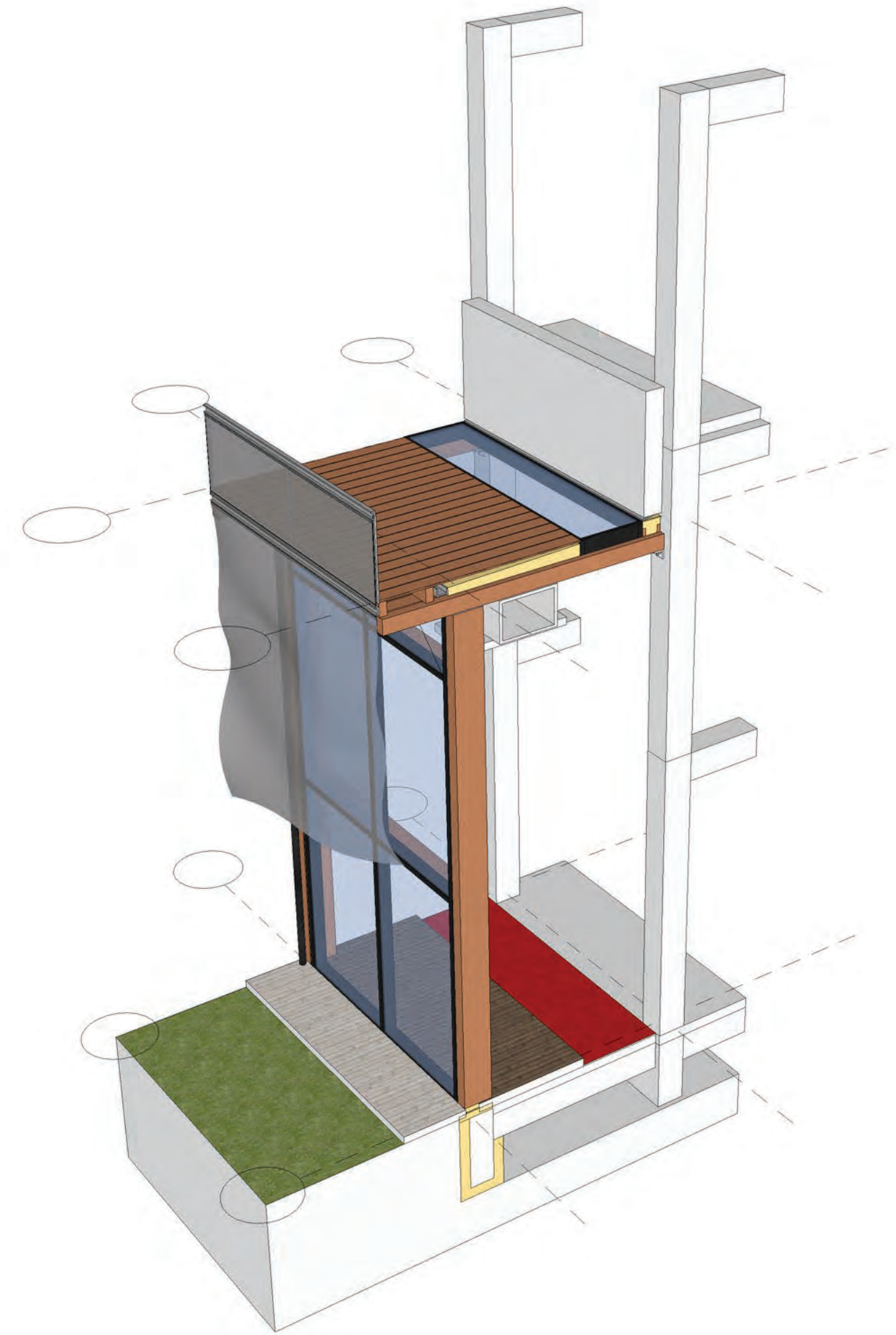
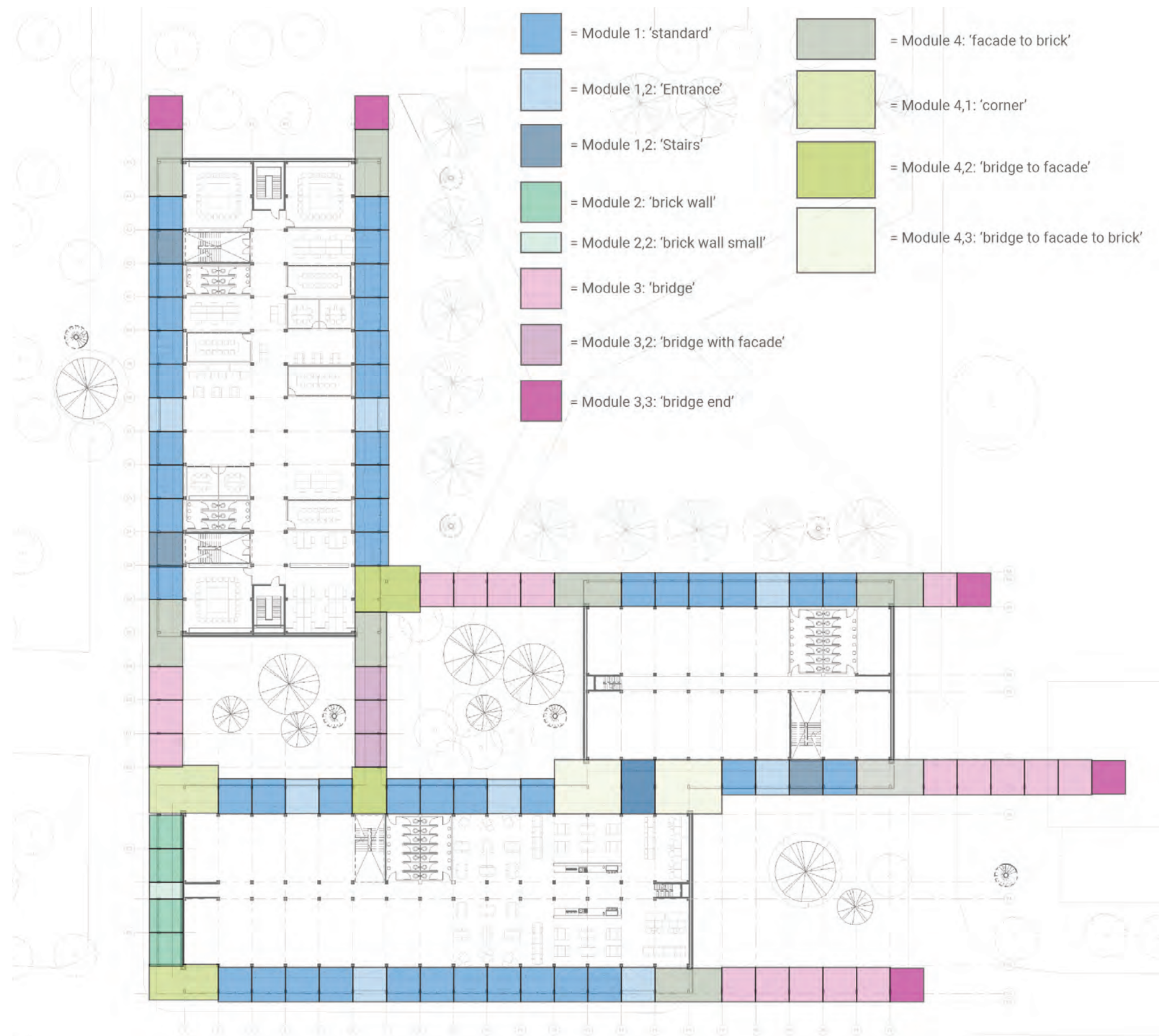
BUILDING MODULES



BUILDING MODULES



BUILDING SYSTEM



1500

2018

2019

2020

2021

2022

2023

2024

2025

2026

2027

2028

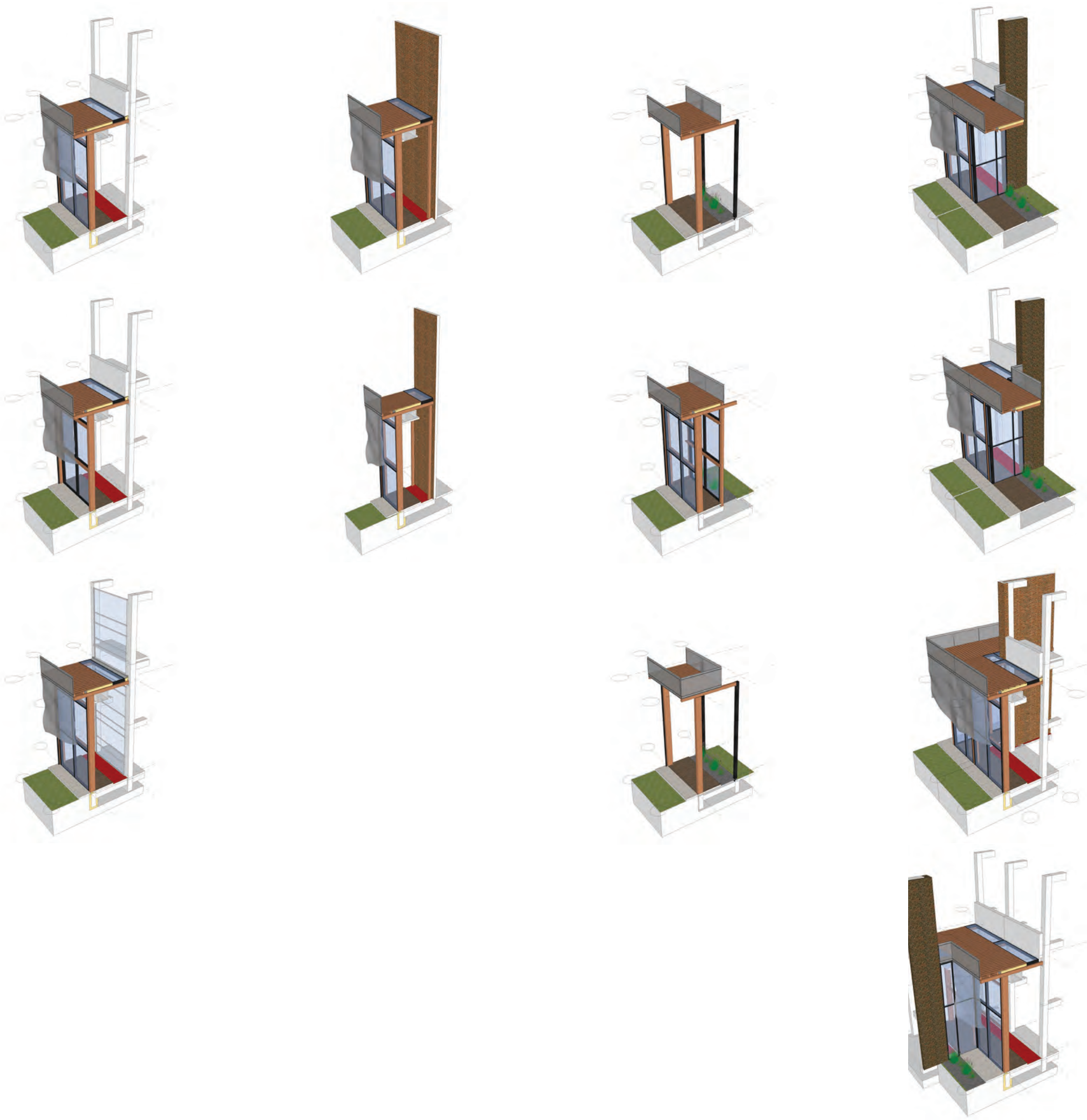
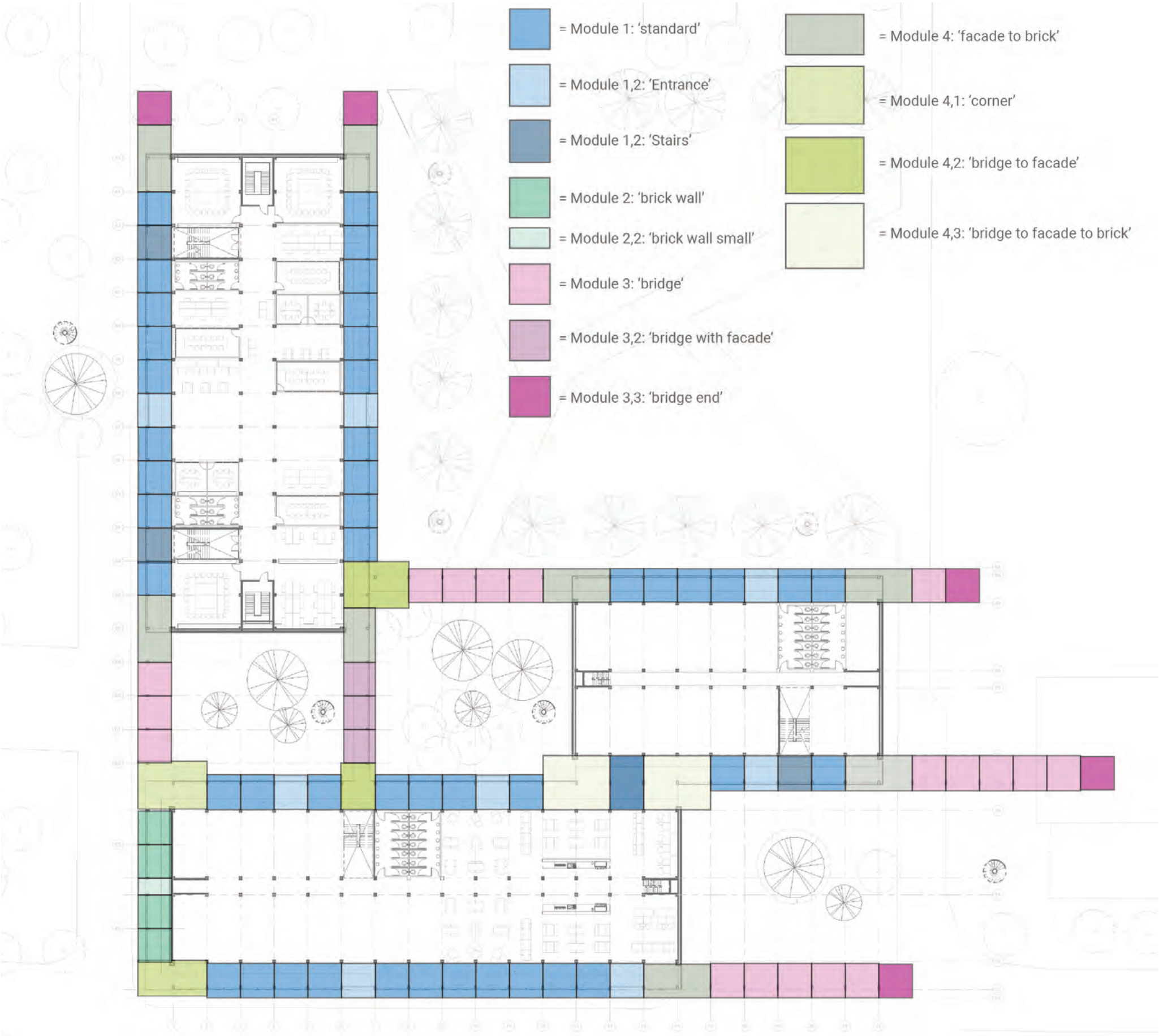
2029

2030

2050

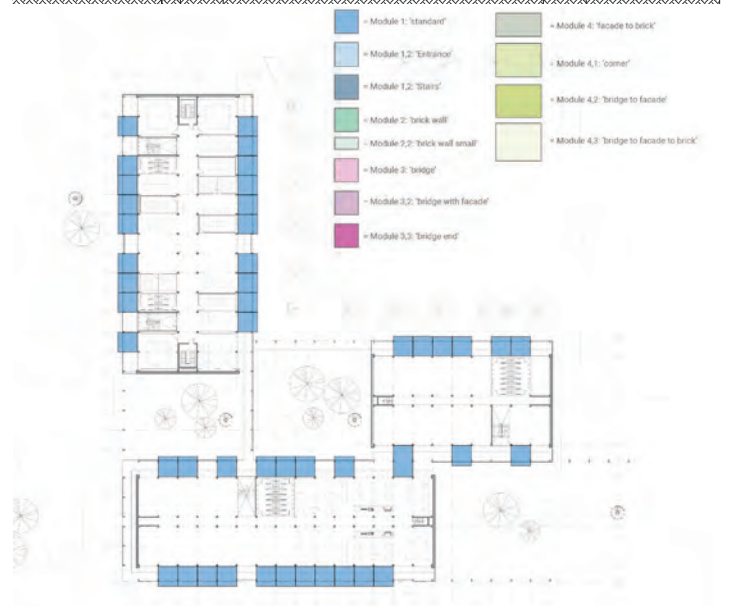
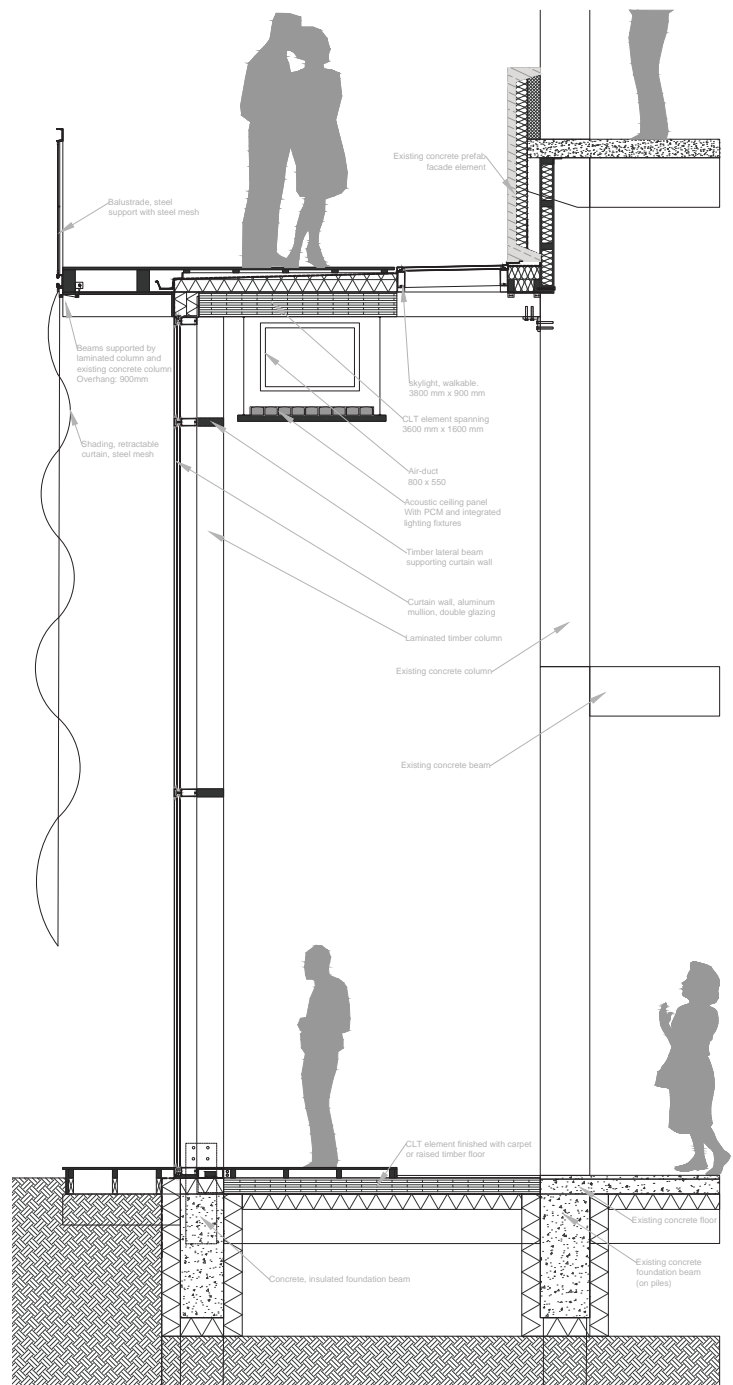
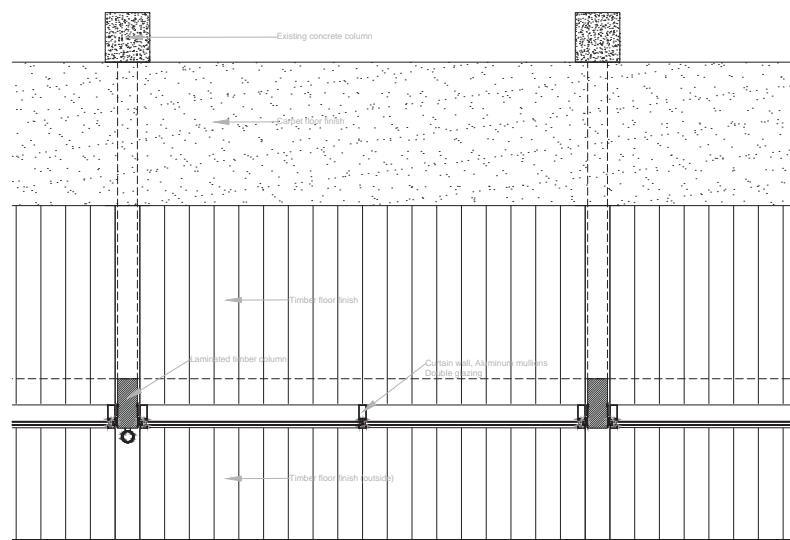
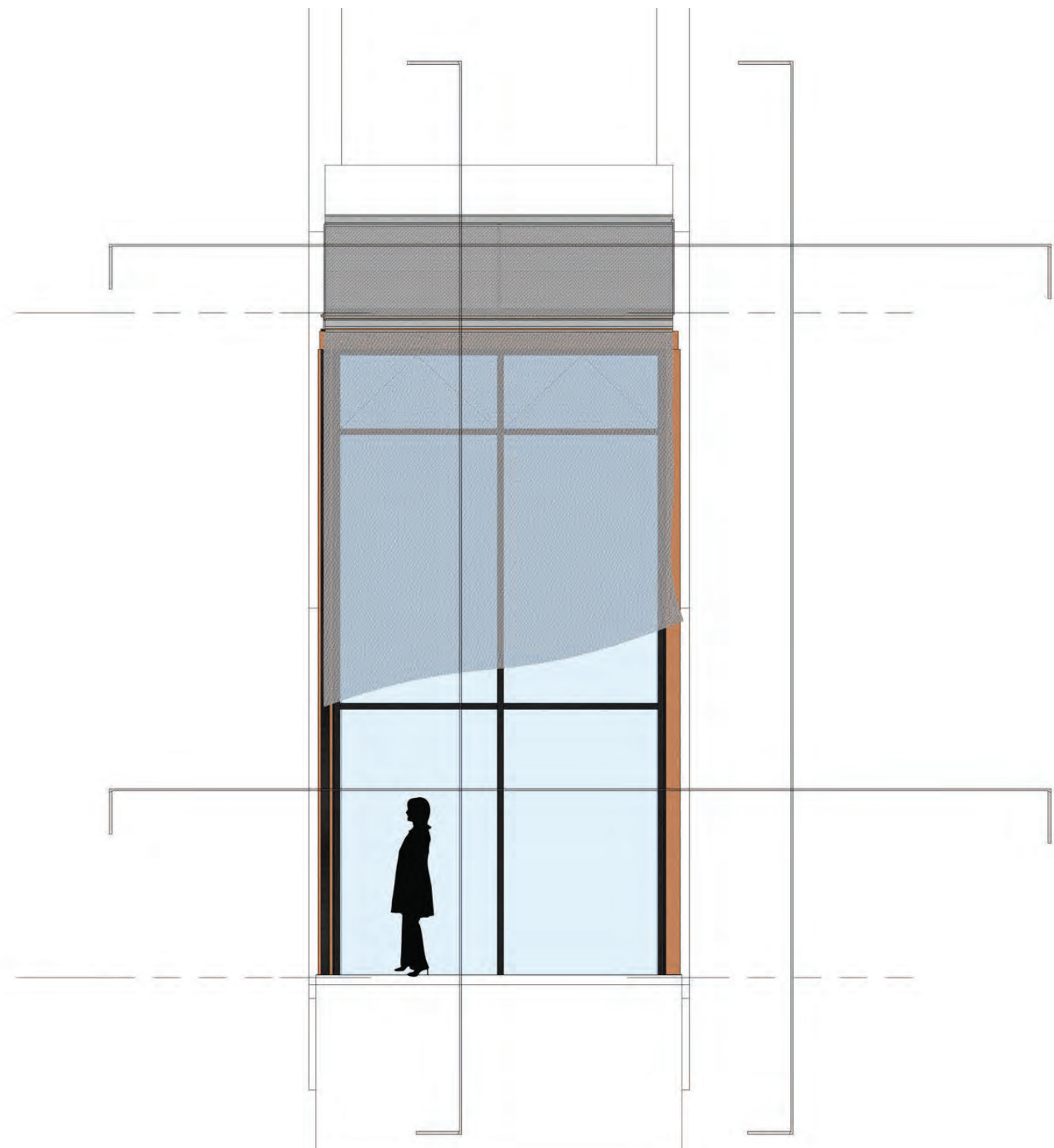
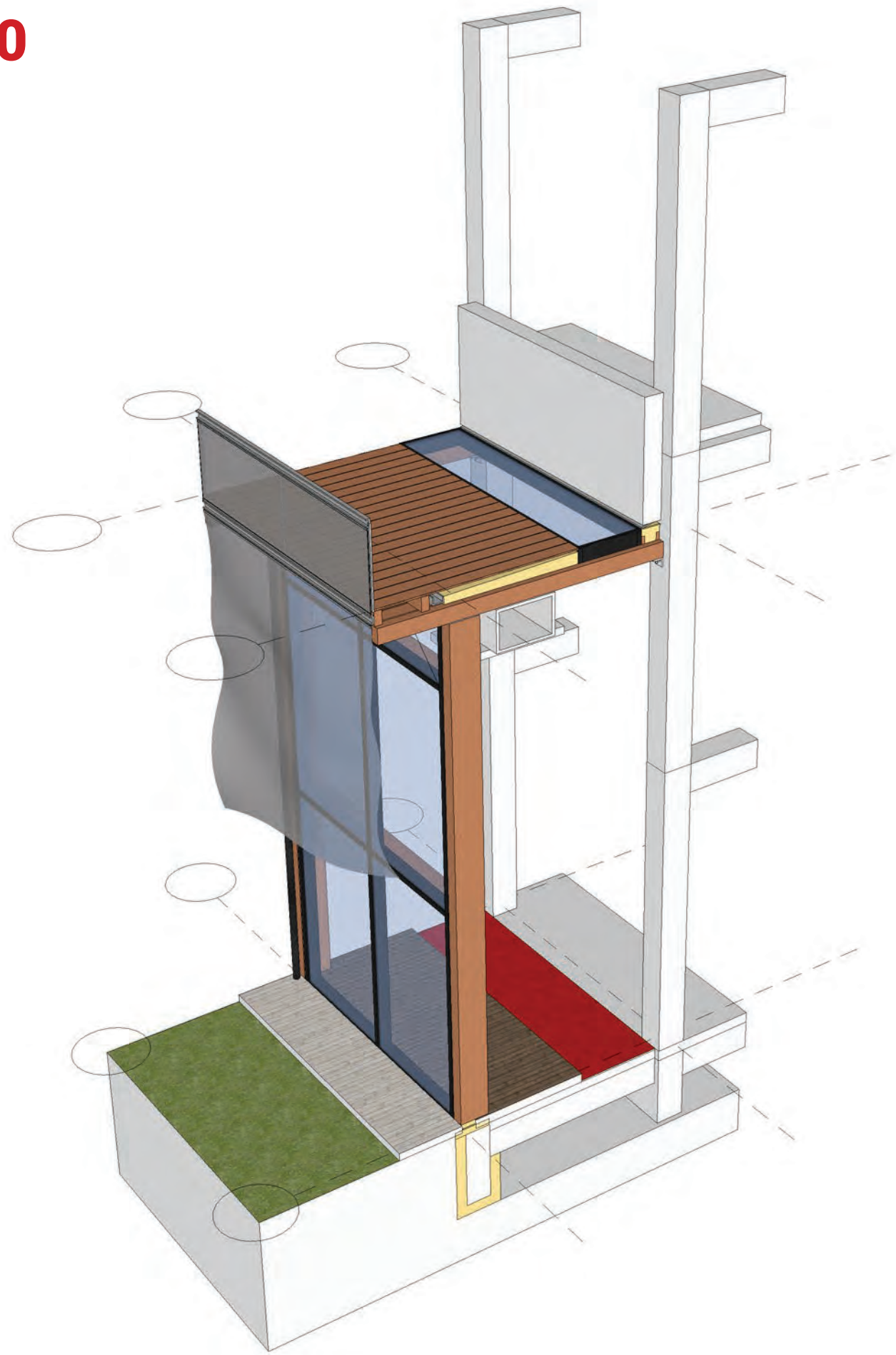
BUILDING SYSTEM

Catalogue



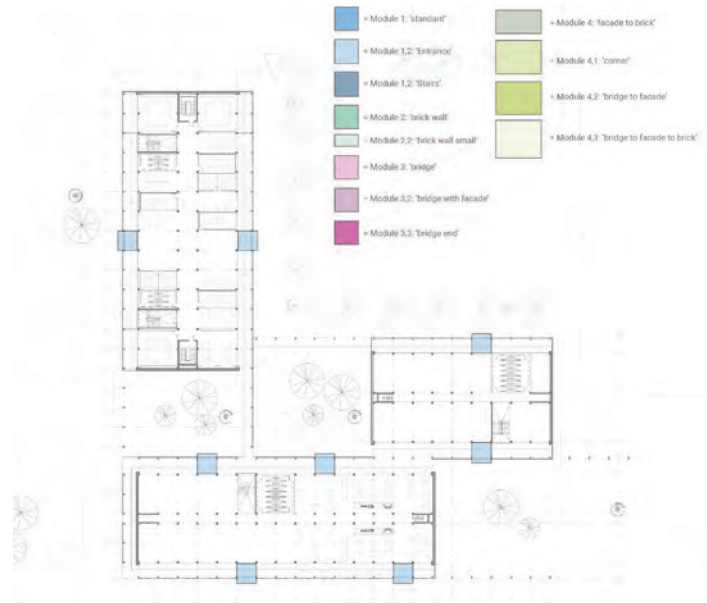
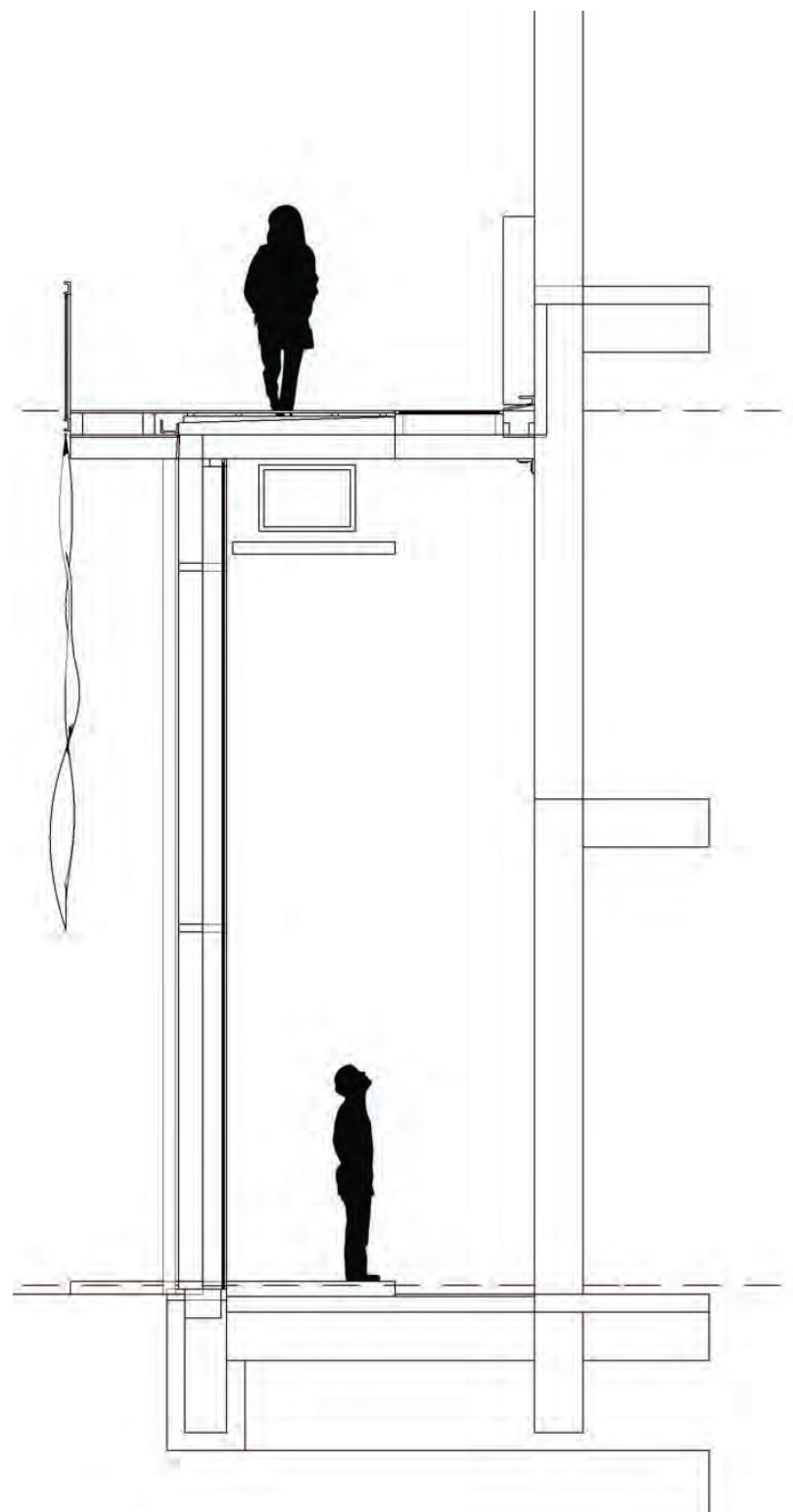
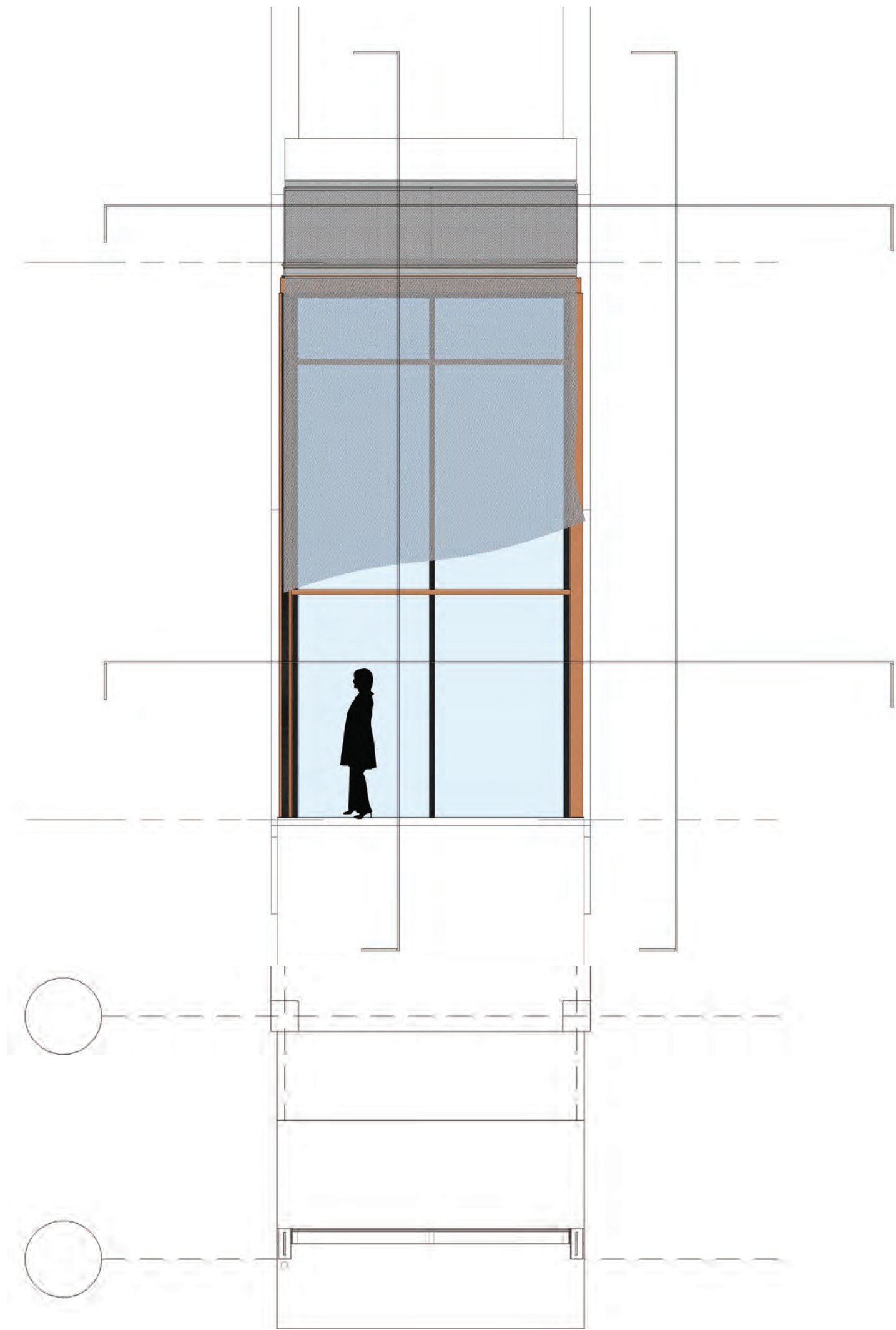
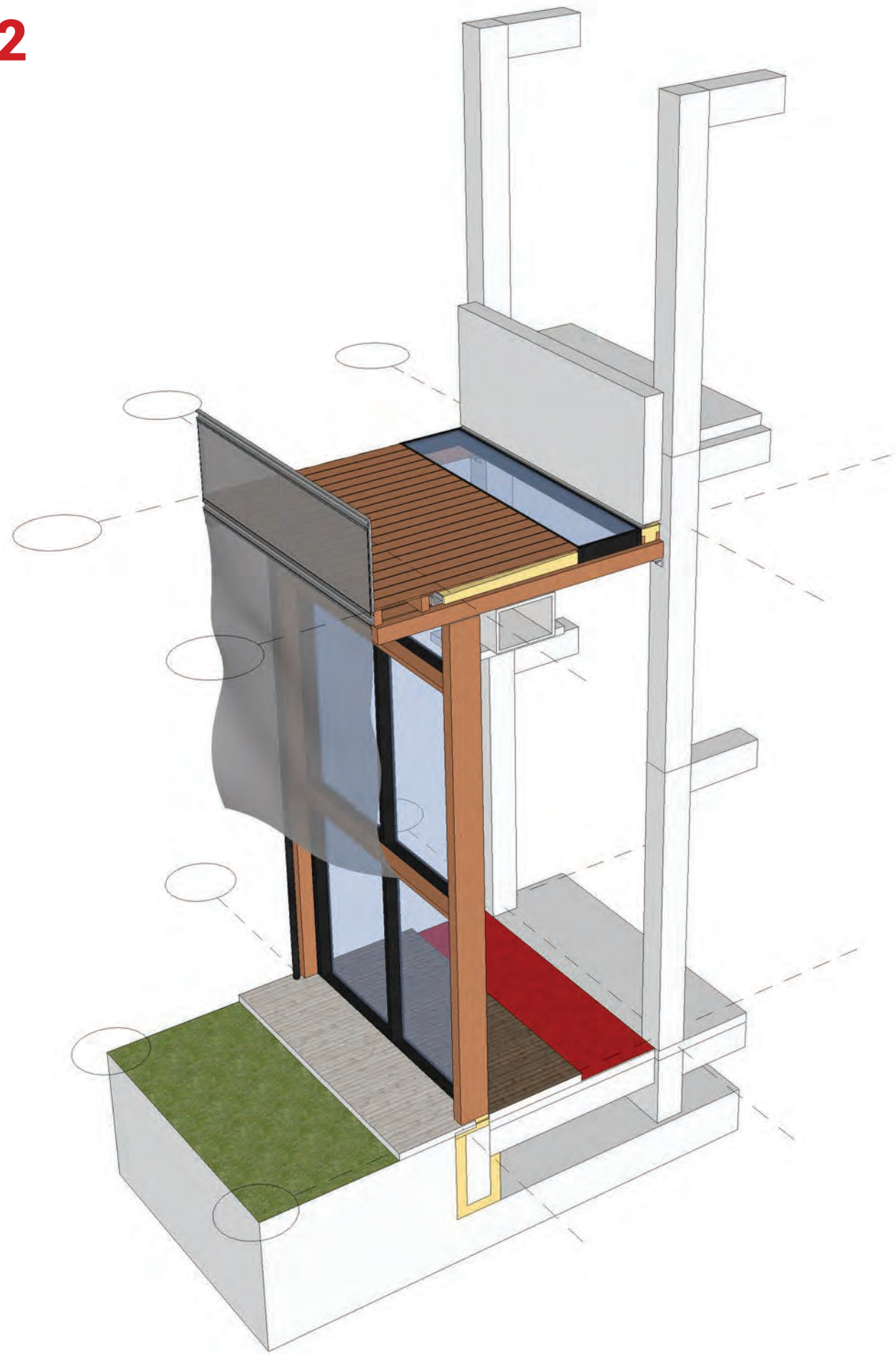
BUILDING SYSTEM

Module 1.0



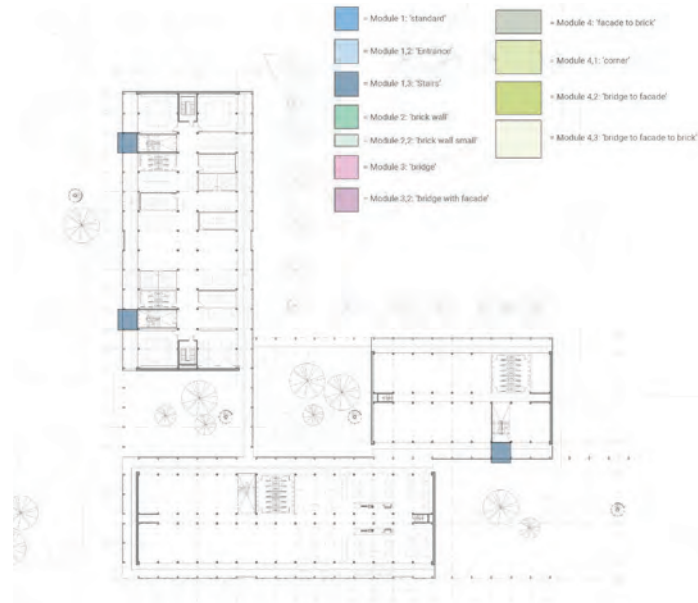
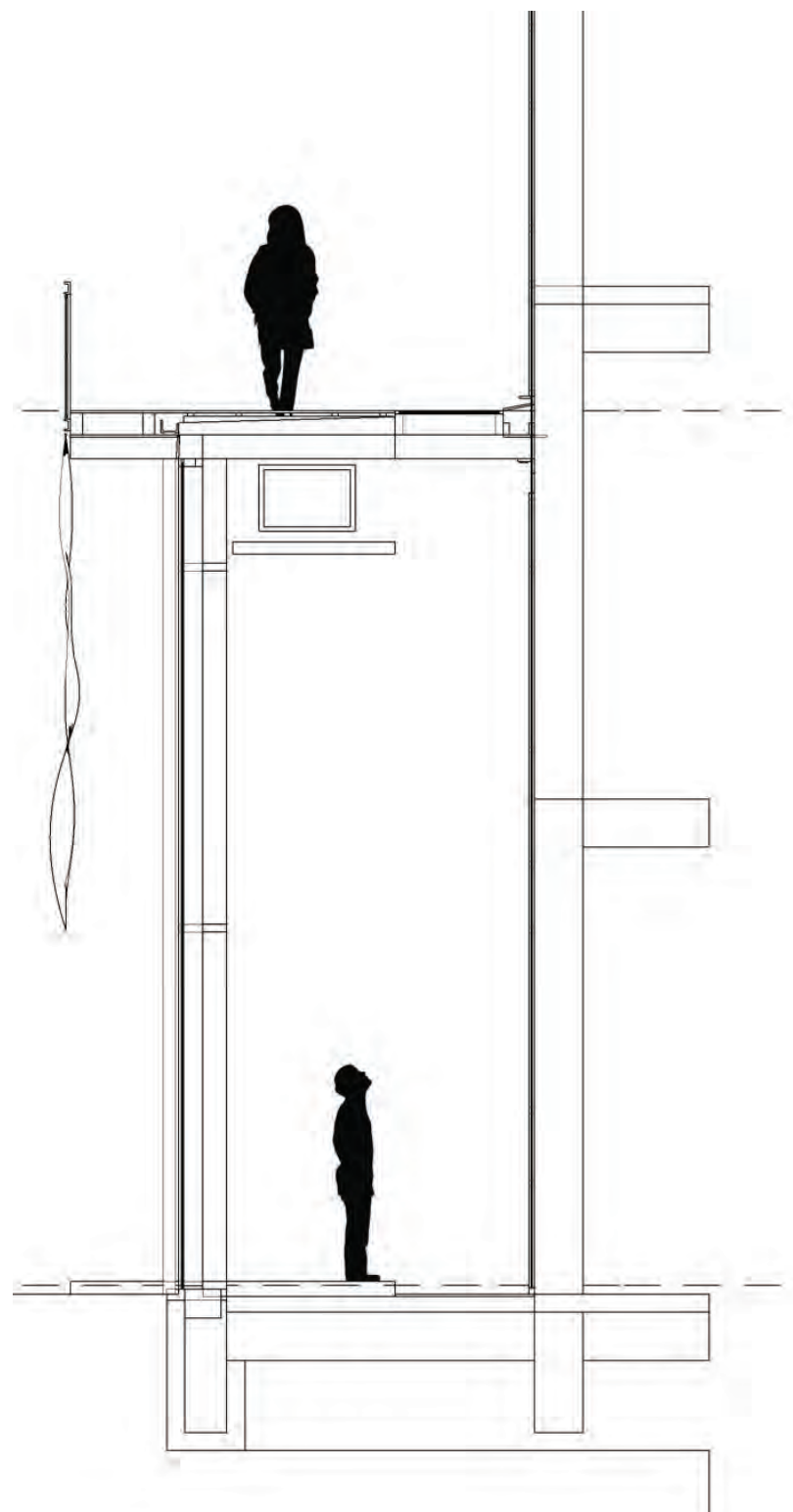
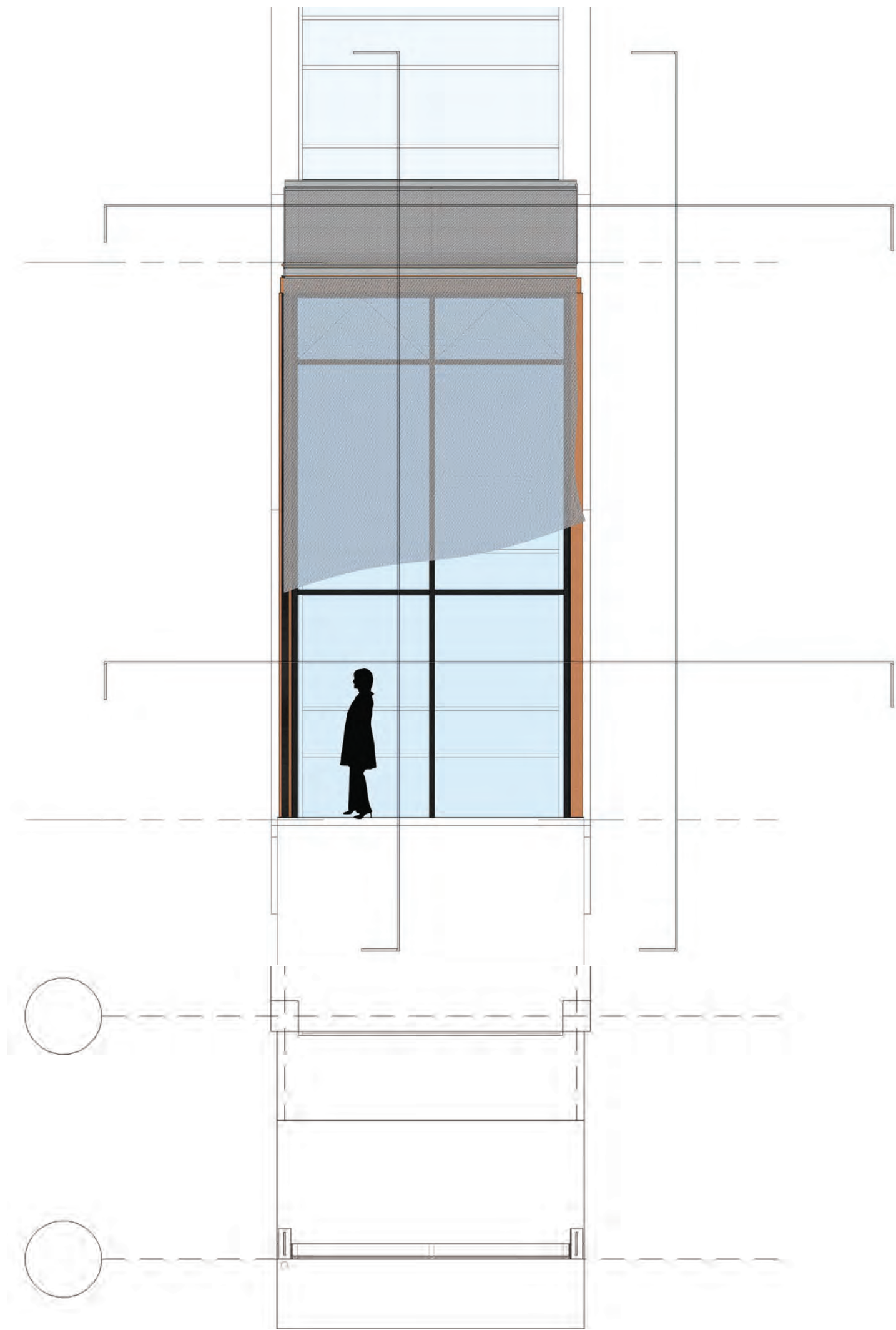
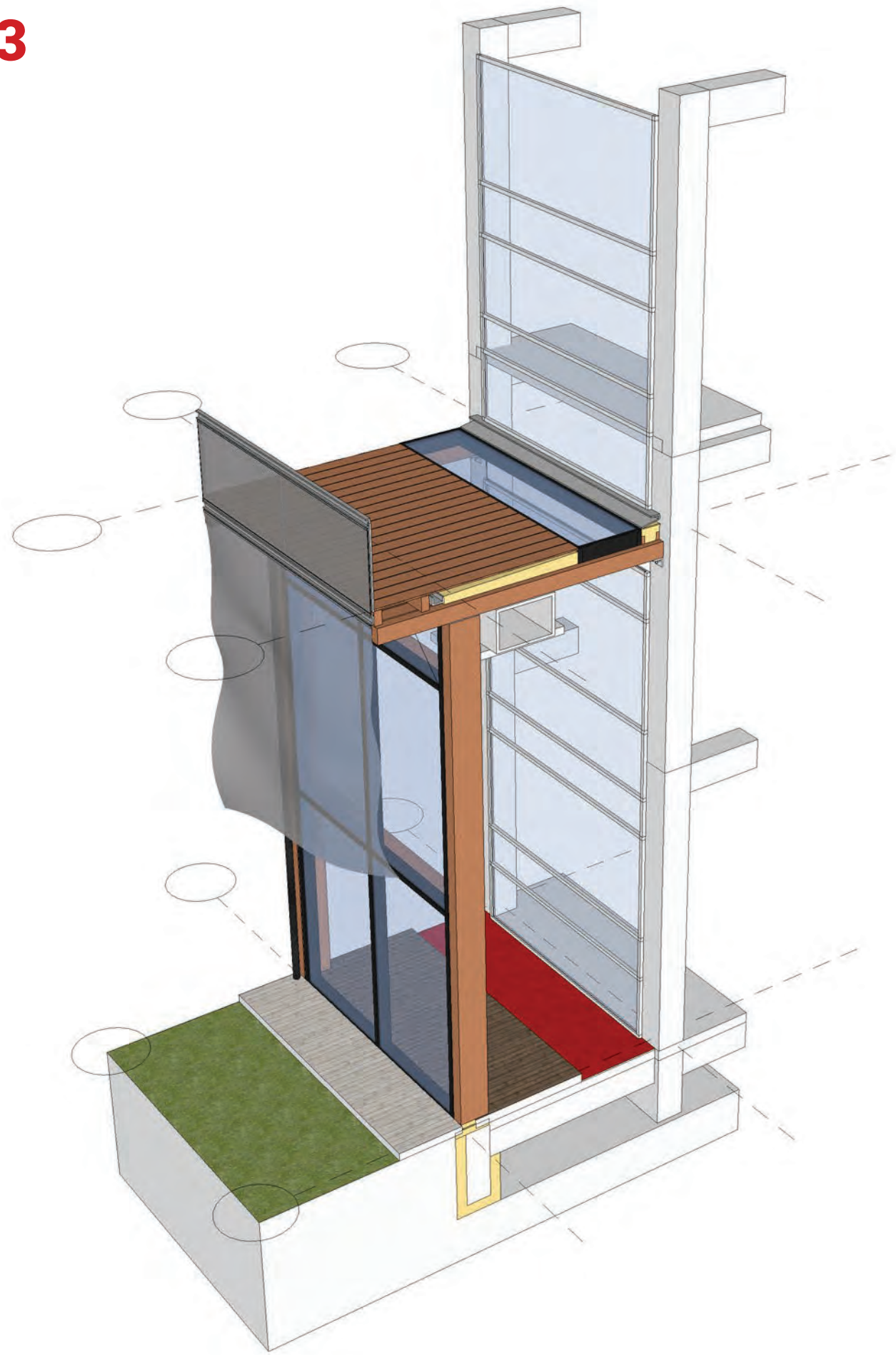
BUILDING SYSTEM

Module 1.2



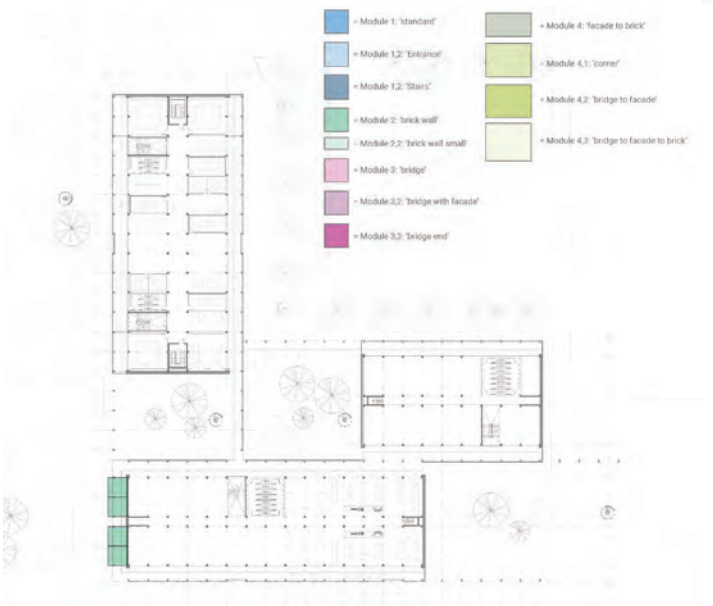
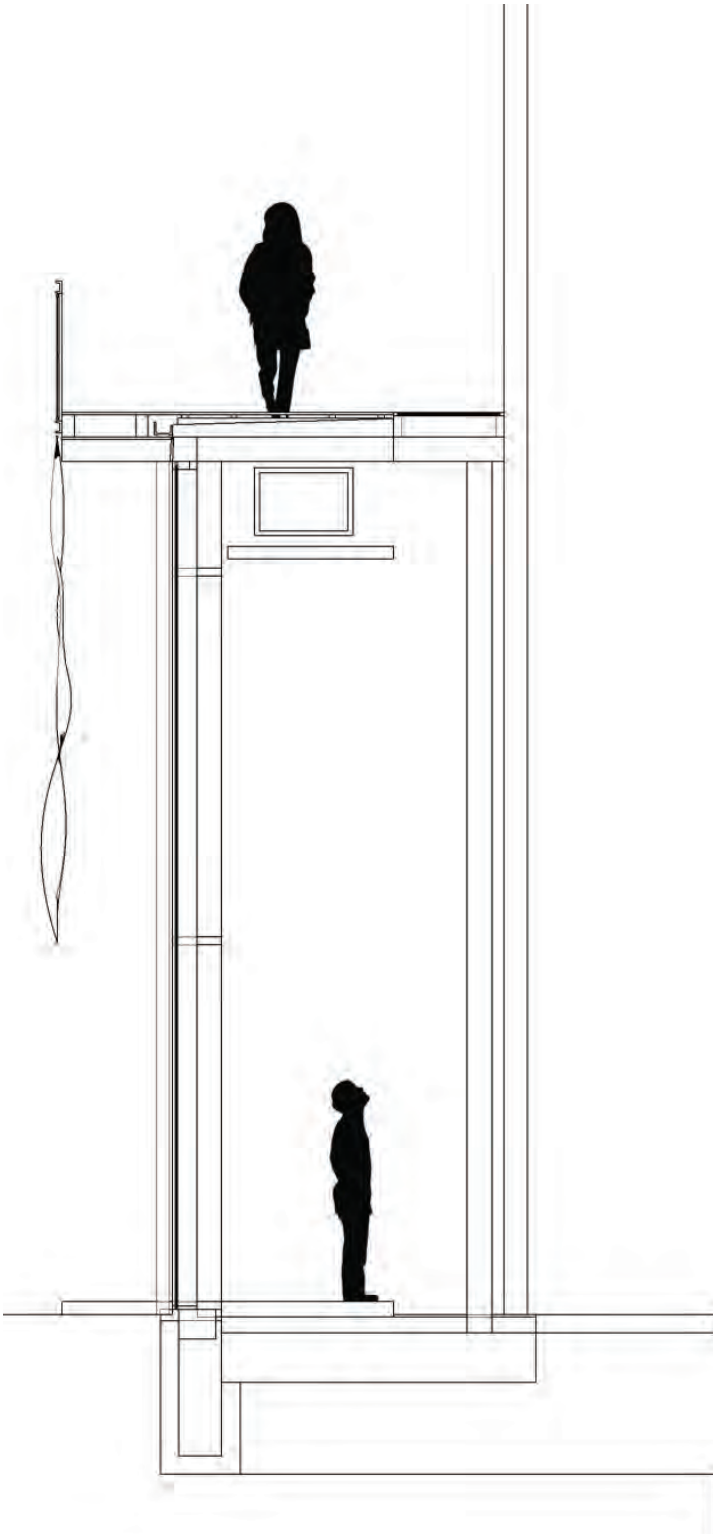
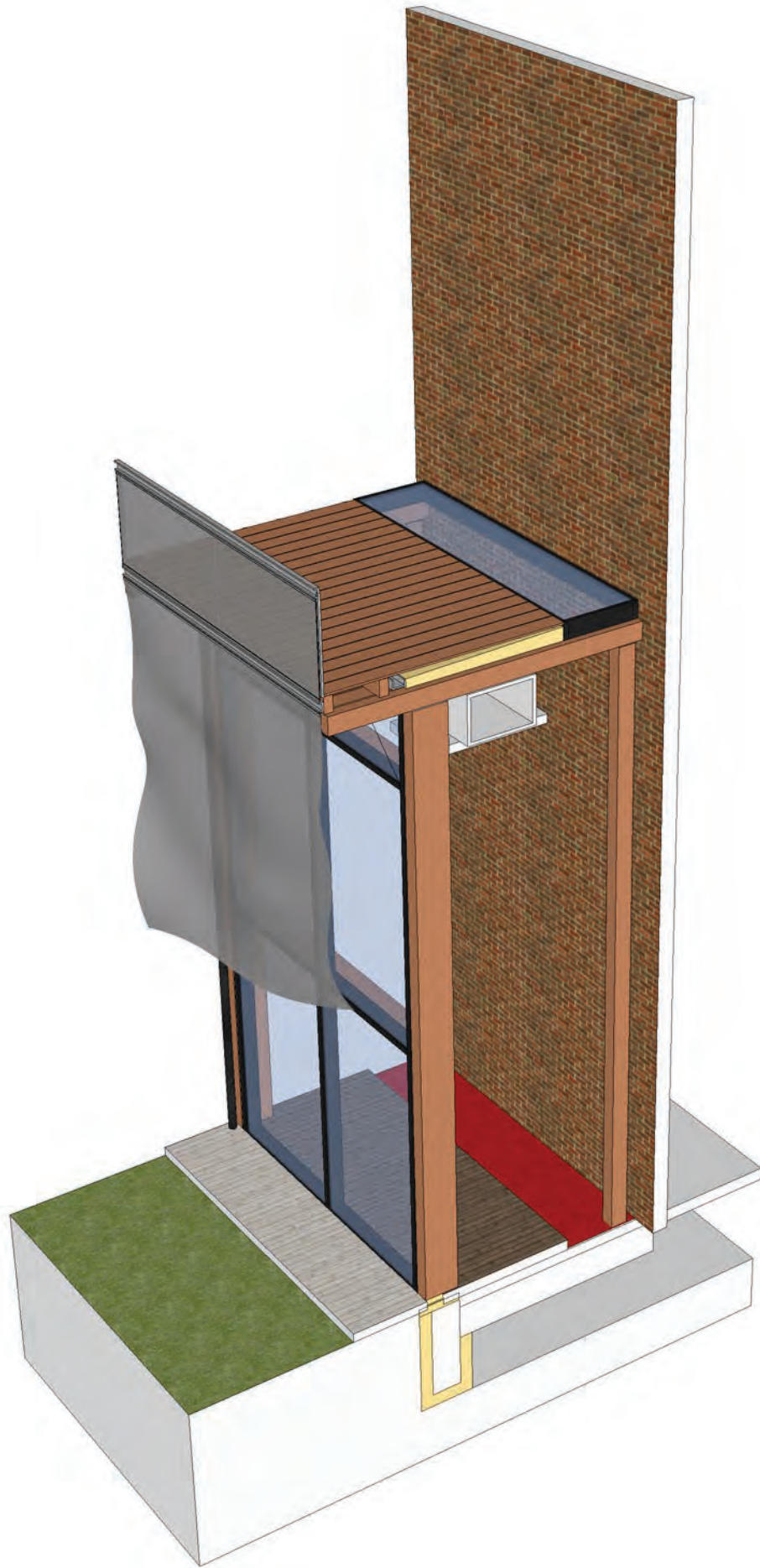
BUILDING SYSTEM

Module 1.3



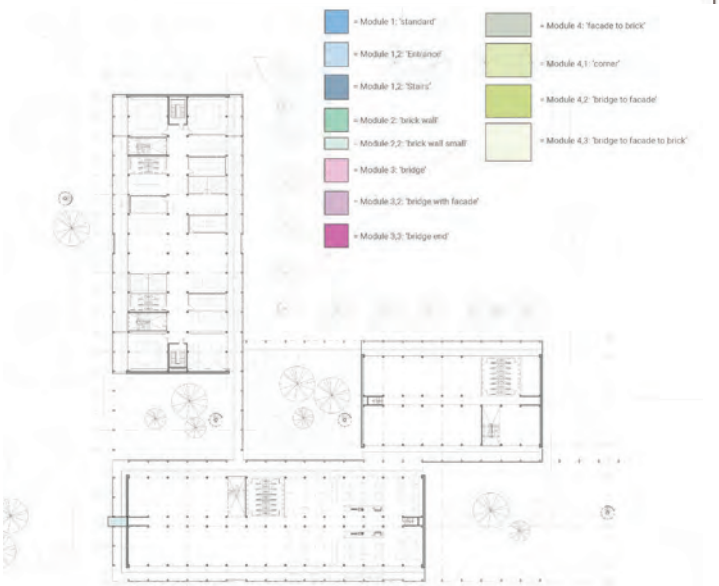
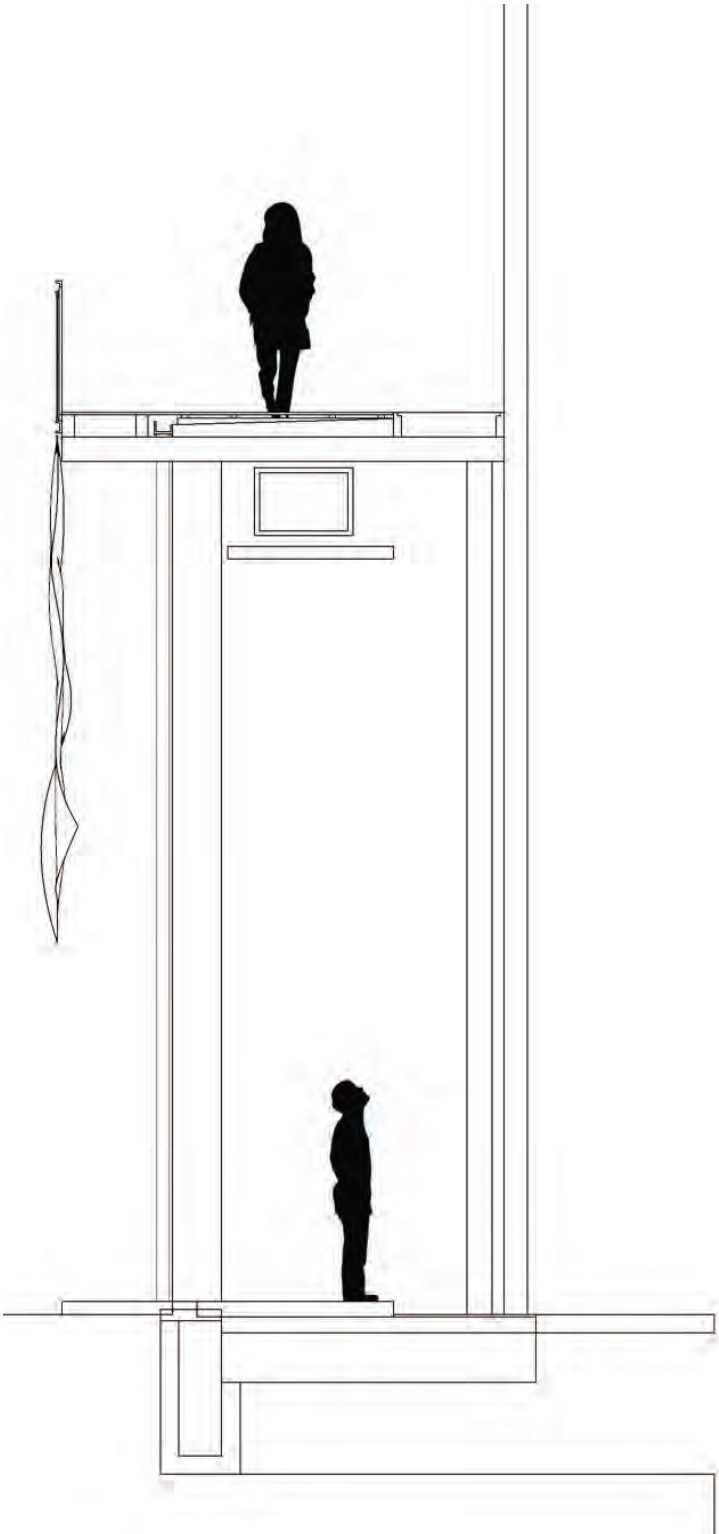
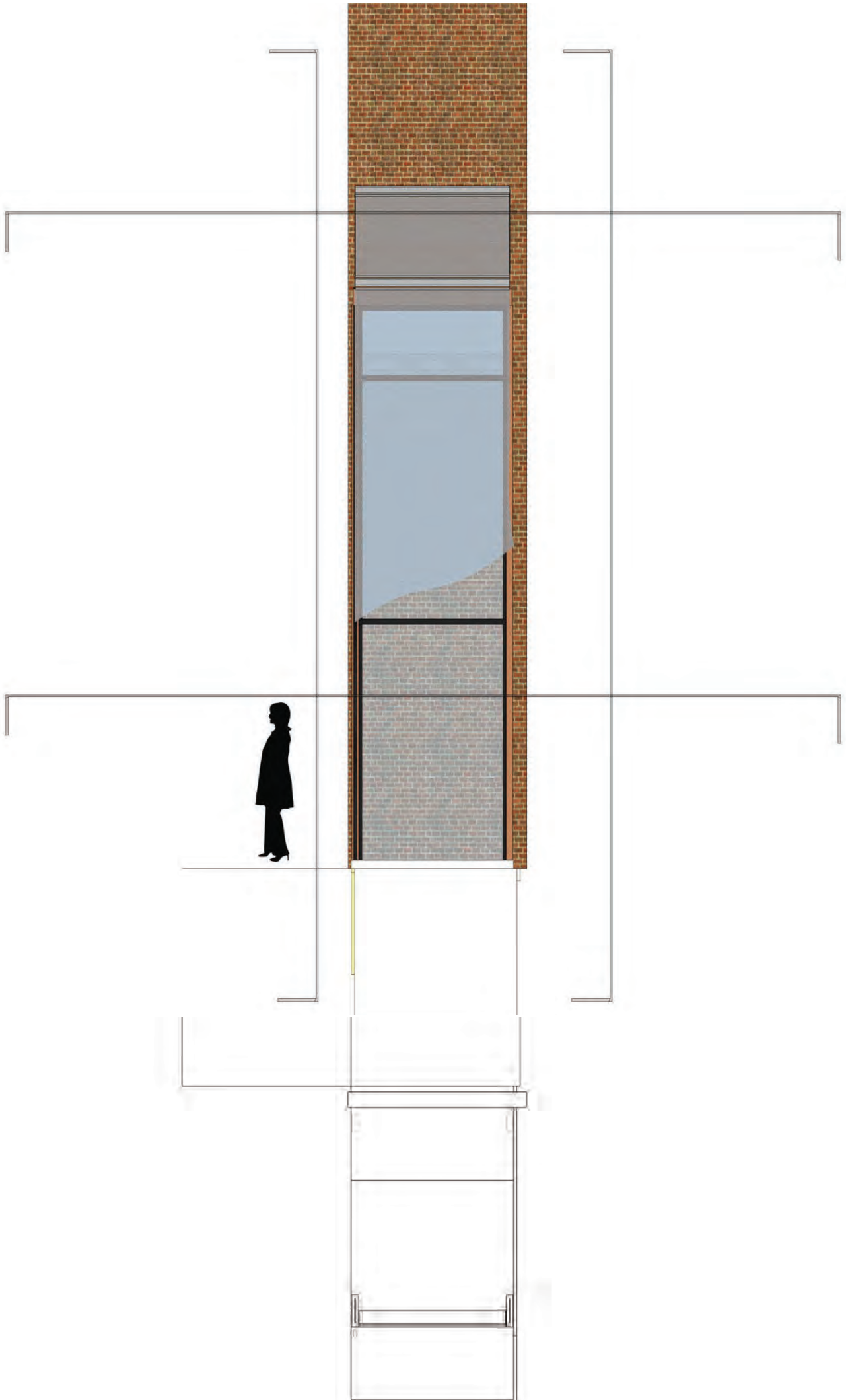
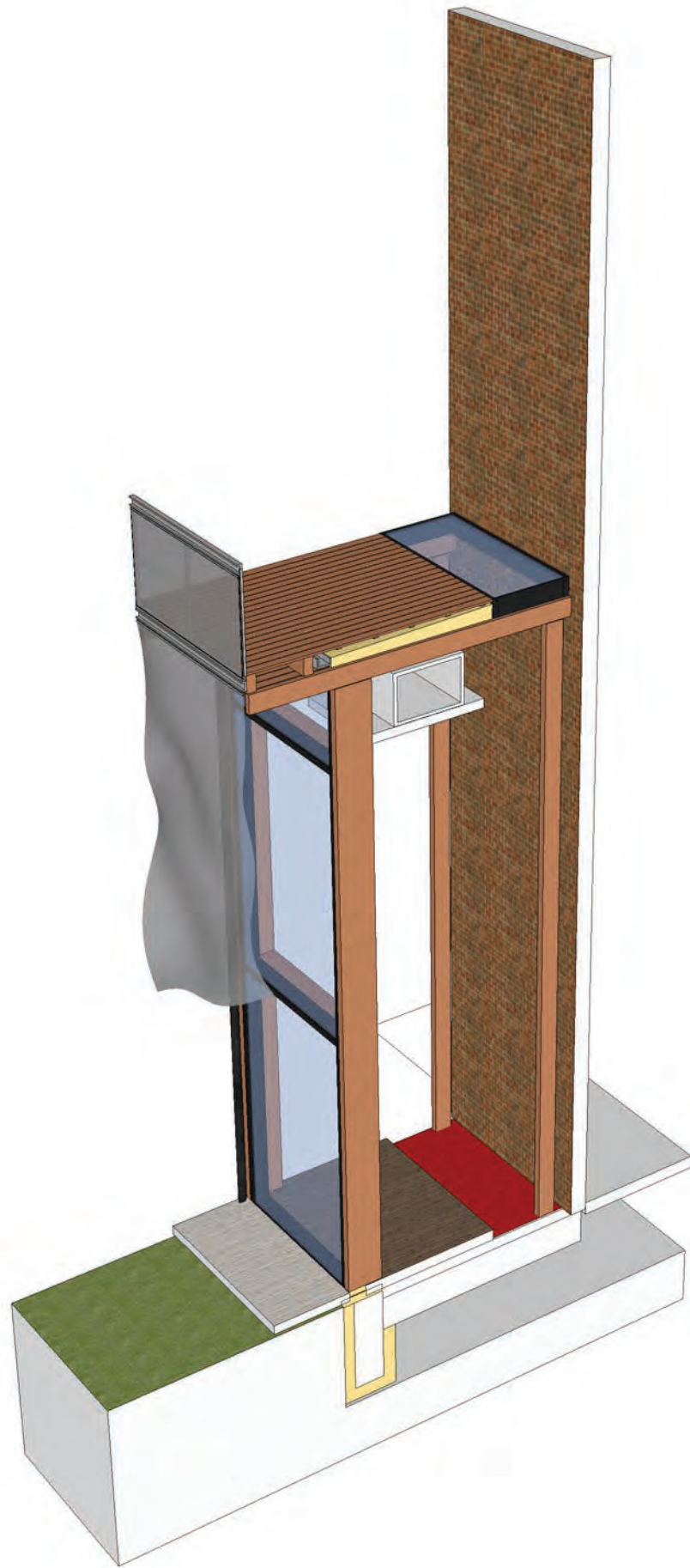
BUILDING SYSTEM

Module 2.0



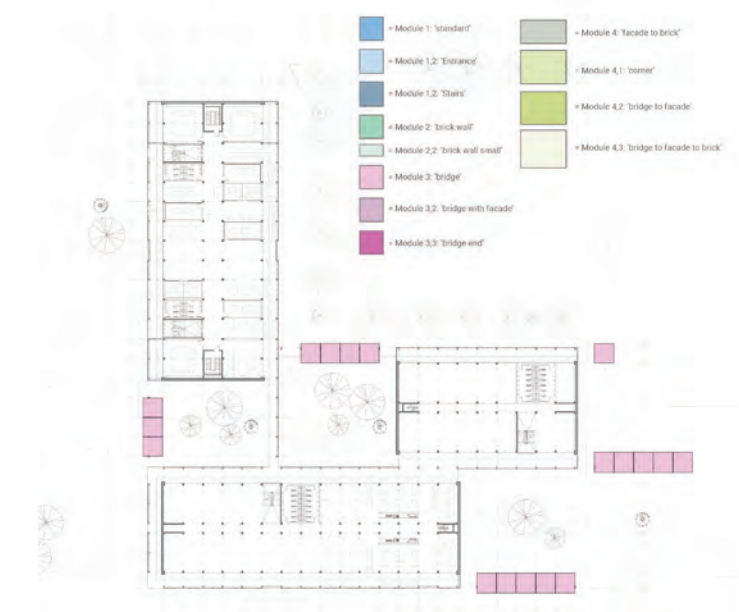
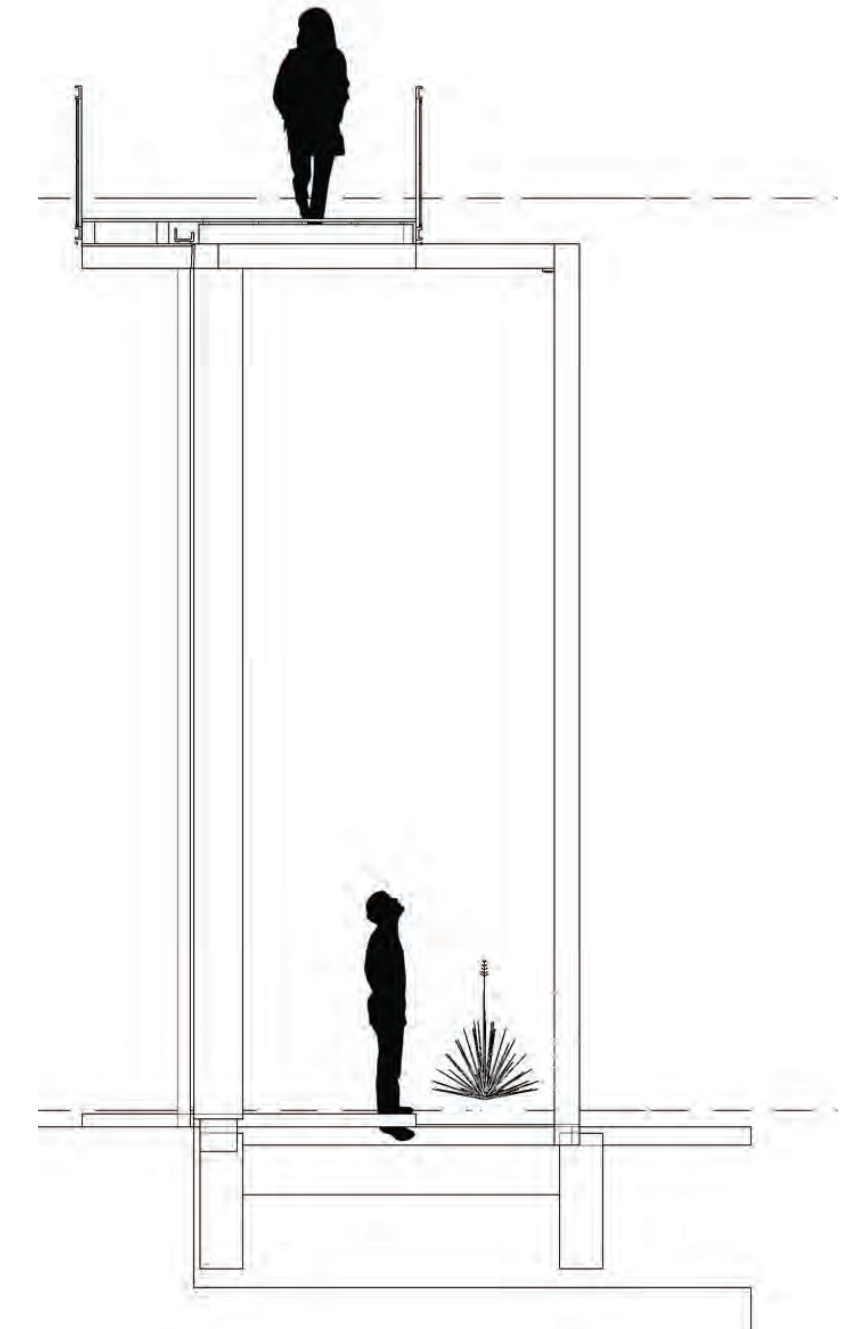
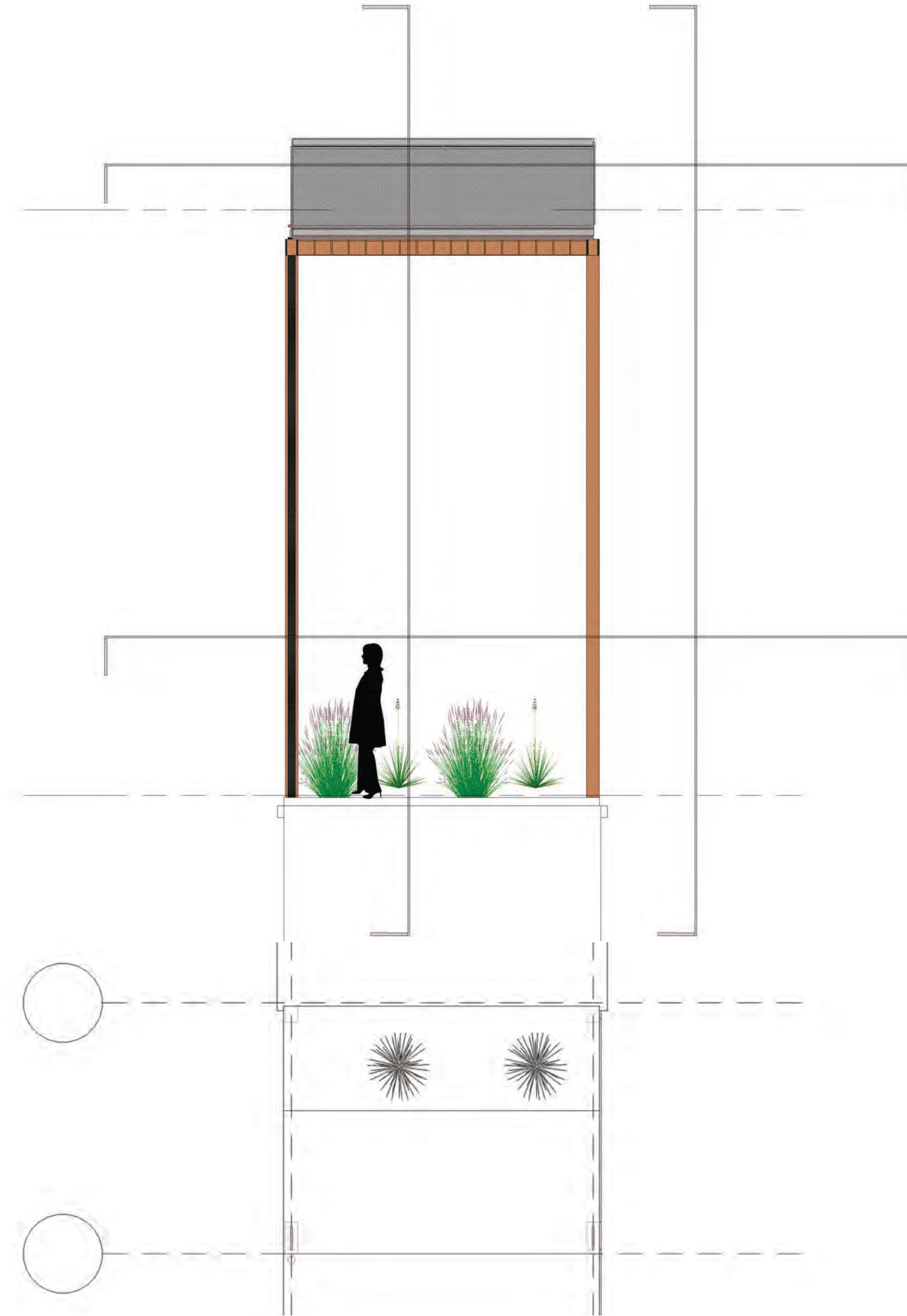
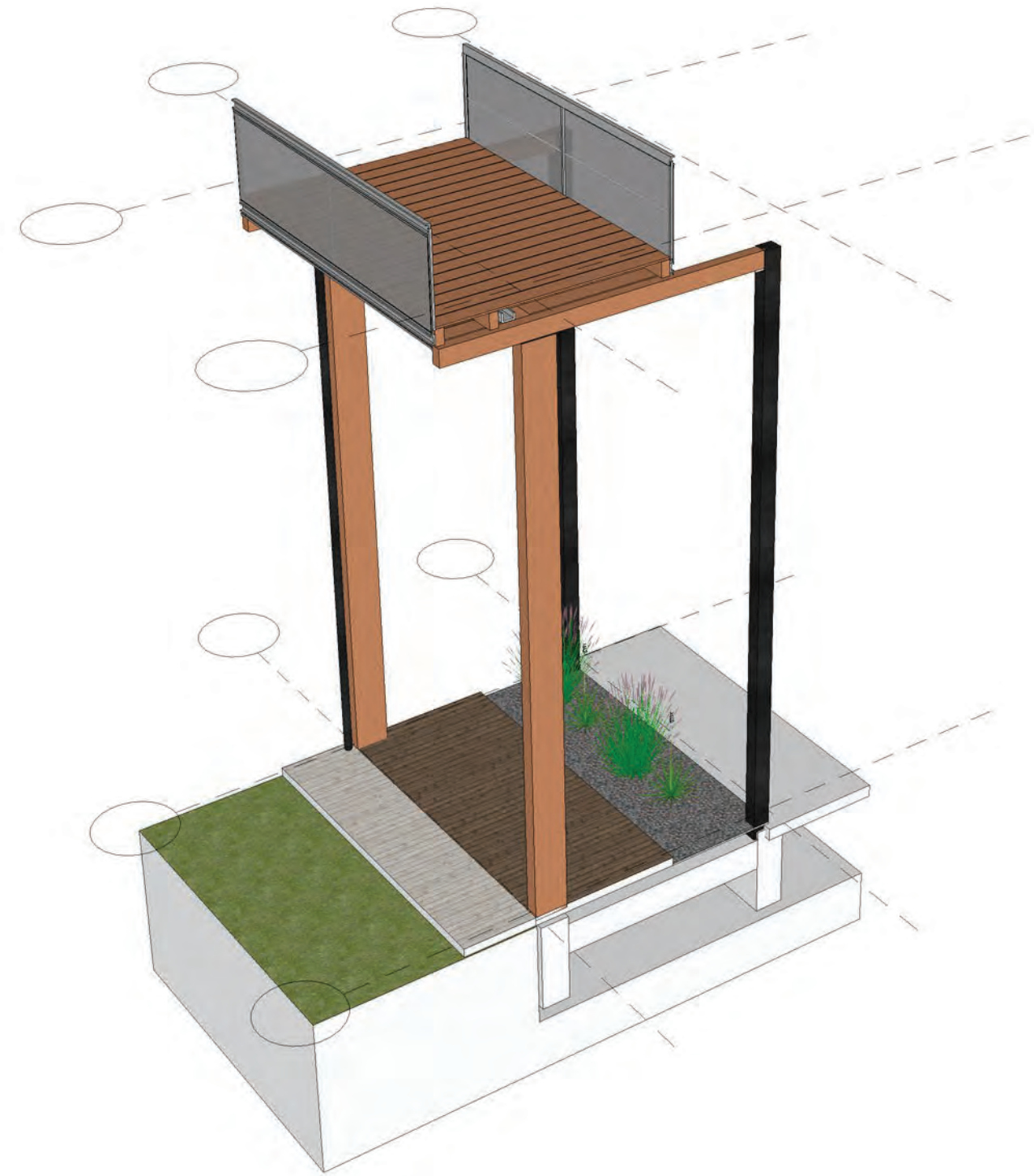
BUILDING SYSTEM

Module 2.2



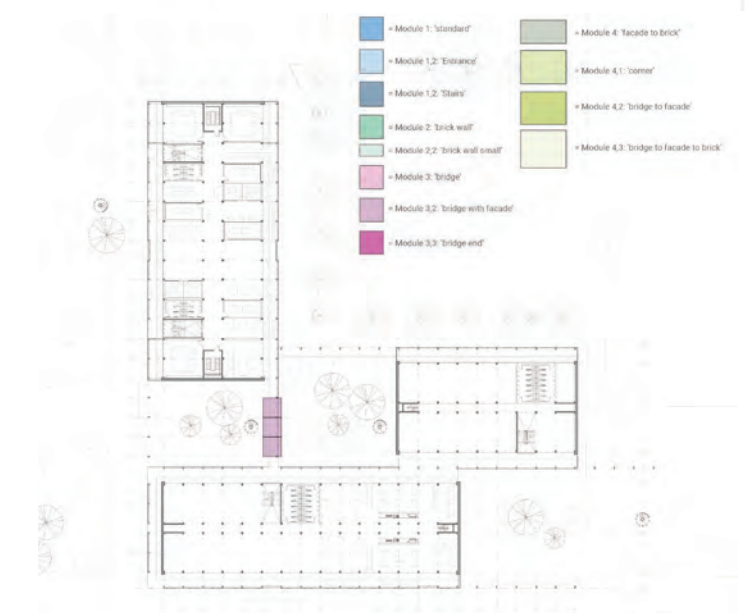
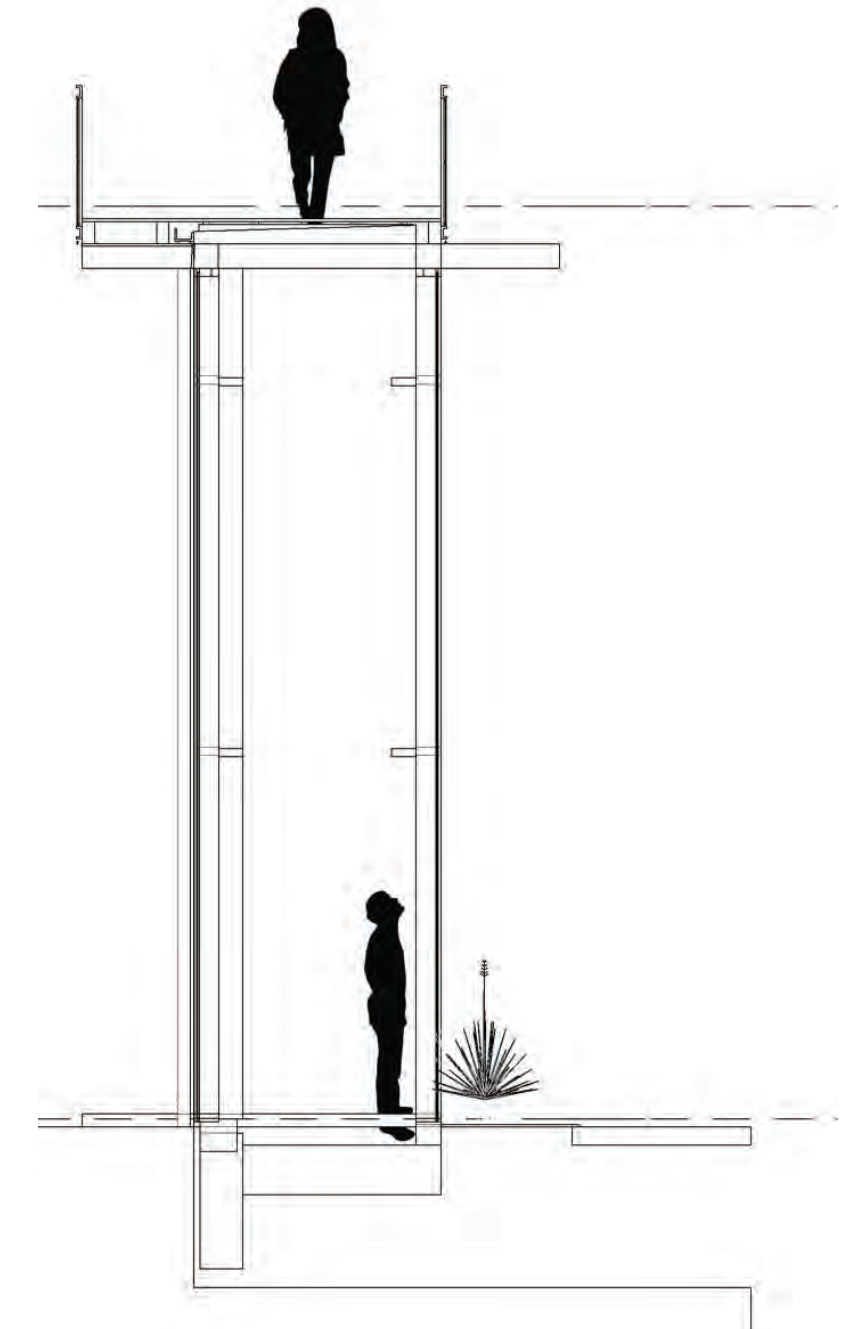
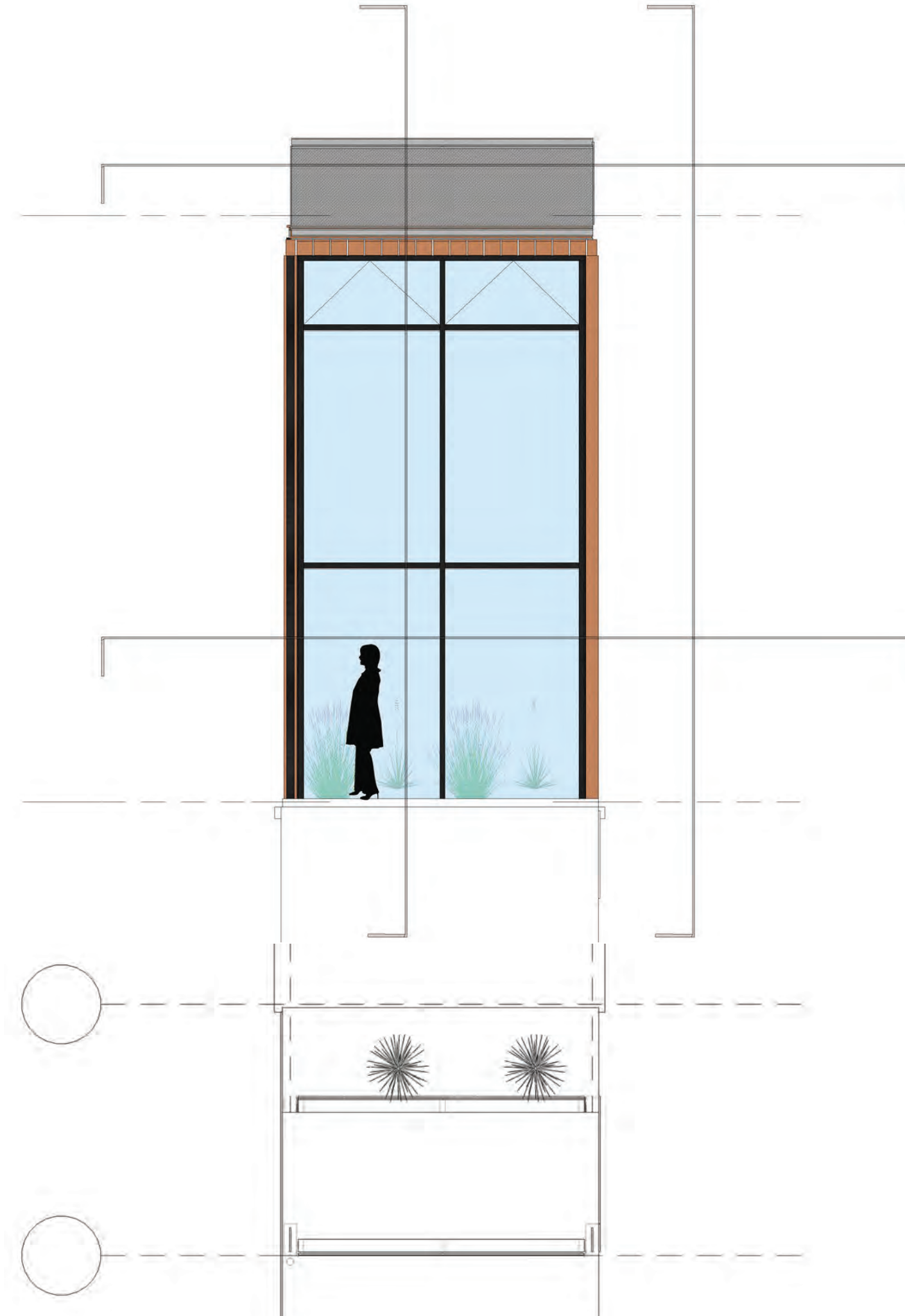
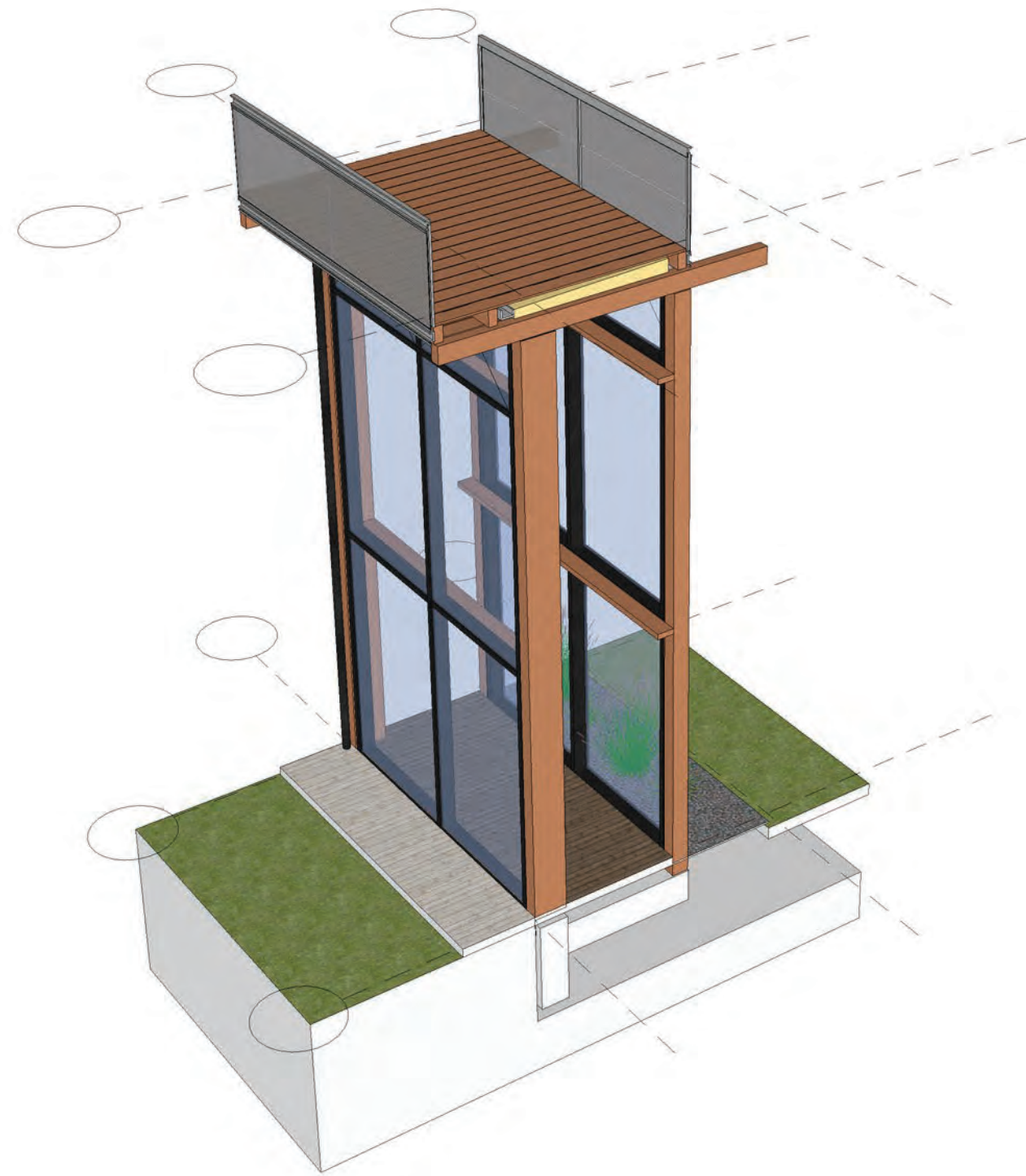
BUILDING SYSTEM

Module 3.0



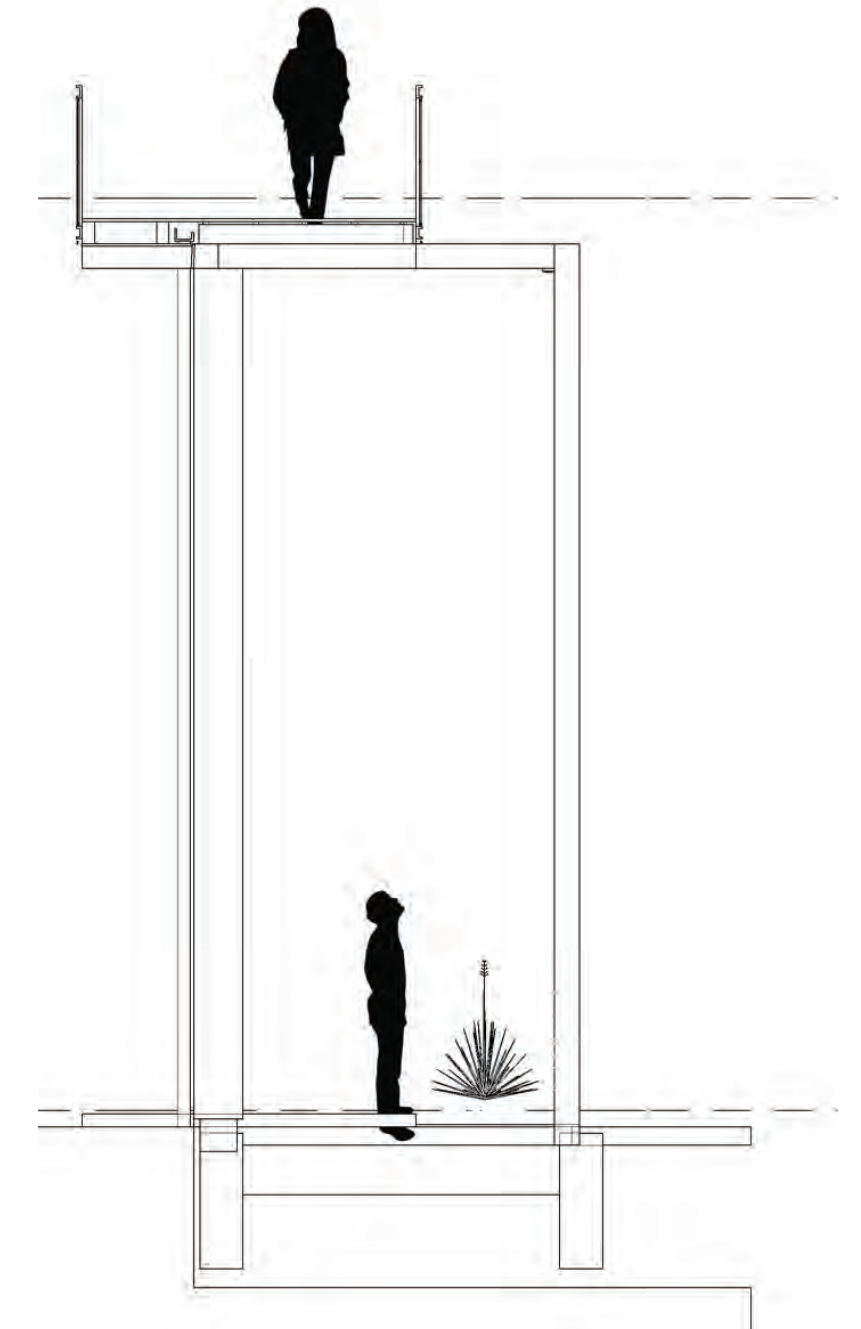
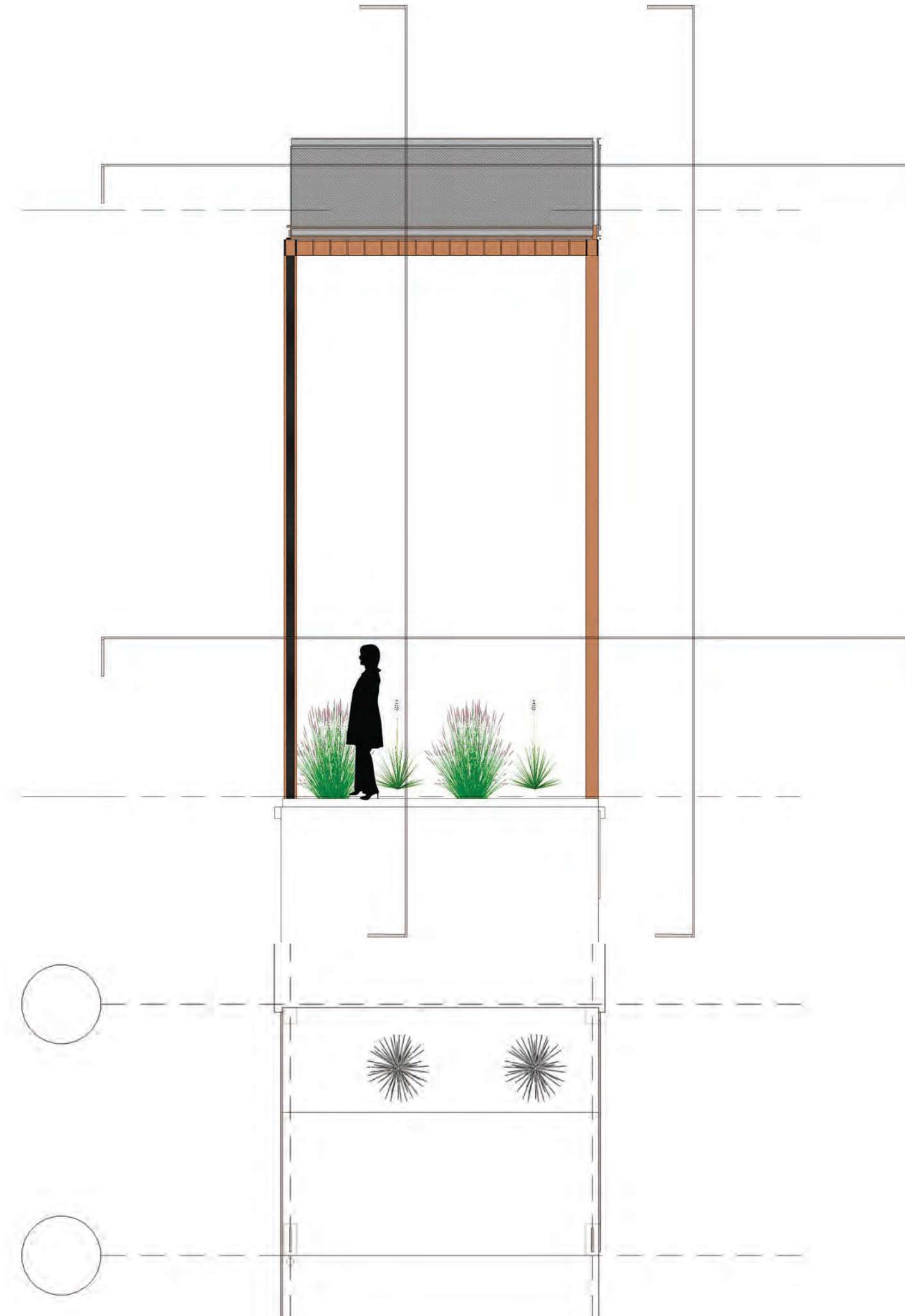
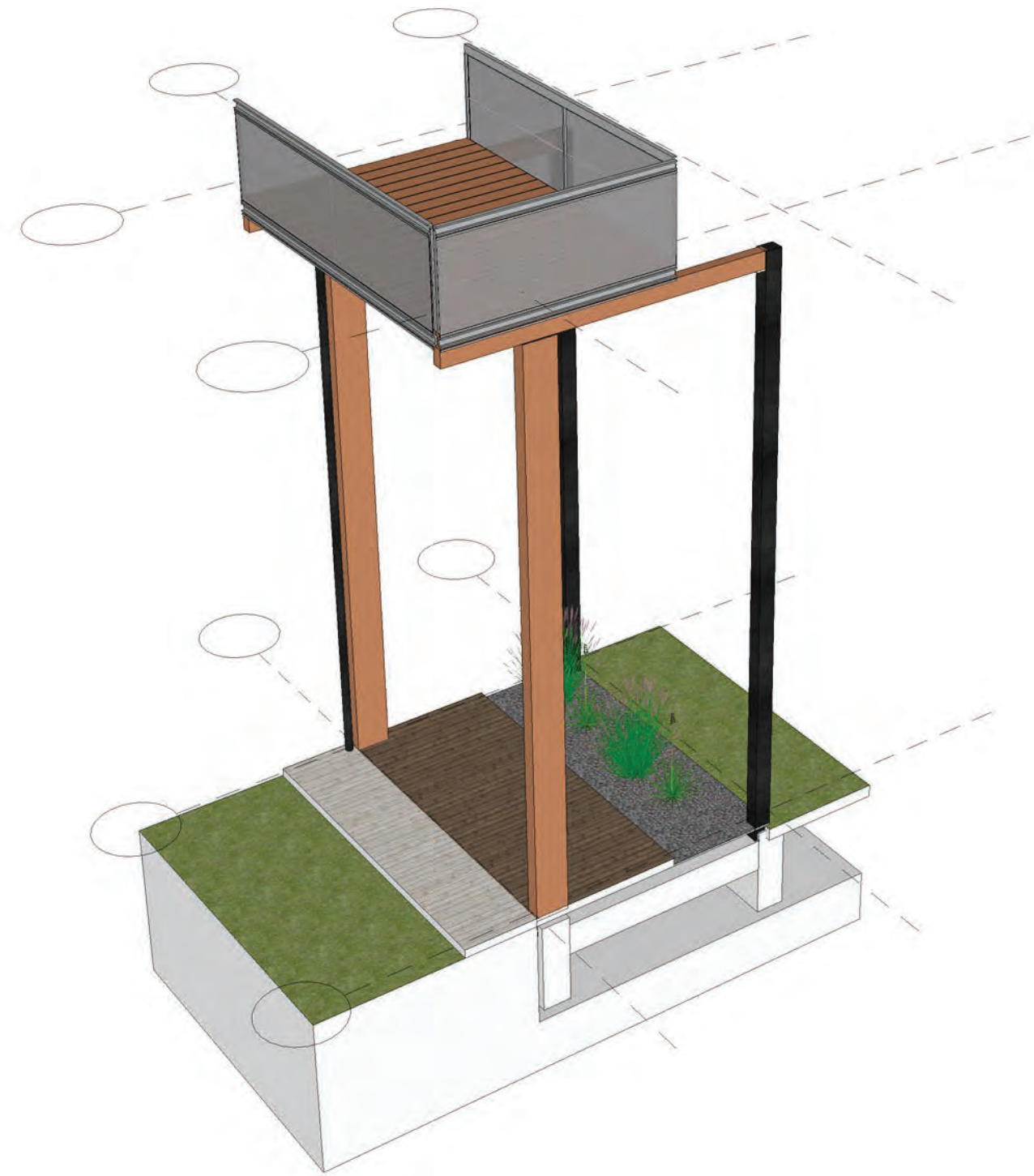
BUILDING SYSTEM

Module 3.2



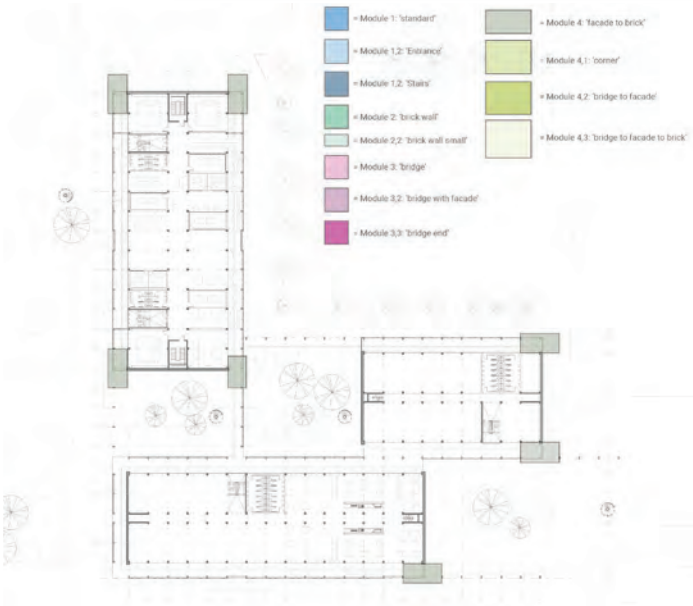
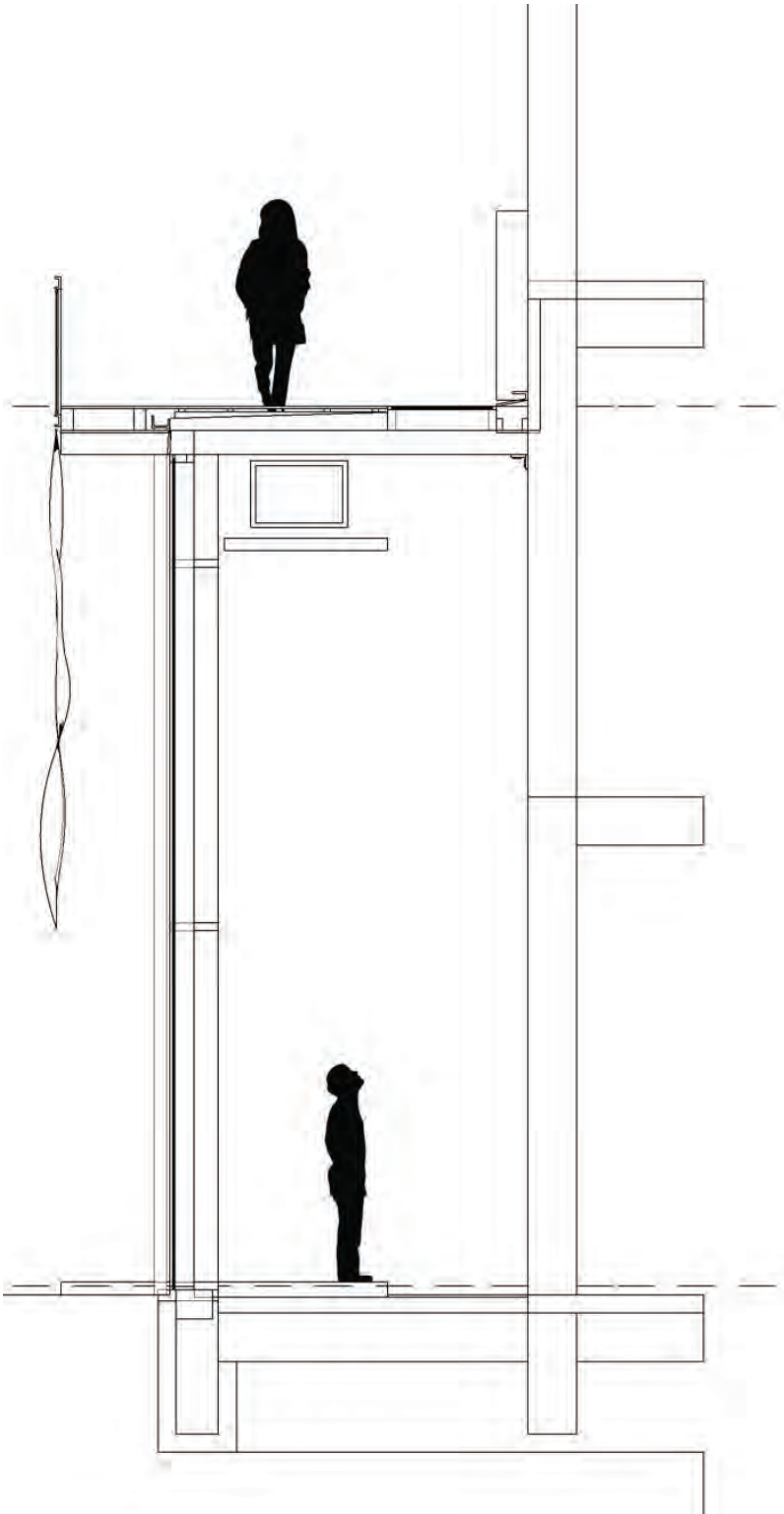
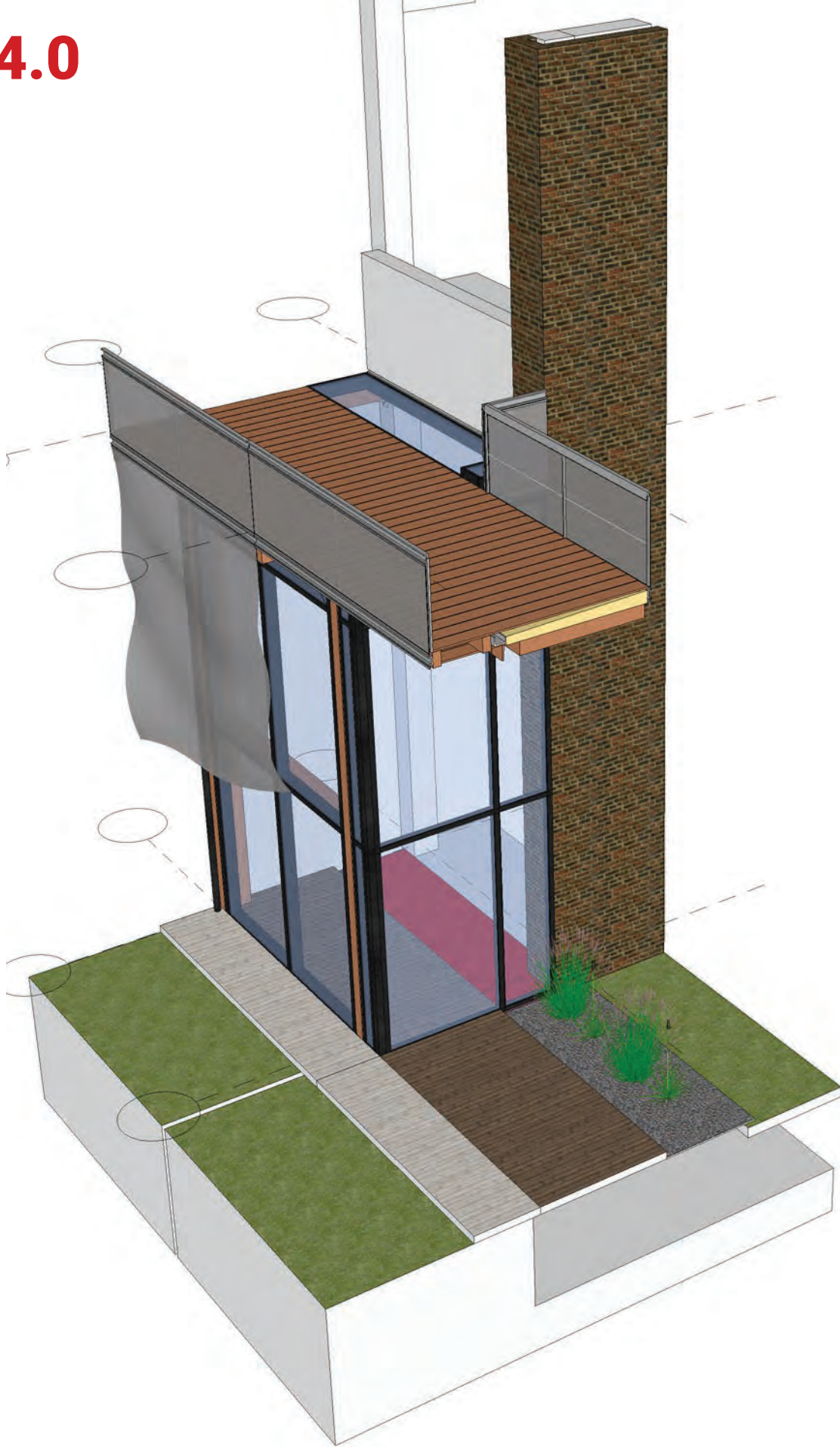
BUILDING SYSTEM

Module 3.3



BUILDING SYSTEM

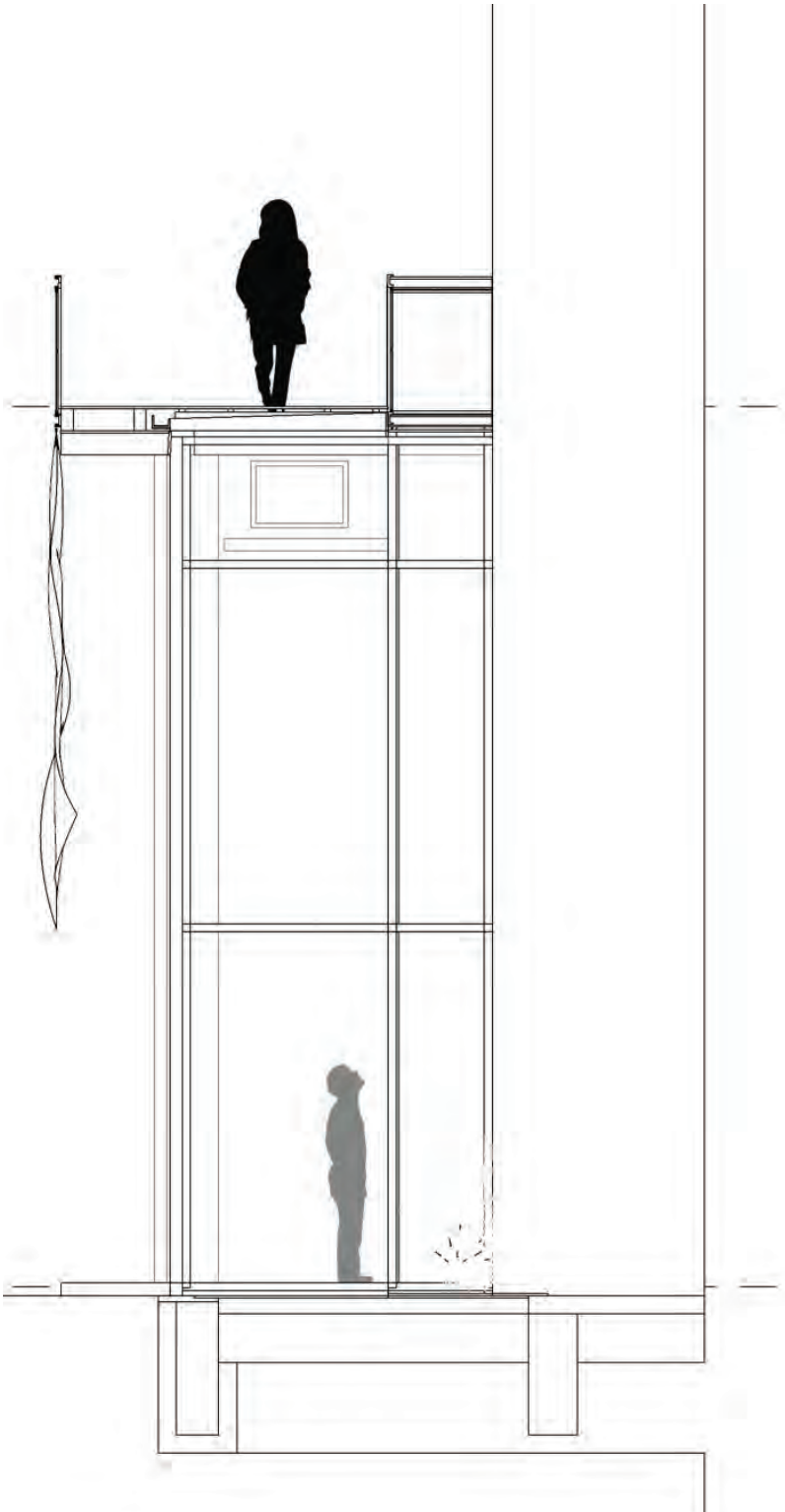
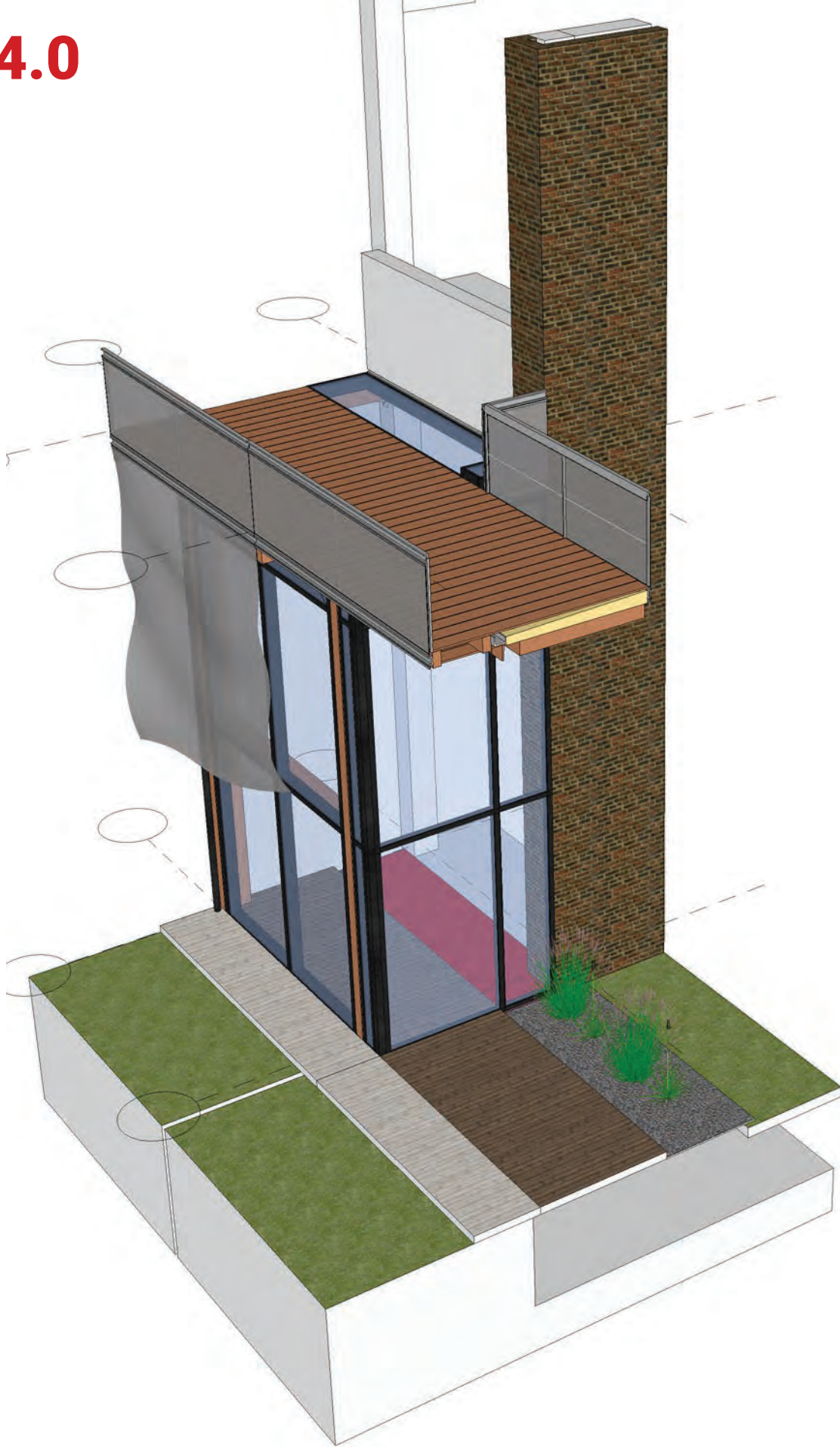
Module 4.0



1500 1818 1919 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2050

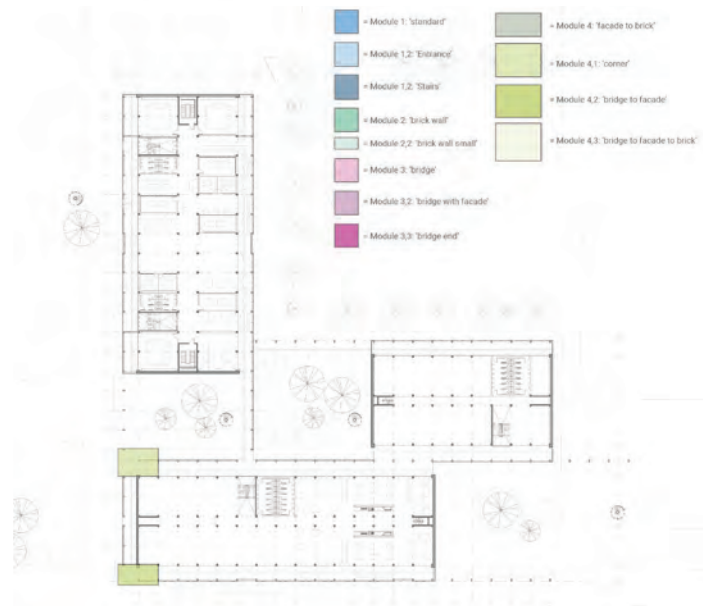
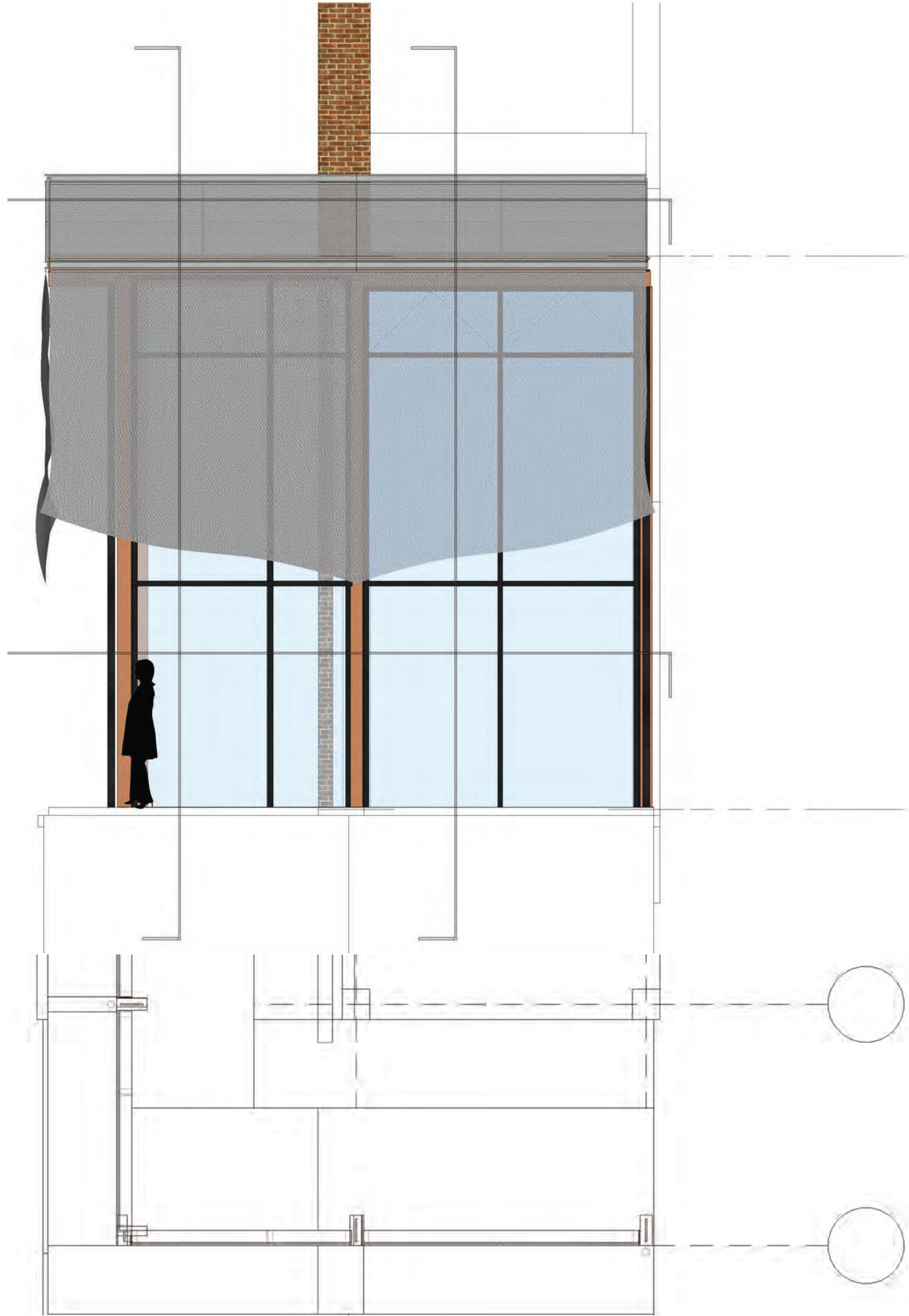
BUILDING SYSTEM

Module 4.0



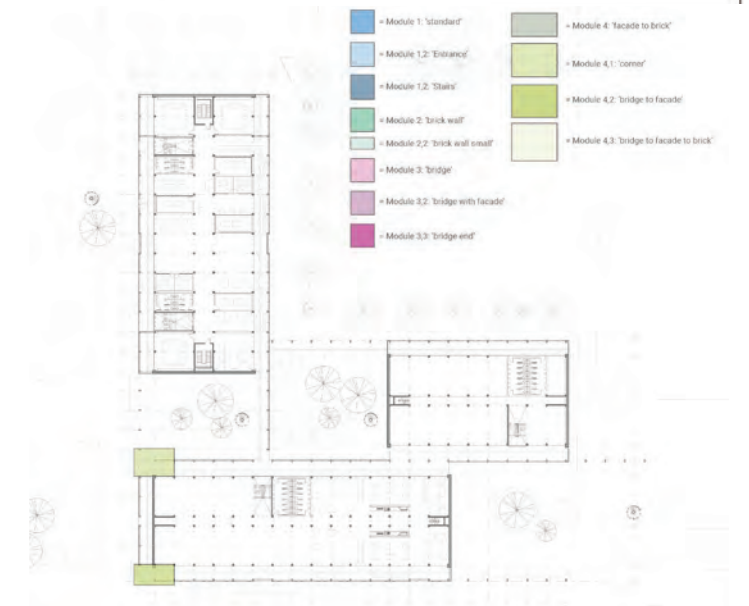
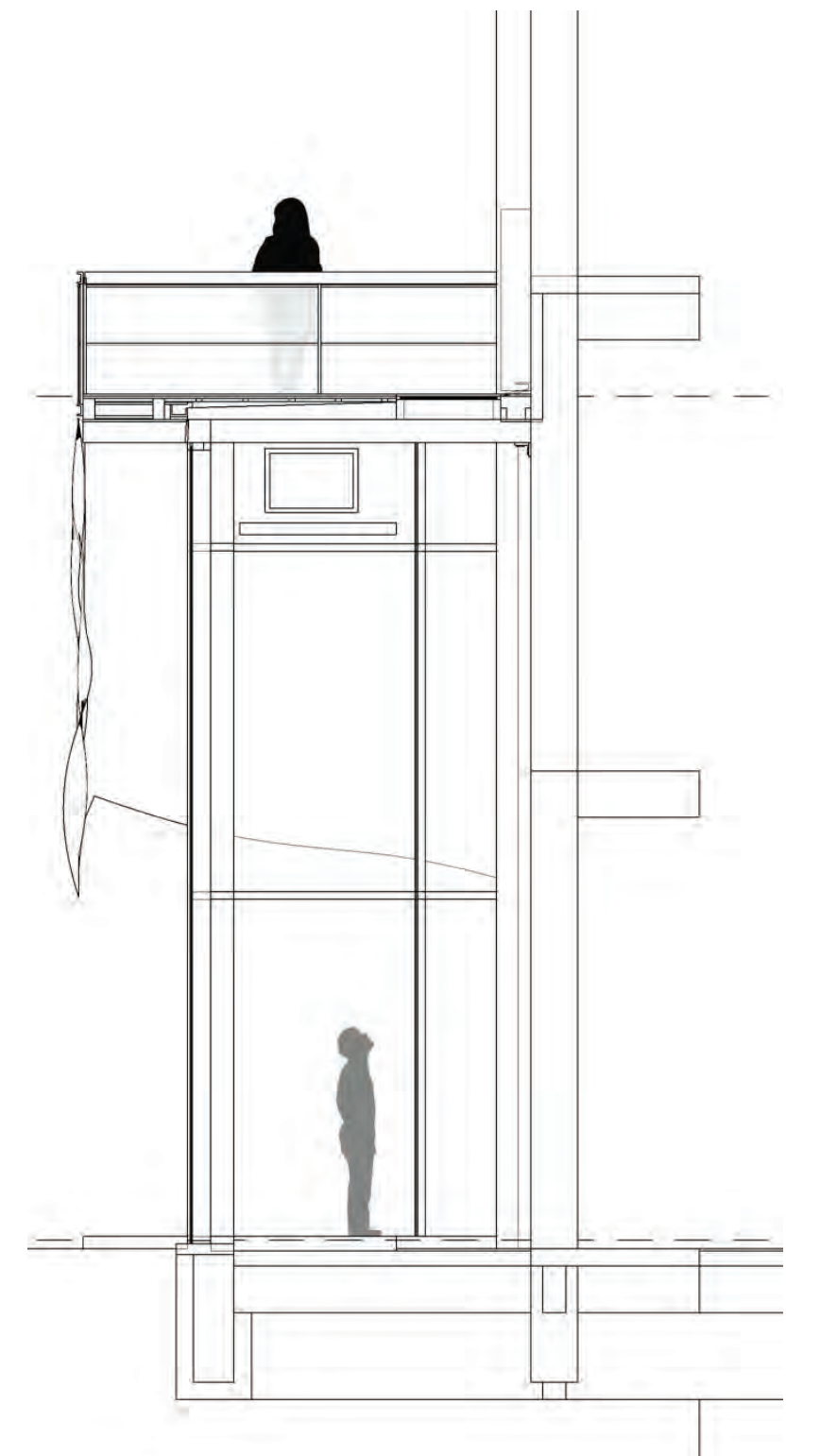
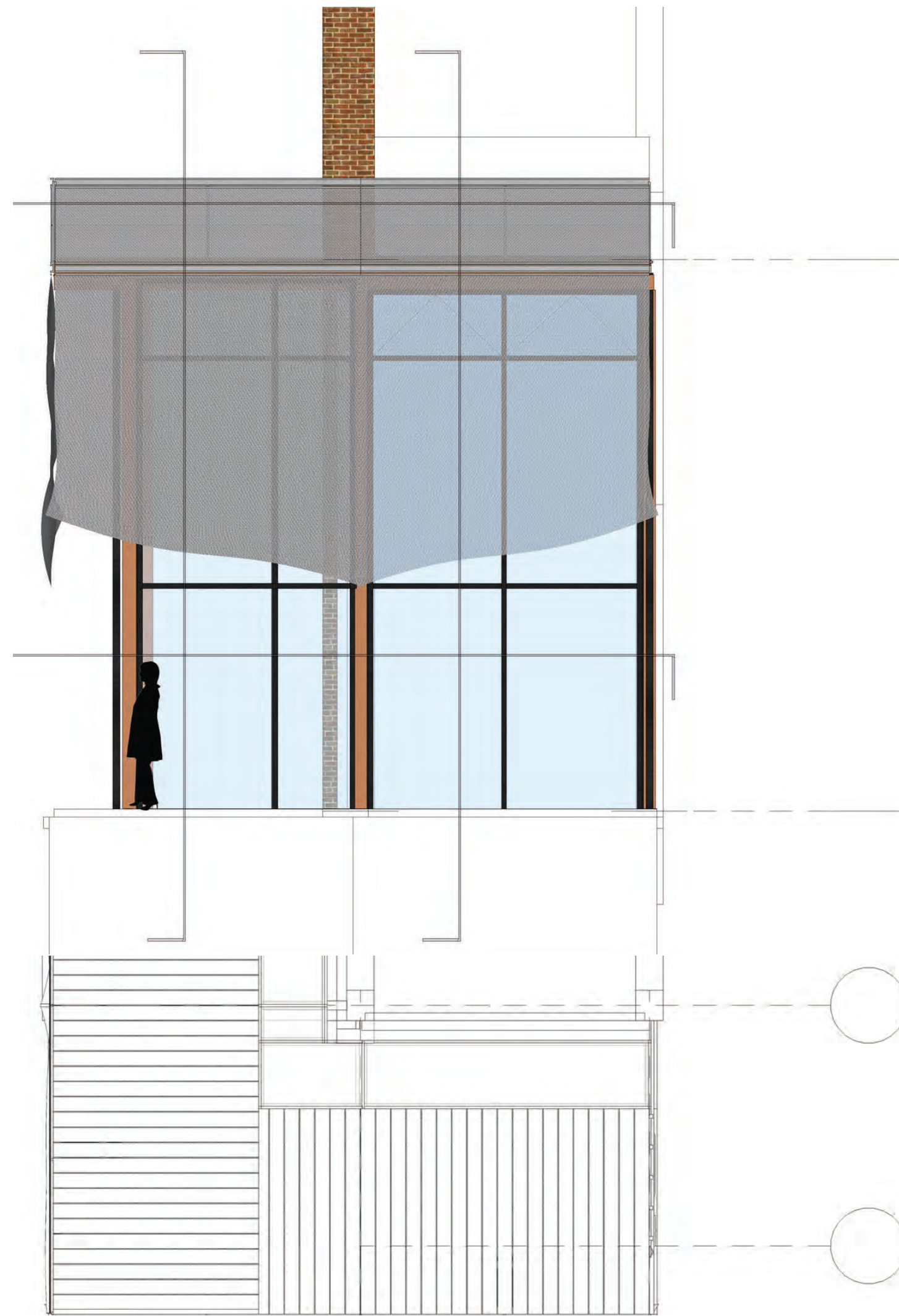
BUILDING SYSTEM

Module 4.1.1



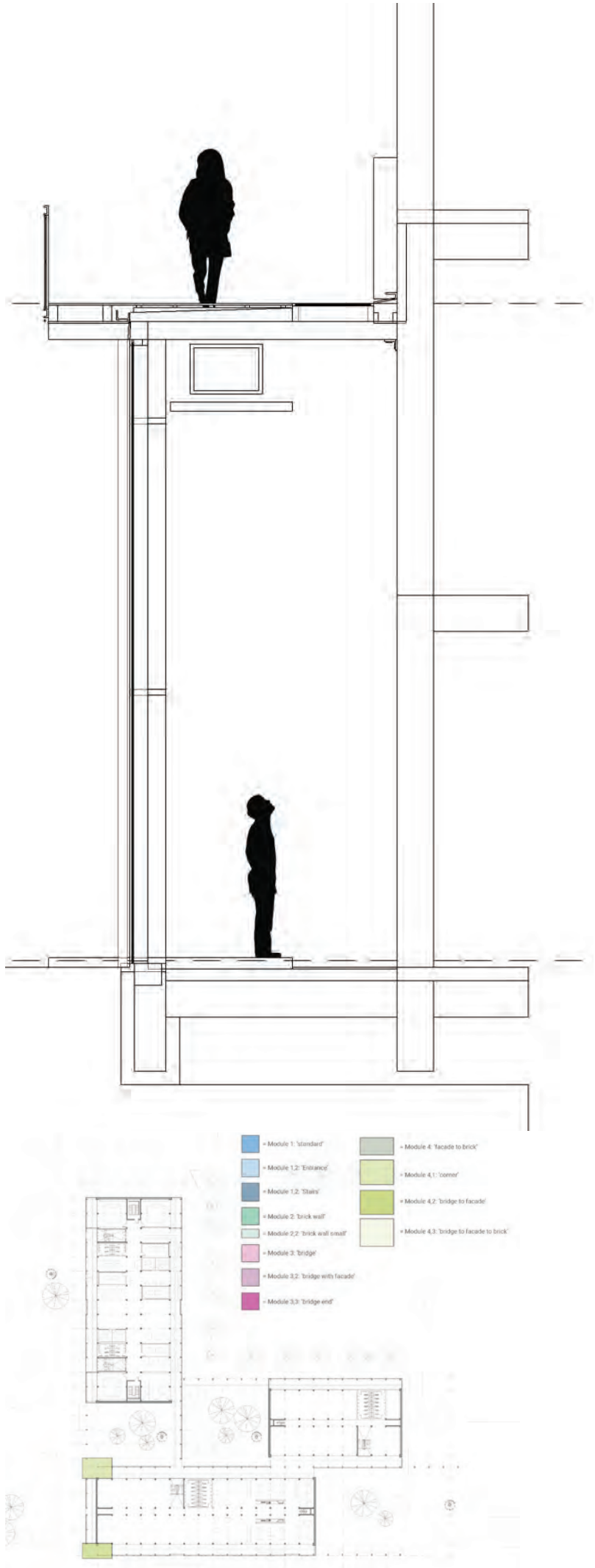
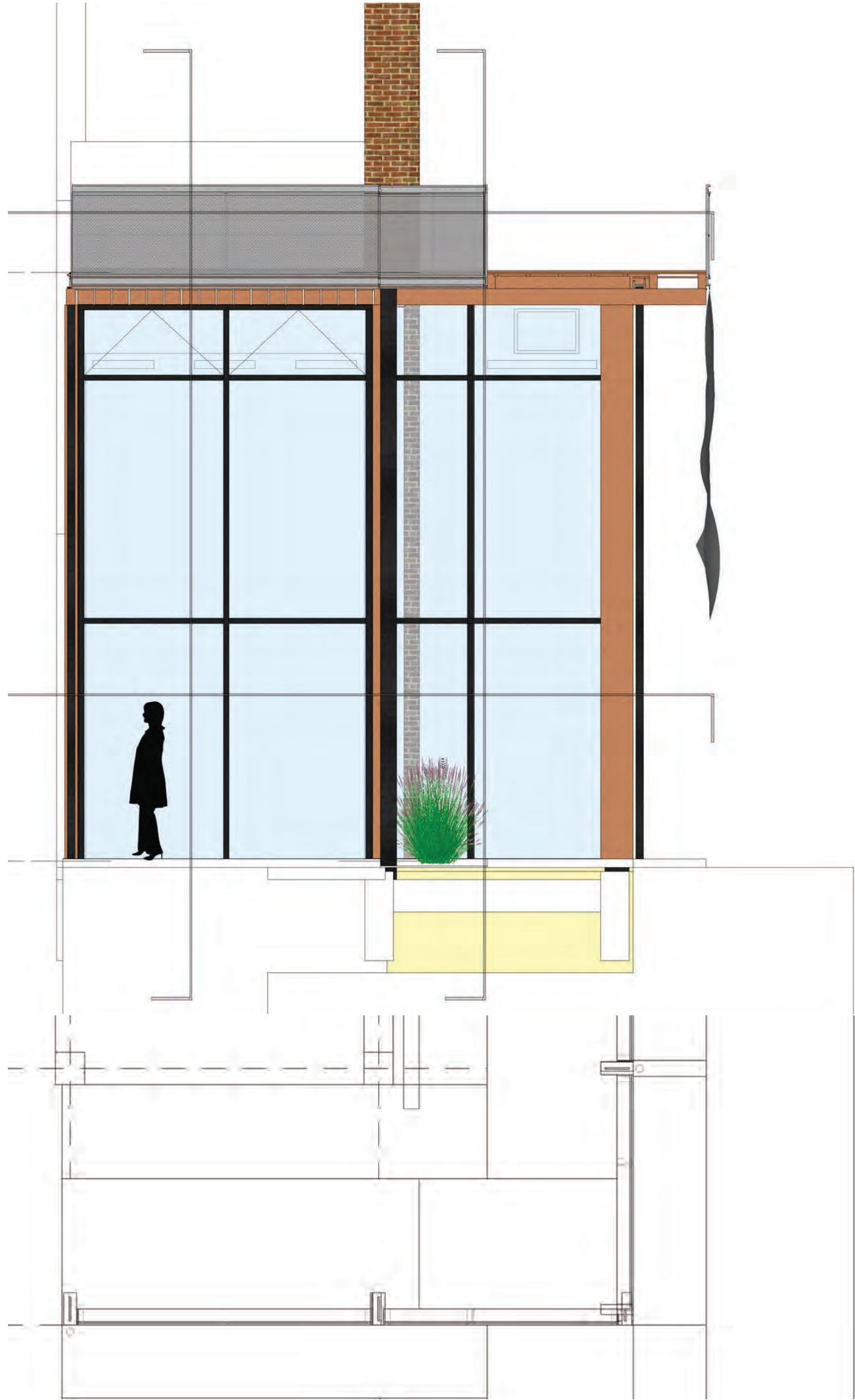
BUILDING SYSTEM

Module 4.1.1

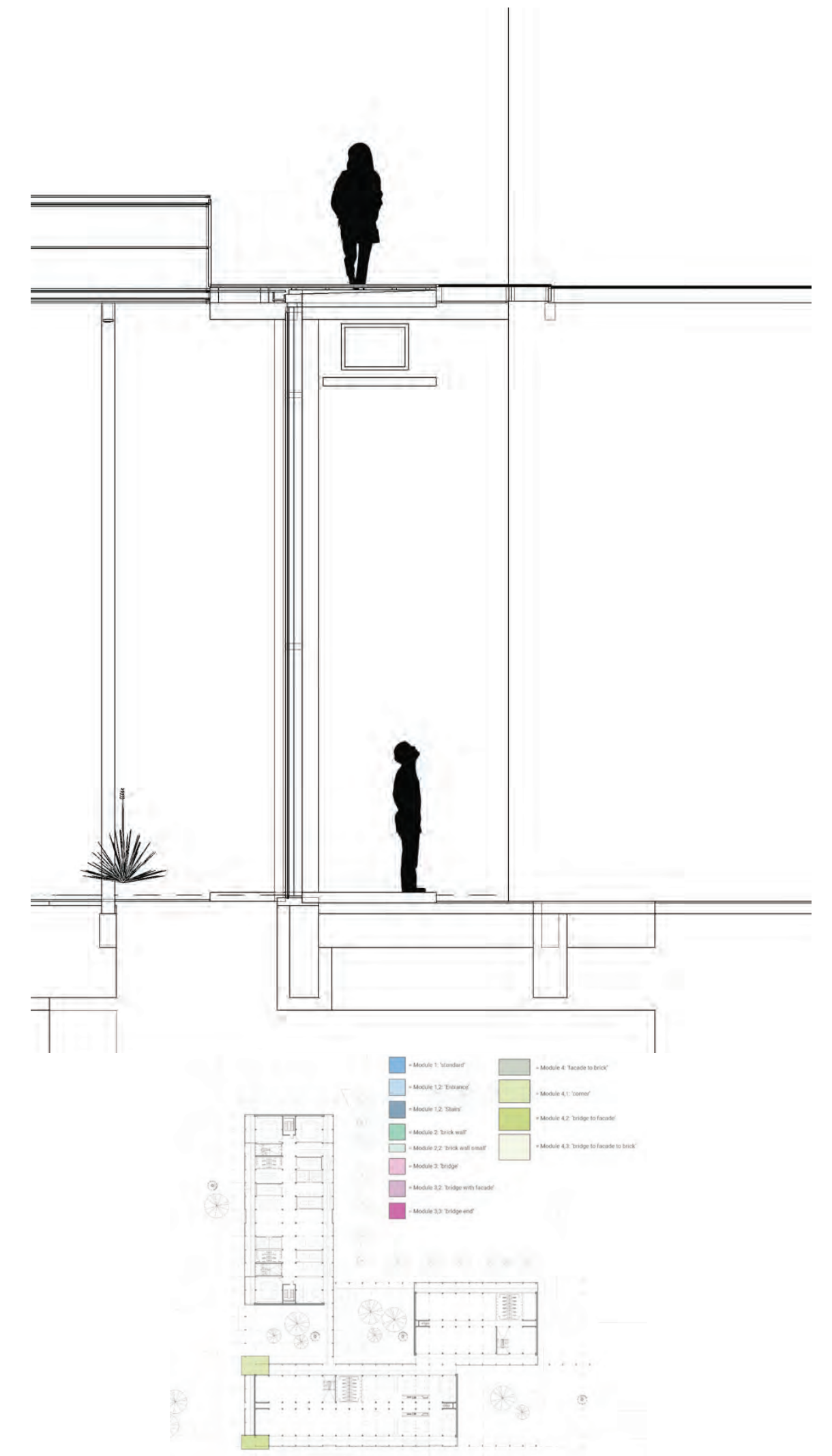
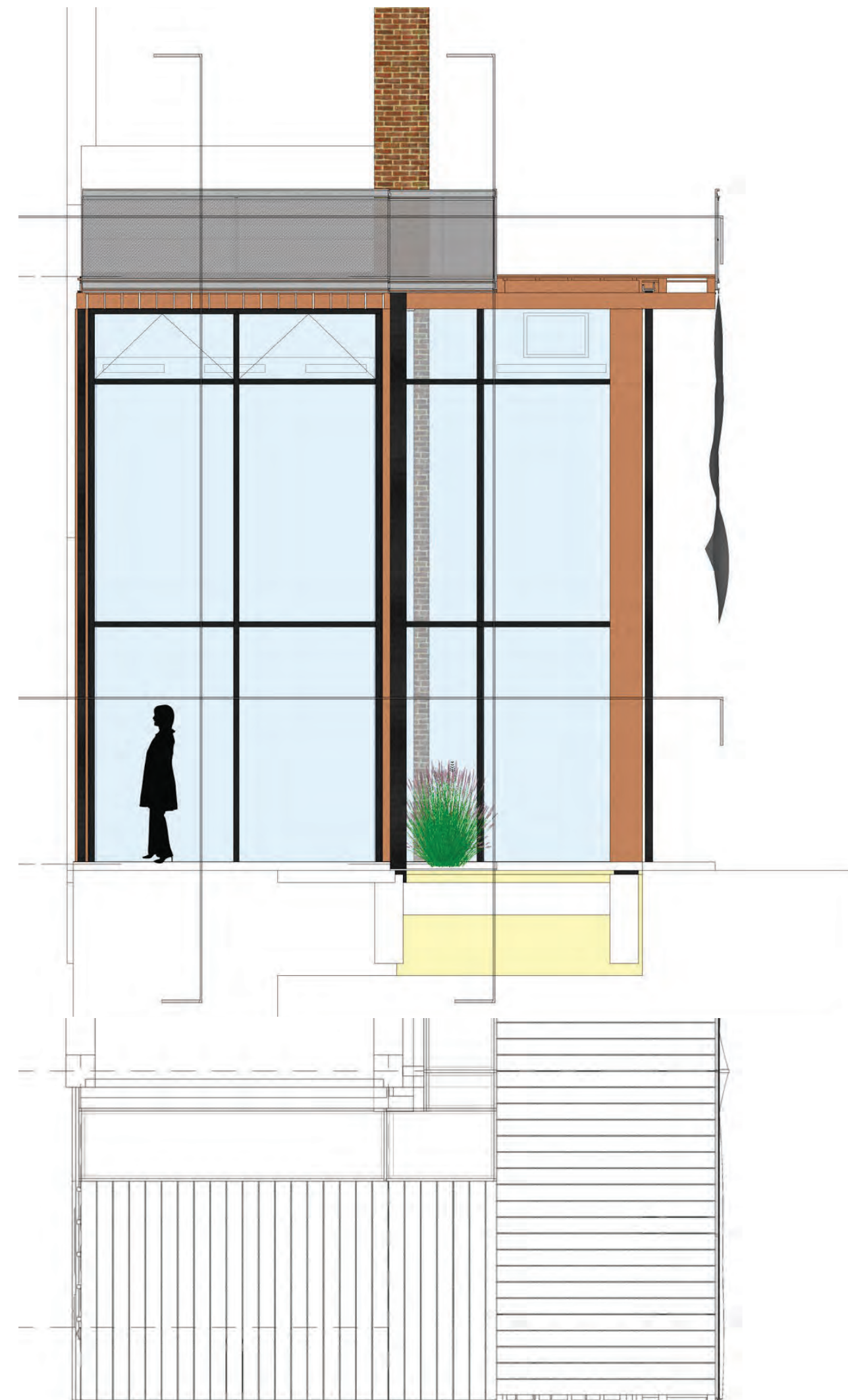


BUILDING SYSTEM

Module 4.1.2



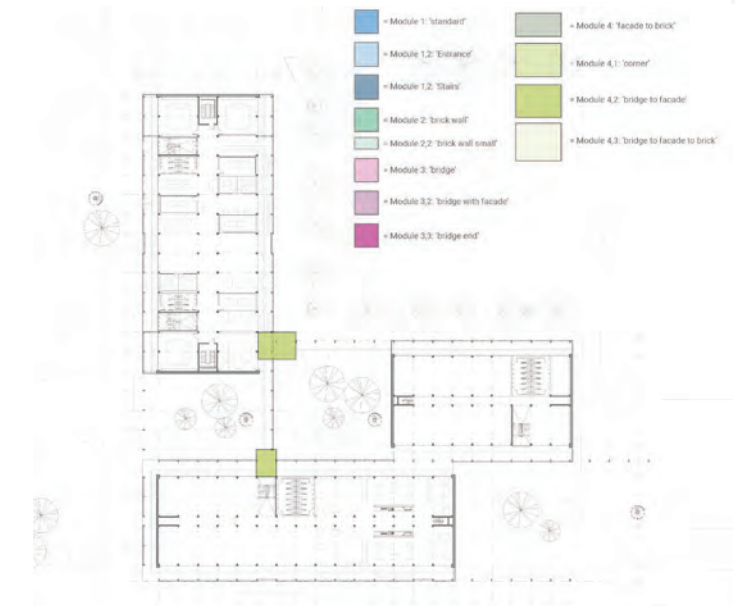
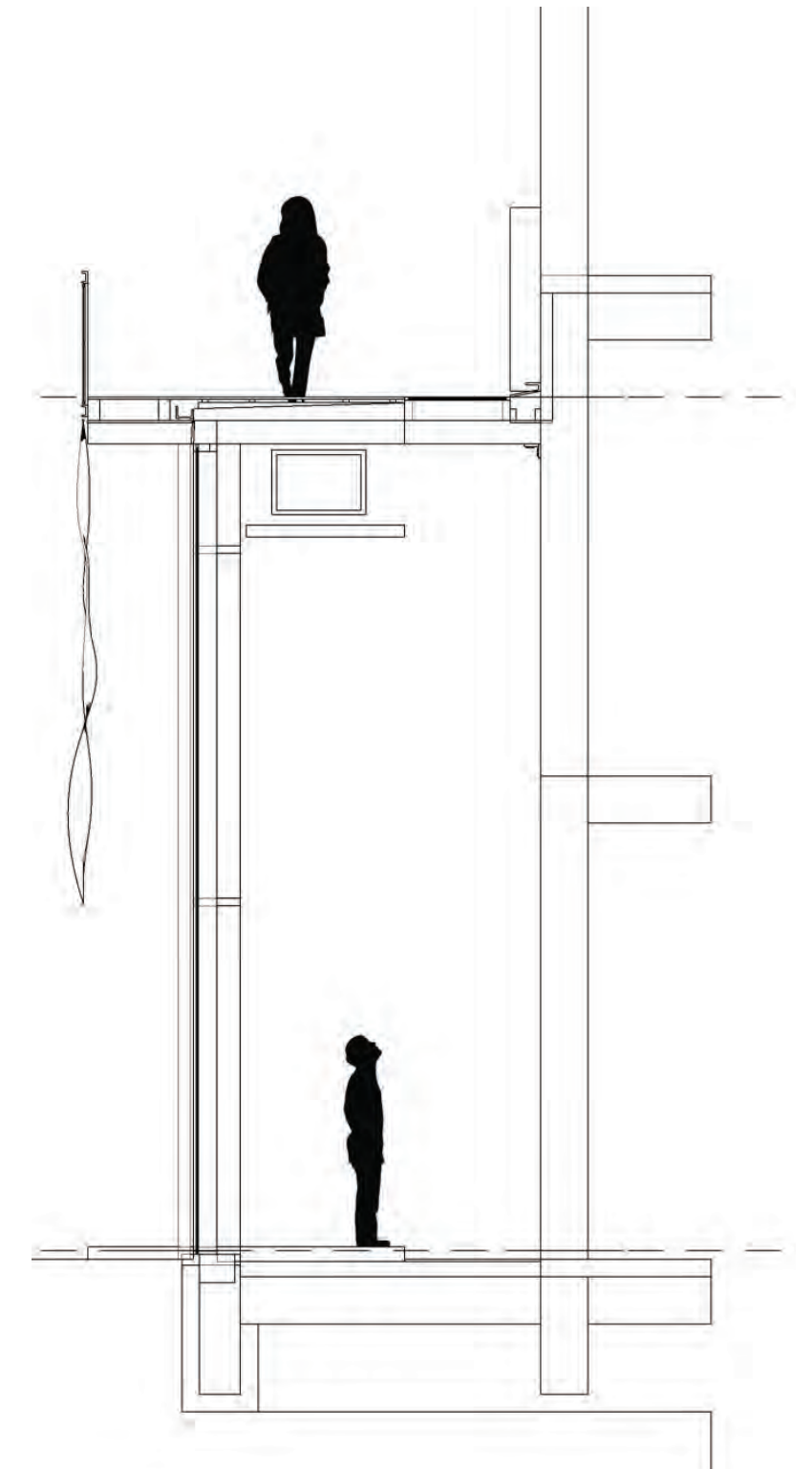
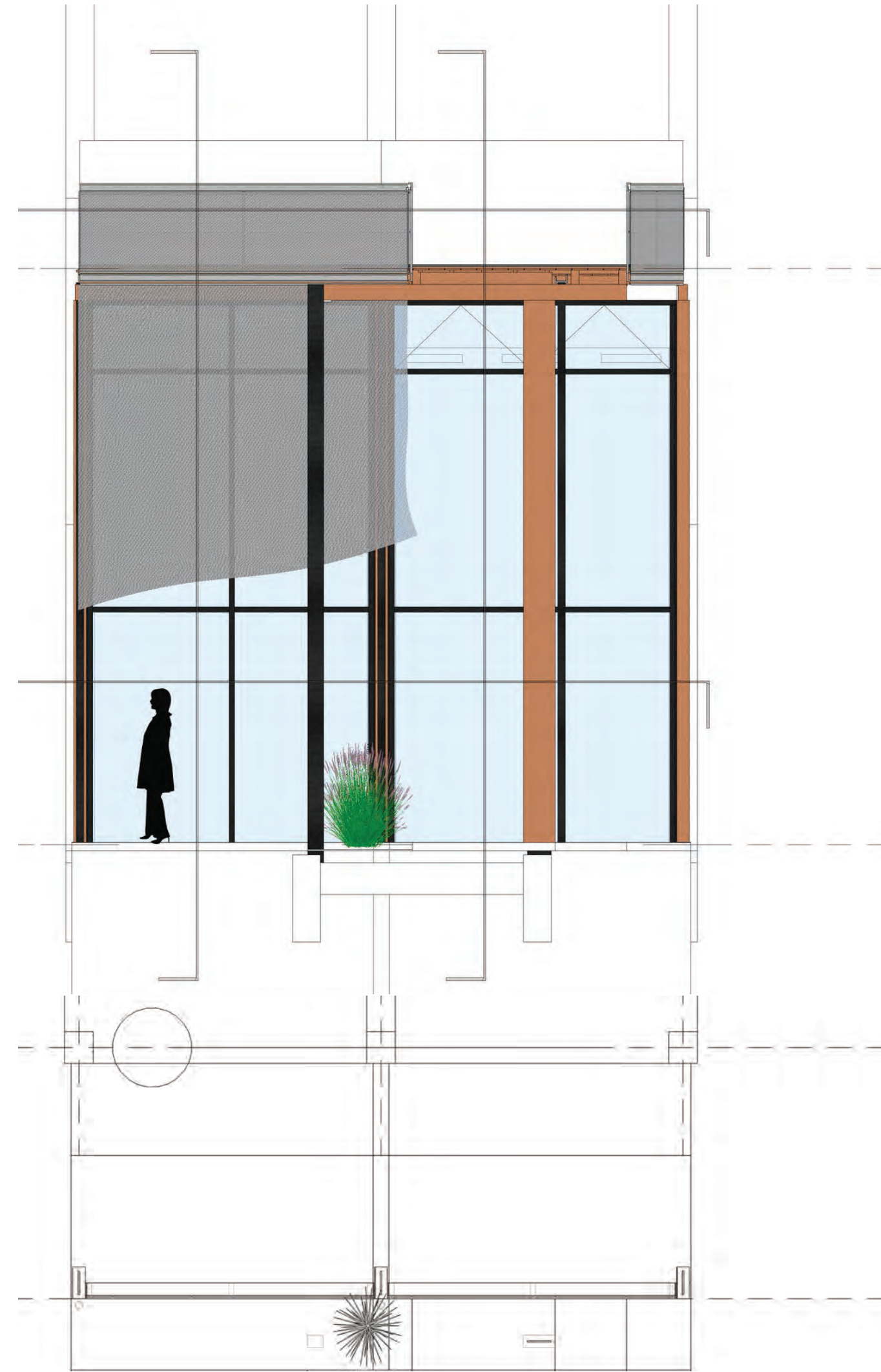
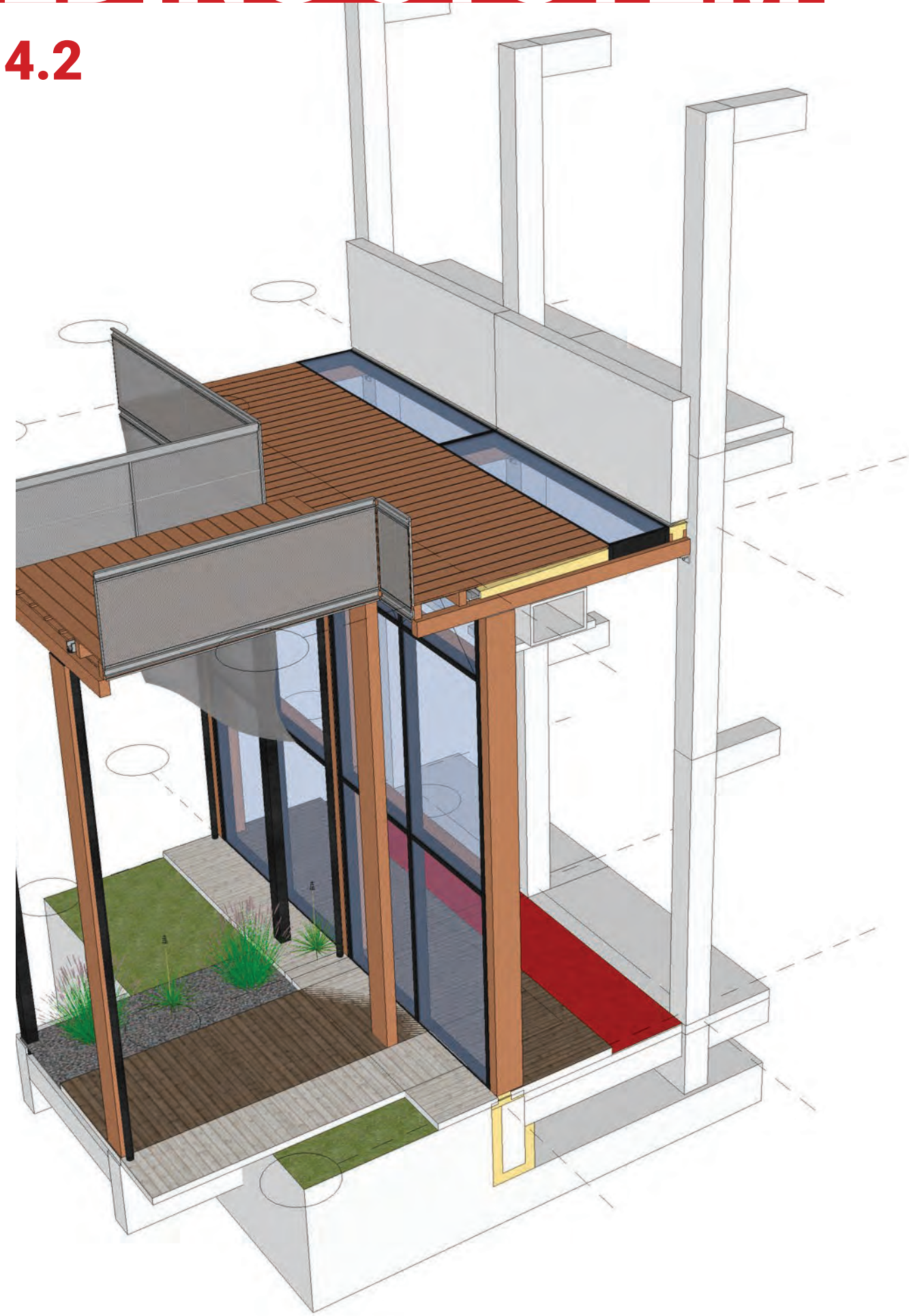
Module 4.1.2



A horizontal timeline bar spanning from 1500 to 2050. The years 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, and 2030 are highlighted in a darker shade of blue, while the years 1500, 1501, 1502, 1503, 1504, 1505, 1506, 1507, 1508, 1509, 1510, 1511, 1512, 1513, 1514, 1515, 1516, 1517, 1518, 1519, 1520, 1521, 1522, 1523, 1524, 1525, 1526, 1527, 1528, 1529, 1530, 1531, 1532, 1533, 1534, 1535, 1536, 1537, 1538, 1539, 1540, 1541, 1542, 1543, 1544, 1545, 1546, 1547, 1548, 1549, 1550, 1551, 1552, 1553, 1554, 1555, 1556, 1557, 1558, 1559, 1560, 1561, 1562, 1563, 1564, 1565, 1566, 1567, 1568, 1569, 1570, 1571, 1572, 1573, 1574, 1575, 1576, 1577, 1578, 1579, 1580, 1581, 1582, 1583, 1584, 1585, 1586, 1587, 1588, 1589, 1590, 1591, 1592, 1593, 1594, 1595, 1596, 1597, 1598, 1599, 1600, 1601, 1602, 1603, 1604, 1605, 1606, 1607, 1608, 1609, 1610, 1611, 1612, 1613, 1614, 1615, 1616, 1617, 1618, 1619, 1620, 1621, 1622, 1623, 1624, 1625, 1626, 1627, 1628, 1629, 1630, 1631, 1632, 1633, 1634, 1635, 1636, 1637, 1638, 1639, 1640, 1641, 1642, 1643, 1644, 1645, 1646, 1647, 1648, 1649, 1650, 1651, 1652, 1653, 1654, 1655, 1656, 1657, 1658, 1659, 1660, 1661, 1662, 1663, 1664, 1665, 1666, 1667, 1668, 1669, 1670, 1671, 1672, 1673, 1674, 1675, 1676, 1677, 1678, 1679, 1680, 1681, 1682, 1683, 1684, 1685, 1686, 1687, 1688, 1689, 1690, 1691, 1692, 1693, 1694, 1695, 1696, 1697, 1698, 1699, 1700, 1701, 1702, 1703, 1704, 1705, 1706, 1707, 1708, 1709, 1710, 1711, 1712, 1713, 1714, 1715, 1716, 1717, 1718, 1719, 1720, 1721, 1722, 1723, 1724, 1725, 1726, 1727, 1728, 1729, 1730, 1731, 1732, 1733, 1734, 1735, 1736, 1737, 1738, 1739, 1740, 1741, 1742, 1743, 1744, 1745, 1746, 1747, 1748, 1749, 1750, 1751, 1752, 1753, 1754, 1755, 1756, 1757, 1758, 1759, 1760, 1761, 1762, 1763, 1764, 1765, 1766, 1767, 1768, 1769, 1770, 1771, 1772, 1773, 1774, 1775, 1776, 1777, 1778, 1779, 1780, 1781, 1782, 1783, 1784, 1785, 1786, 1787, 1788, 1789, 1790, 1791, 1792, 1793, 1794, 1795, 1796, 1797, 1798, 1799, 1800, 1801, 1802, 1803, 1804, 1805, 1806, 1807, 1808, 1809, 1810, 1811, 1812, 1813, 1814, 1815, 1816, 1817, 1818, 1819, 1820, 1821, 1822, 1823, 1824, 1825, 1826, 1827, 1828, 1829, 1830, 1831, 1832, 1833, 1834, 1835, 1836, 1837, 1838, 1839, 1840, 1841, 1842, 1843, 1844, 1845, 1846, 1847, 1848, 1849, 1850, 1851, 1852, 1853, 1854, 1855, 1856, 1857, 1858, 1859, 1860, 1861, 1862, 1863, 1864, 1865, 1866, 1867, 1868, 1869, 1870, 1871, 1872, 1873, 1874, 1875, 1876, 1877, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900, 1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908, 1909, 1910, 1911, 1912, 1913, 1914, 1915, 1916, 1917, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050 are in a lighter shade of blue. The years 2022 and 2023 are highlighted in a darker shade of blue.

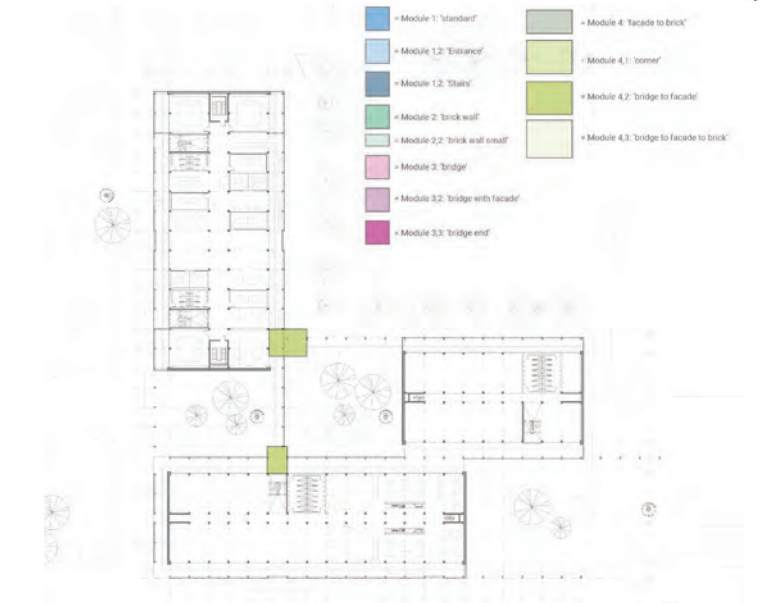
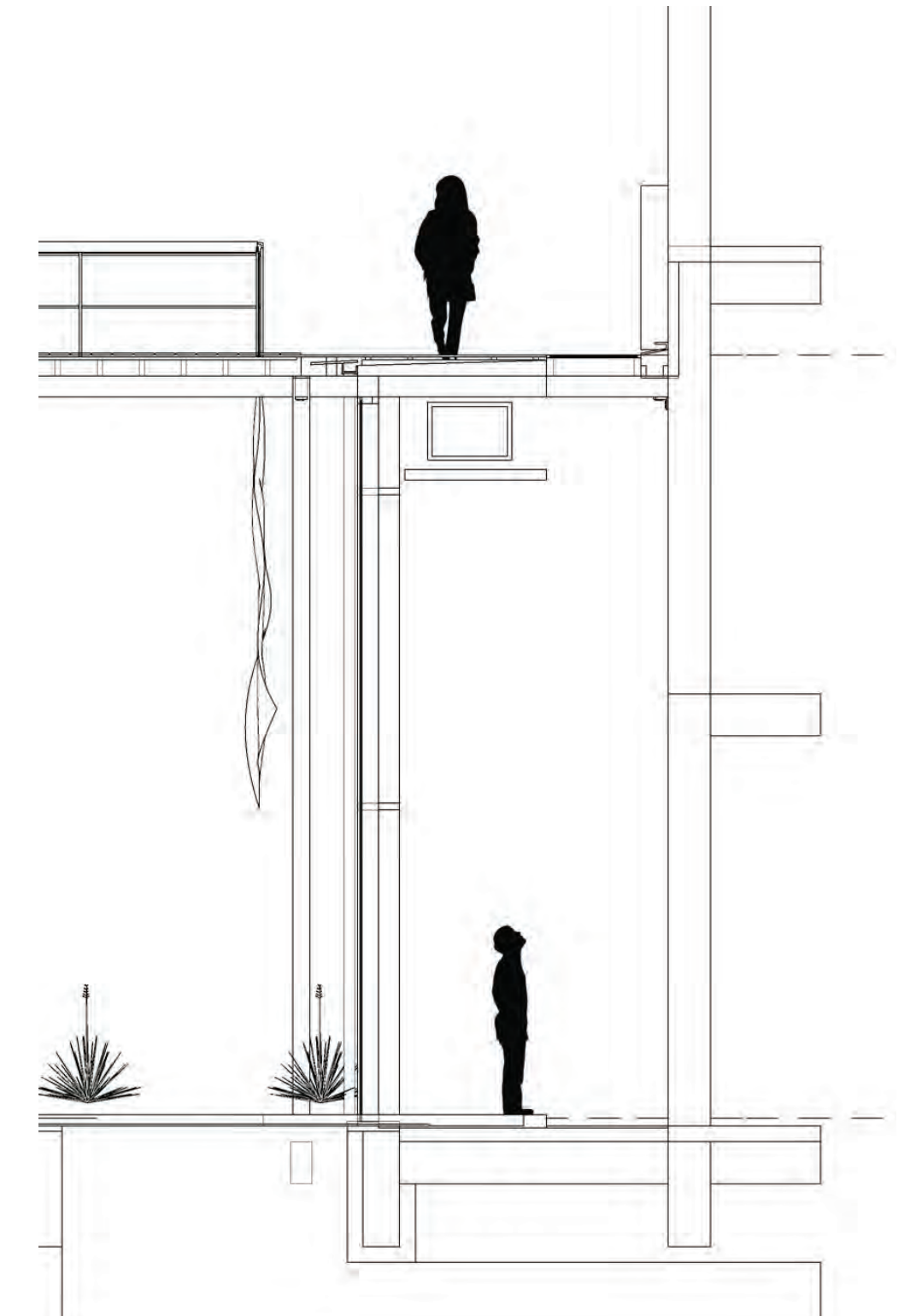
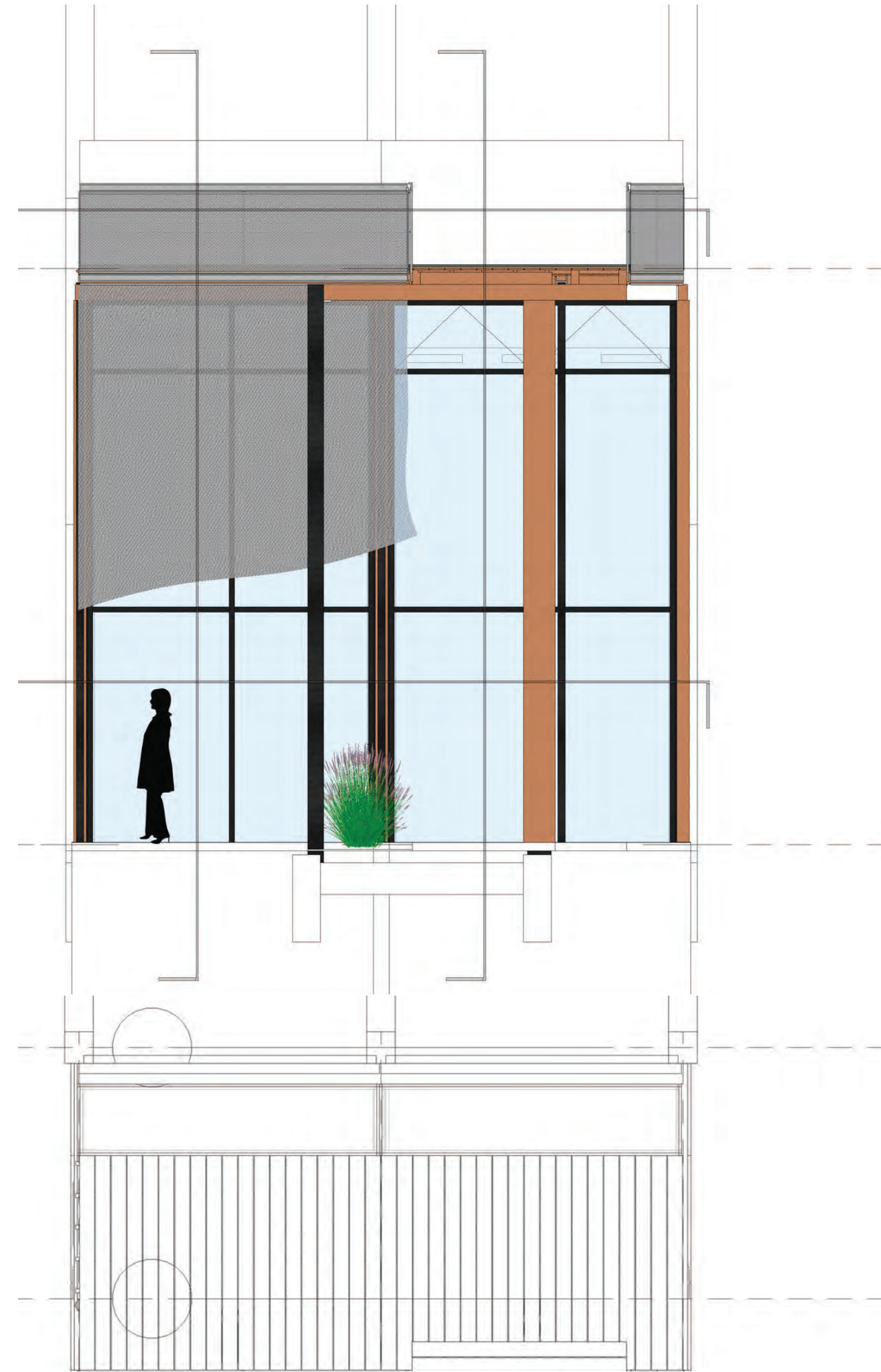
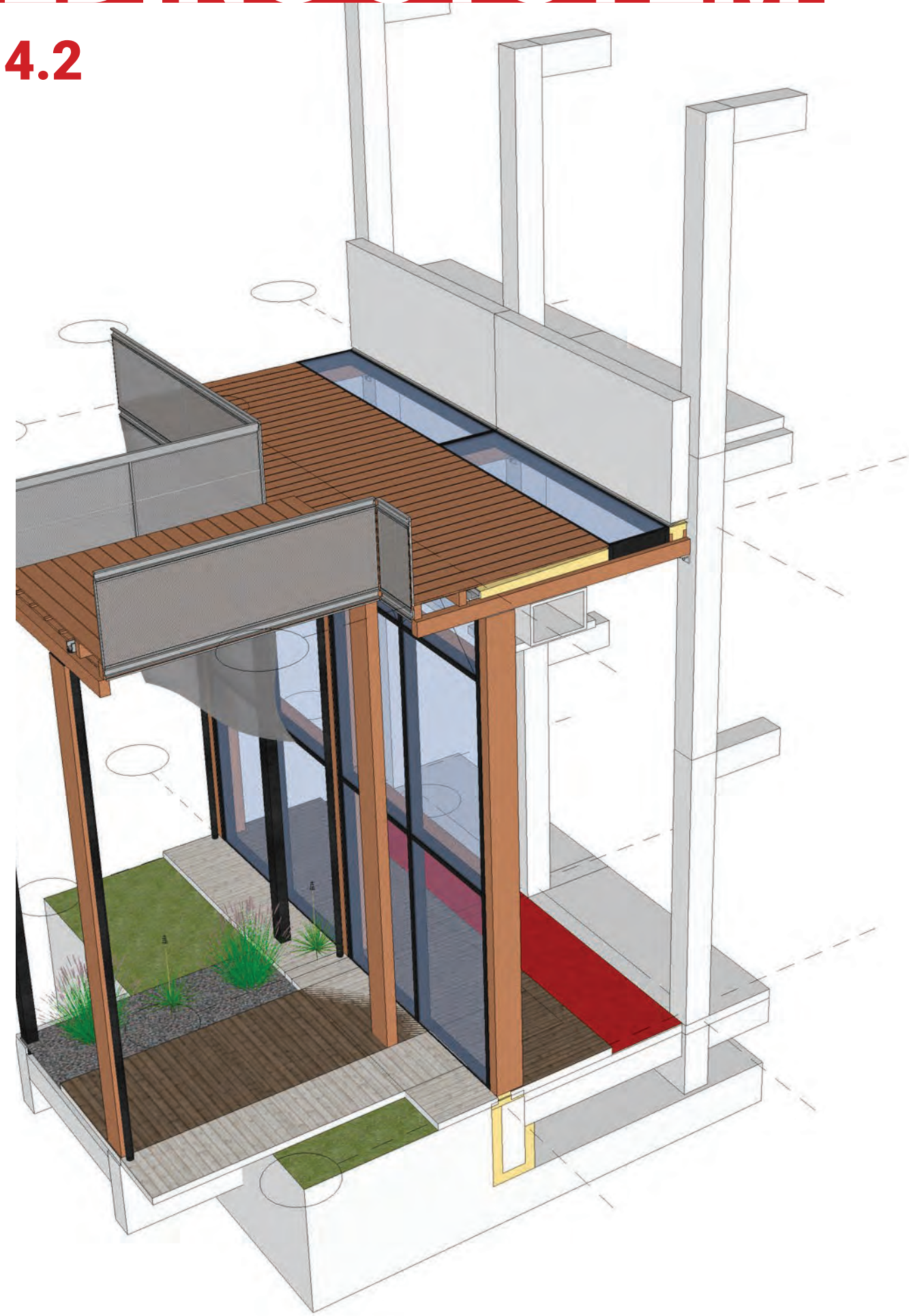
BUILDING SYSTEM

Module 4.2



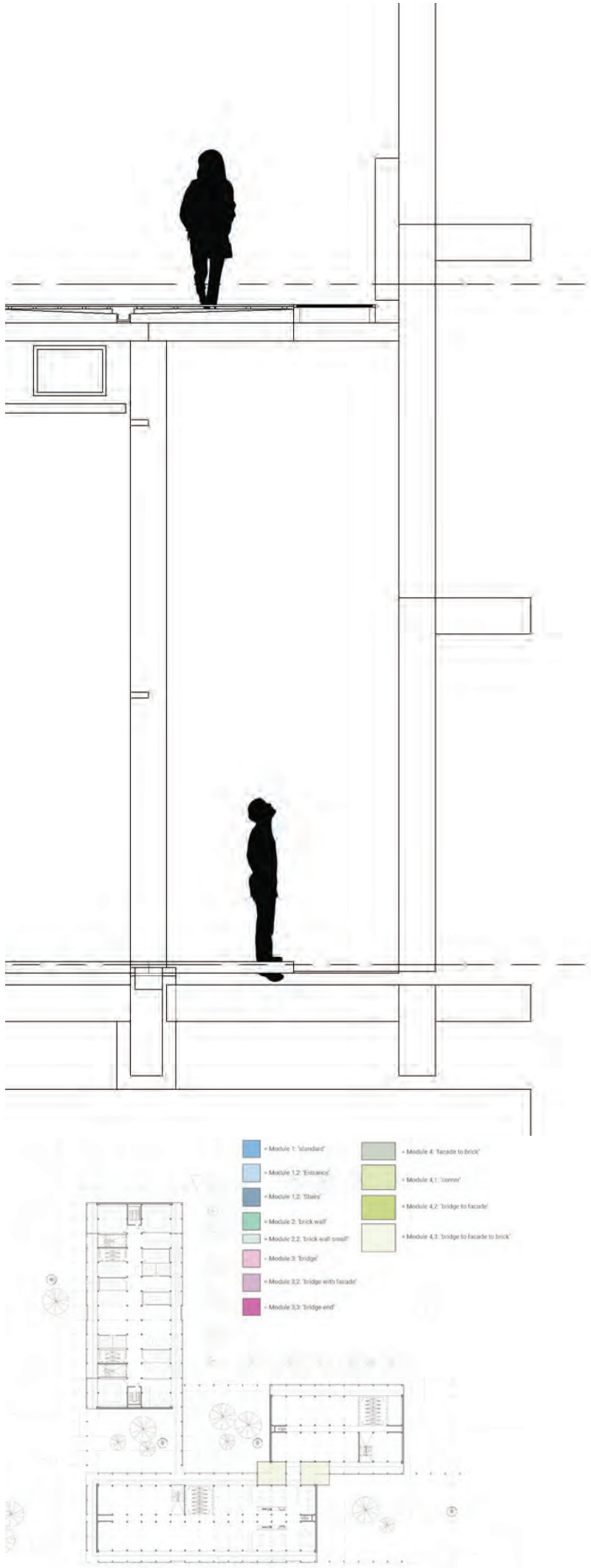
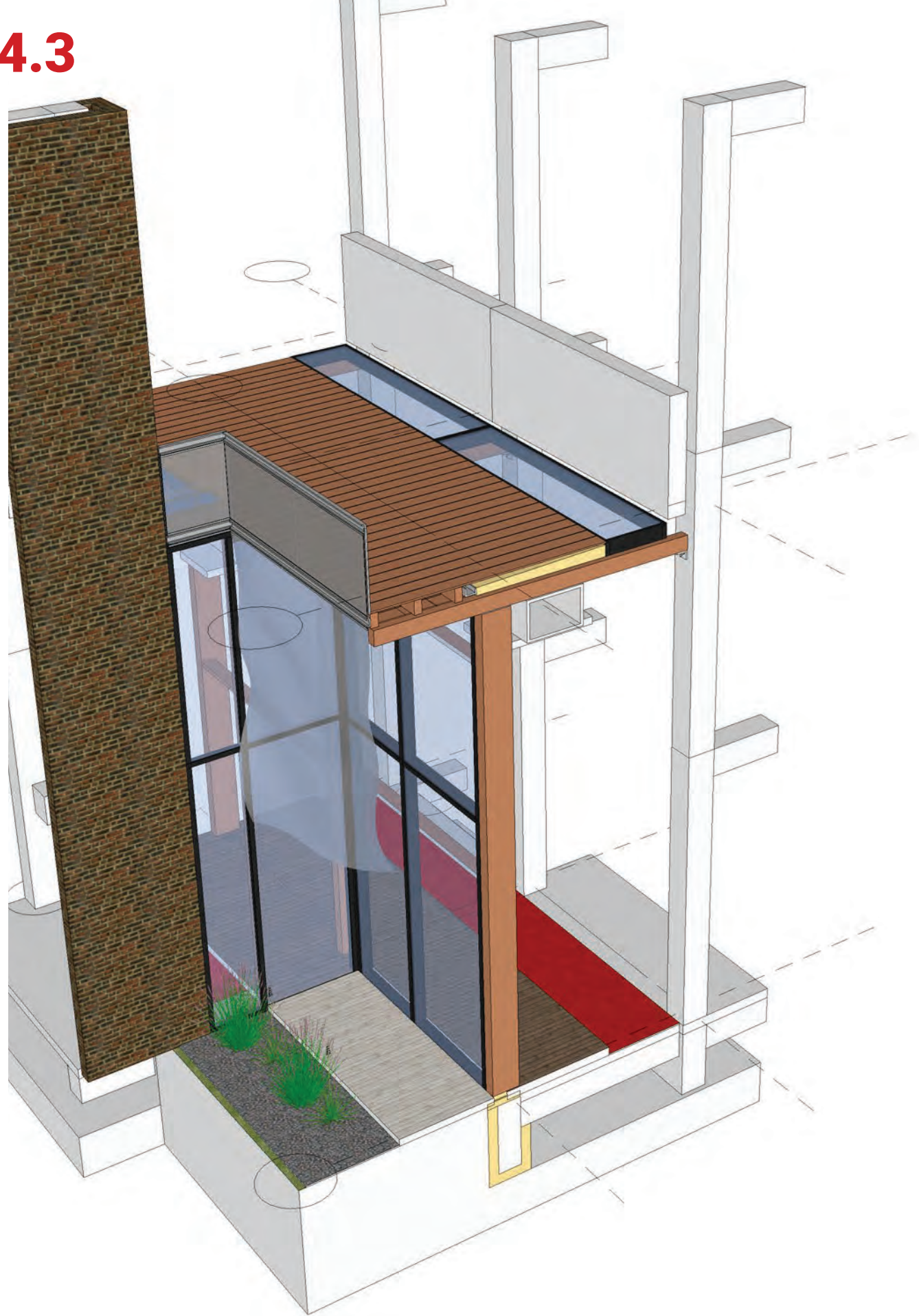
BUILDING SYSTEM

Module 4.2



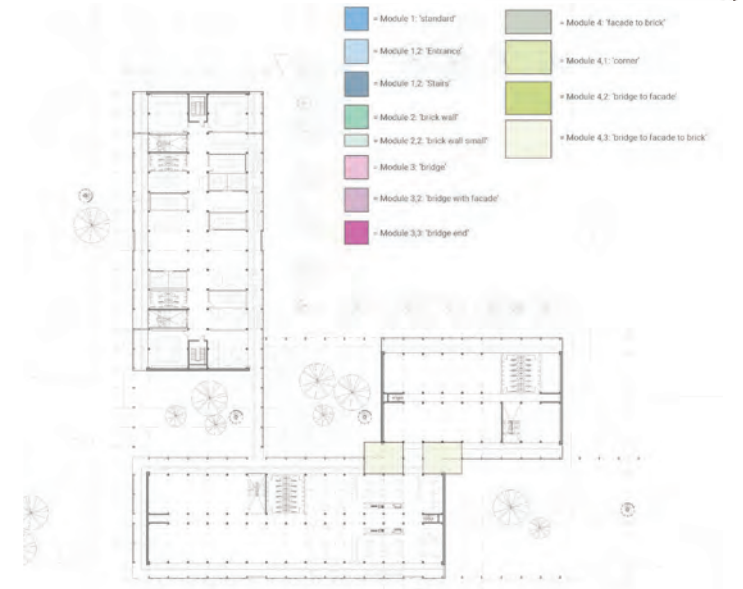
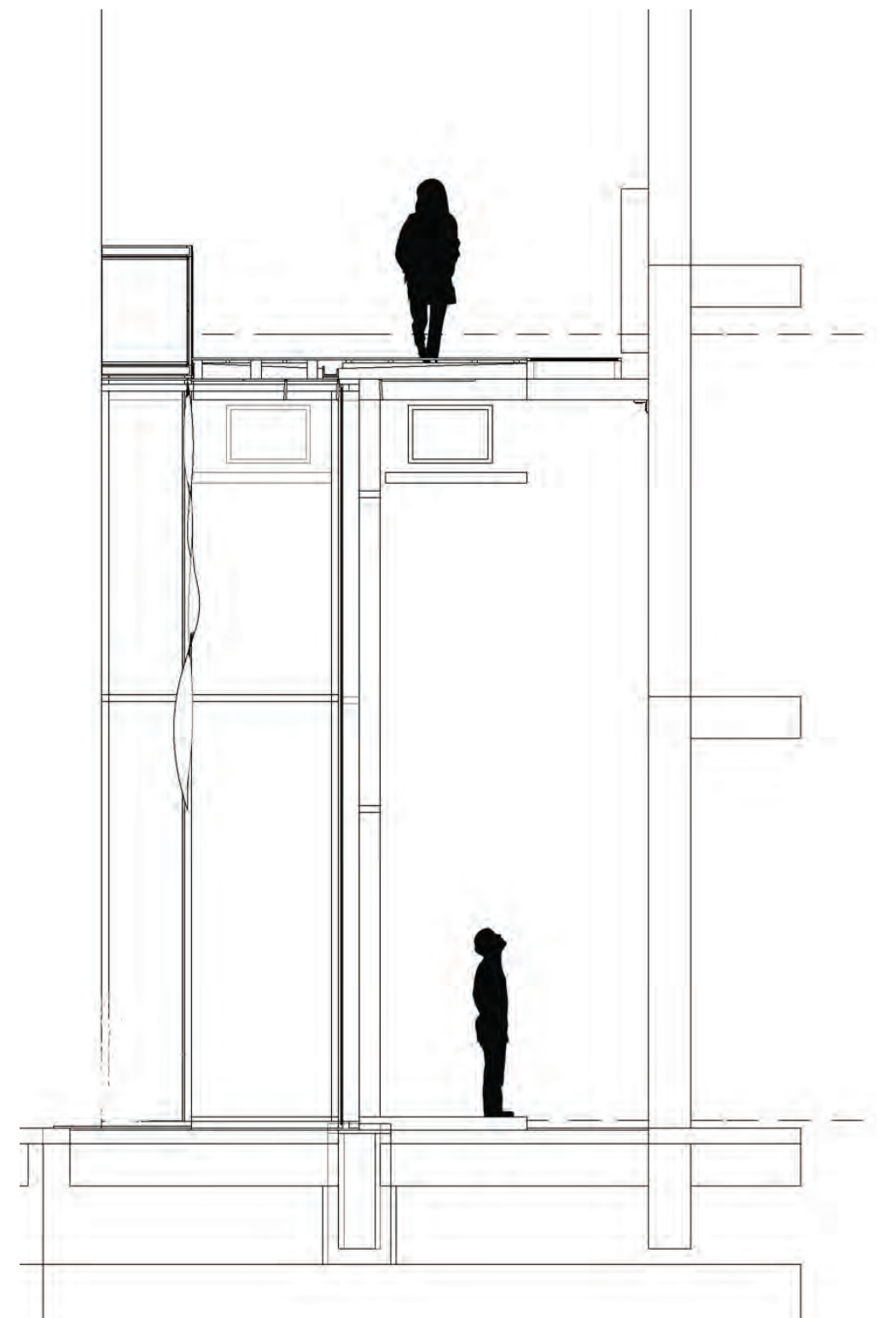
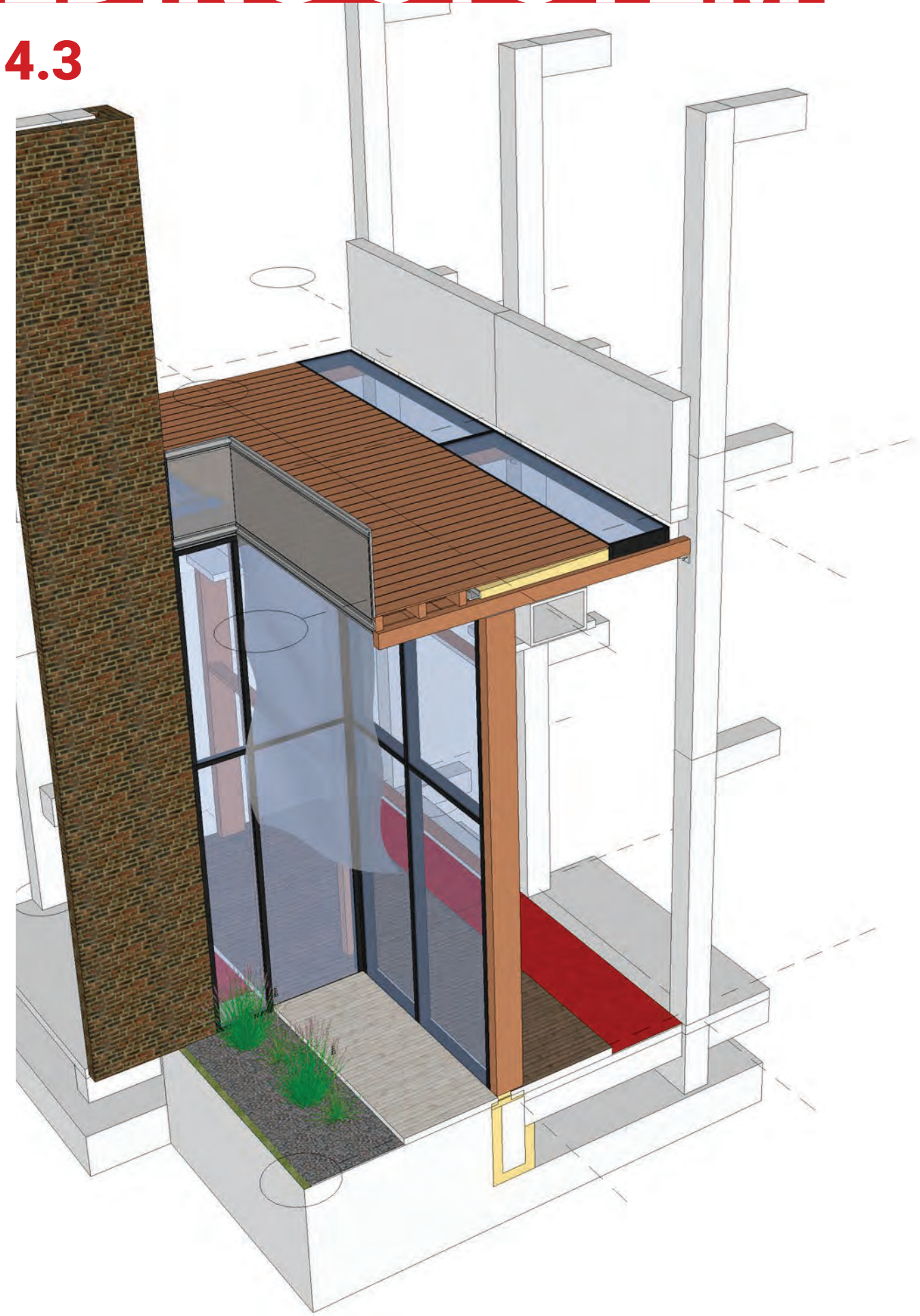
BUILDING SYSTEM

Module 4.3



BUILDING SYSTEM

Module 4.3



LEASING MATERIALS

Partners & contracts



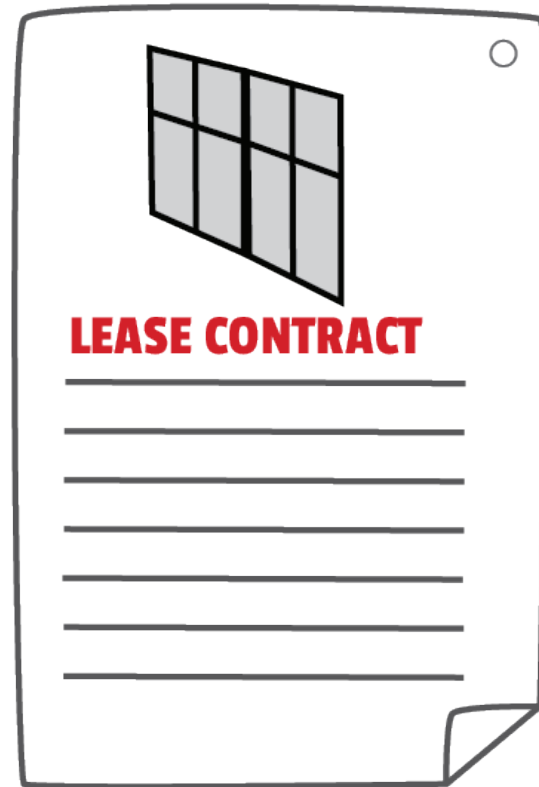
LEASING MATERIALS

Partners & contracts



LEASING MATERIALS

Partners & contracts



1500 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2050

LEASING MATERIALS

Partners & contracts



LEASING MATERIALS

Partners & contracts



LEASING MATERIALS

Partners & contracts

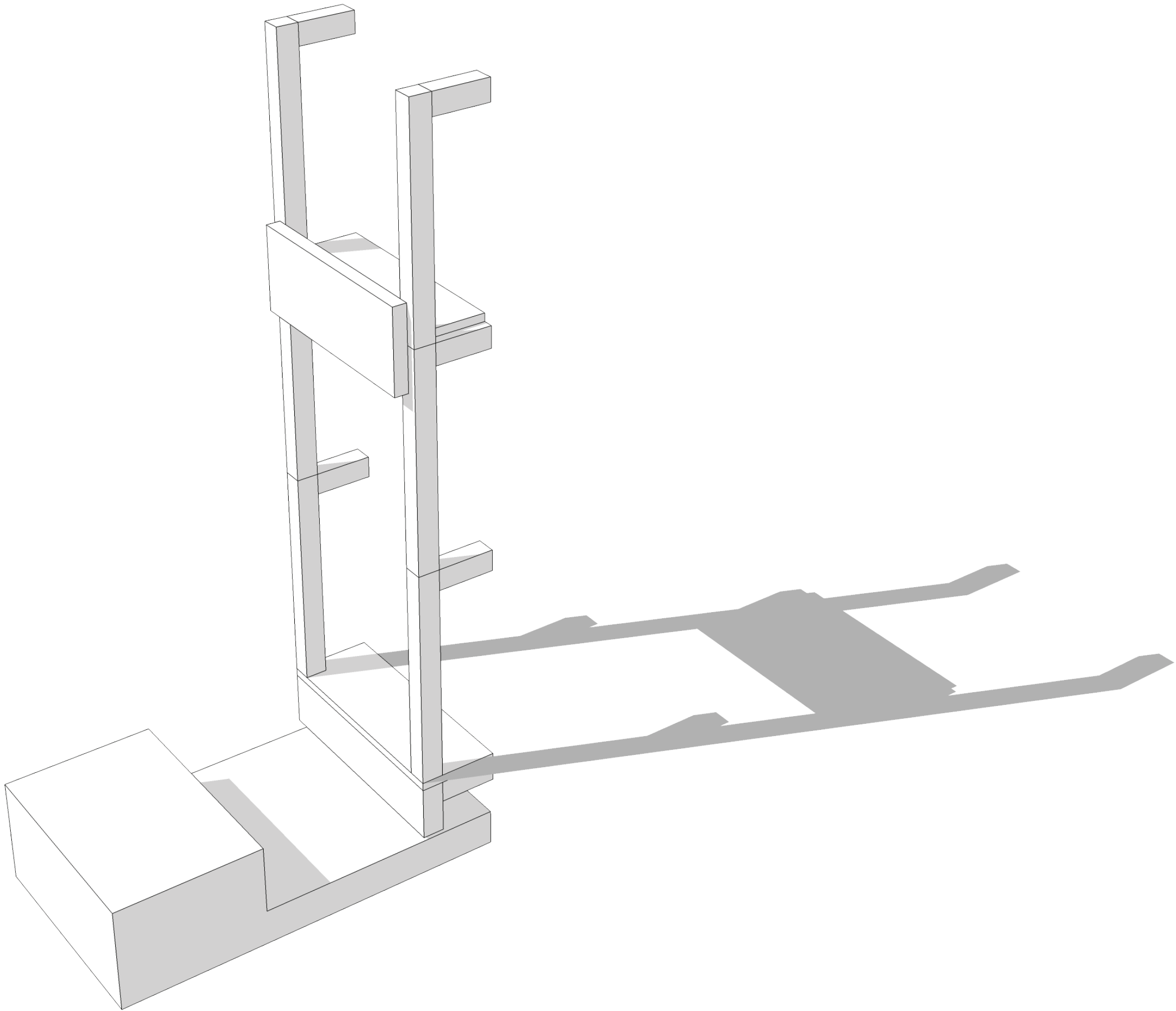


LEASING MATERIALS

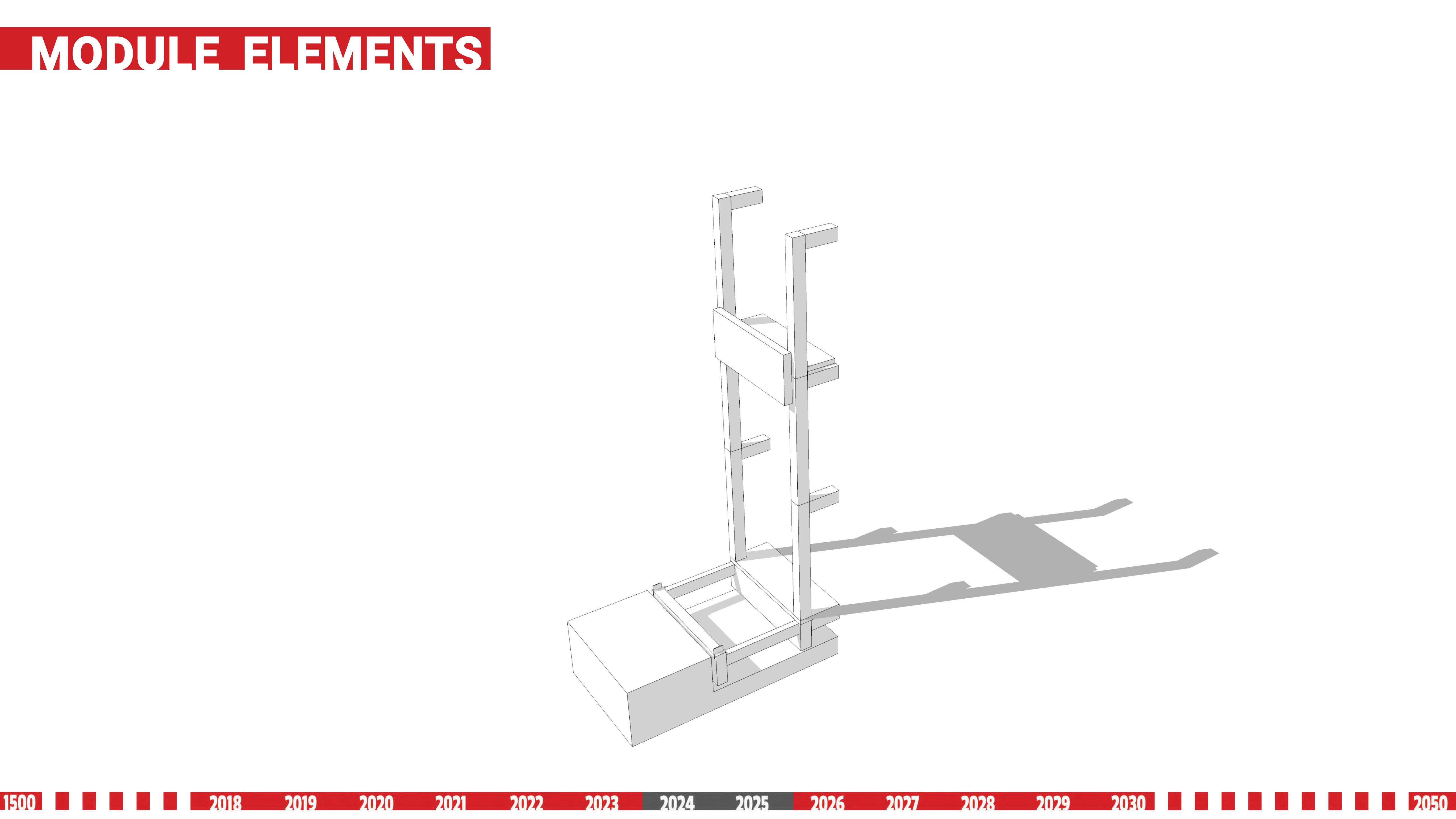
Partners & contracts



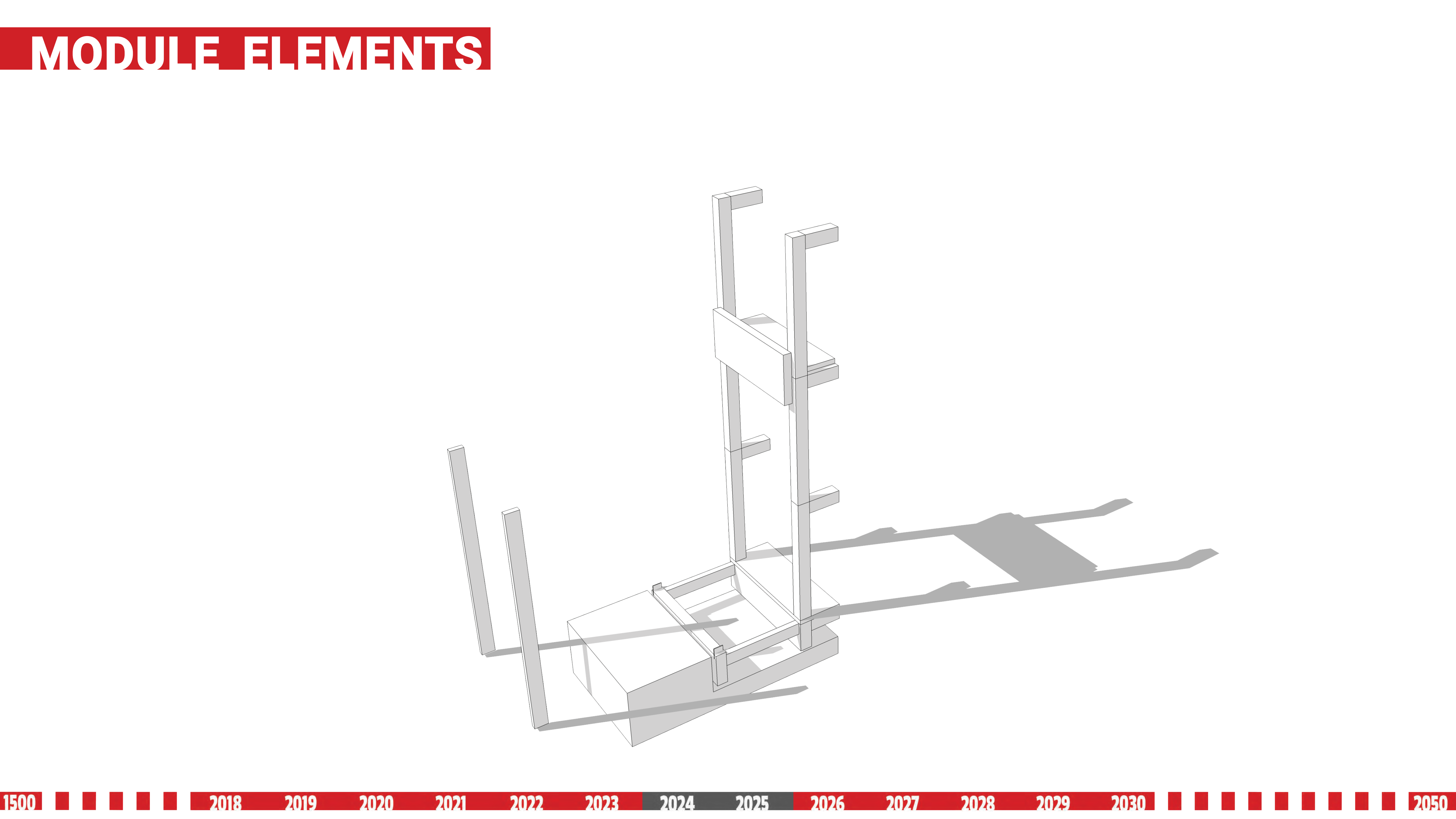
MODULE ELEMENTS



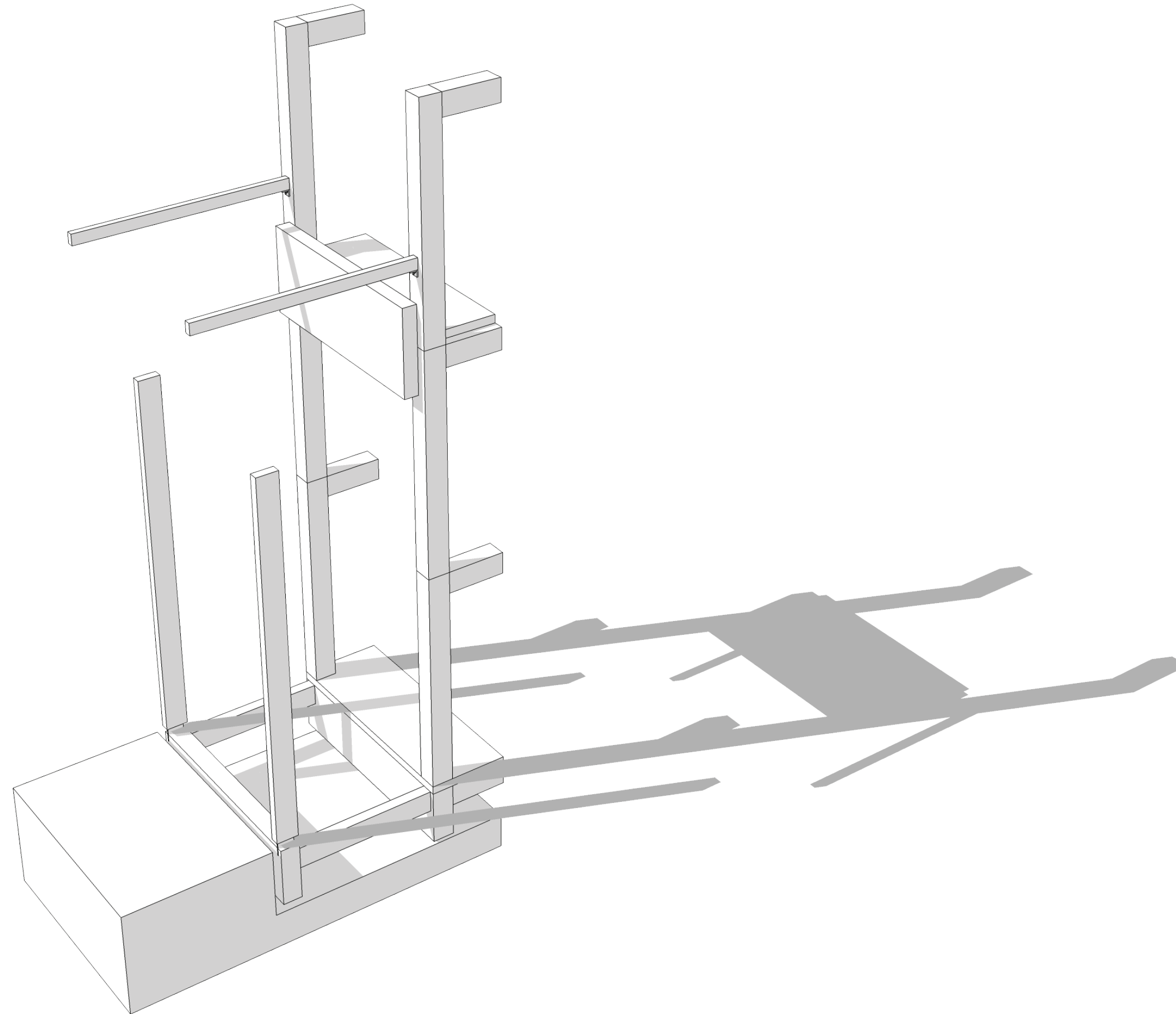
A 3D architectural rendering of a modern, minimalist structure, possibly a sculpture or a piece of furniture. The structure is composed of white and light gray components. It features a tall, slender vertical element with a horizontal bar near the top, and a low, rectangular base. A long, dark shadow is cast by the structure onto the ground. The background is a light blue sky with soft, wispy clouds. The overall aesthetic is clean and contemporary.



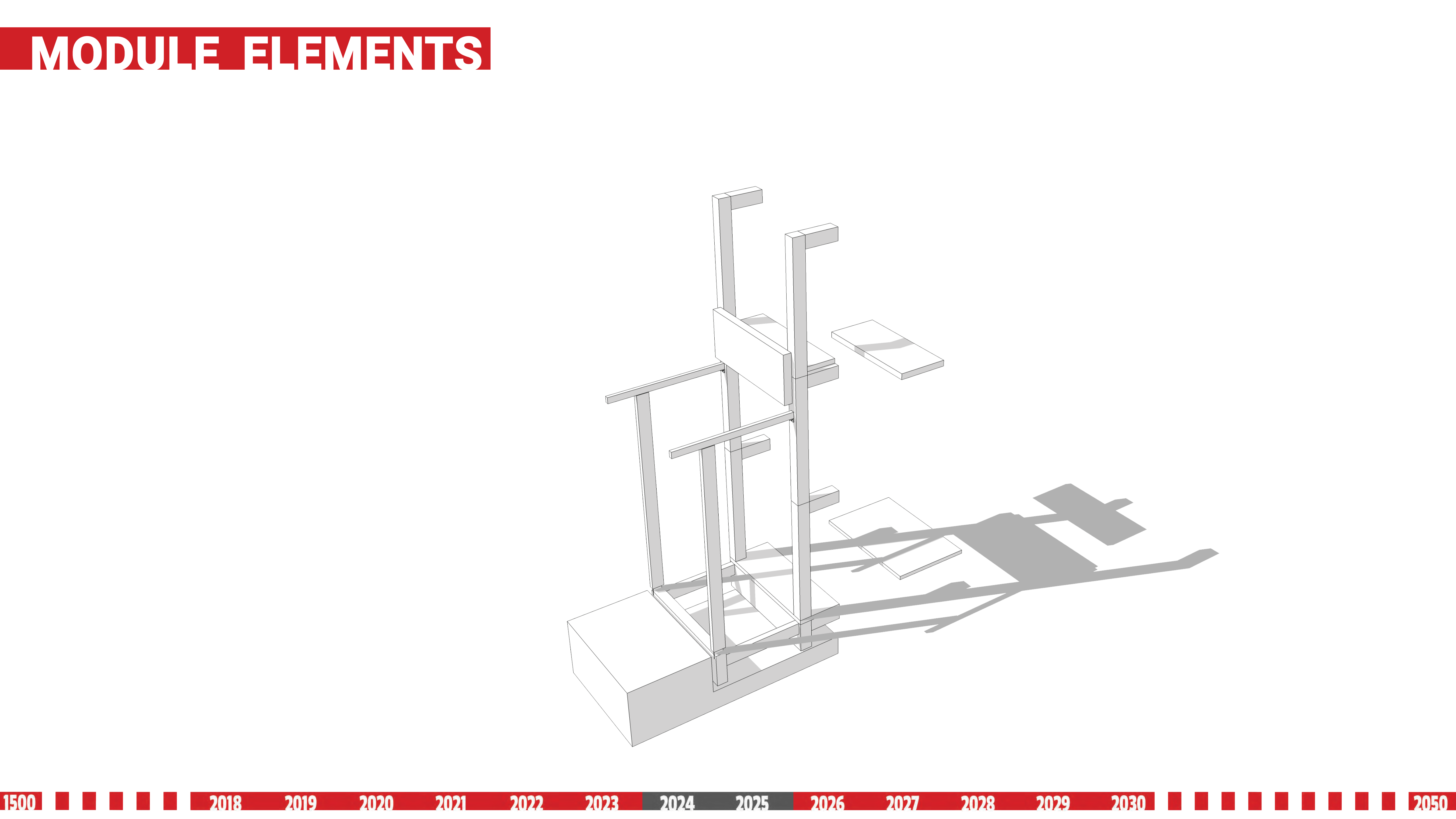
A 3D architectural rendering of a modern, minimalist structure, possibly a sculpture or a piece of furniture, composed of white rectangular blocks and thin vertical rods. The structure is set against a white background with a red banner at the top reading "MODULE ELEMENTS" and a red banner at the bottom with a timeline from 1500 to 2050. The structure features a central vertical column with horizontal bars, flanked by two thinner vertical rods. A large, flat rectangular base supports the central column. To the left, two thin vertical rods are positioned, one slightly behind the other. The entire structure casts a soft shadow on the ground. The red banner at the top contains the text "MODULE ELEMENTS" in white, bold, sans-serif capital letters. The red banner at the bottom contains a timeline with years from 1500 to 2050, with the year 2024 highlighted in a darker red.



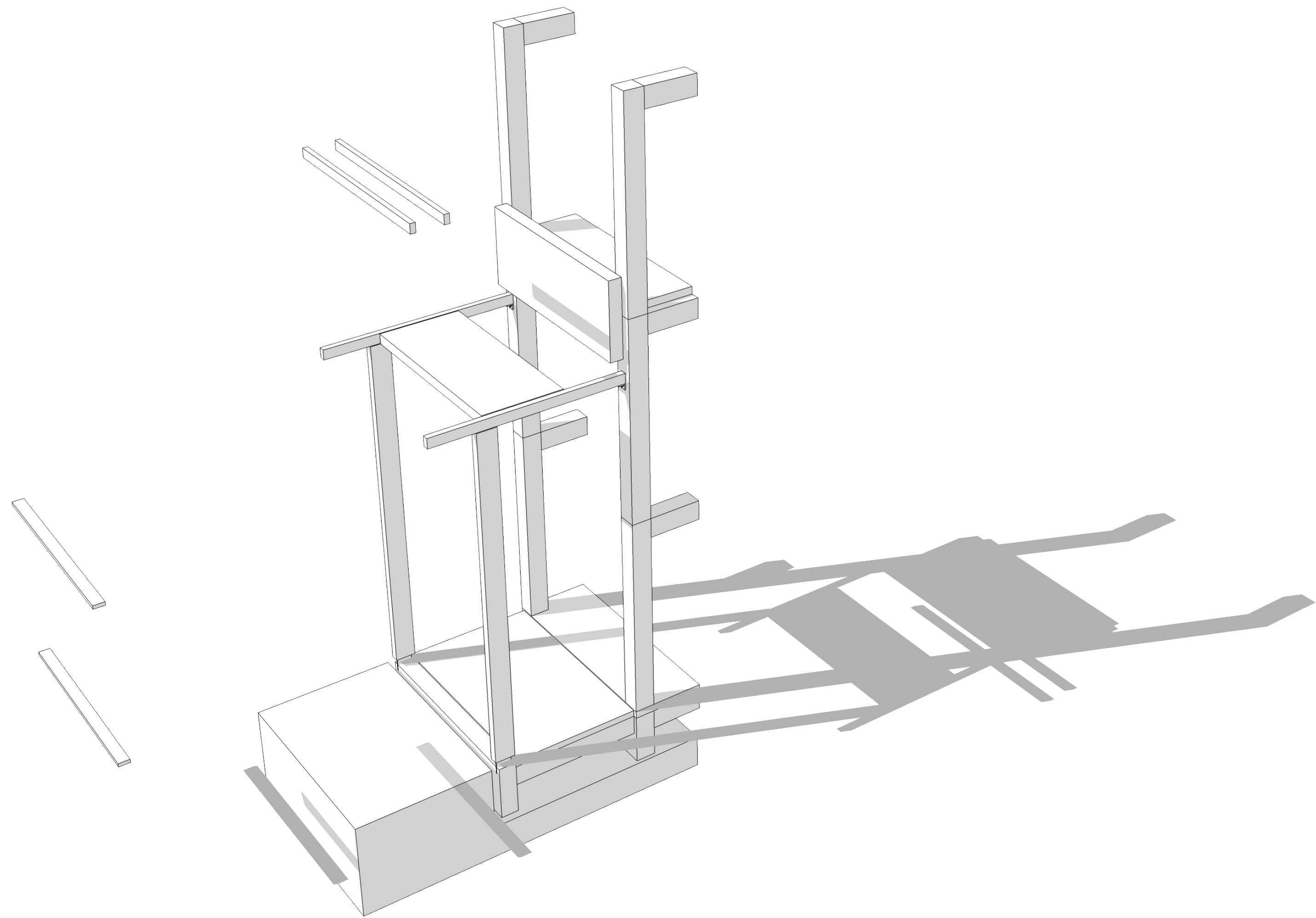
MODULE ELEMENTS



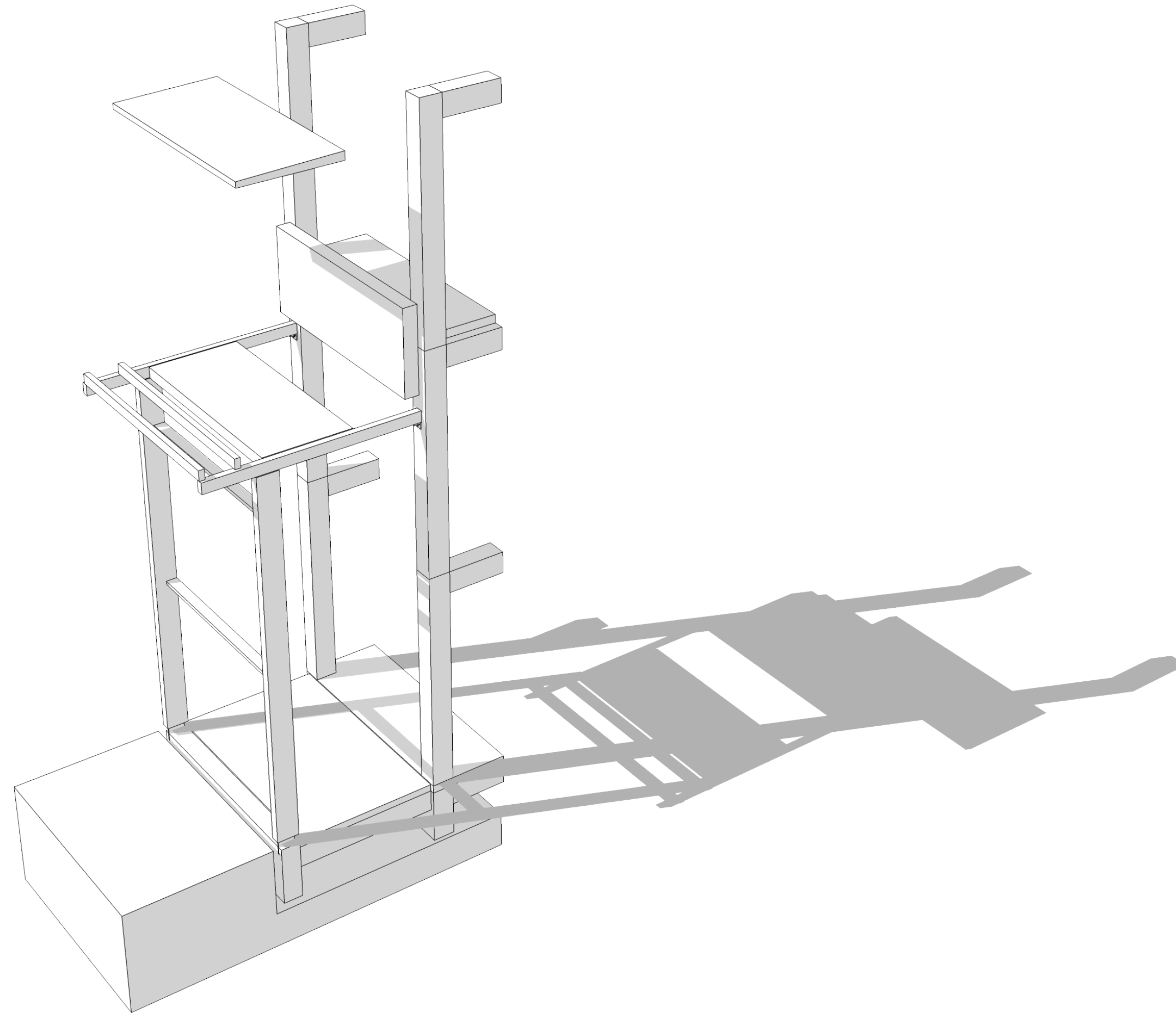
A 3D architectural rendering of a modern, minimalist structure, possibly a sculpture or a piece of furniture, composed of white rectangular blocks and thin metal rods. The structure is set against a white background with a long, dark shadow cast to the right. A red banner at the bottom contains the text "MODULE ELEMENTS" and a timeline from 1500 to 2050.



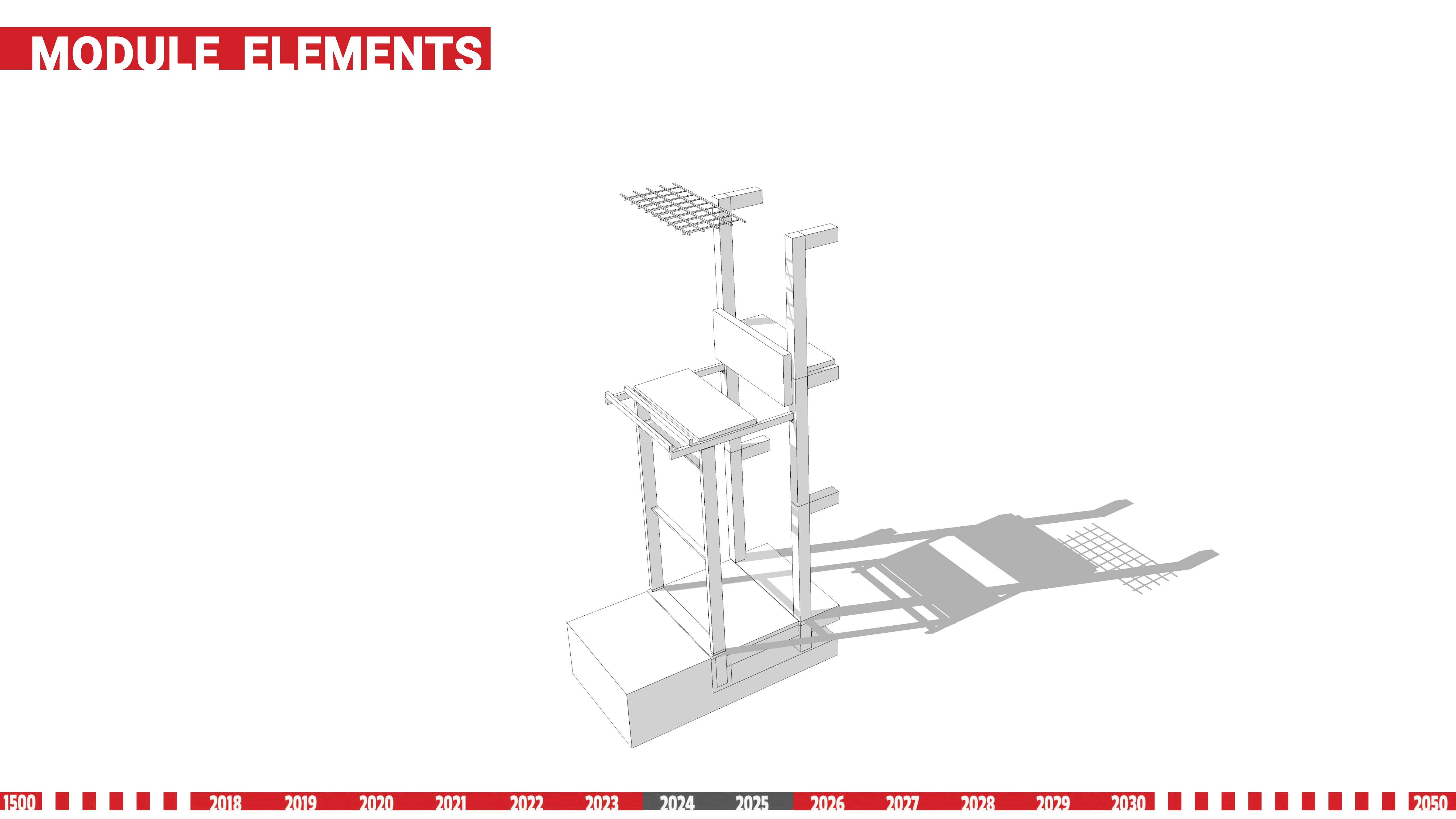
MODULE ELEMENTS



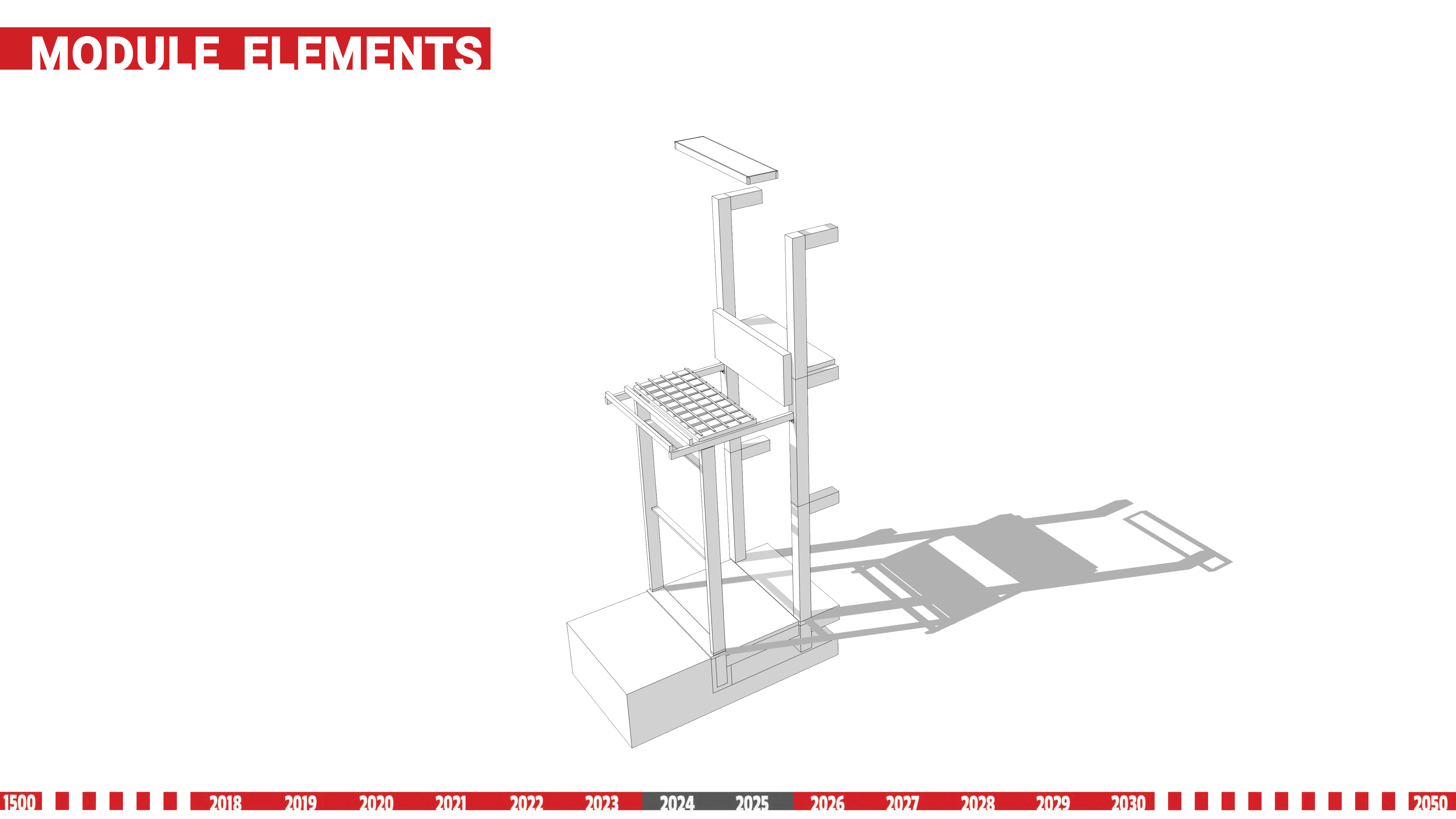
MODULE ELEMENTS

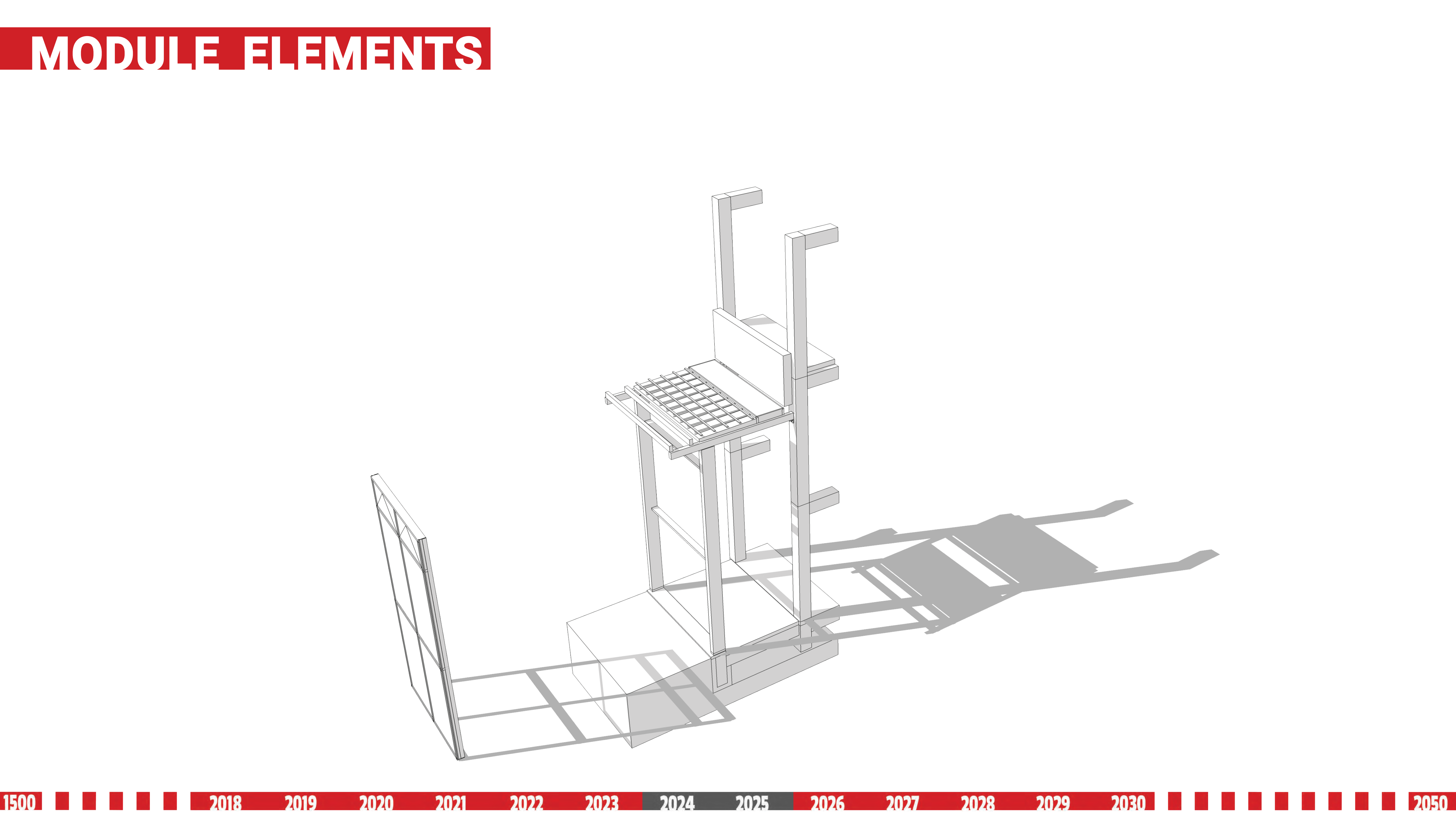


The image is a 3D architectural rendering of a modern, minimalist structure, possibly a sculpture or a piece of furniture. It features a tall, thin, white, rectangular column with a horizontal shelf and a small, white, rectangular box on top. The structure is set against a dark, textured background. The base of the structure is a large, white, rectangular block. The structure is illuminated from the left, casting a long, dark shadow to the right. The overall aesthetic is clean and modern.

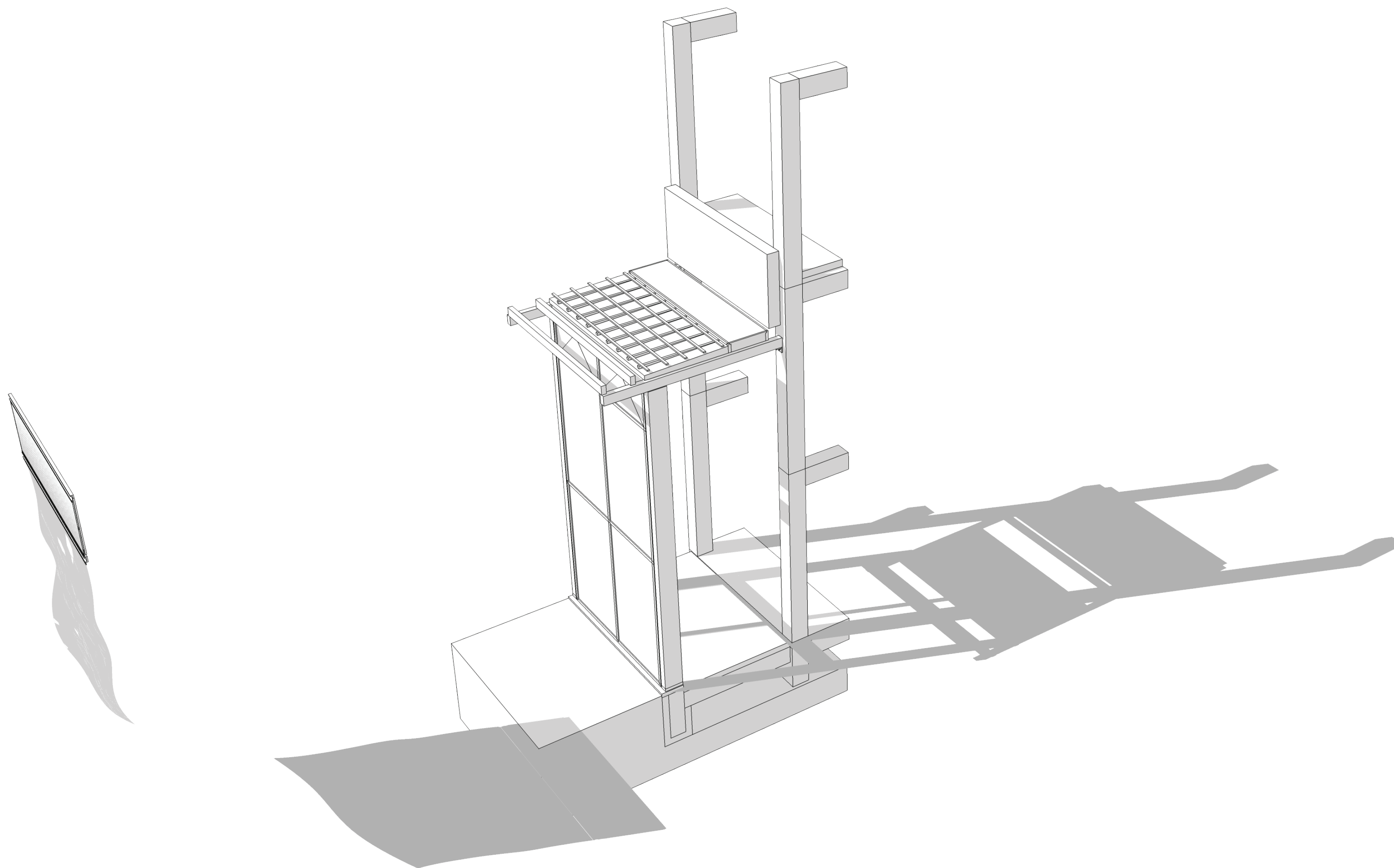


A 3D architectural rendering of a modern, minimalist structure, possibly a sculpture or a piece of furniture, composed of white rectangular blocks and a grid-like platform. The structure is set against a dark background with a red banner at the bottom containing the text "MODULE ELEMENTS" and a timeline from 1500 to 2050. The structure features a base of white blocks, a central vertical column, and a horizontal platform with a grid pattern. A long, thin rectangular block is positioned above the main structure. The entire scene is illuminated from the left, casting a long shadow of the structure onto the dark background.

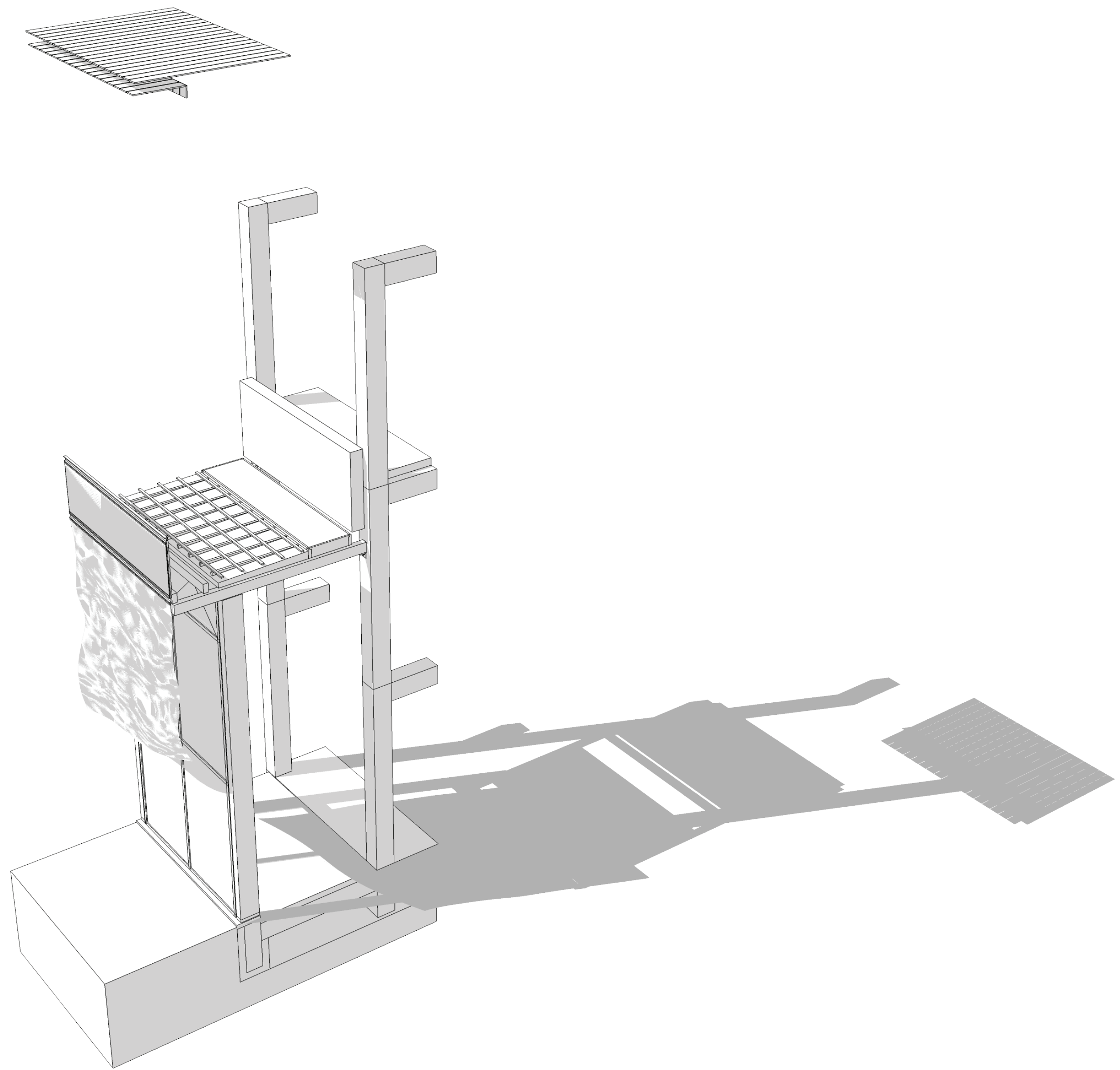




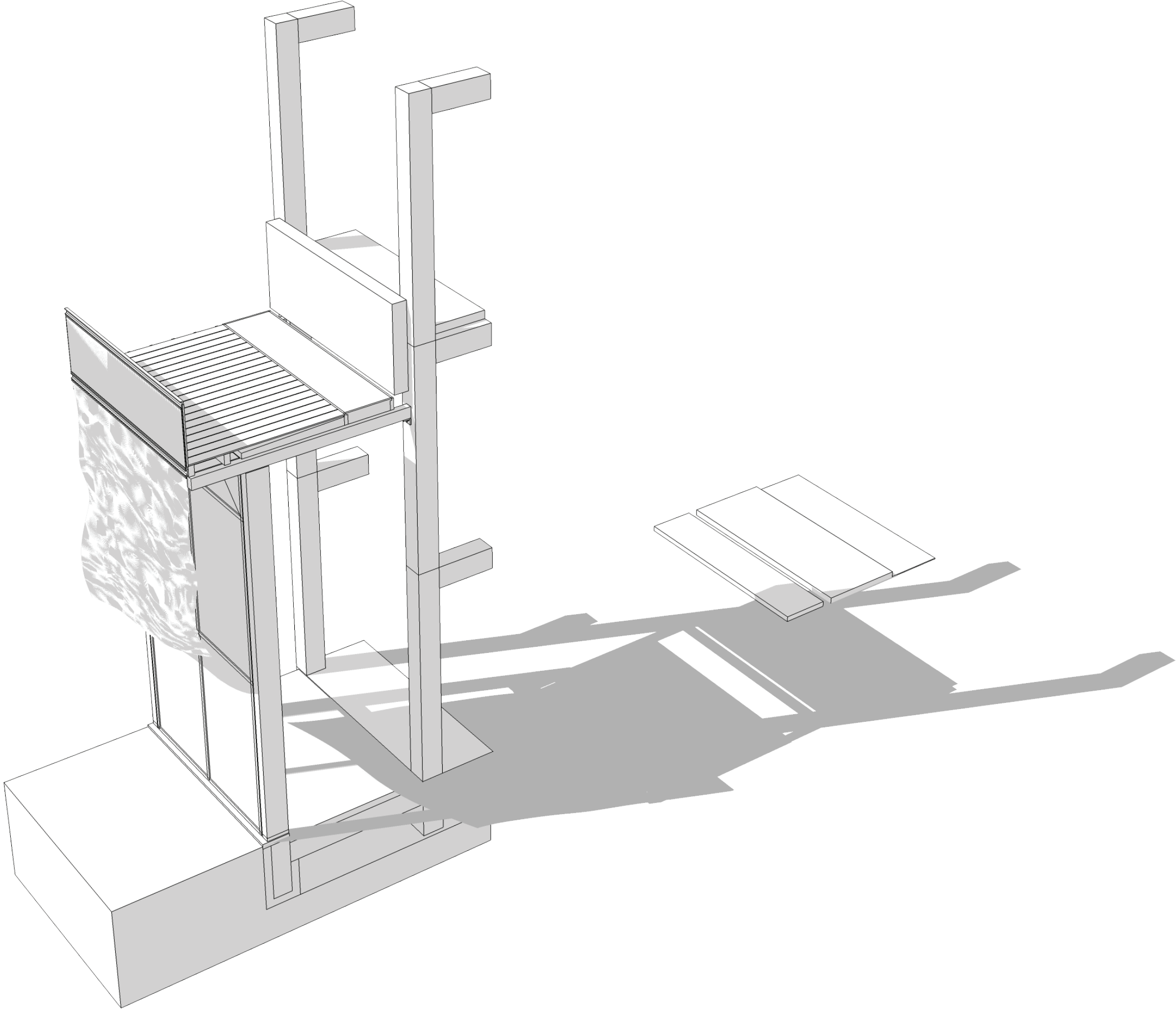
MODULE ELEMENTS



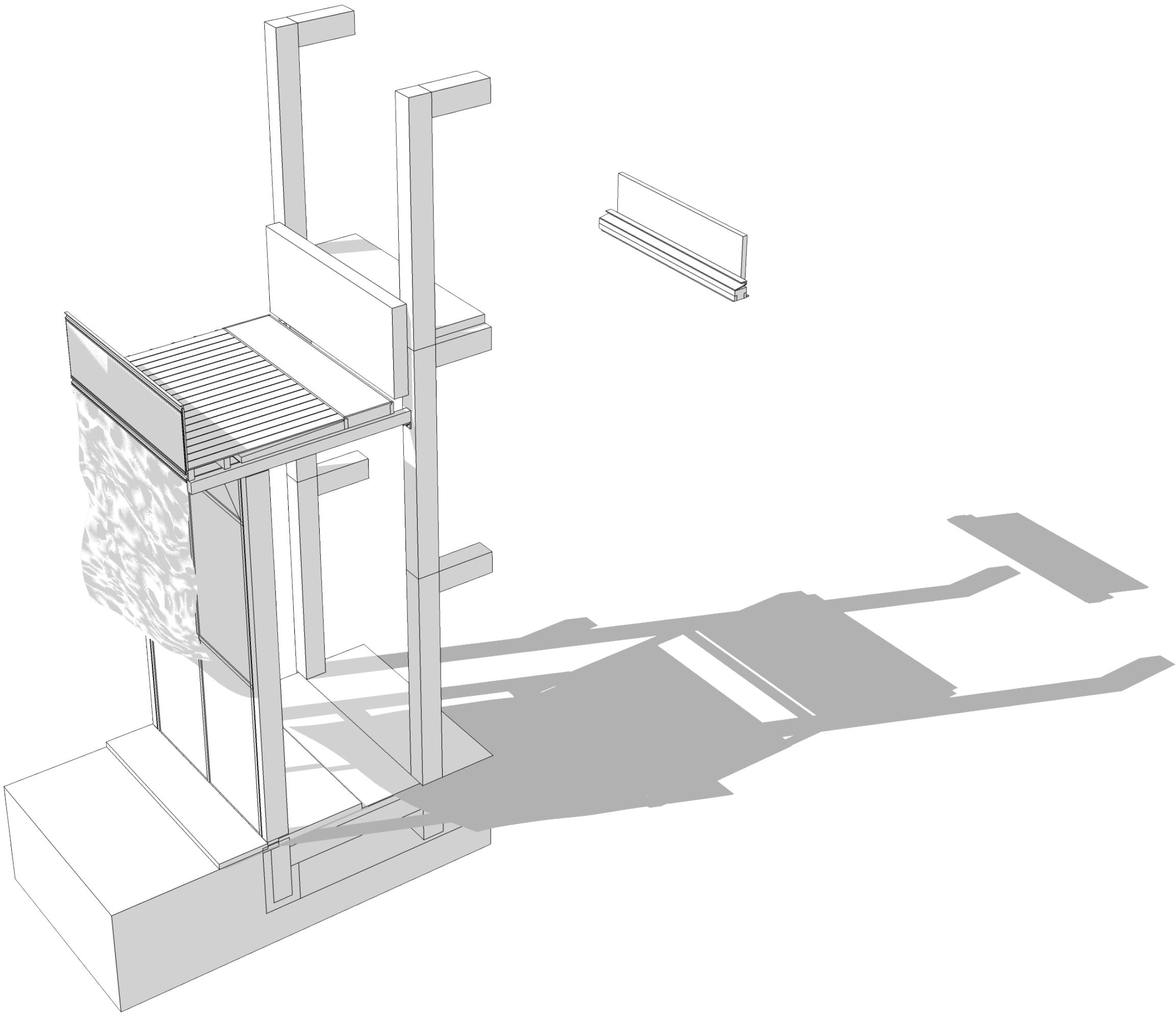
MODULE ELEMENTS



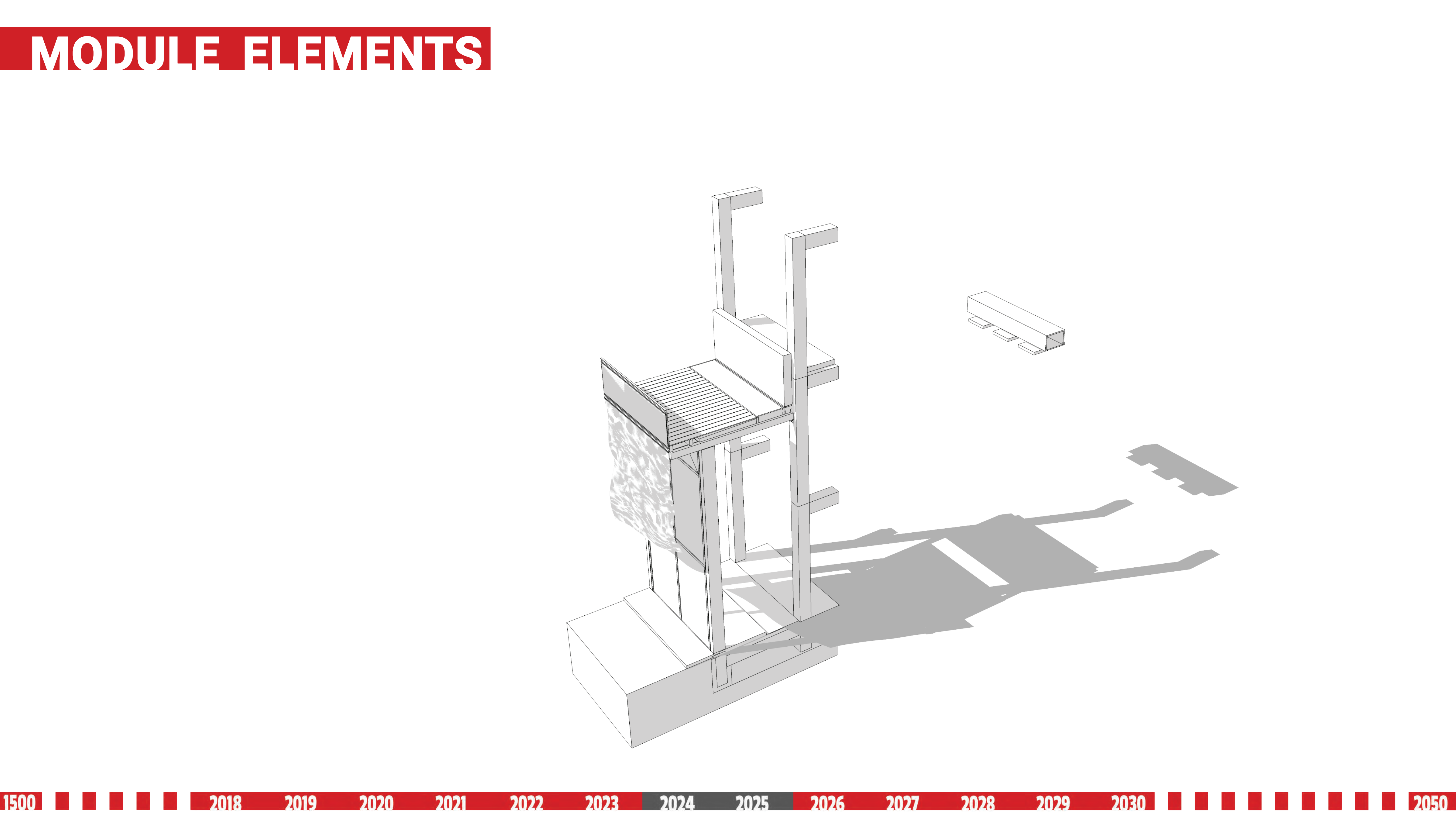
MODULE ELEMENTS



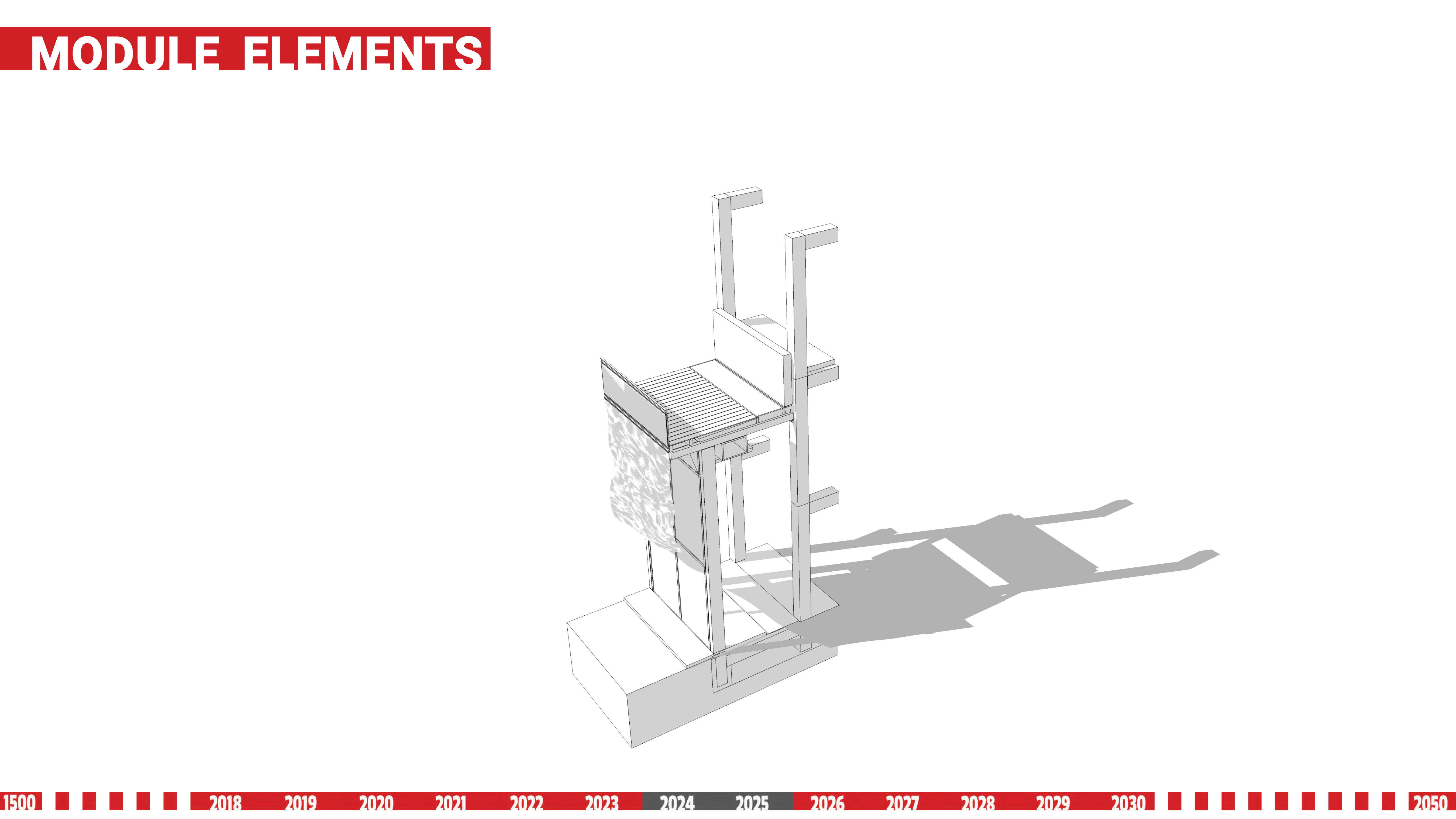
MODULE ELEMENTS



A 3D architectural rendering of a modern, minimalist structure, possibly a sculpture or a small building. The structure features a large, textured, white, curved wall and a tall, thin, white, rectangular column. It is set on a white base. A long, thin, white, rectangular object is shown floating in the air above the structure. The background is a light blue sky with a few white clouds. The bottom of the image features a red banner with the text "MODULE ELEMENTS" in white, and a timeline at the bottom showing years from 1500 to 2050.

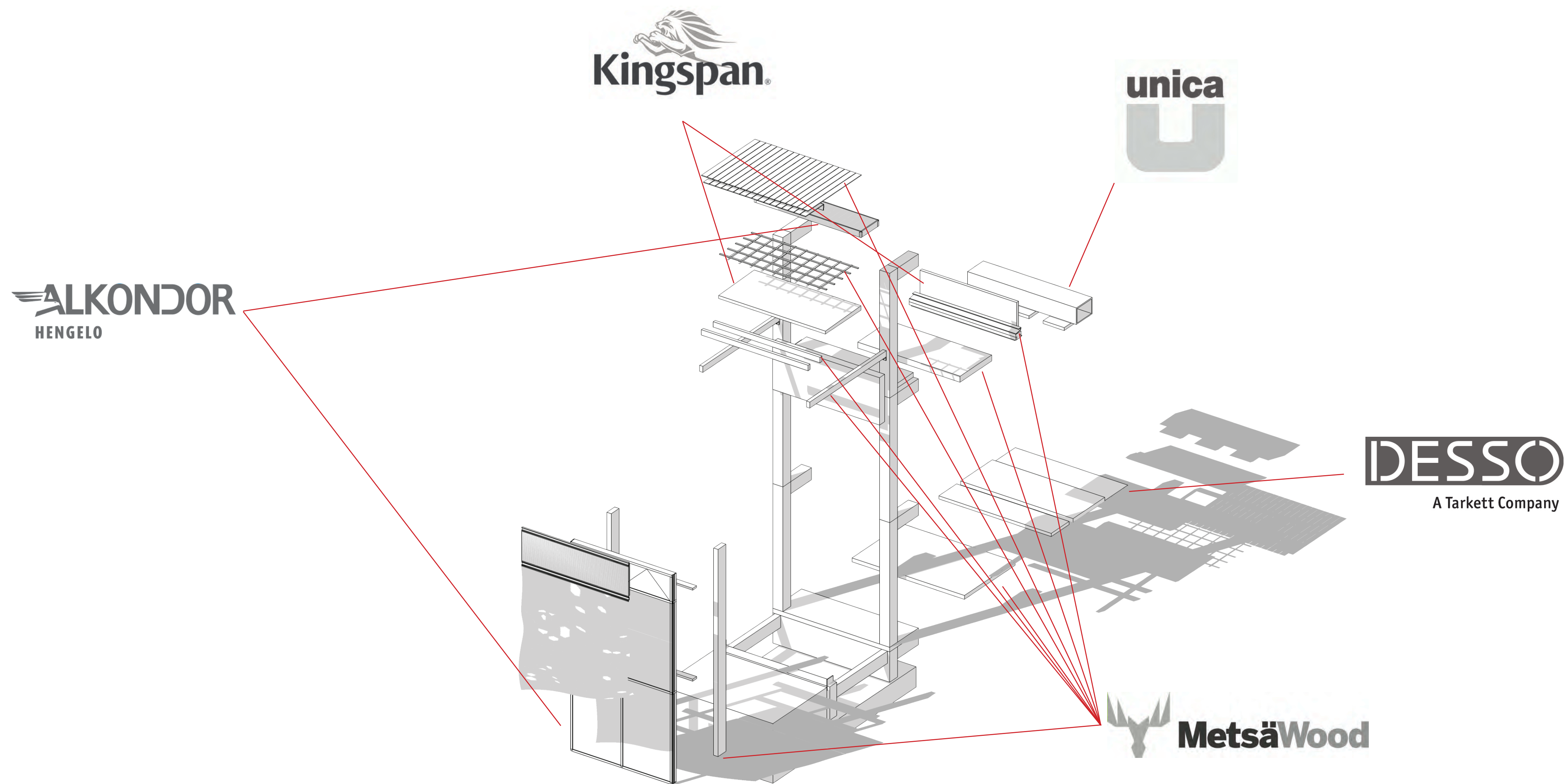


A 3D architectural rendering of a modern, minimalist structure, possibly a sculpture or a piece of furniture. The structure is composed of several white rectangular blocks and a tall, thin vertical element. A grey, slatted top section is attached to the main body. The structure is set against a white background with a red banner at the bottom containing the text "MODULE ELEMENTS" and a timeline from 1500 to 2050. The timeline is a red bar with white text, and the year 2024 is highlighted in a darker red. The structure casts a shadow on the ground.



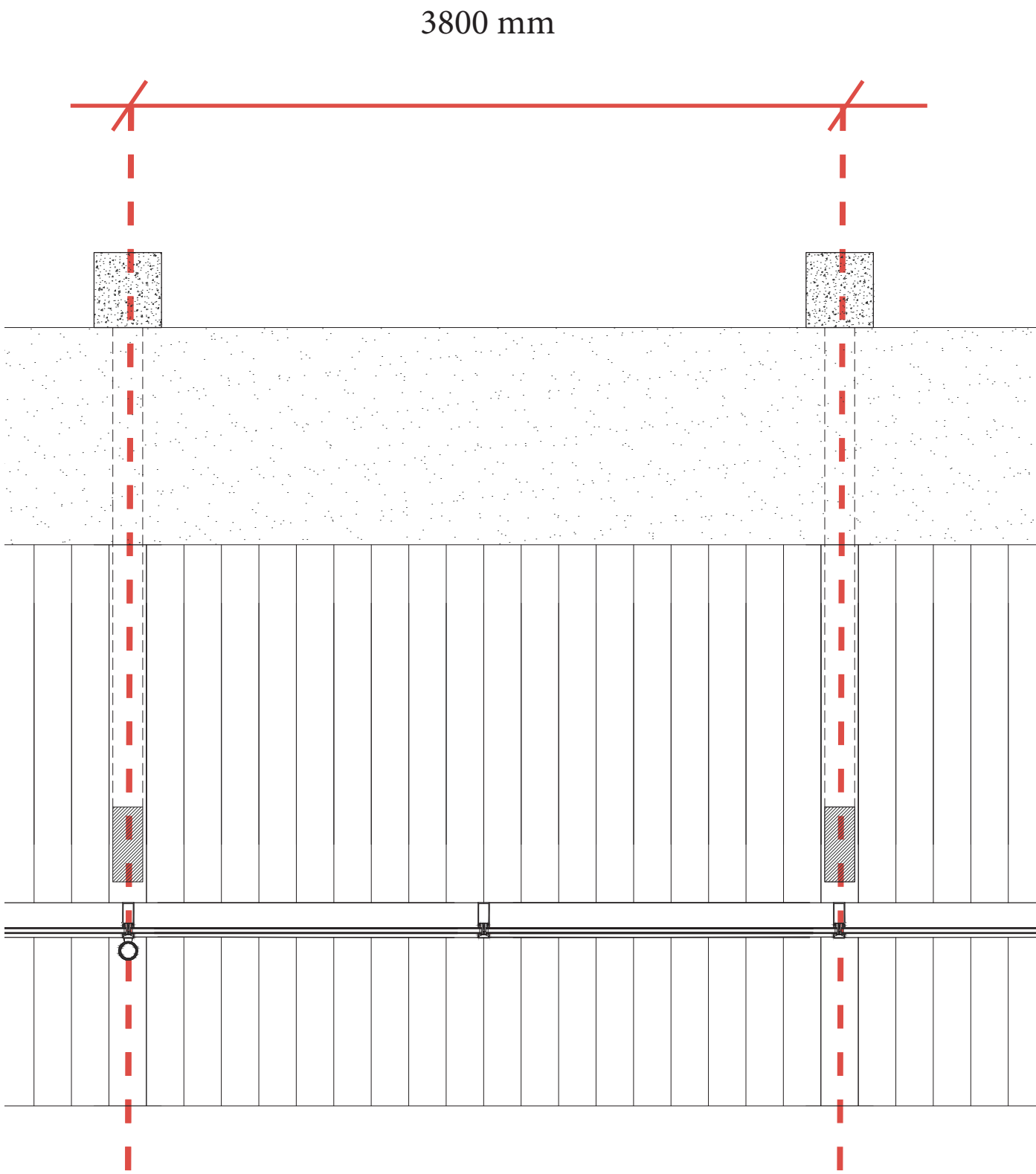
A 3D architectural rendering of a modern, minimalist structure, possibly a sculpture or a piece of furniture. The structure is composed of several white rectangular blocks and a tall, thin vertical element. A grey, slatted top section is attached to the main body. The structure is set against a white background with a red banner at the bottom containing the text "MODULE ELEMENTS" and a timeline from 1500 to 2050. The timeline is a red bar with white text, and the year 2024 is highlighted in a darker red. The structure casts a shadow on the ground.

MODULE ELEMENTS



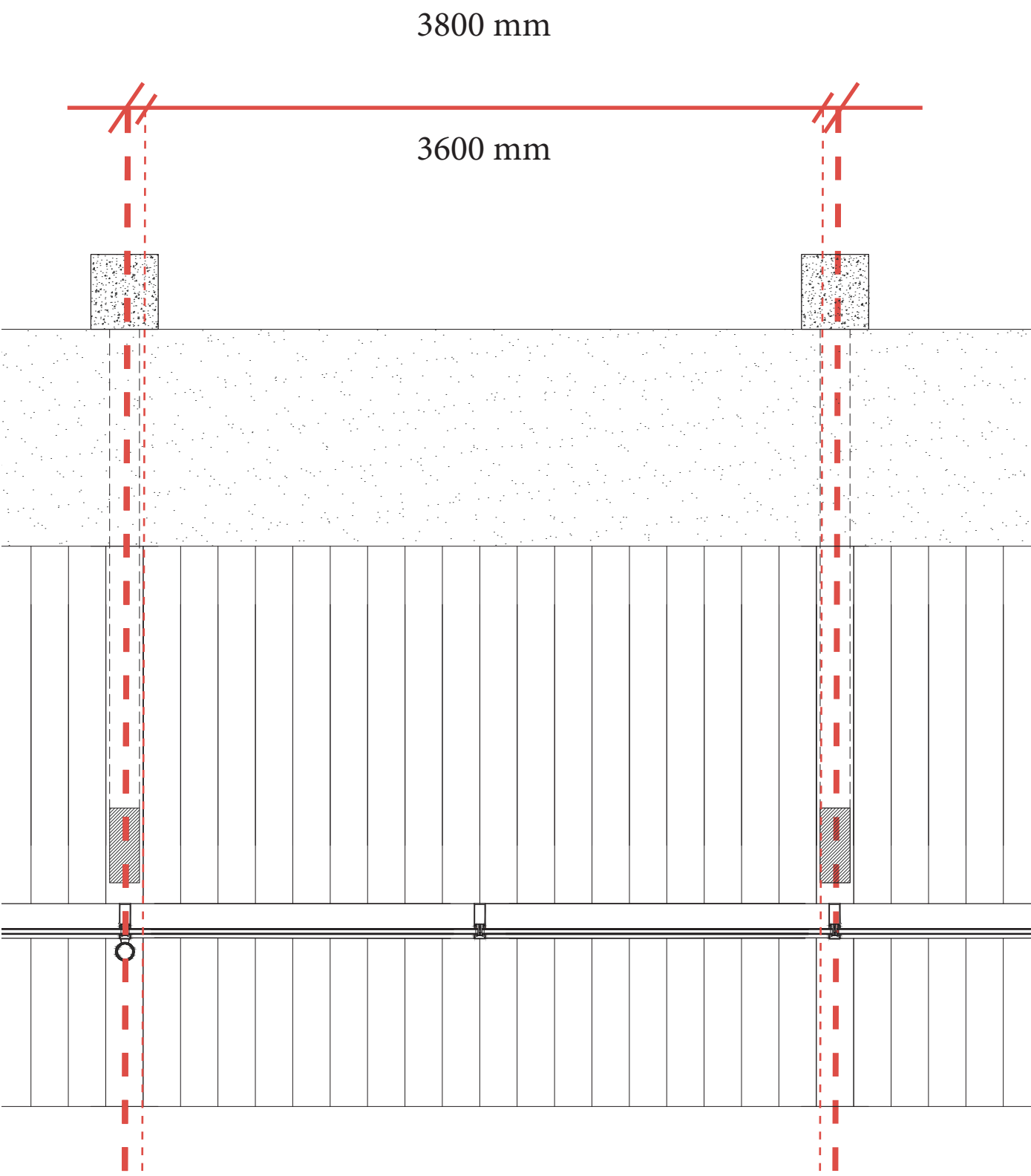
LEASING MATERIALS

Standard sizes



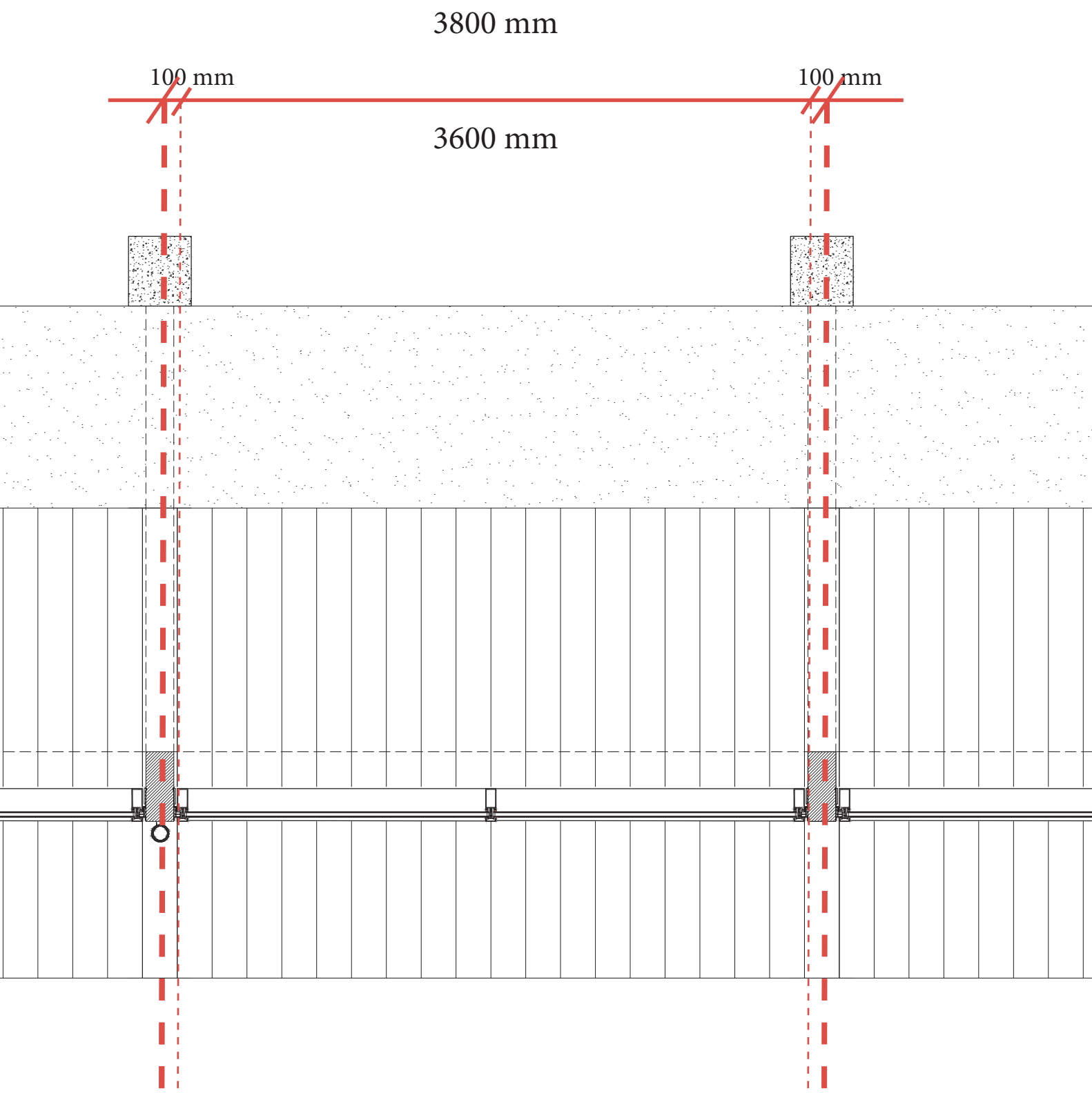
LEASING MATERIALS

Standard sizes



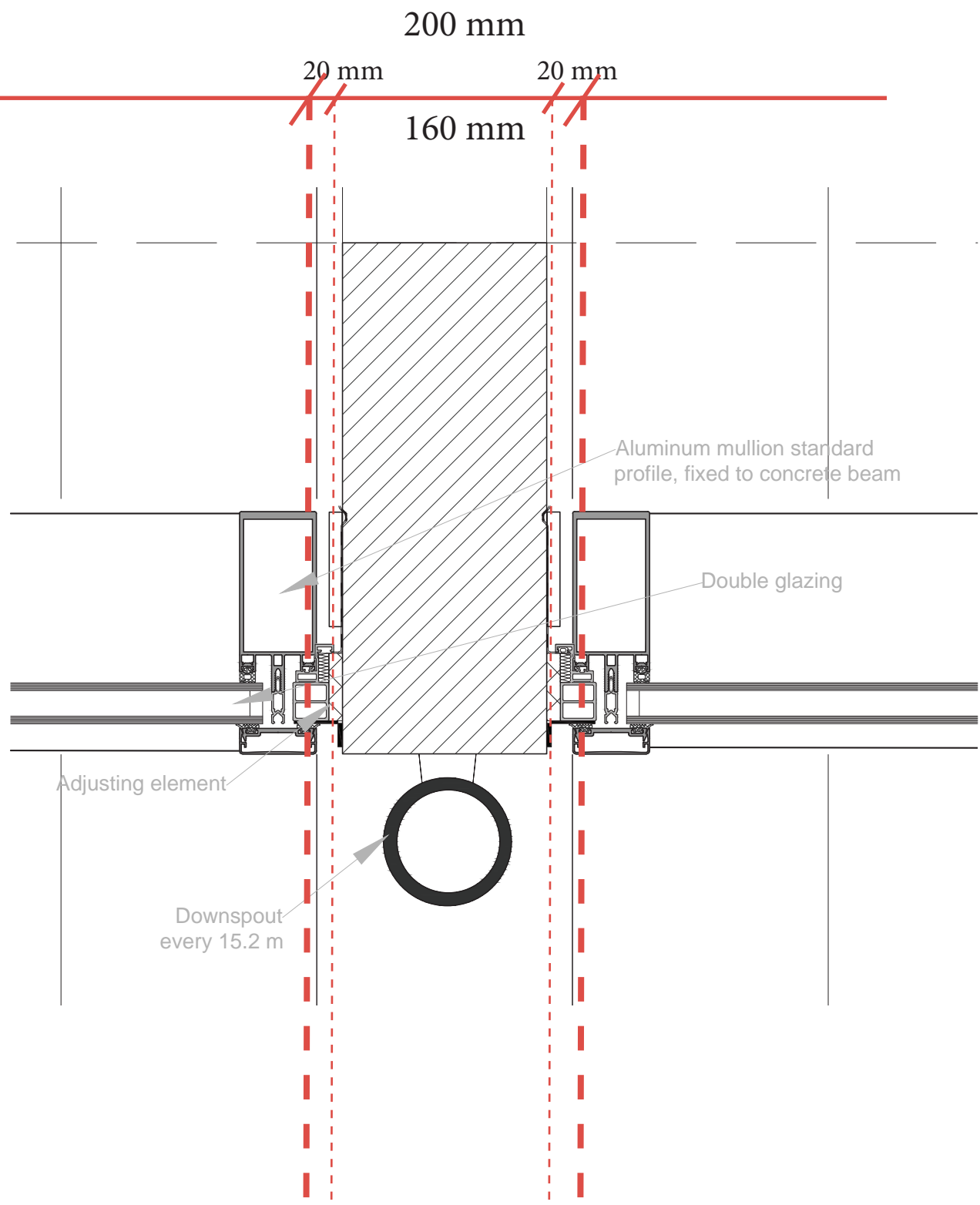
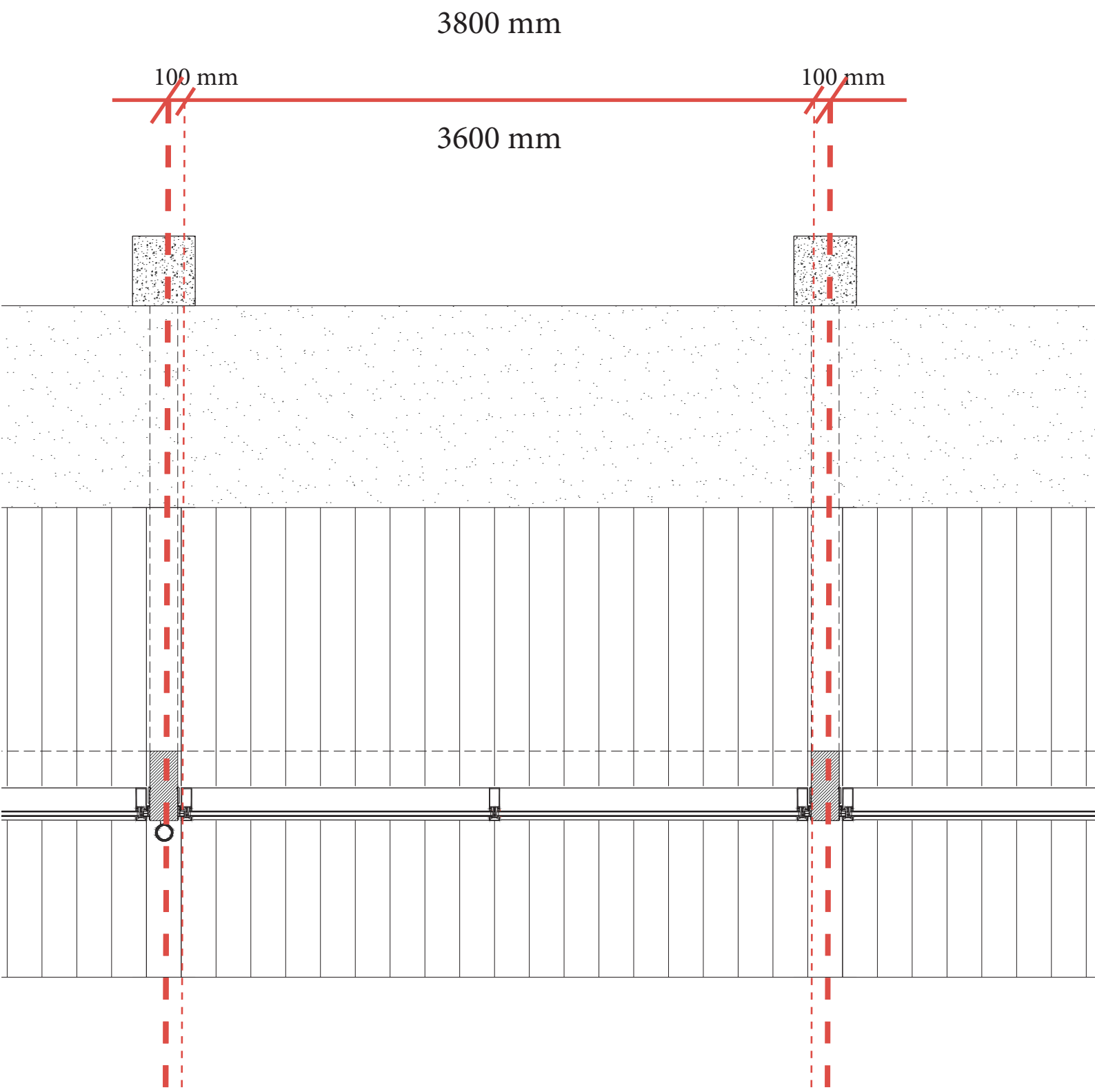
LEASING MATERIALS

Standard sizes



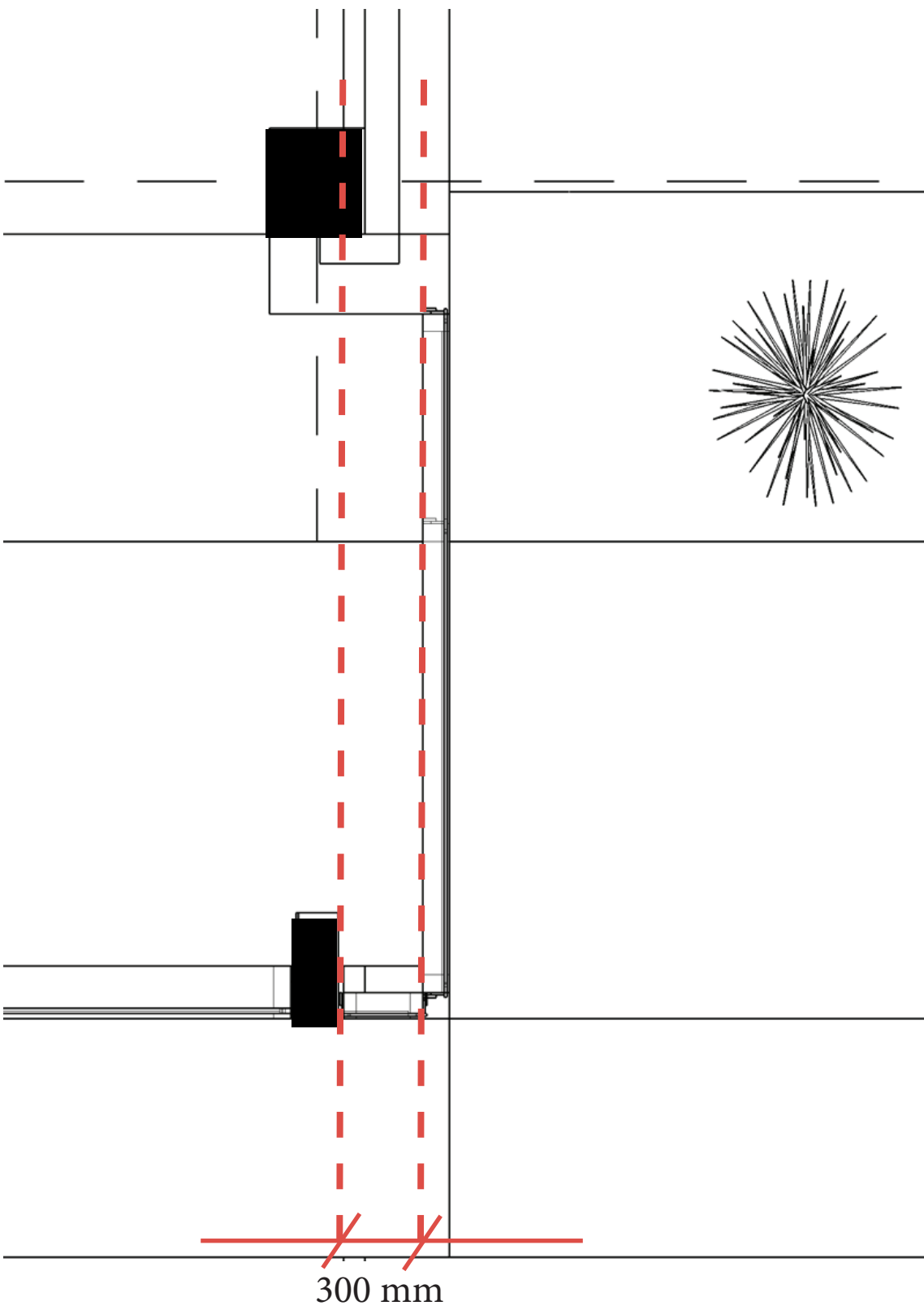
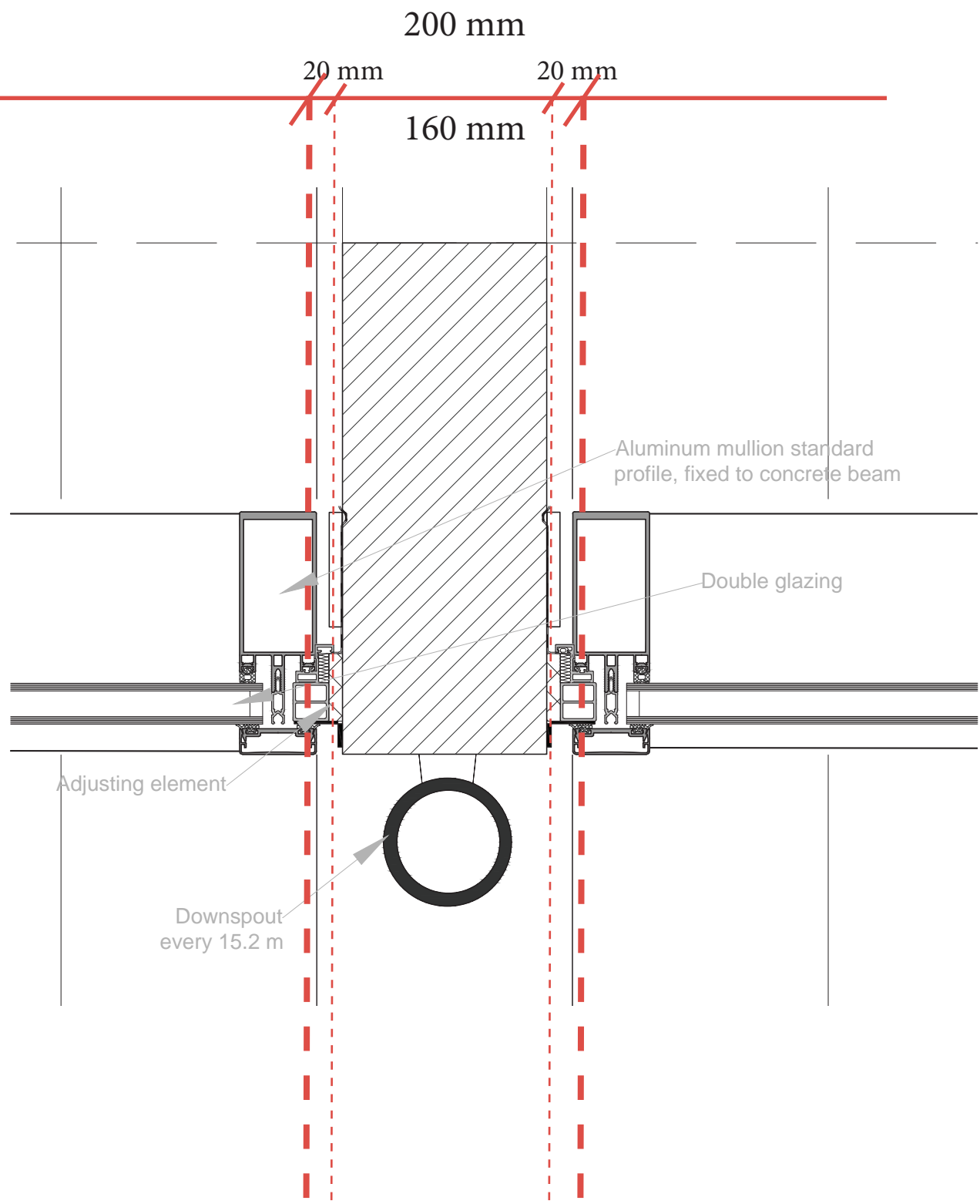
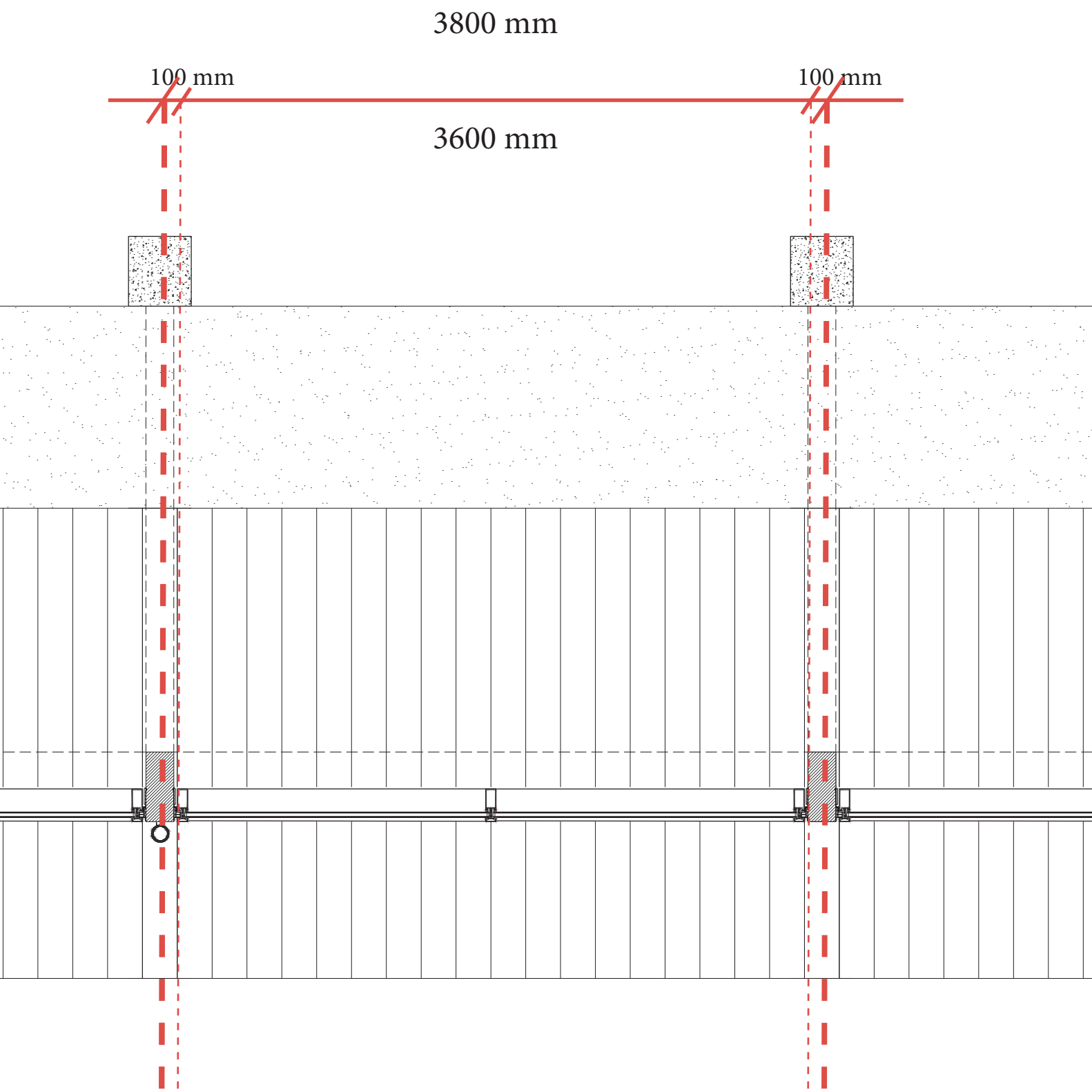
LEASING MATERIALS

Standard sizes



LEASING MATERIALS

Standard sizes



DESIGN PRINCIPLES

Celebrate the ancient

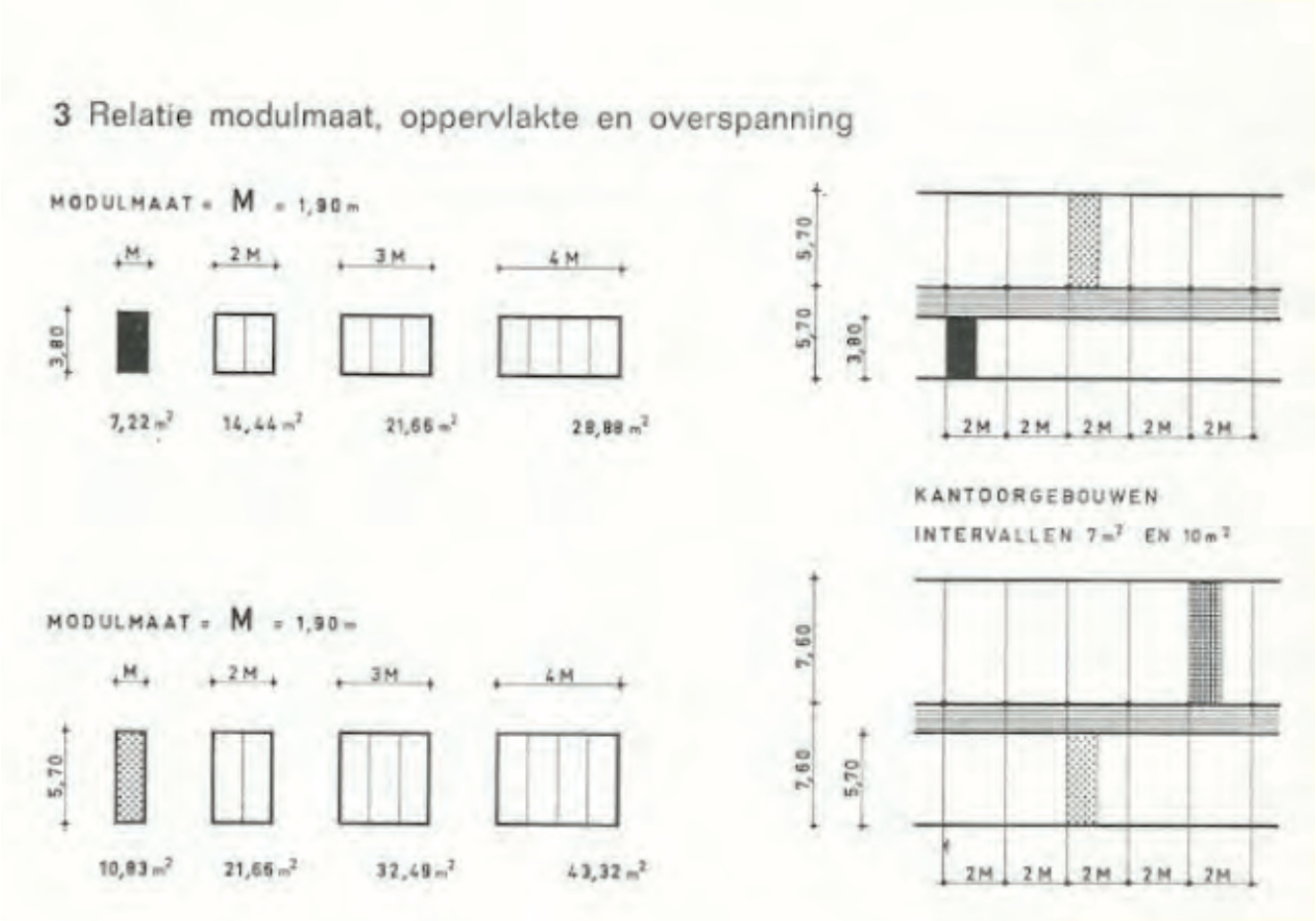


DESIGN PRINCIPLES

Celebrate the ancient



Postwar architecture

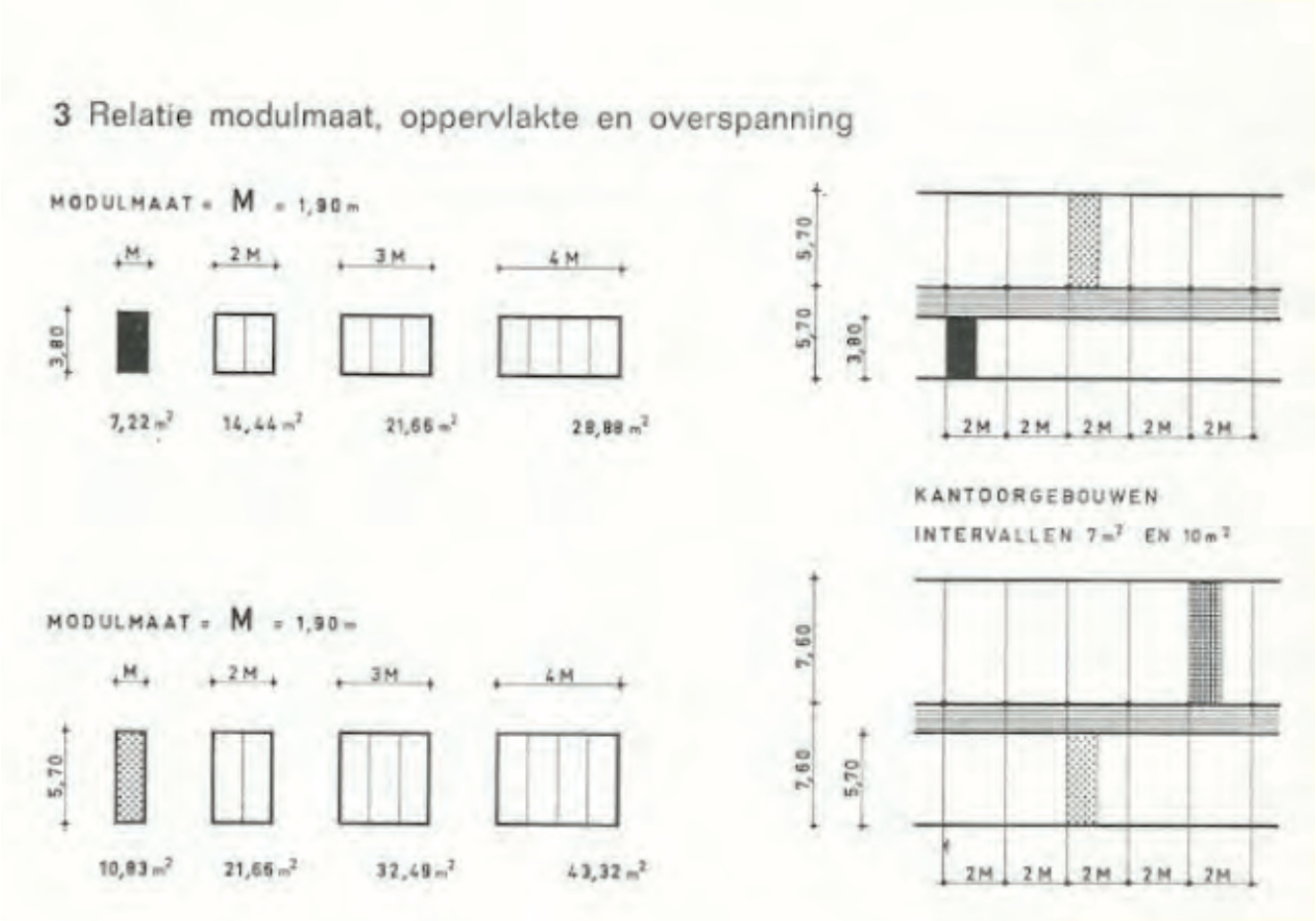


DESIGN PRINCIPLES

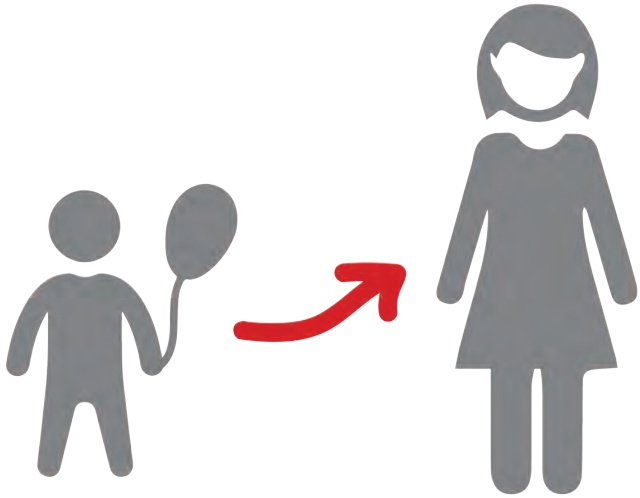
Celebrate the ancient



Postwar architecture



‘The new is the old’

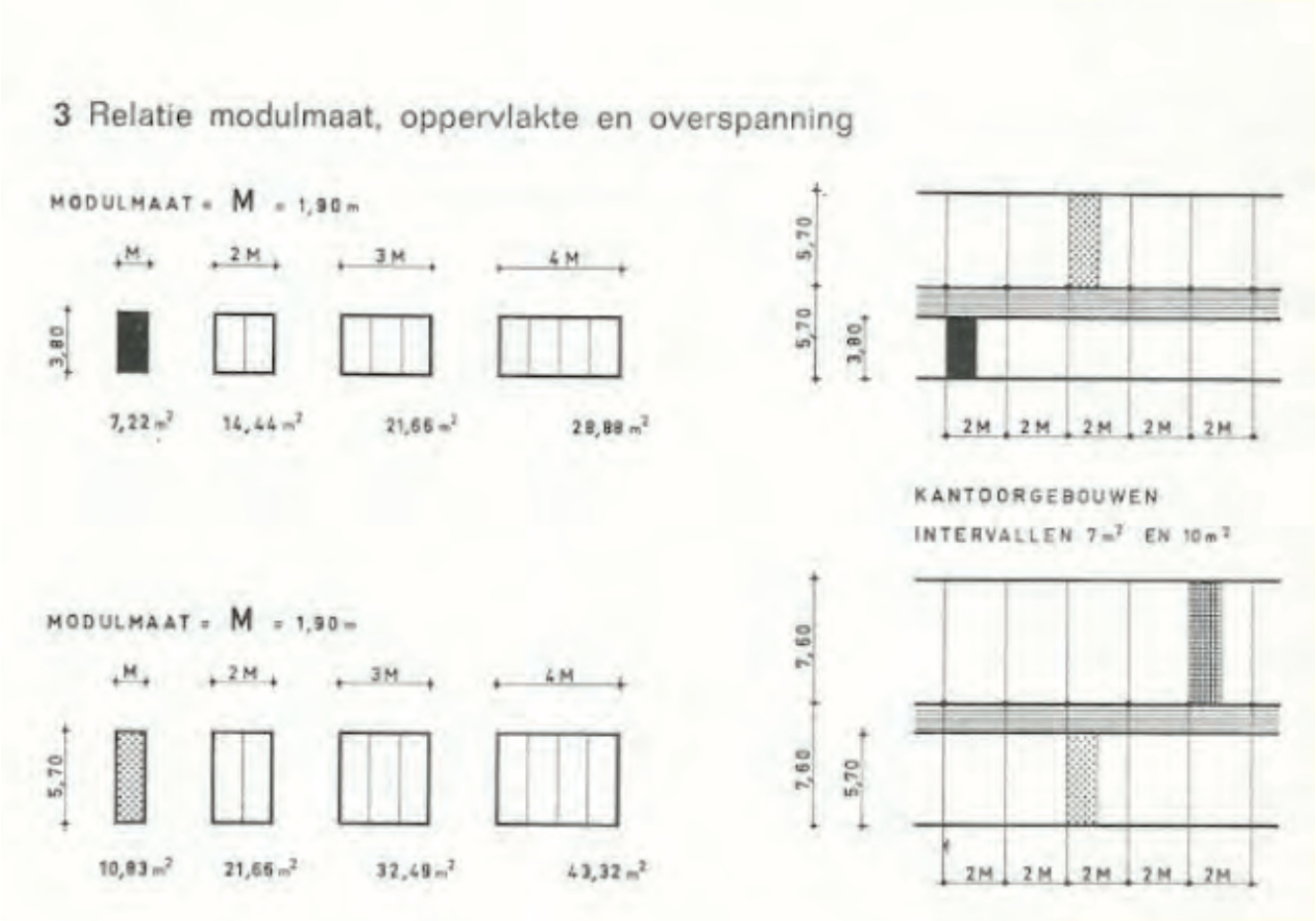


DESIGN PRINCIPLES

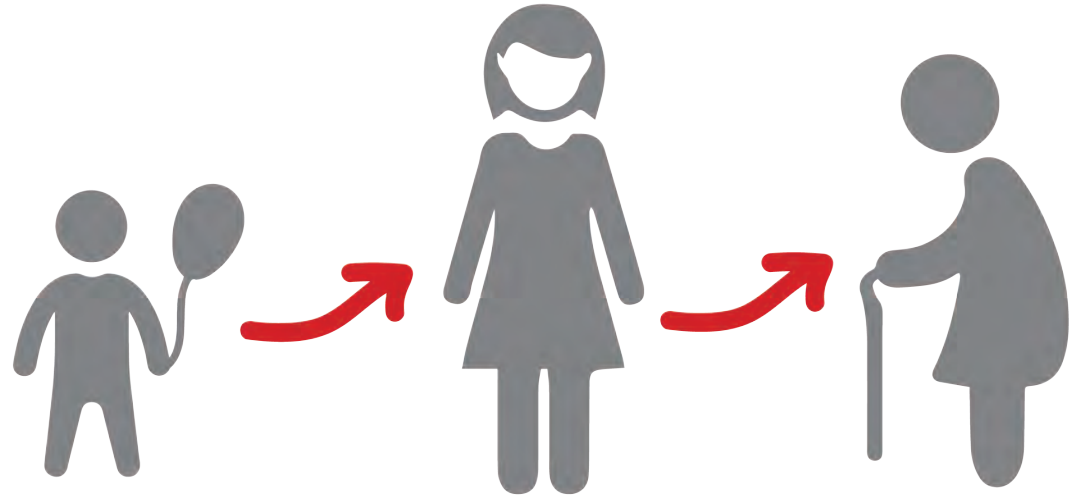
Celebrate the ancient



Postwar architecture

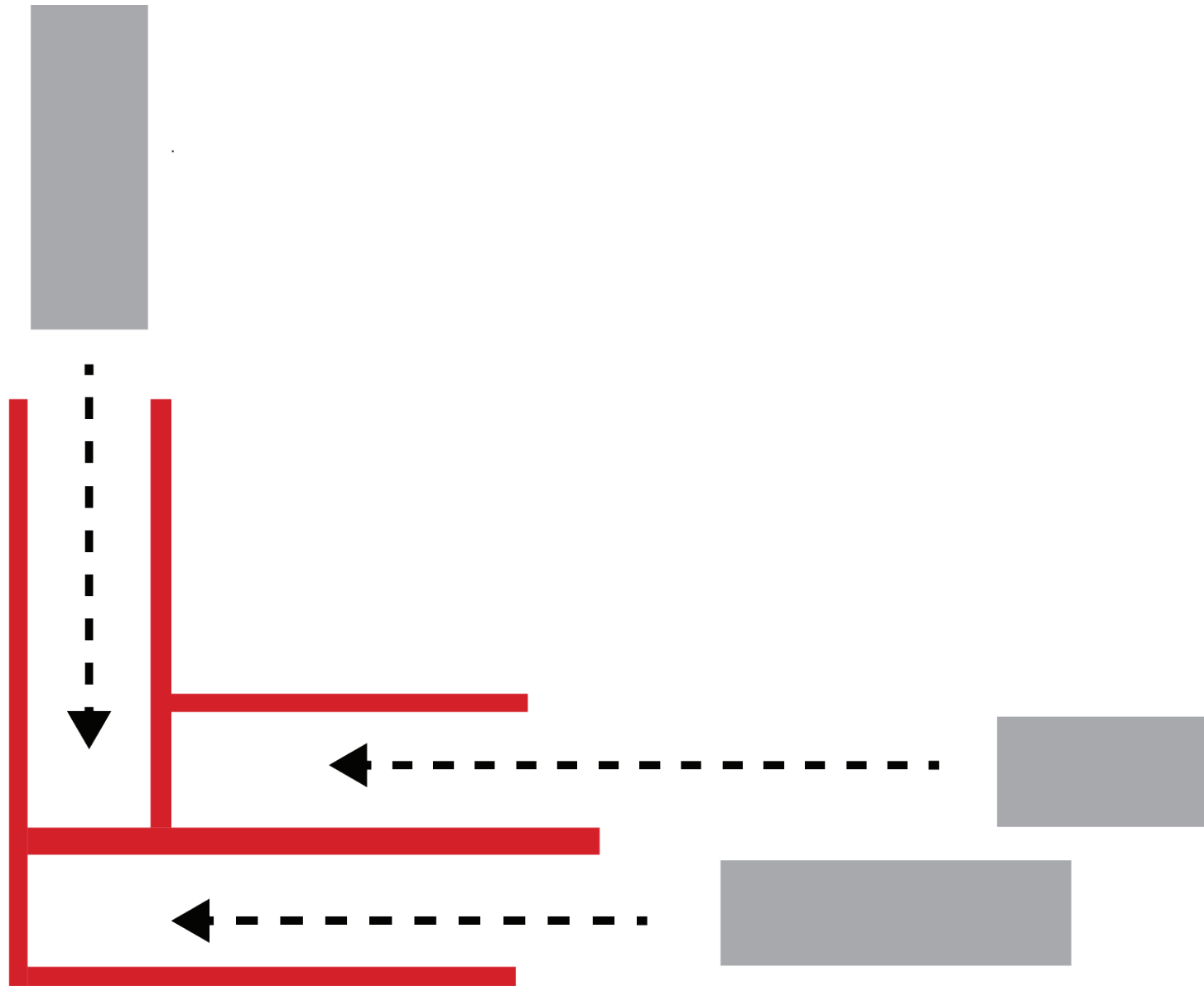


‘The old becomes the ancient’



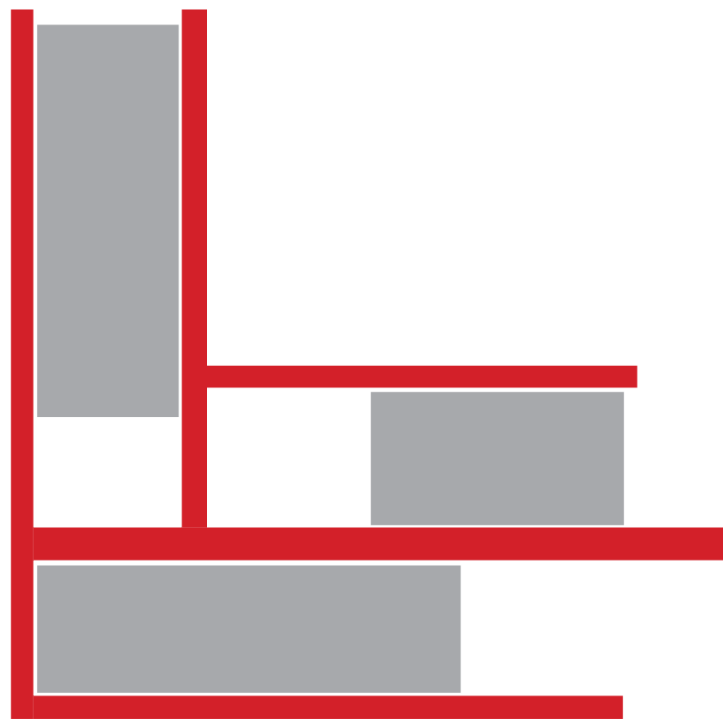
DESIGN PRINCIPLES

Drydock analogy



DESIGN PRINCIPLES

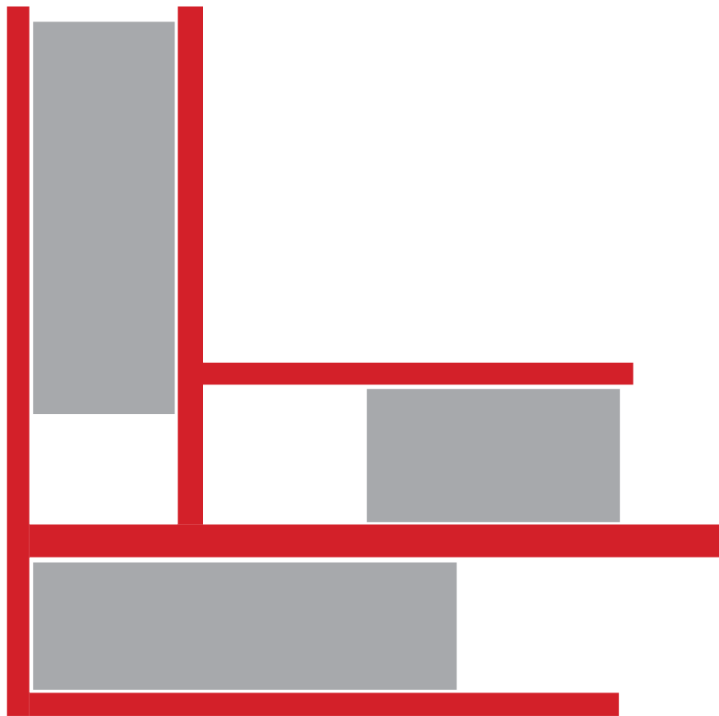
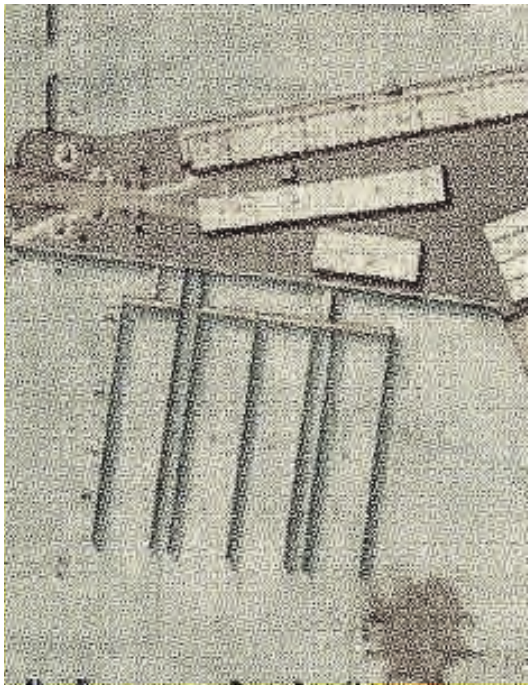
Drydock analogy



DESIGN PRINCIPLES

Drydock analogy

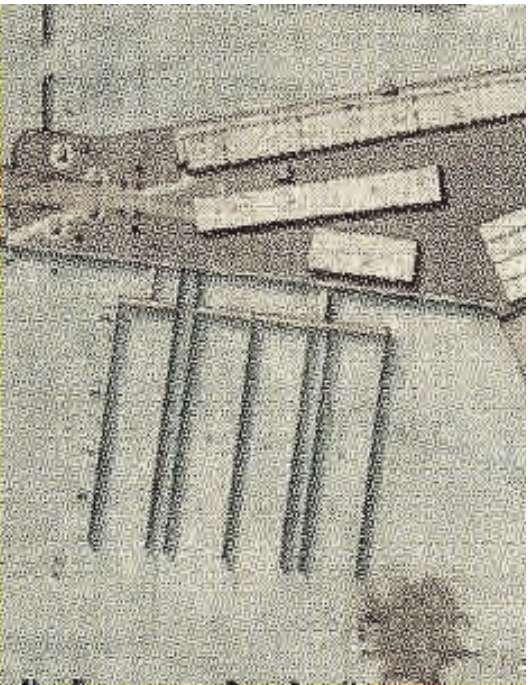
History



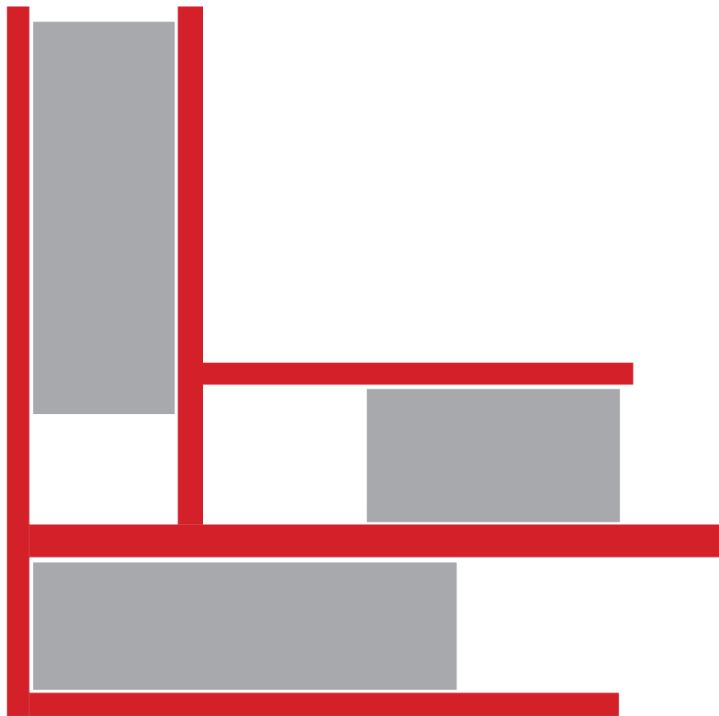
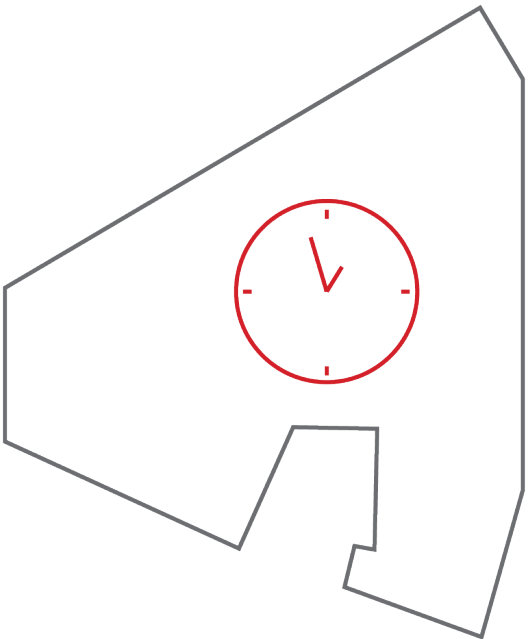
DESIGN PRINCIPLES

Drydock analogy

History

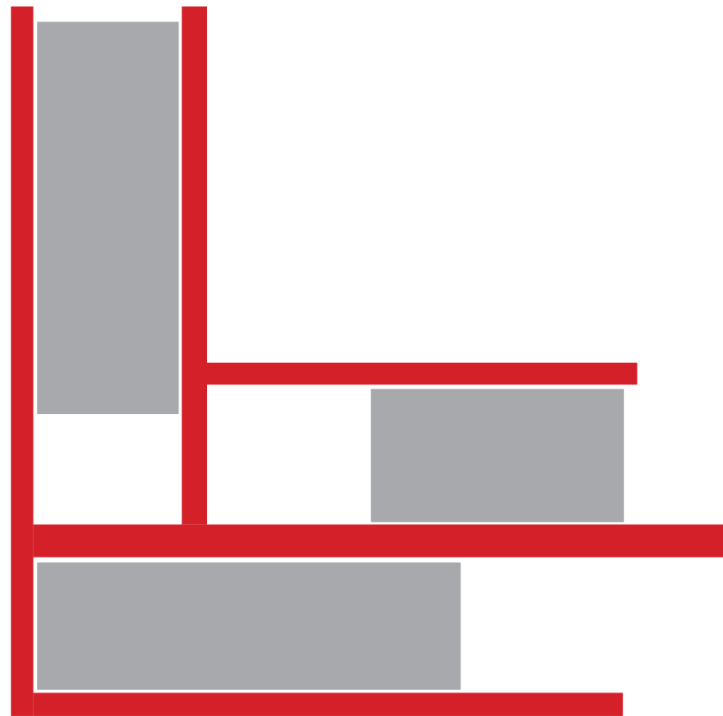


Temporary

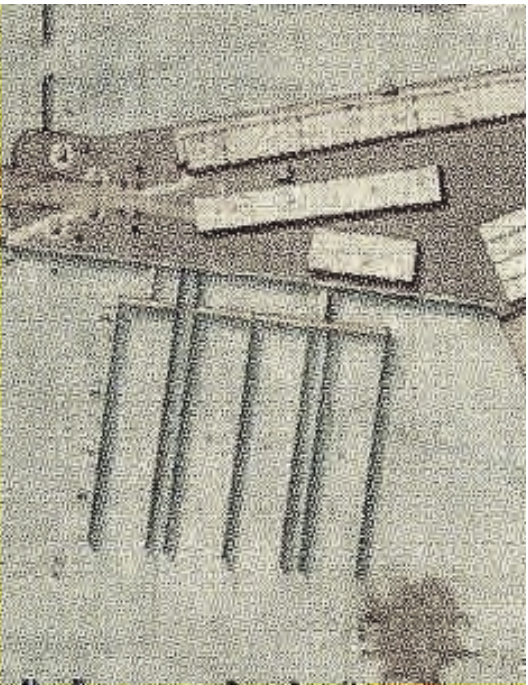


DESIGN PRINCIPLES

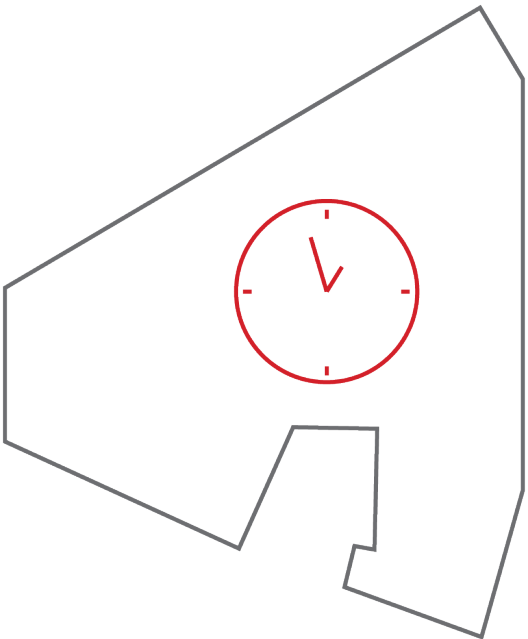
Drydock analogy



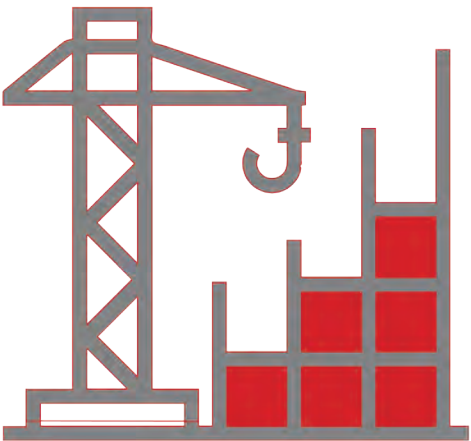
History



Temporary



Building (on the circular economy!)



DESIGN PRINCIPLES

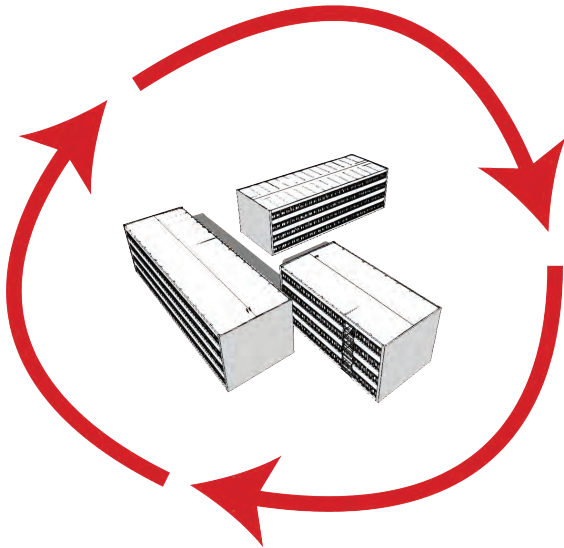
Ripple effect



DESIGN PRINCIPLES

Ripple effect

Circular

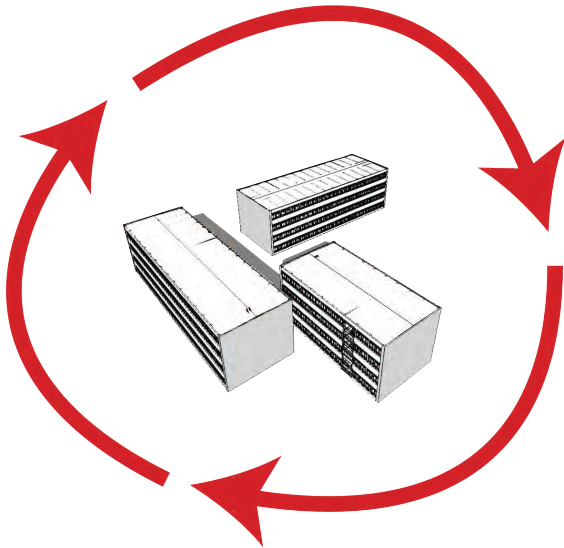


DESIGN PRINCIPLES

Ripple effect



Circular



Low threshold

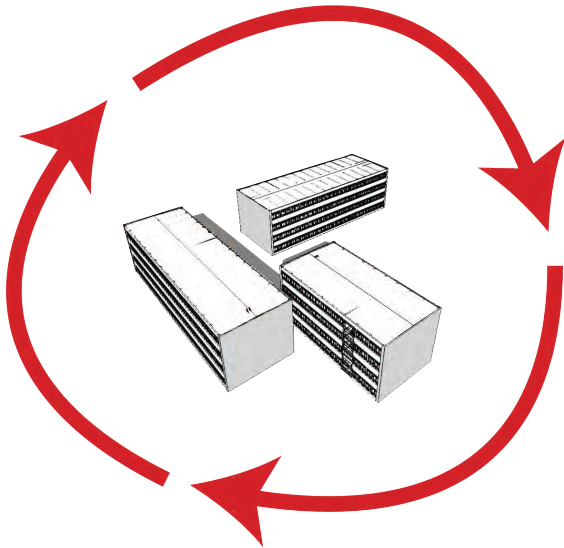


DESIGN PRINCIPLES

Ripple effect



Circular



Low threshold

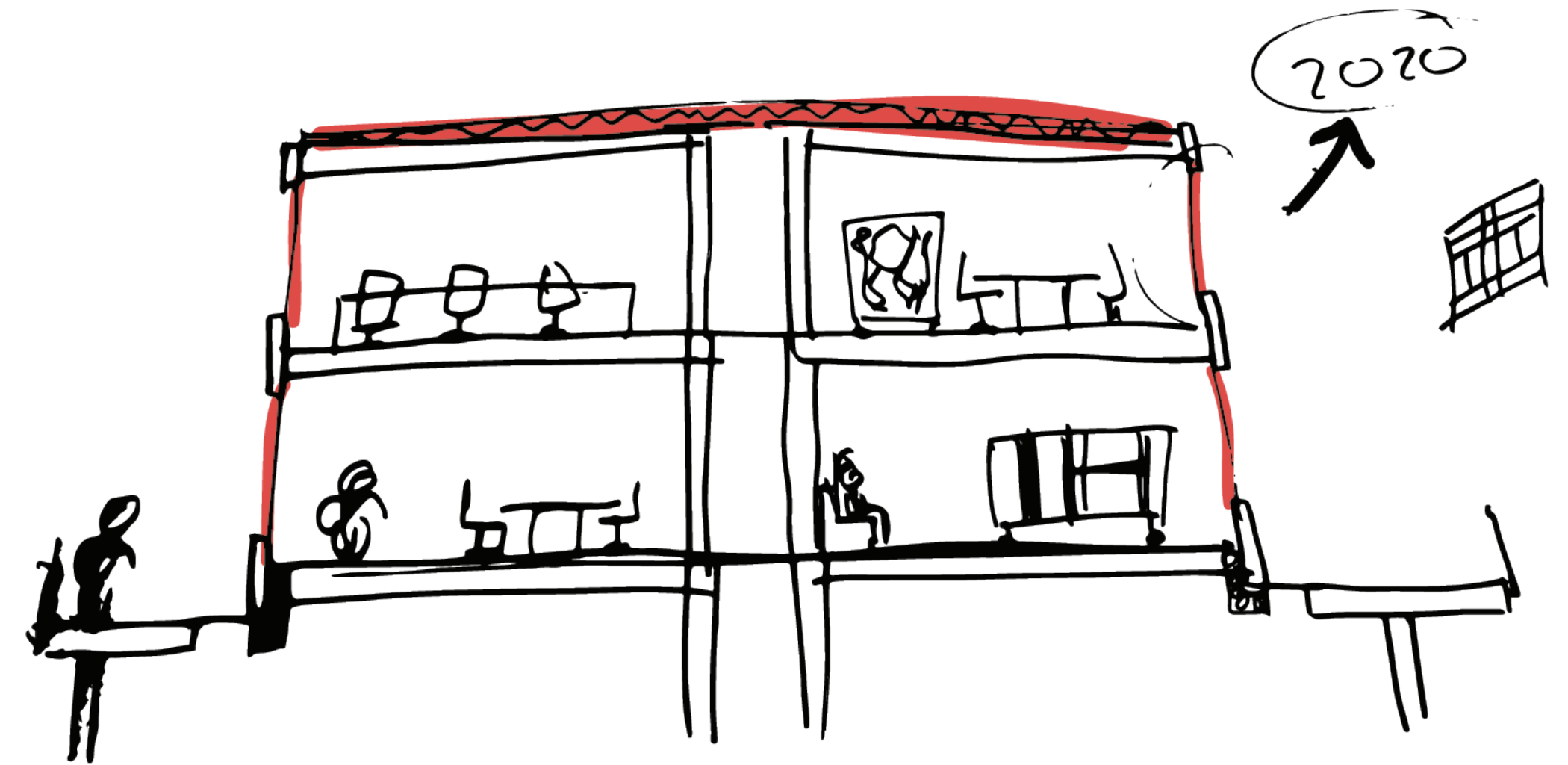
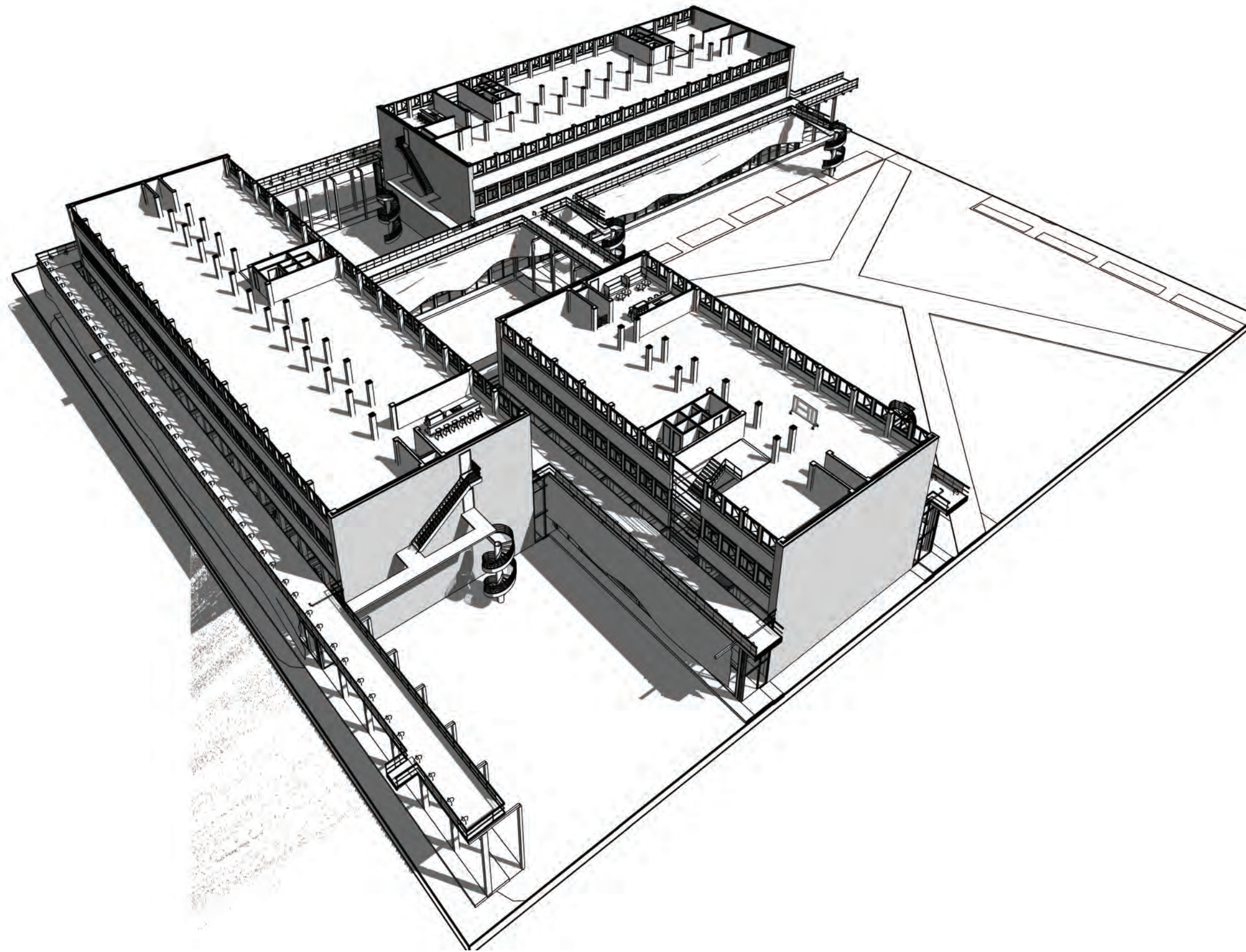


Military efficiency



LIFESPAN OF THE BUILDING

Growth of the intervention



LIFESPAN OF THE BUILDING

Start-up policy - roomdeviders options

Start-ups are given two options:



Expensive: custom
build office



See: interior partitions

Cheap: create own lay-out with reused facade elements



1500

2018

2019

2020

2021

2022

2023

2024

2025

2026

2027

2028

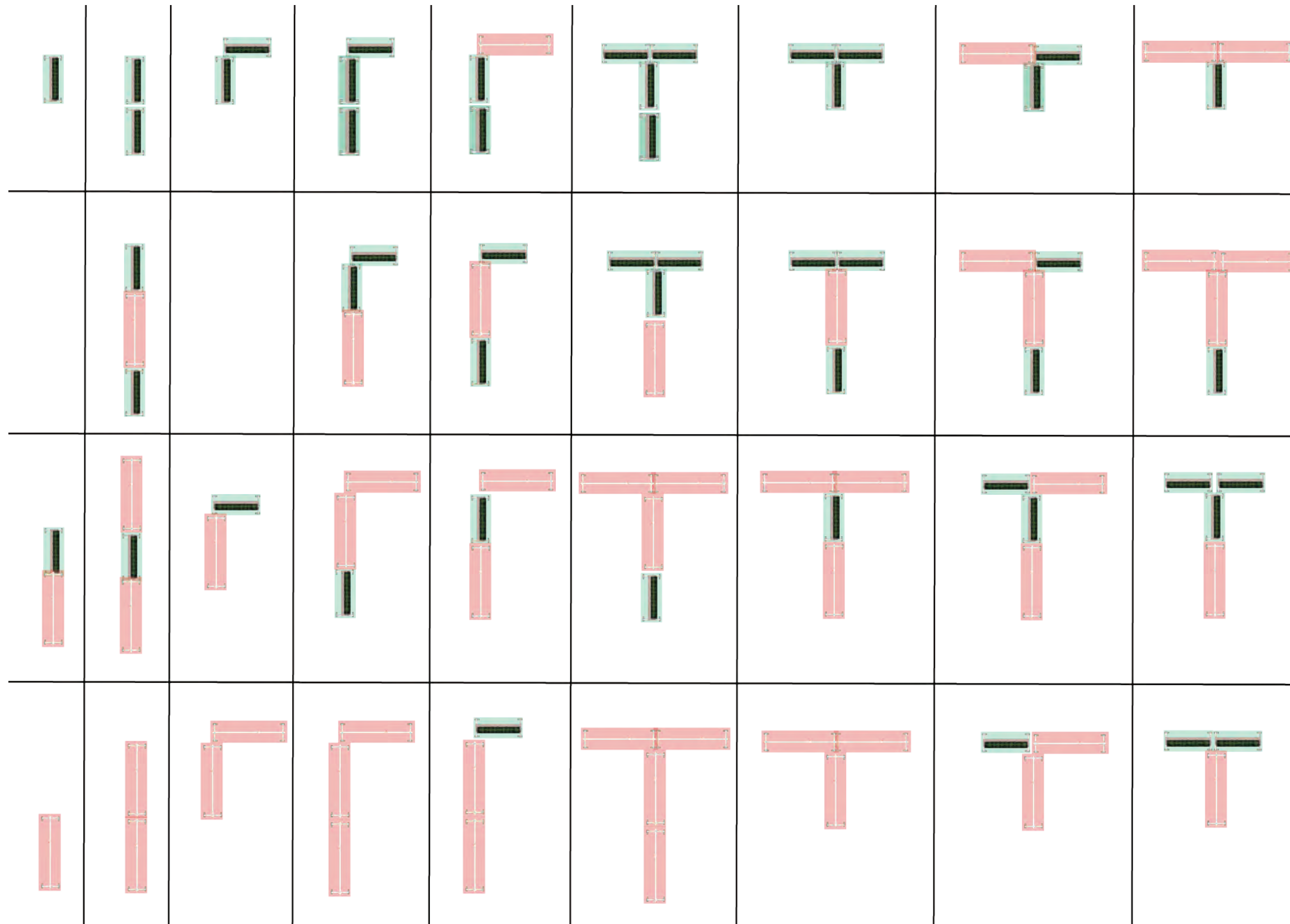
2029

2030

2050

LIFESPAN OF THE BUILDING

Start-up policy - roomdividers catalogue



2018

2019

2020

2021

2022

2023

2024

2025

2026

2027

2028

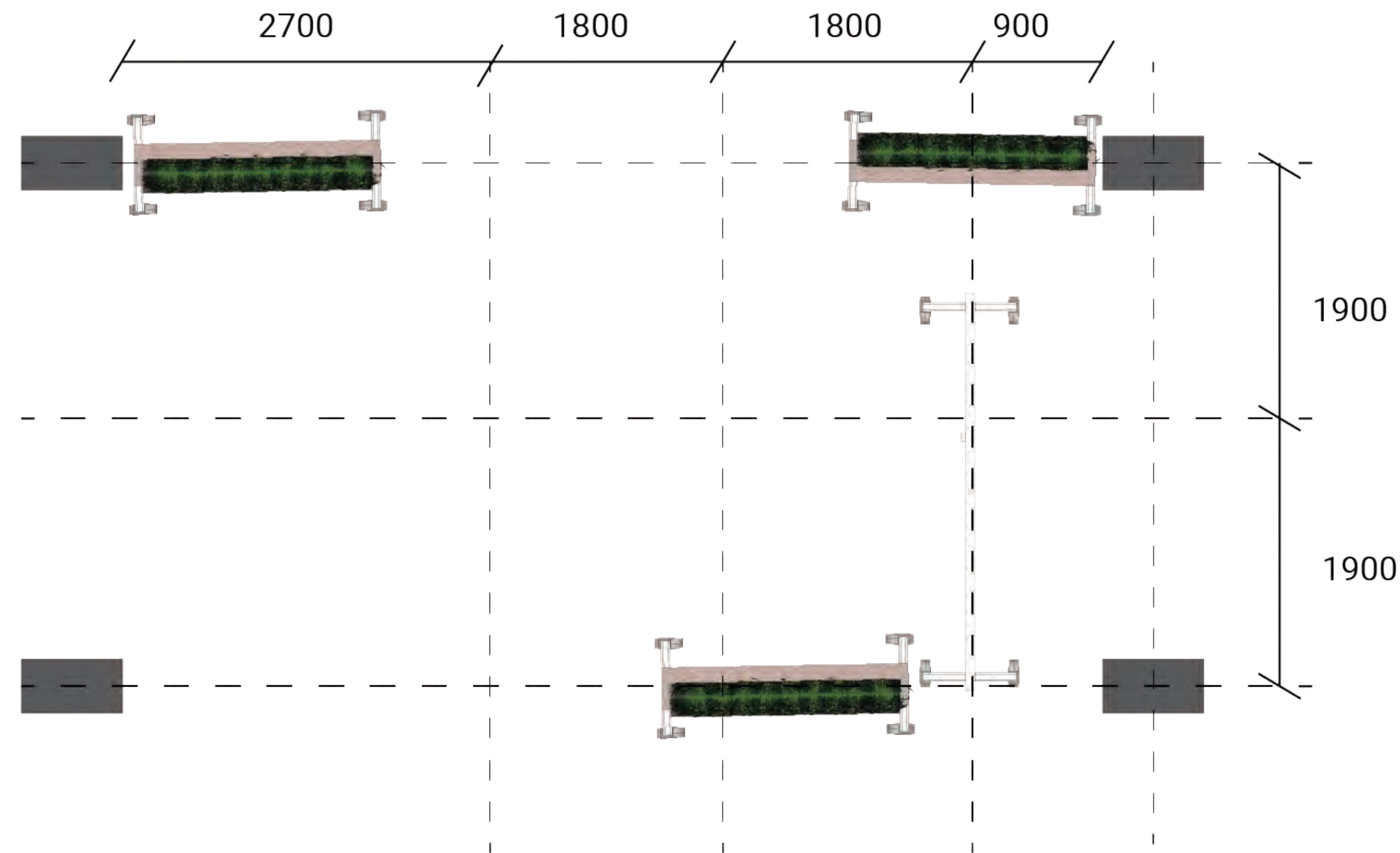
2029

2030

2050

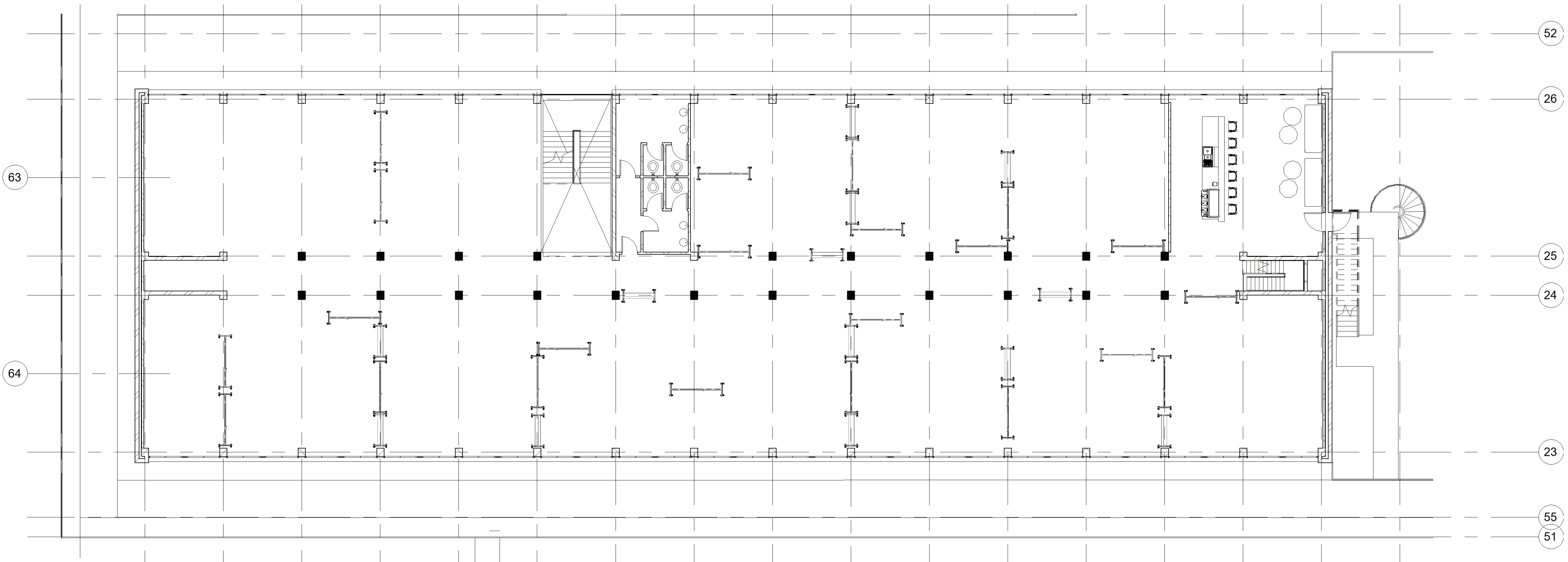
LIFESPAN OF THE BUILDING

Start-up policy - placement roomdividers



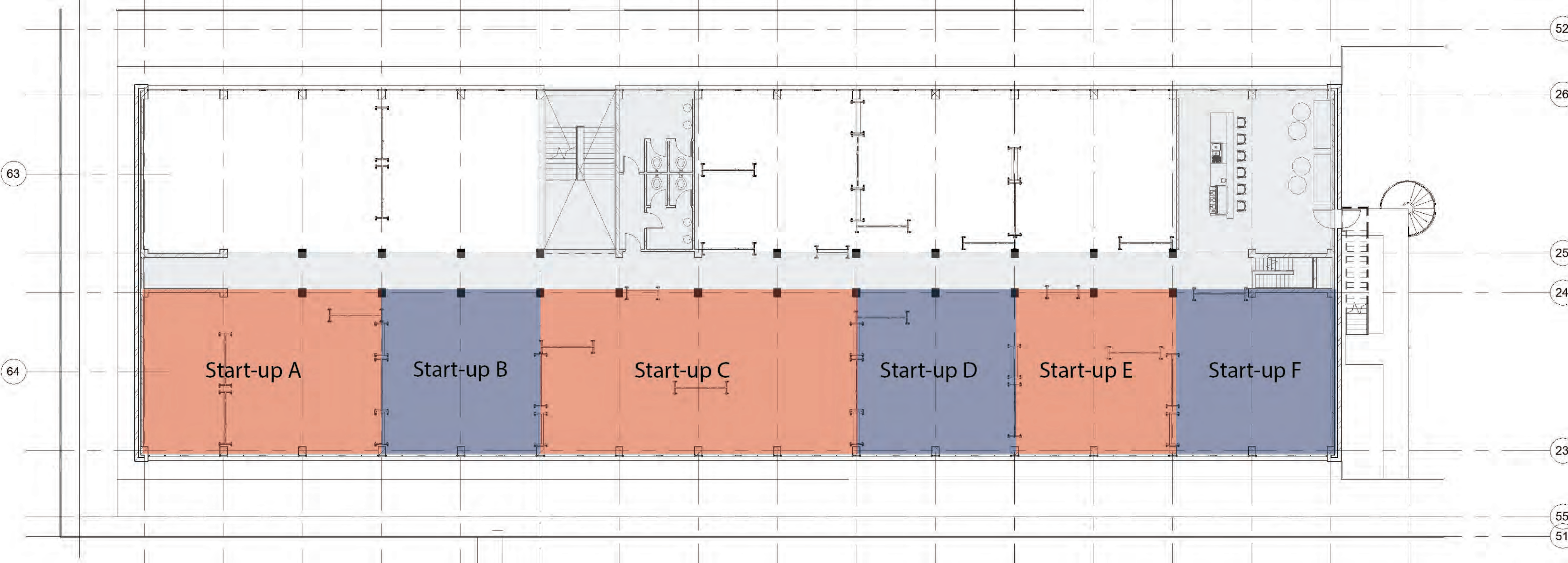
LIFESPAN OF THE BUILDING

Start-up policy - example floor



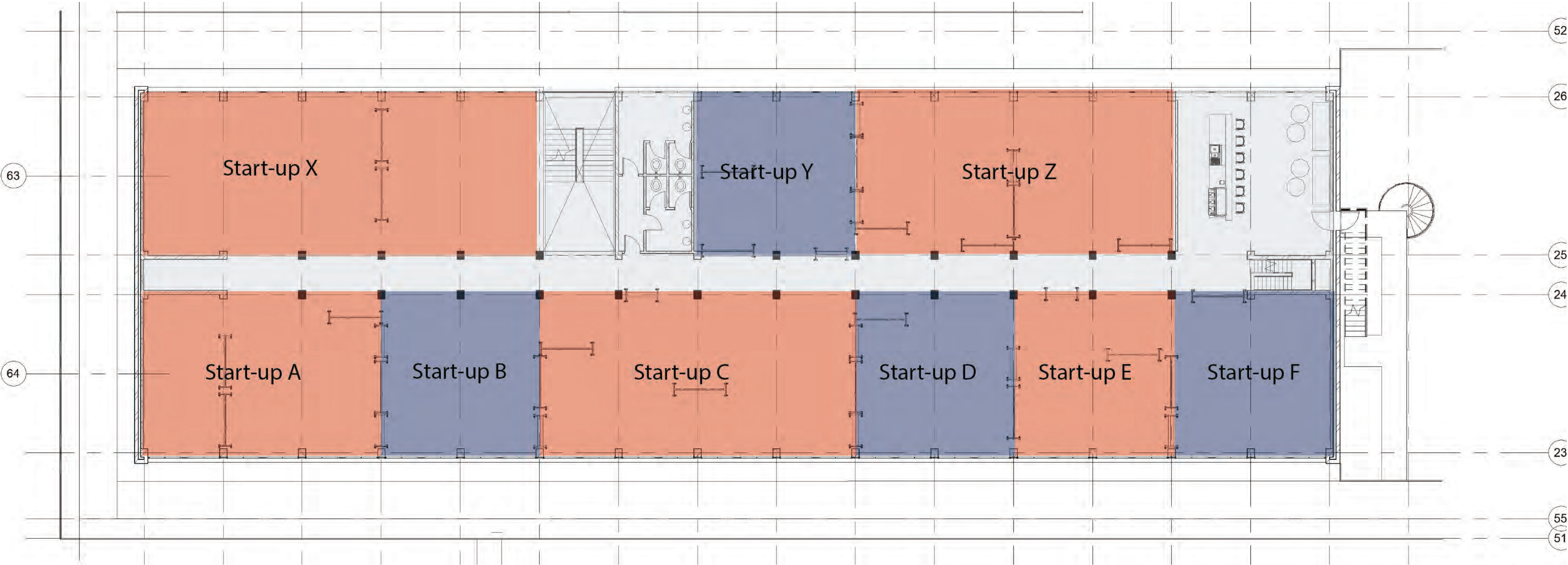
LIFESPAN OF THE BUILDING

Start-up policy - example floor



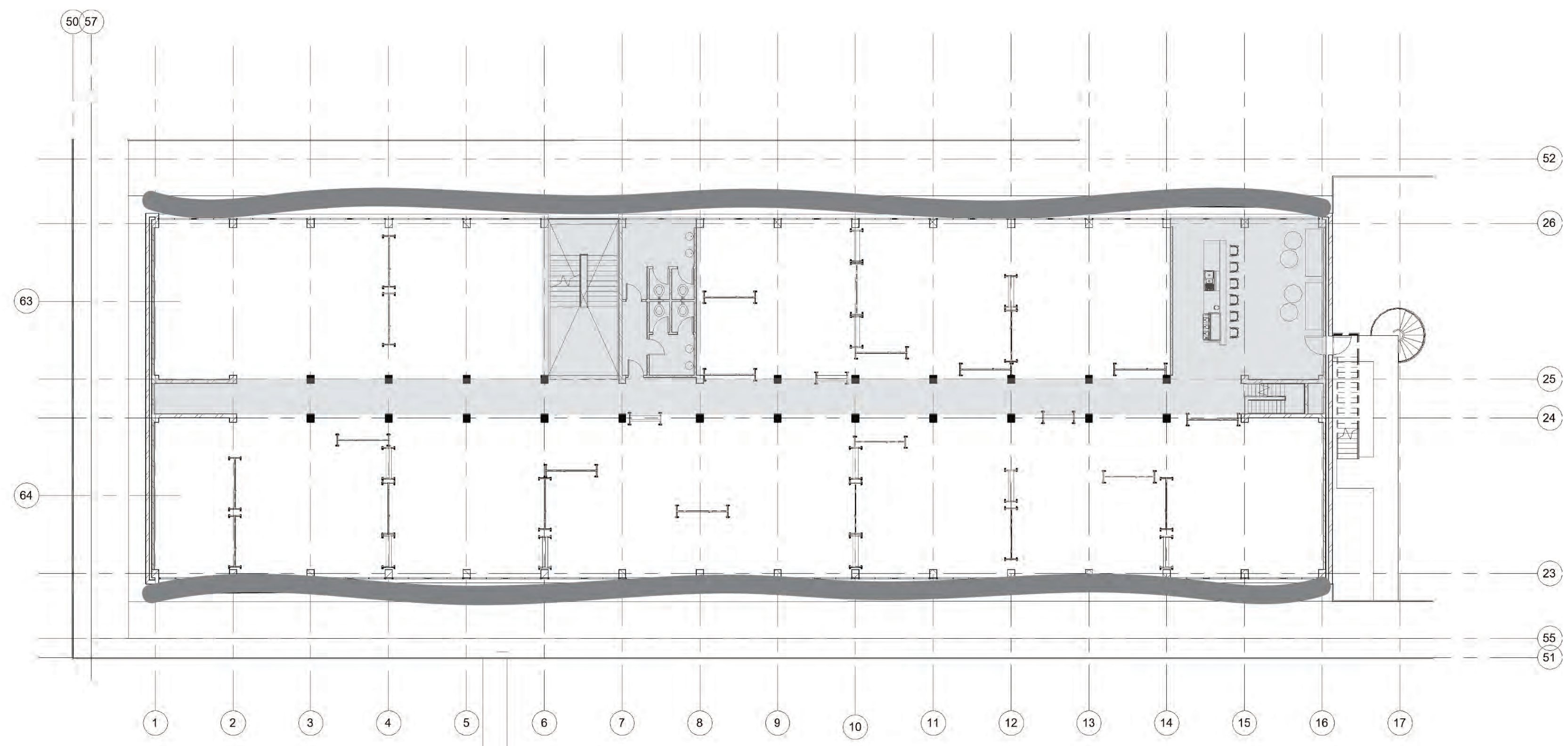
LIFESPAN OF THE BUILDING

Start-up policy - example floor



LIFESPAN OF THE BUILDING

Start-up policy - example floor

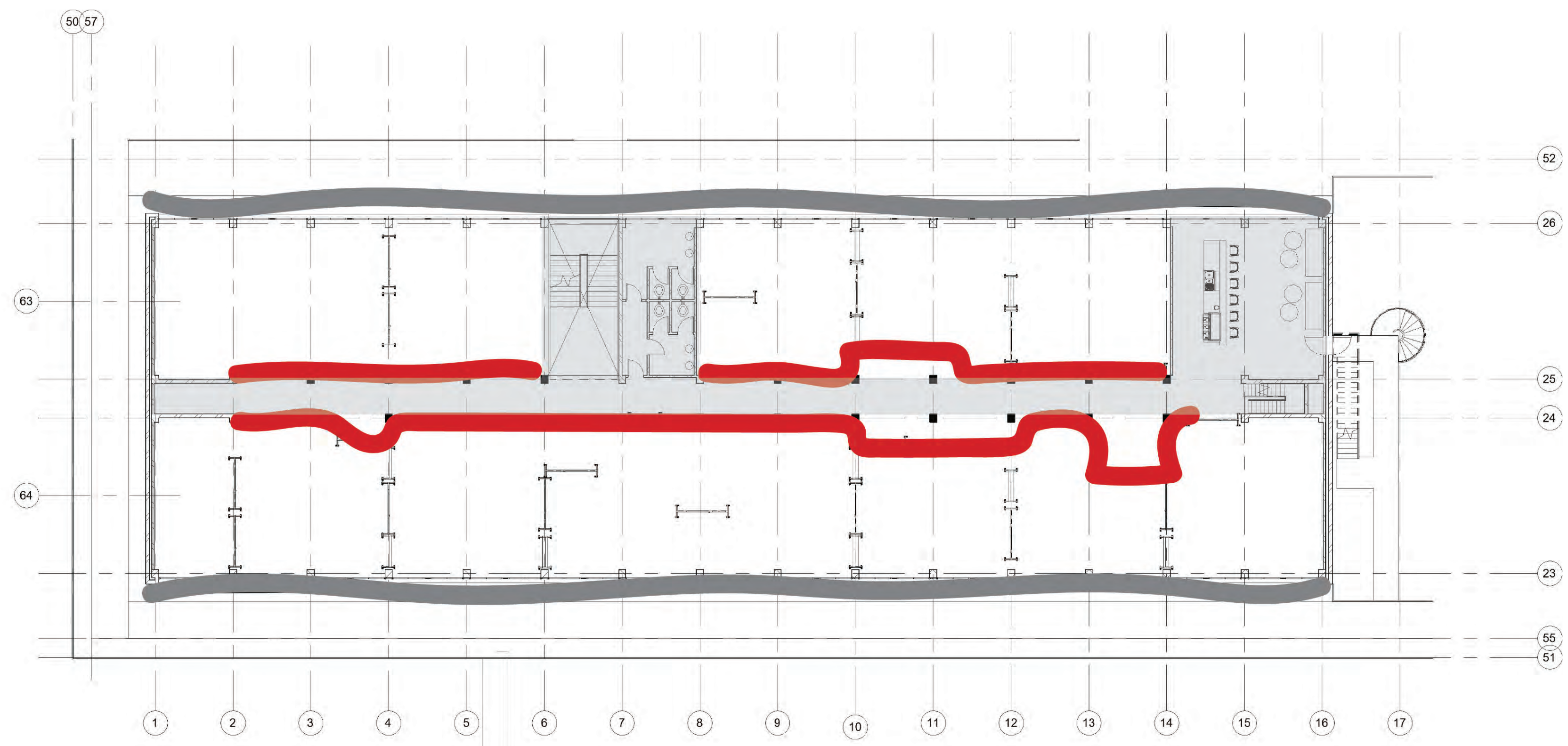


Exterior Signage: 'common goal': single style

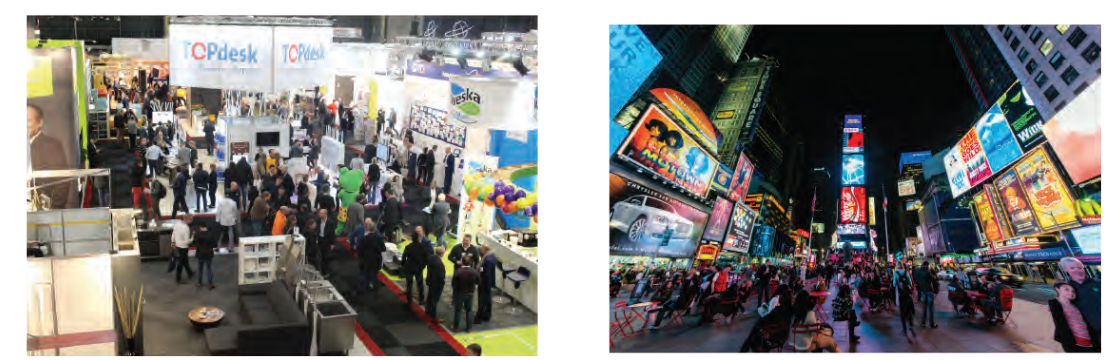


LIFESPAN OF THE BUILDING

Start-up policy - example floor



Exterior Signage: 'common goal': single style

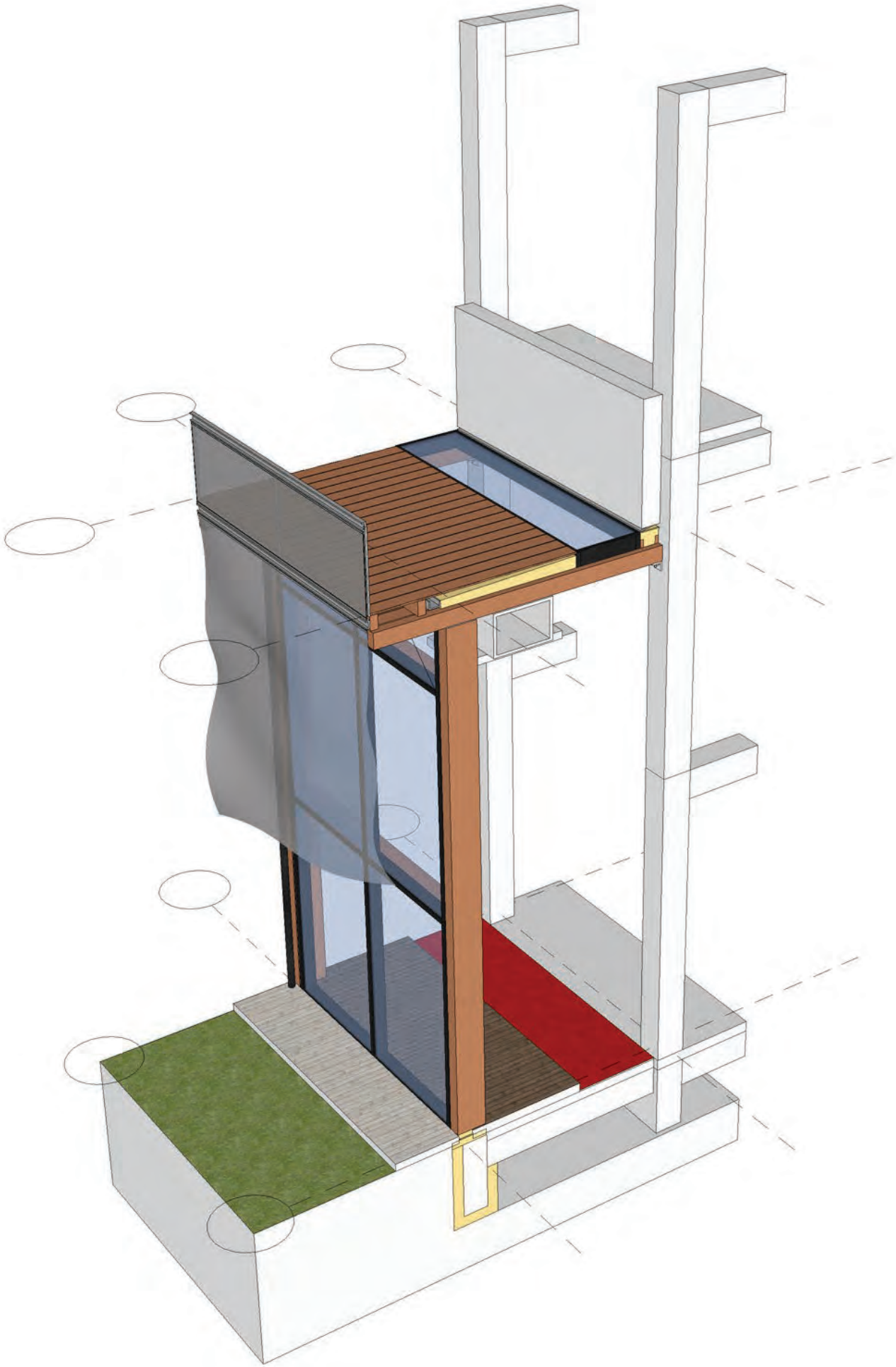


Interior Signage: Differentiate! Go nuts!



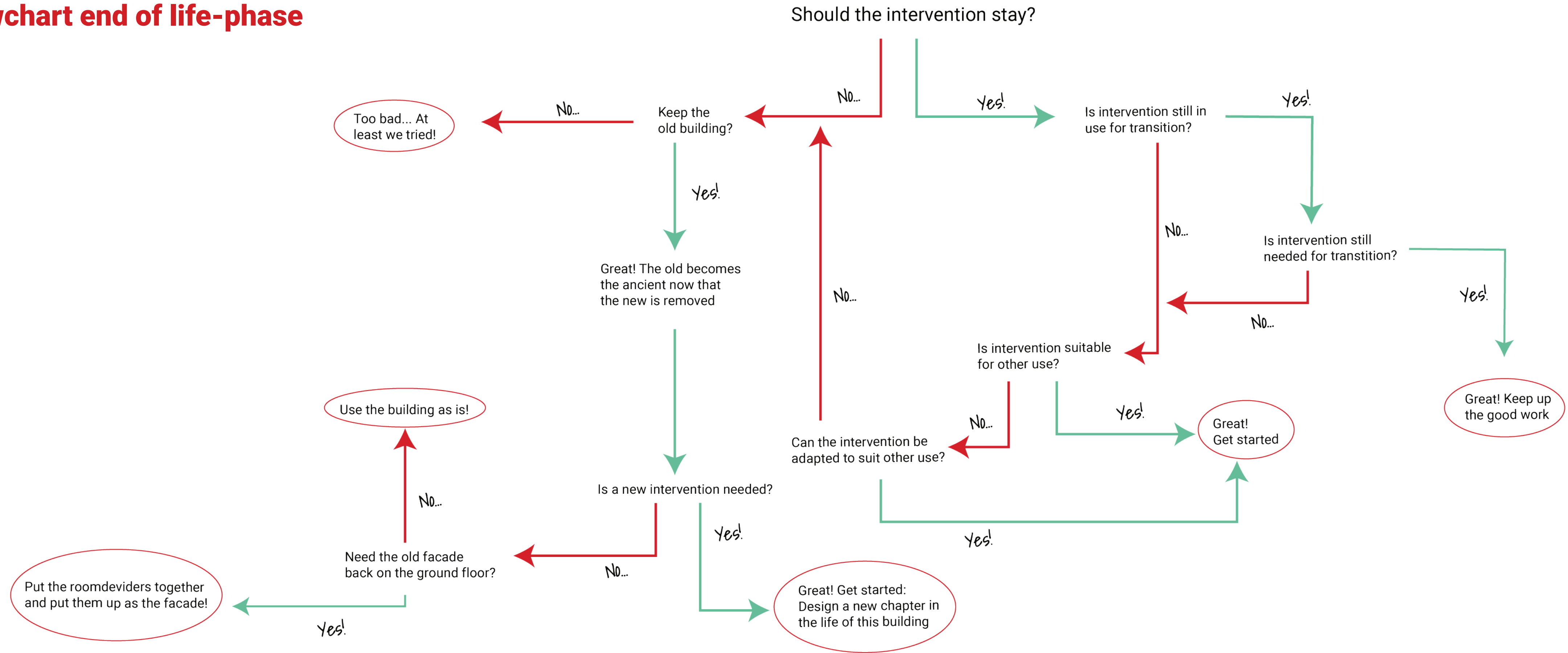
LIFESPAN OF THE BUILDING

Living lab



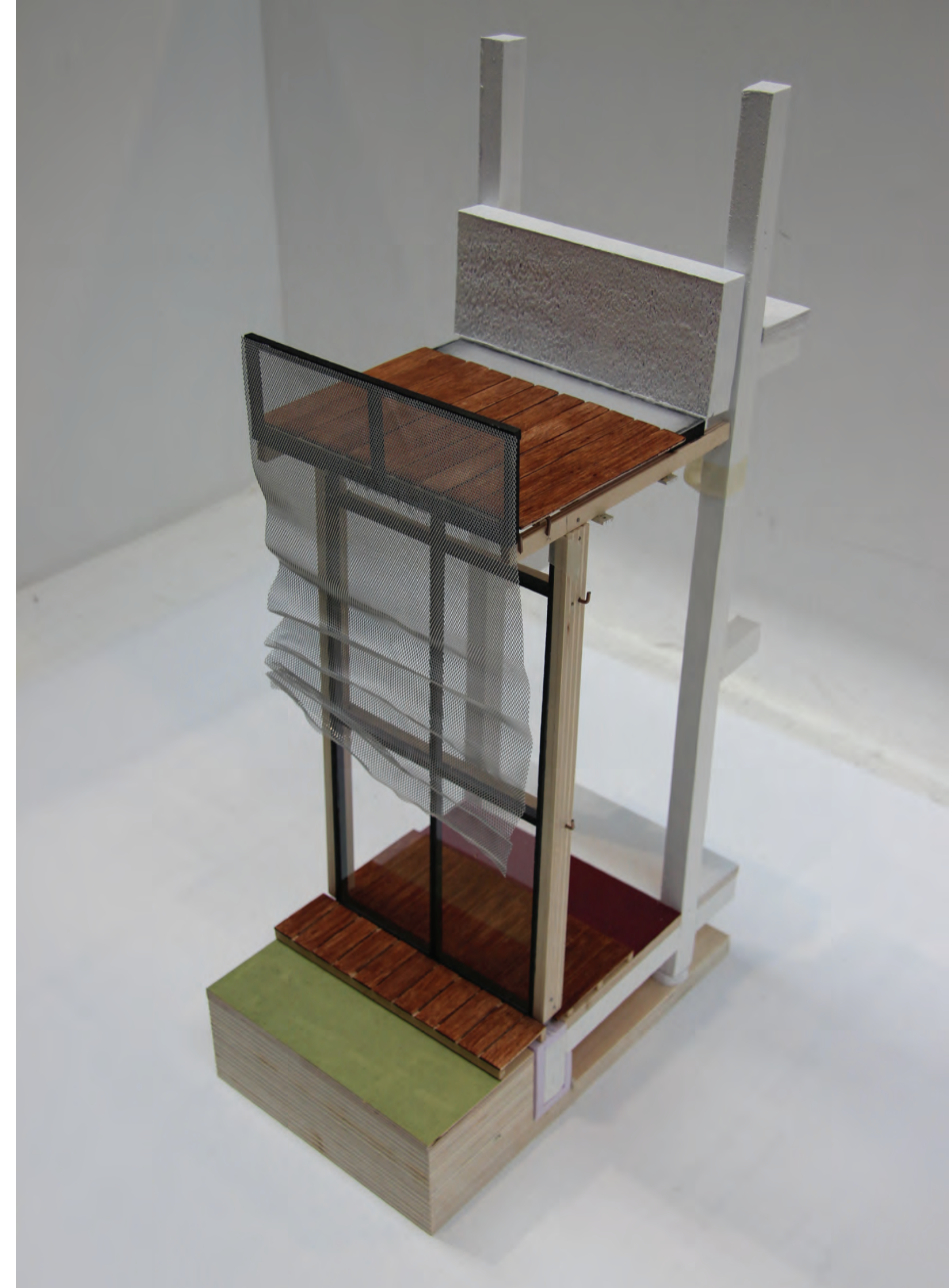
TEN YEARS LATER....

Flowchart end of life-phase



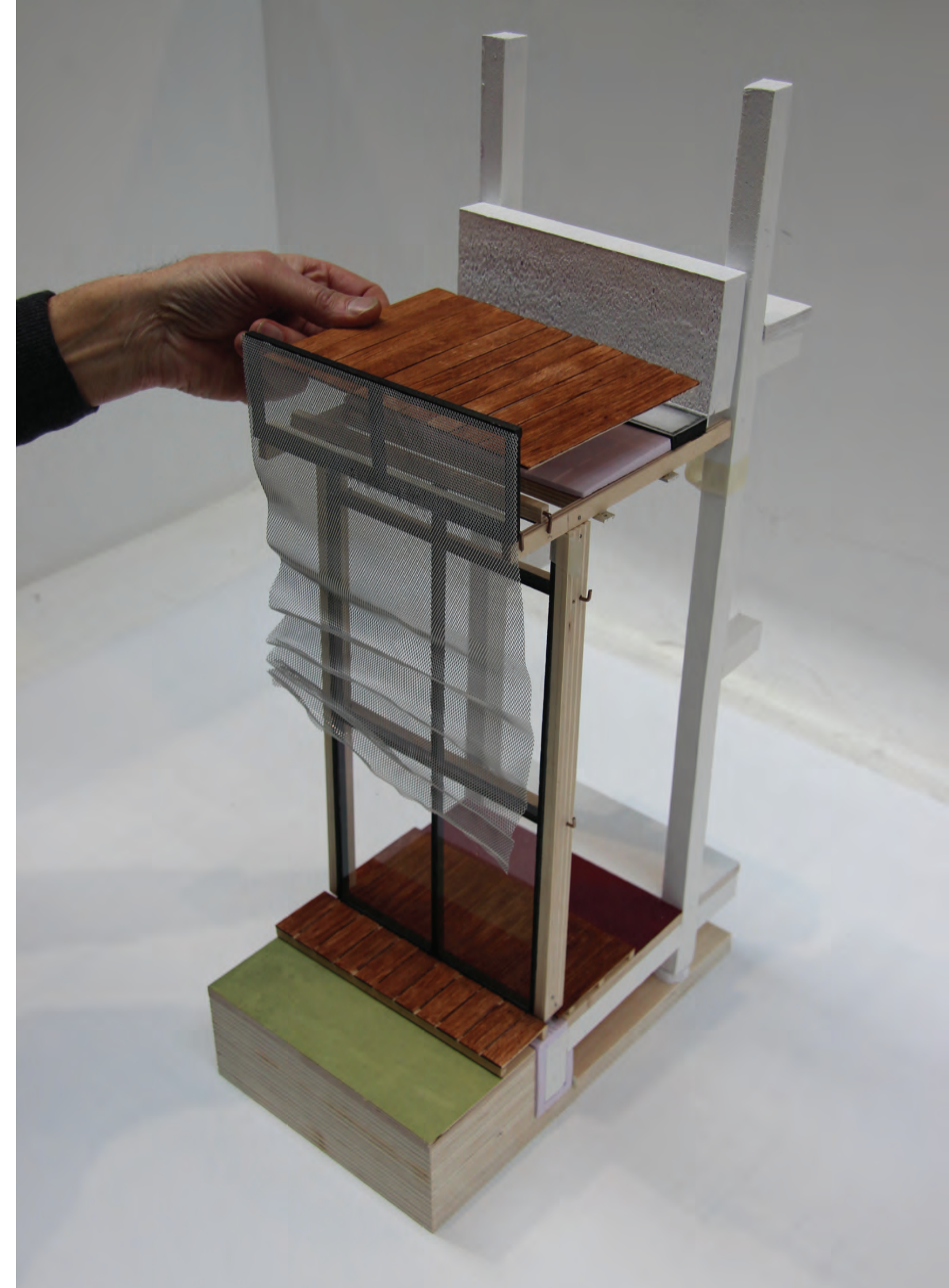
TEN YEARS LATER...

Dismanteling the building



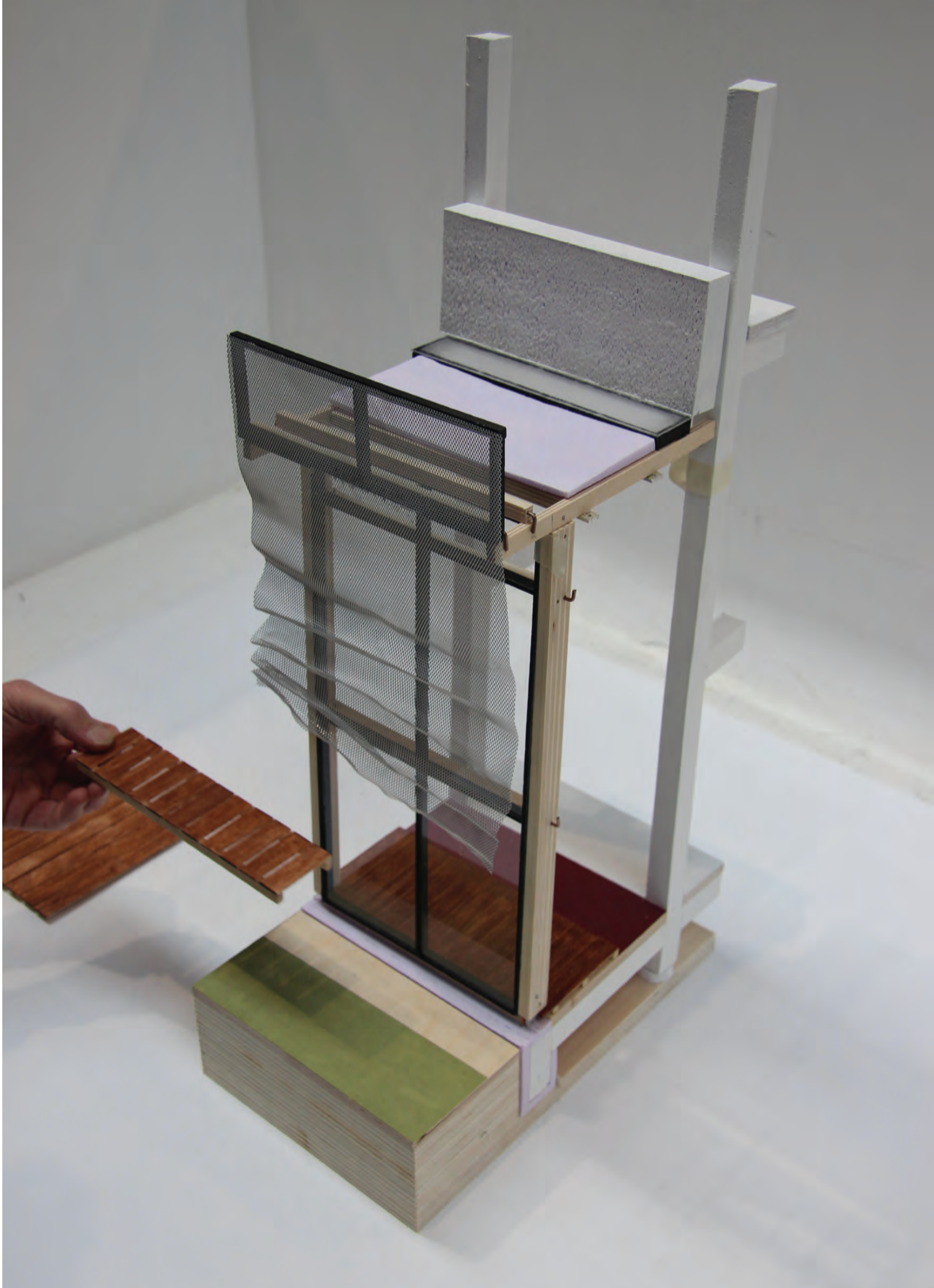
TEN YEARS LATER...

Dismanteling the building



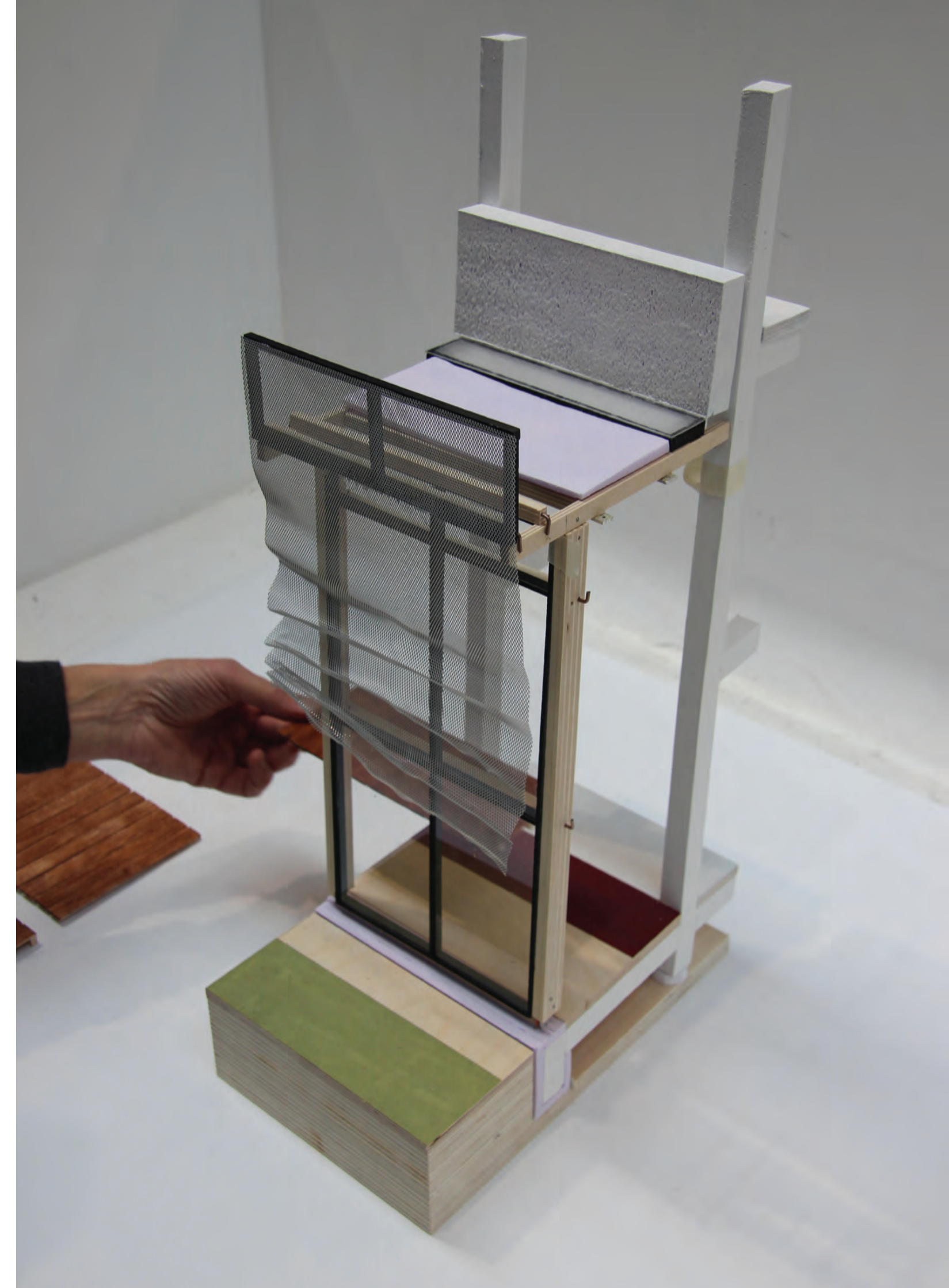
TEN YEARS LATER...

Dismanteling the building



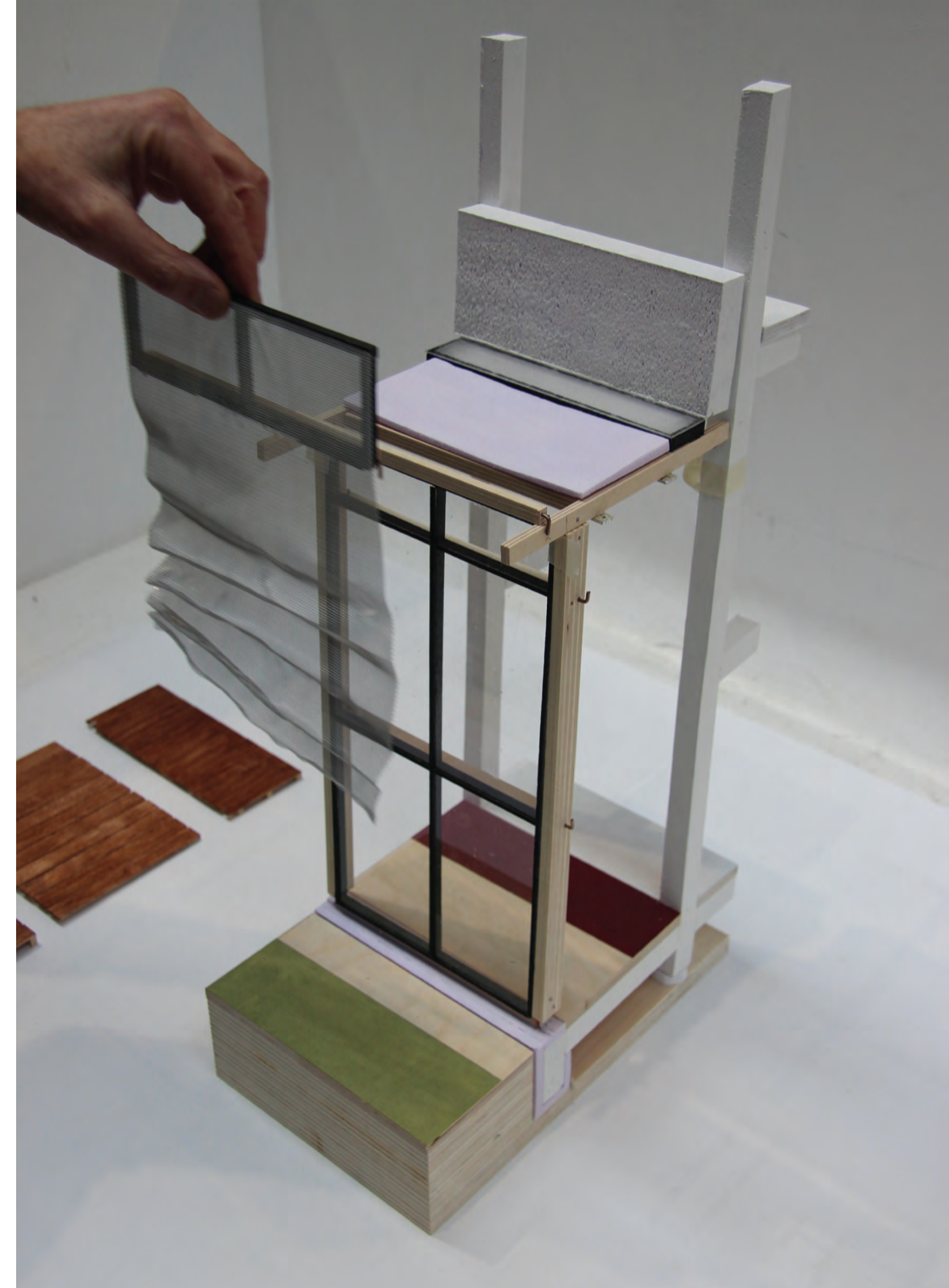
TEN YEARS LATER...

Dismanteling the building



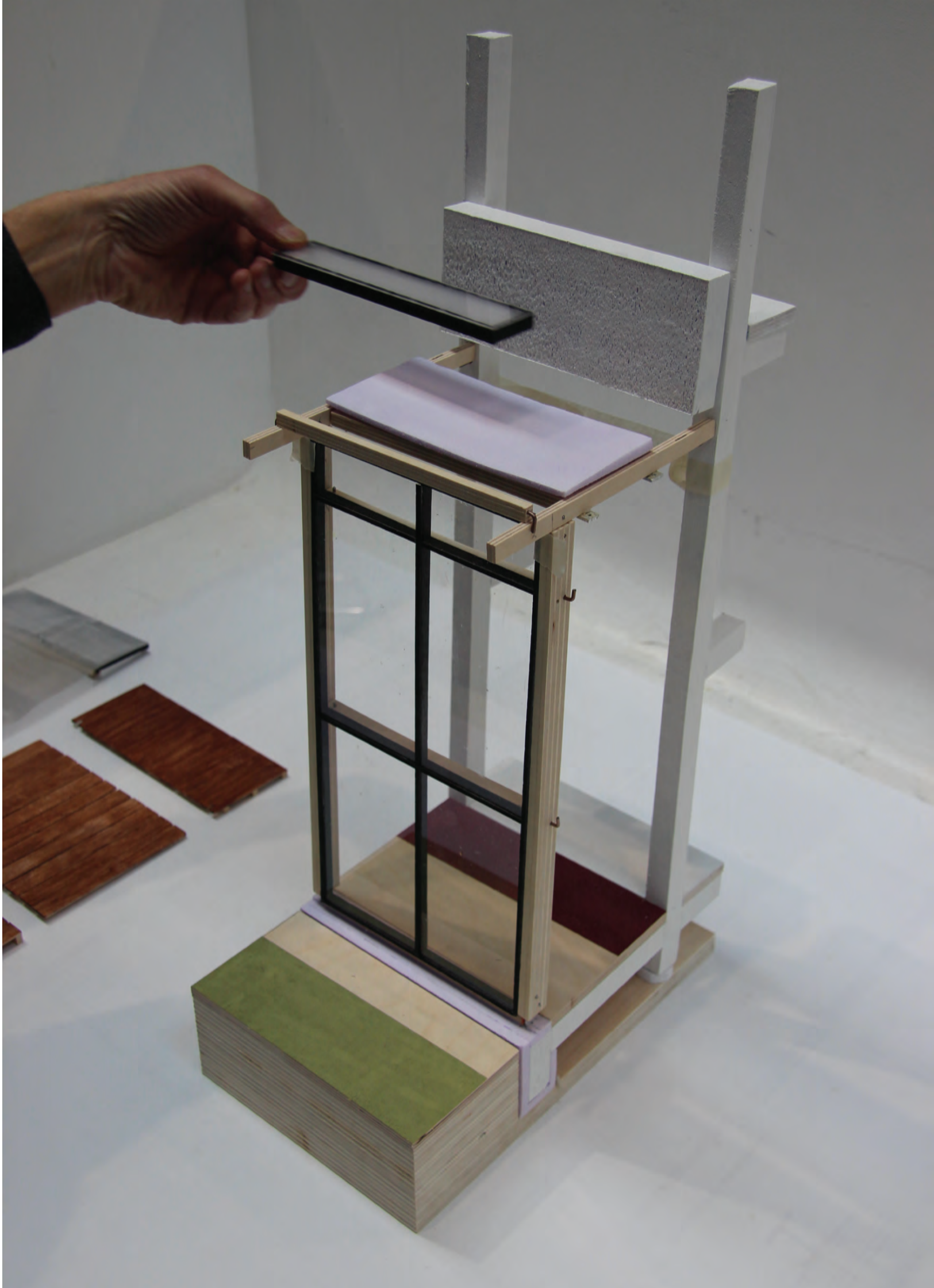
TEN YEARS LATER...

Dismanteling the building



TEN YEARS LATER...

Dismanteling the building



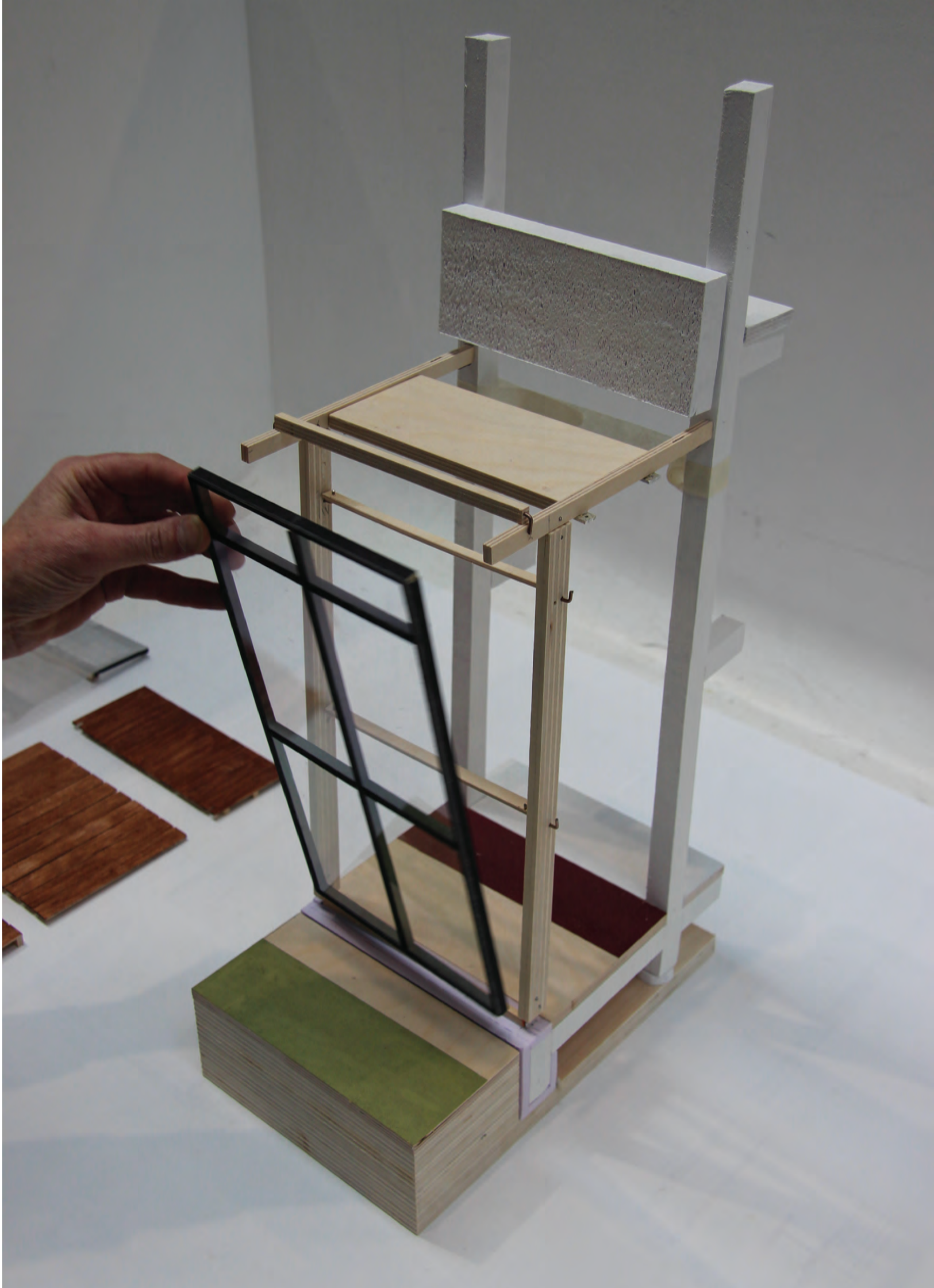
TEN YEARS LATER...

Dismanteling the building



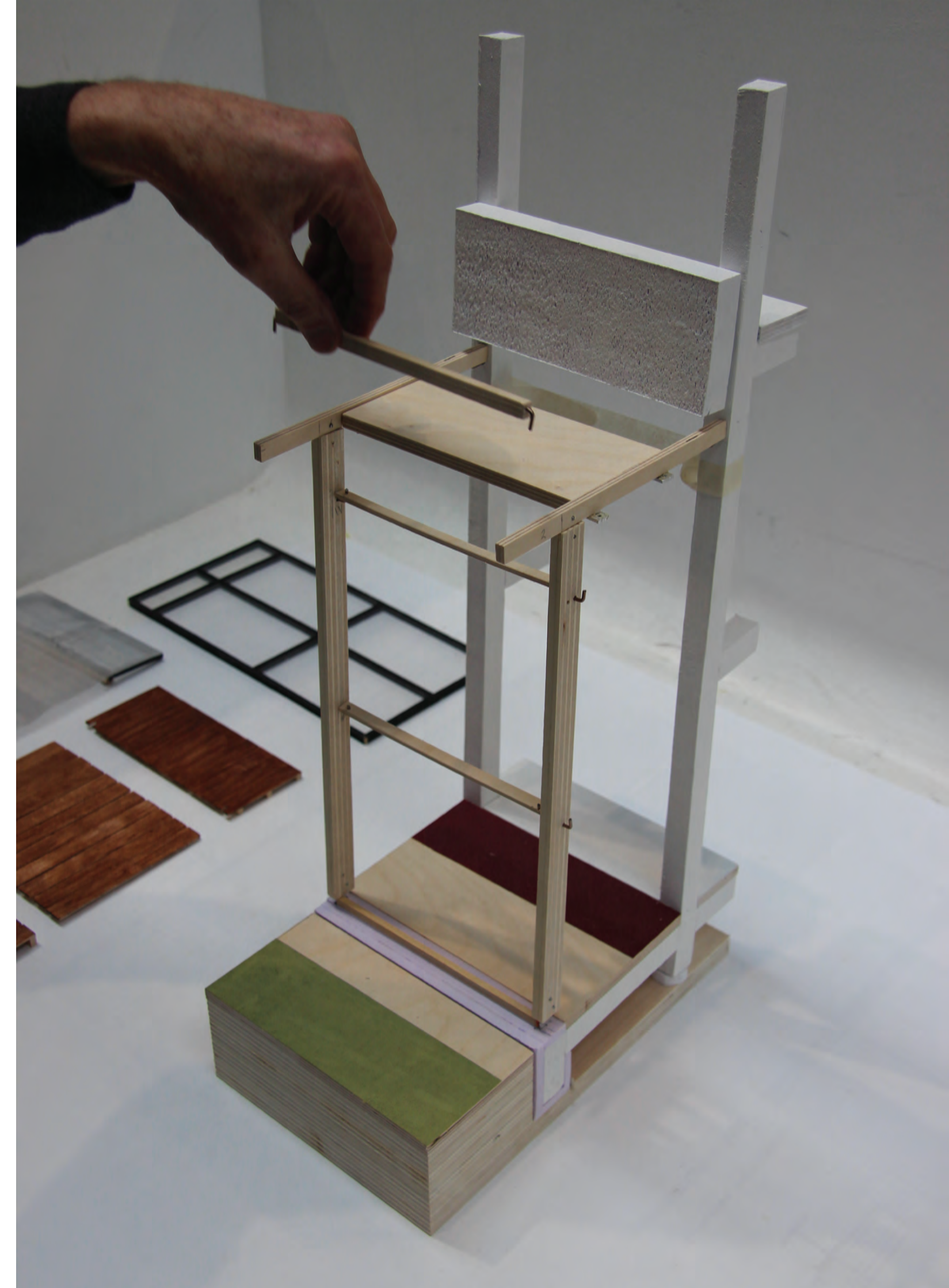
TEN YEARS LATER...

Dismanteling the building



TEN YEARS LATER...

Dismanteling the building



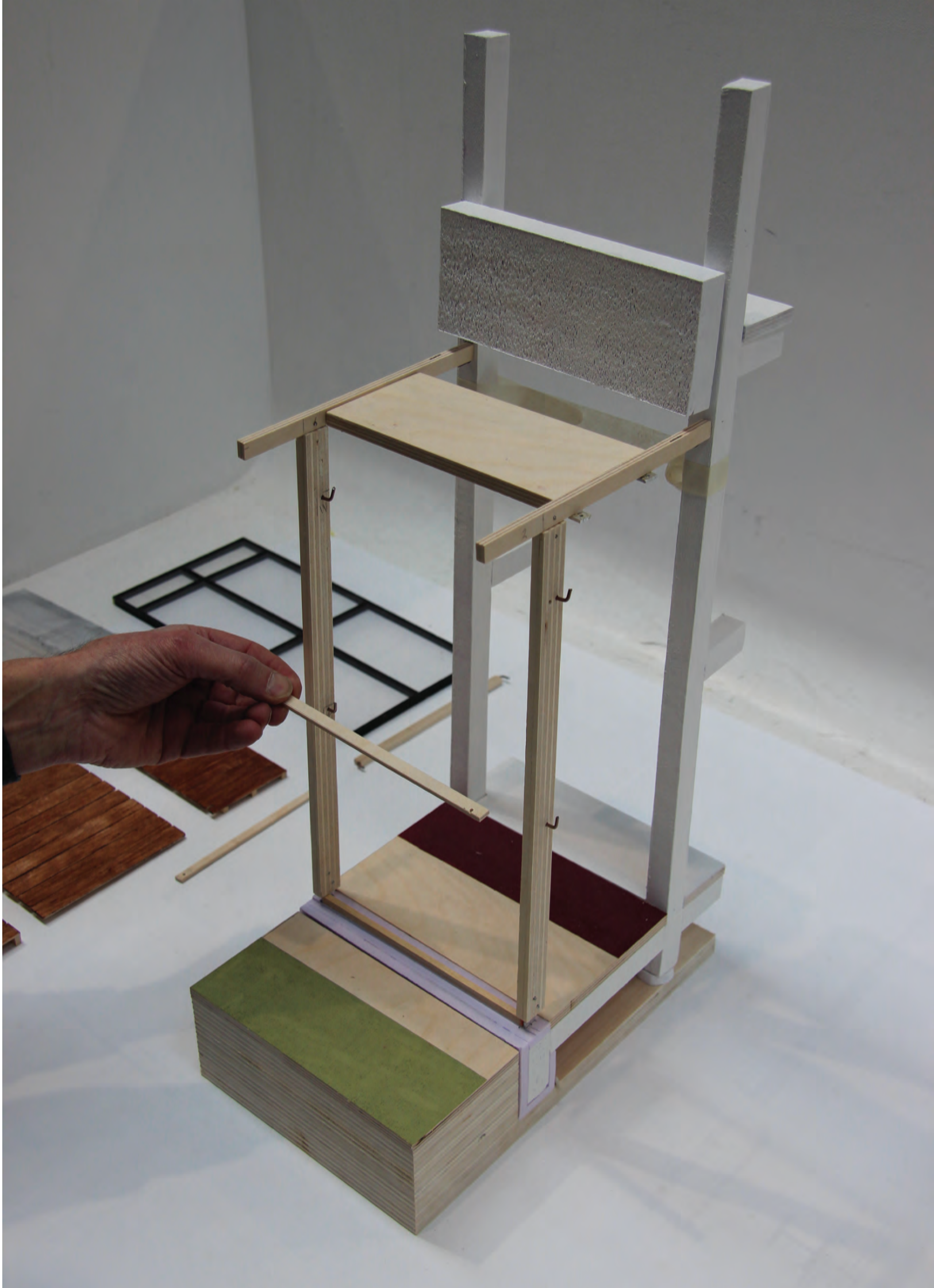
TEN YEARS LATER...

Dismanteling the building



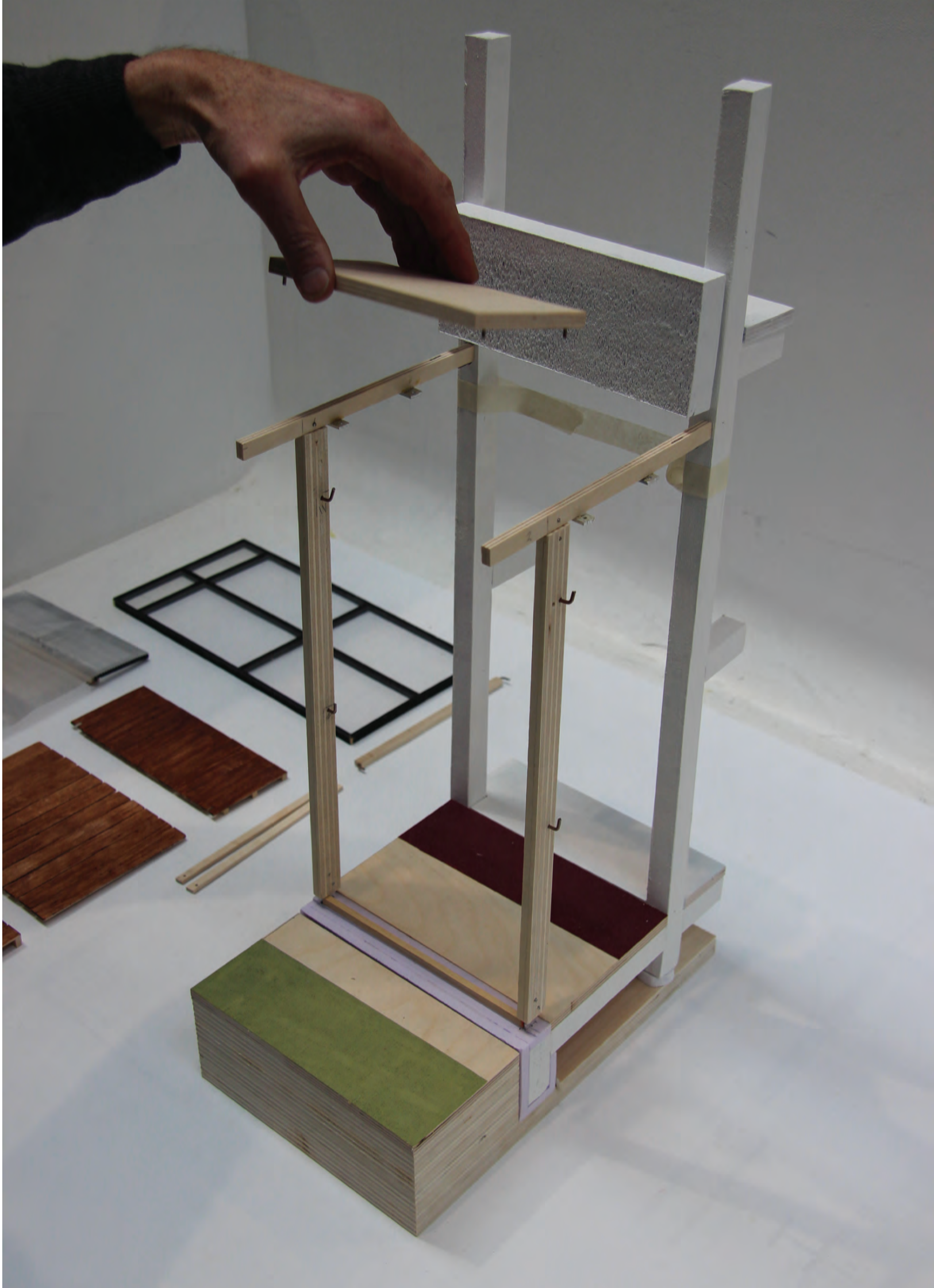
TEN YEARS LATER...

Dismanteling the building



TEN YEARS LATER...

Dismanteling the building



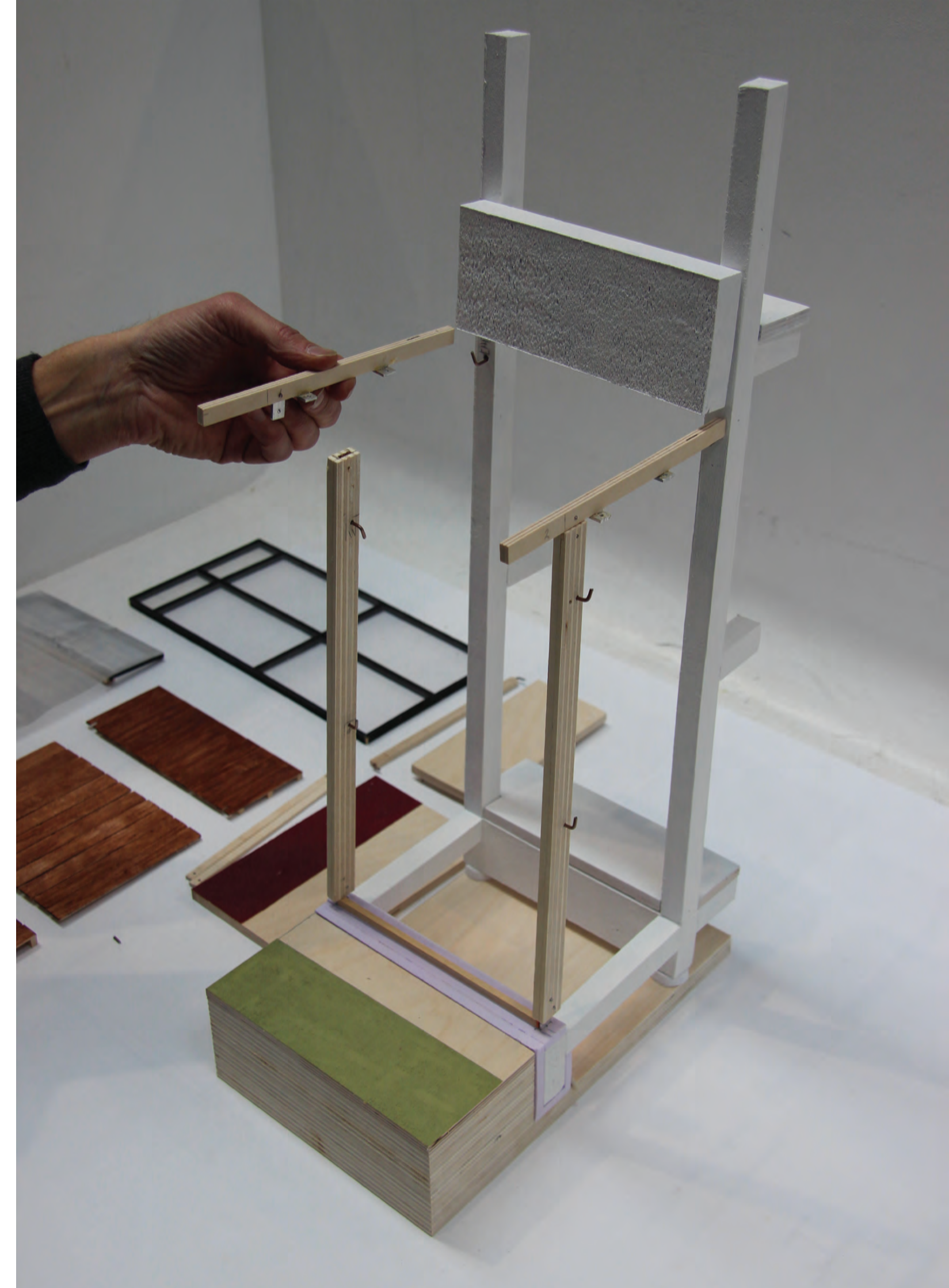
TEN YEARS LATER...

Dismanteling the building



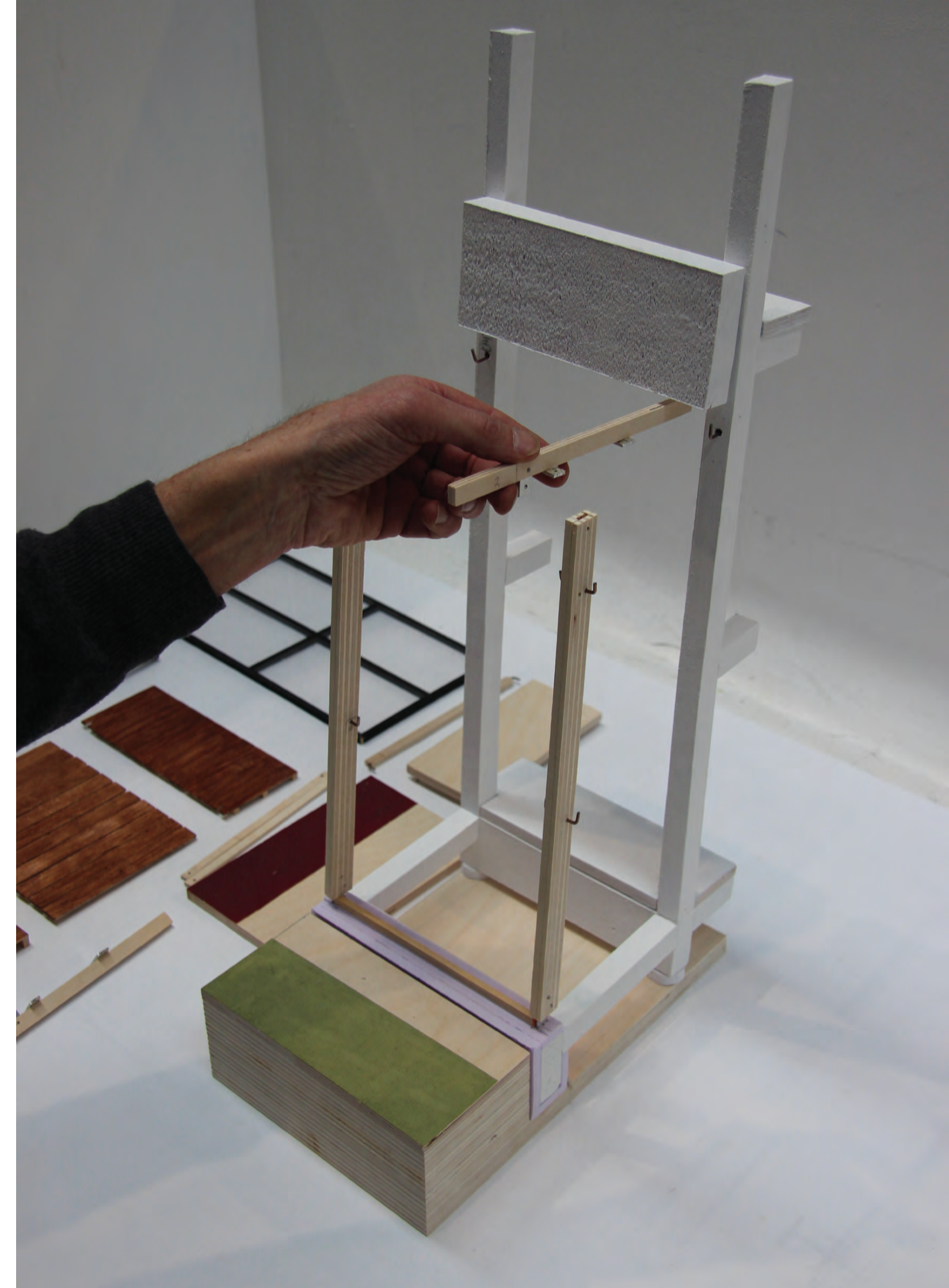
TEN YEARS LATER...

Dismanteling the building



TEN YEARS LATER...

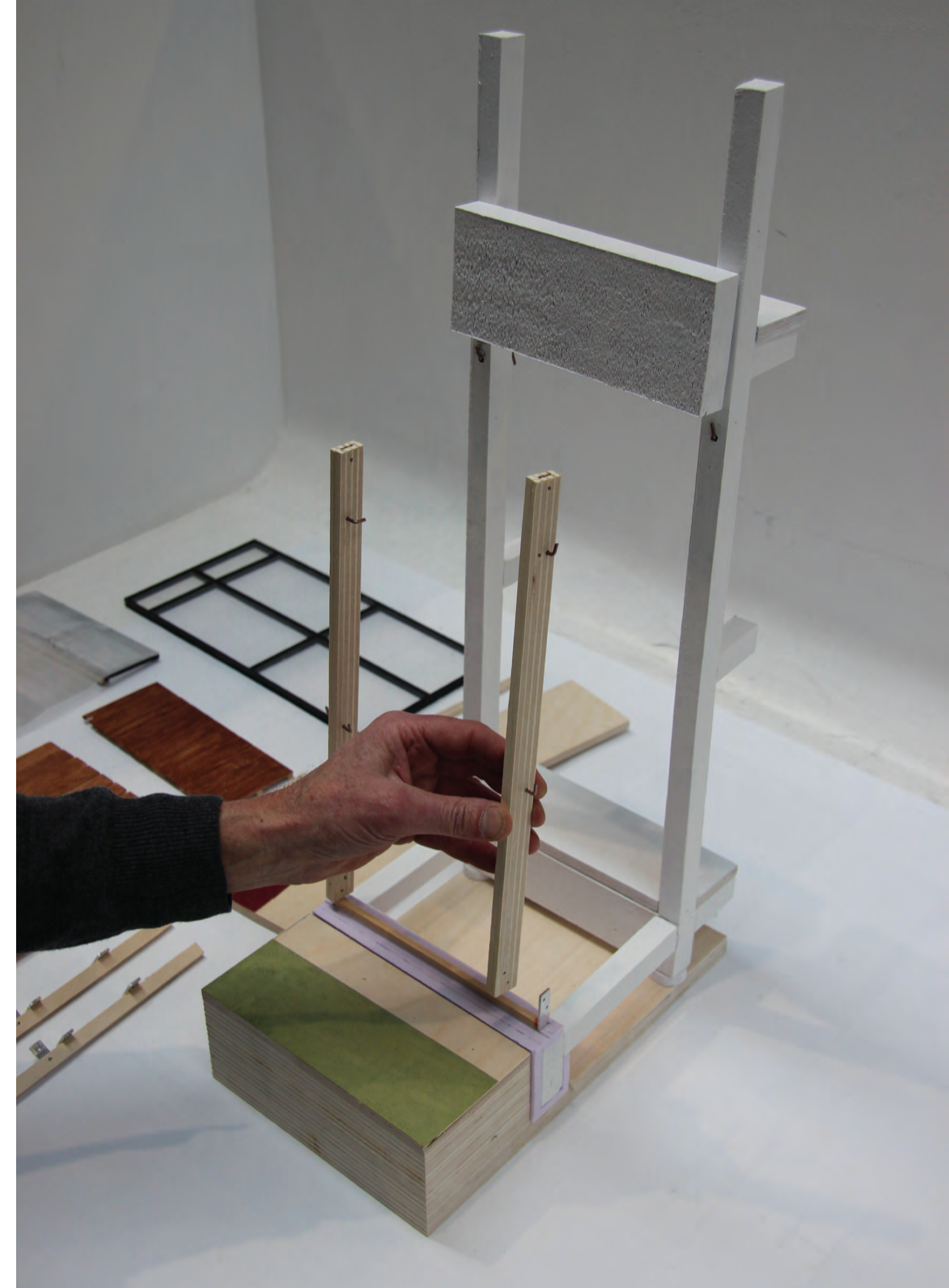
Dismanteling the building



A horizontal timeline bar representing the years from 1500 to 2050. The years are labeled at the ends: 1500 on the left and 2050 on the right. A solid red bar highlights the period from 2018 to 2030. The years 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, and 2030 are all within the red bar. The year 2030 is the last year shown within the red bar.

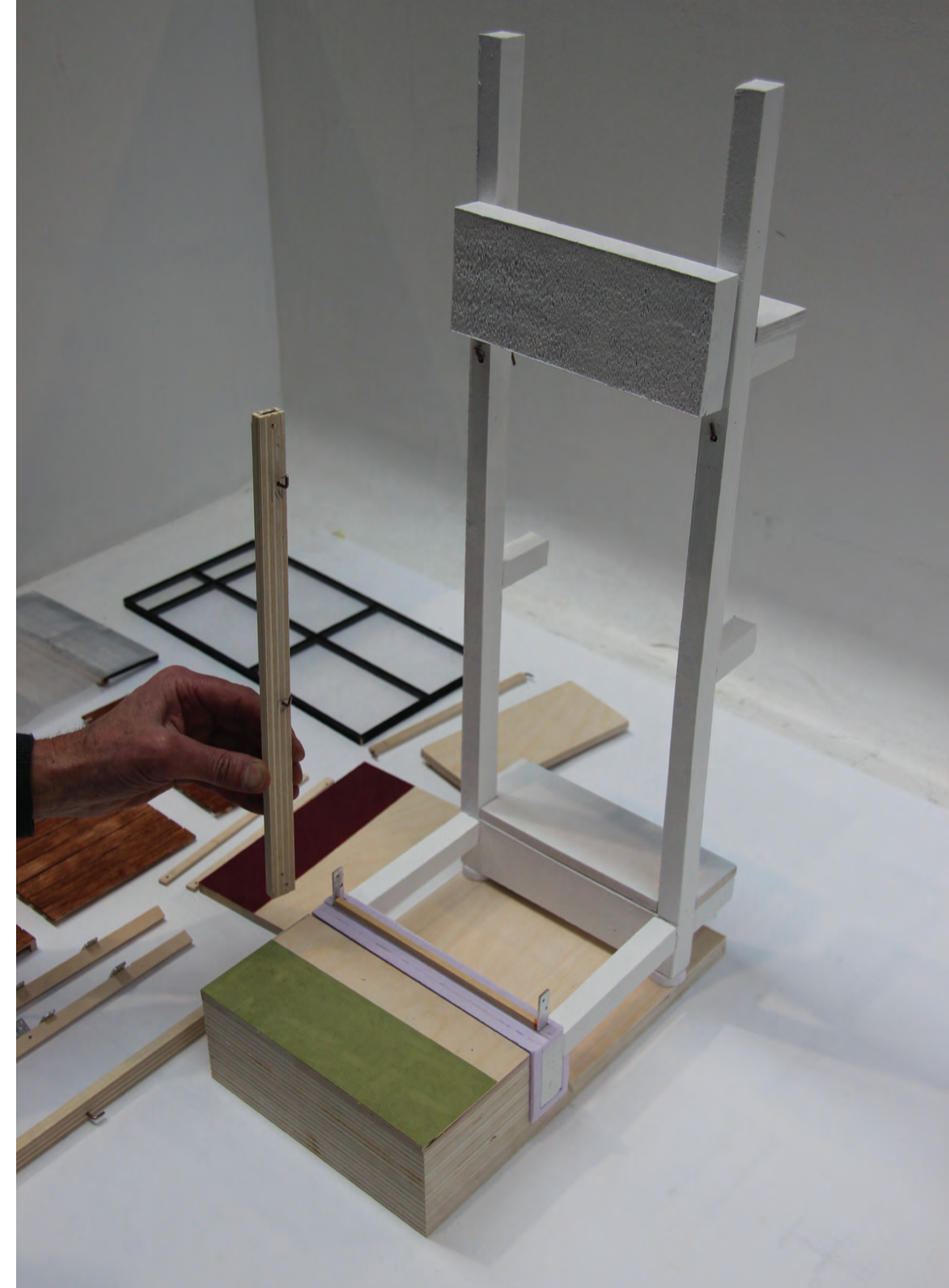
TEN YEARS LATER...

Dismanteling the building



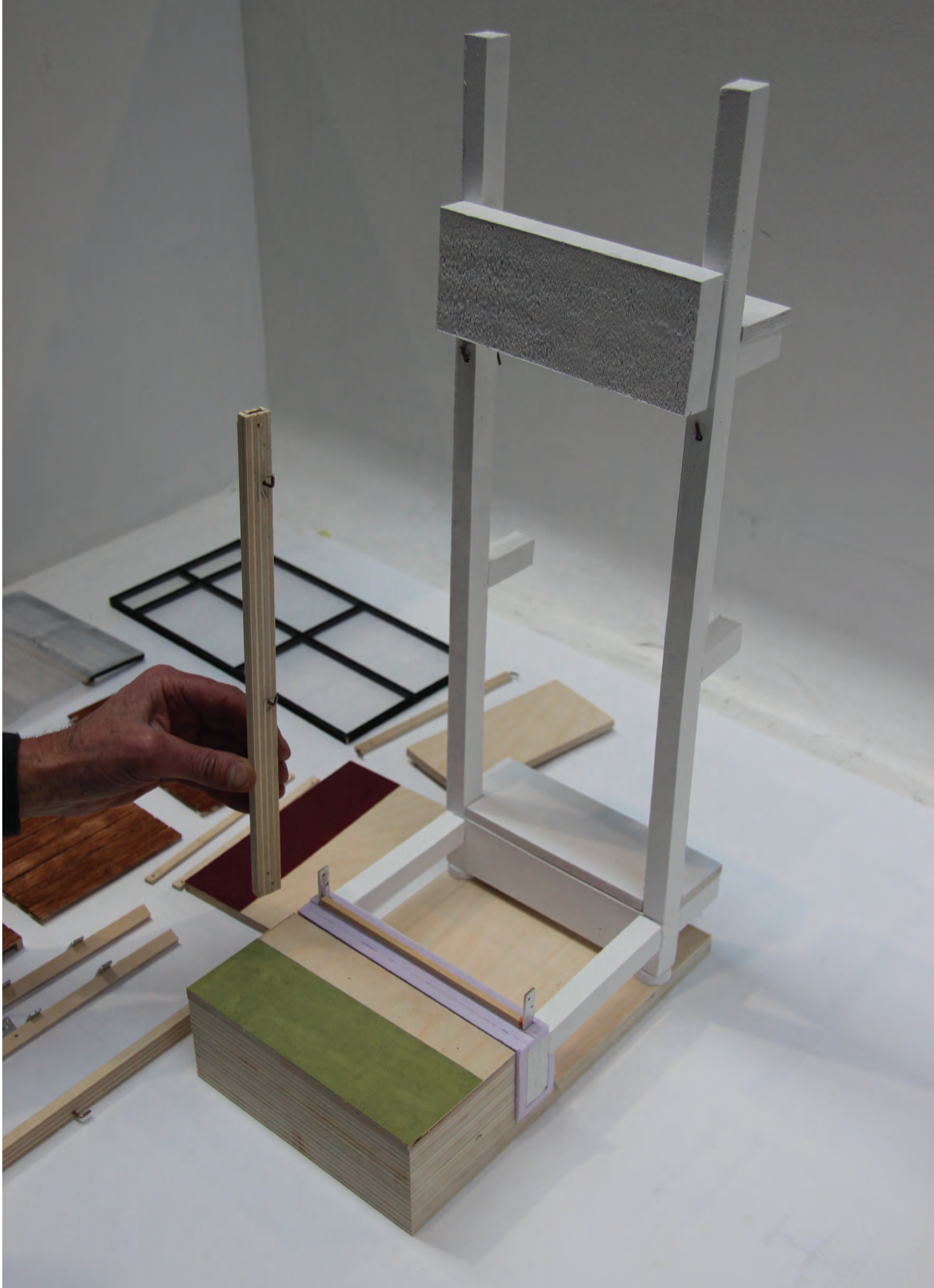
TEN YEARS LATER...

Dismanteling the building



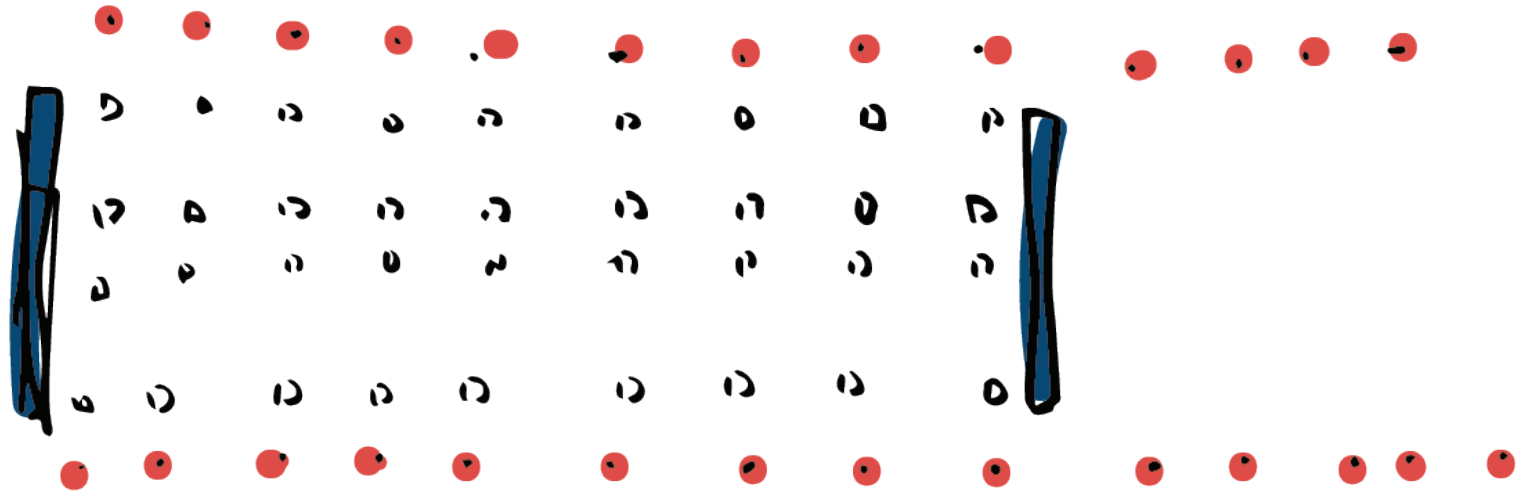
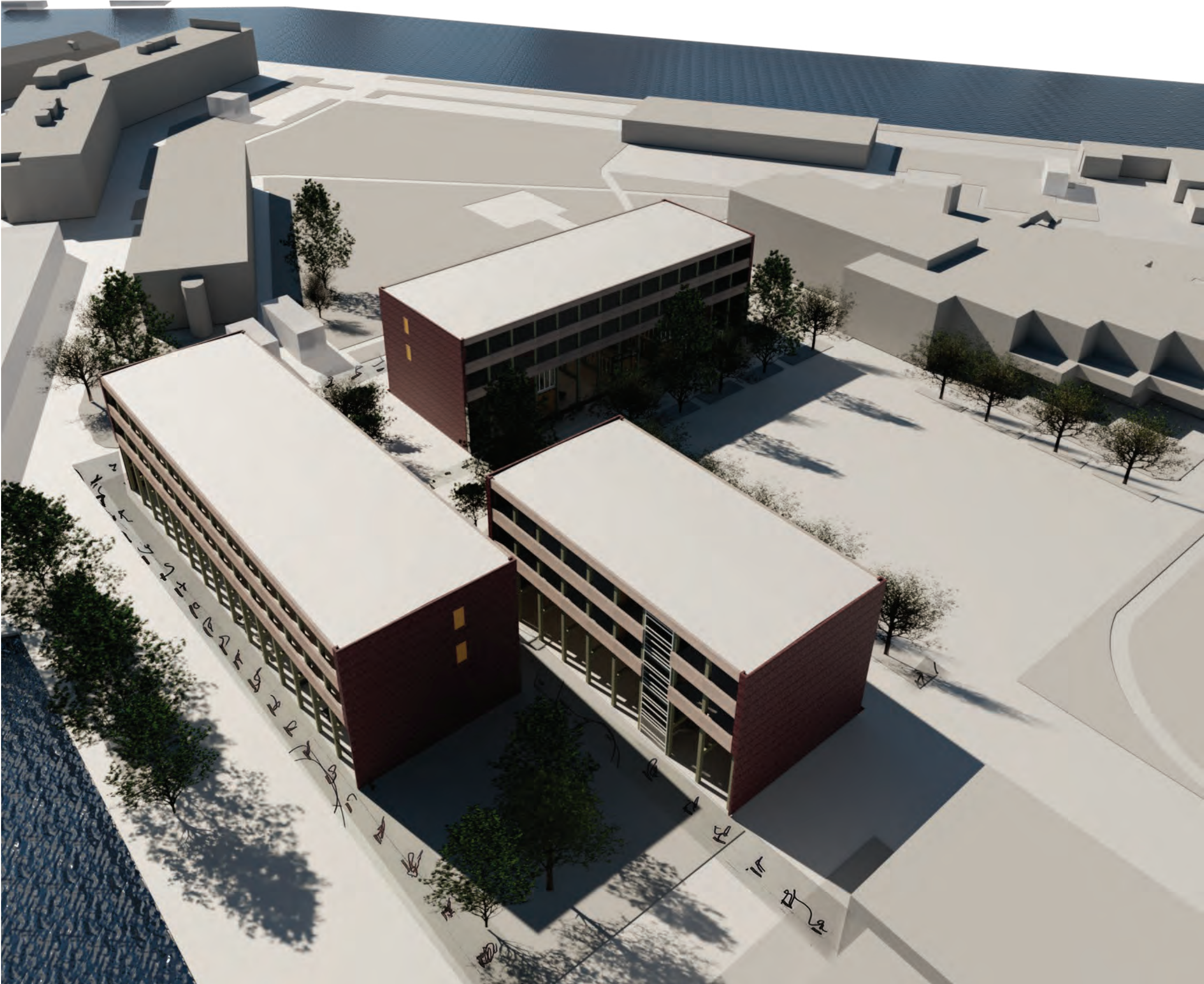
TEN YEARS LATER...

Dismanteling the building



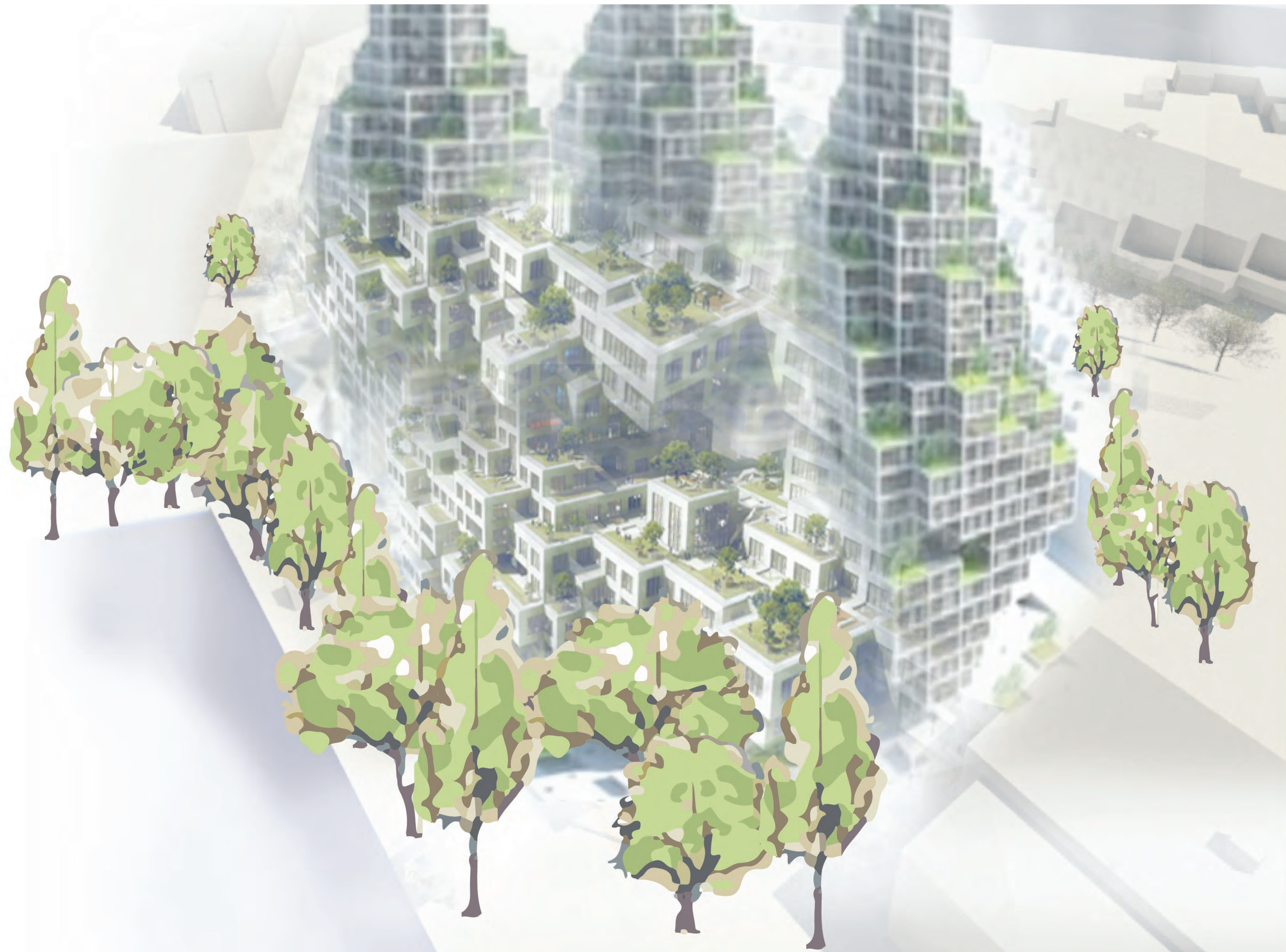
TEN YEARS LATER....

What is left behind?



IN 2050...

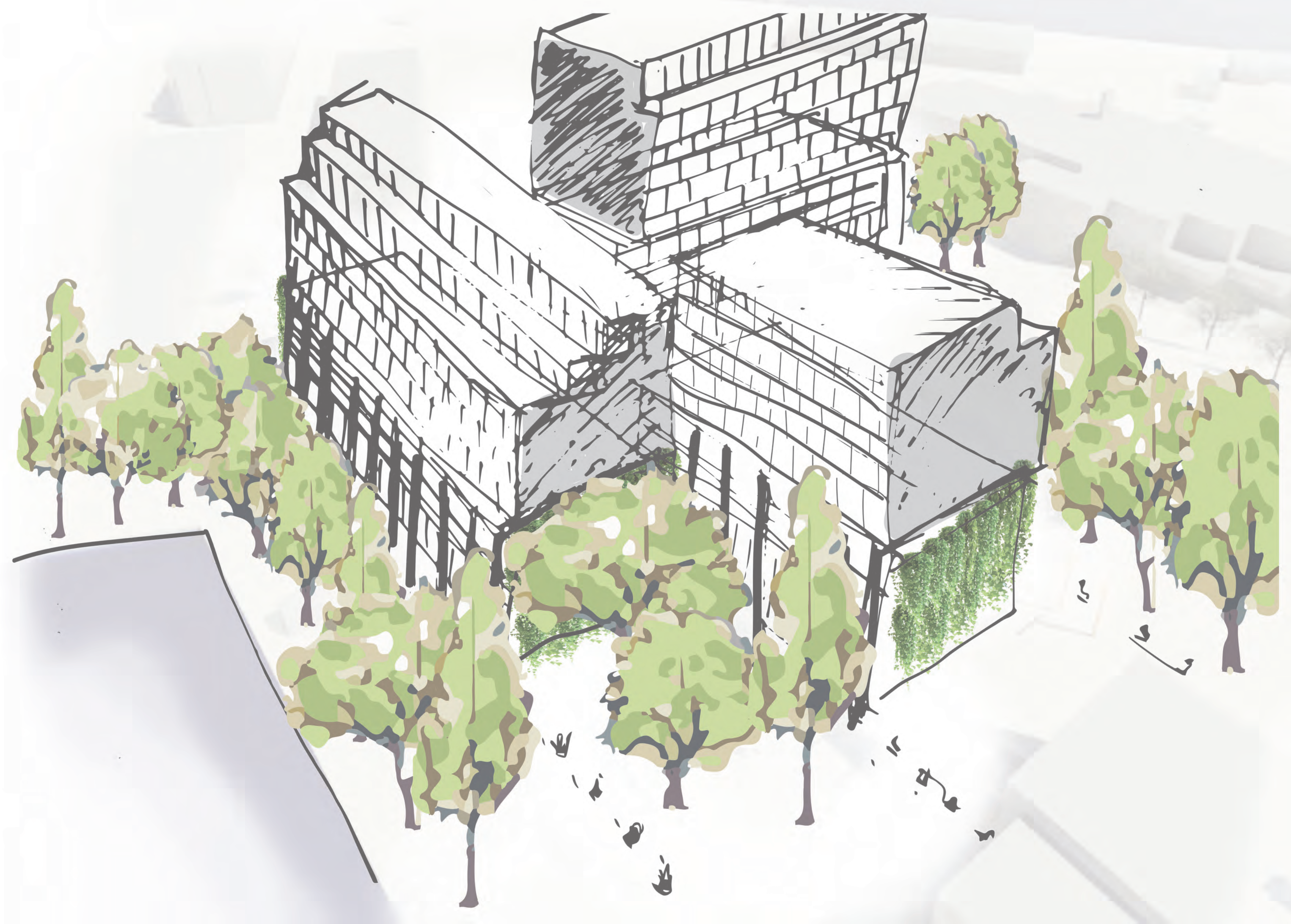
Or MVRDV/BIG



A horizontal timeline bar representing the years from 1500 to 2050. The years are labeled at the top of the bar. A solid red segment highlights the period from 2018 to 2030. The years 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, and 2030 are all within the red segment. The years 1500, 1501, 1502, 1503, 1504, 1505, 1506, 1507, 1508, 1509, 1510, 1511, 1512, 1513, 1514, 1515, 1516, 1517, 1518, 1519, 1520, 1521, 1522, 1523, 1524, 1525, 1526, 1527, 1528, 1529, 1530, 1531, 1532, 1533, 1534, 1535, 1536, 1537, 1538, 1539, 1540, 1541, 1542, 1543, 1544, 1545, 1546, 1547, 1548, 1549, 1550, 1551, 1552, 1553, 1554, 1555, 1556, 1557, 1558, 1559, 1560, 1561, 1562, 1563, 1564, 1565, 1566, 1567, 1568, 1569, 1570, 1571, 1572, 1573, 1574, 1575, 1576, 1577, 1578, 1579, 1580, 1581, 1582, 1583, 1584, 1585, 1586, 1587, 1588, 1589, 1590, 1591, 1592, 1593, 1594, 1595, 1596, 1597, 1598, 1599, 1600, 1601, 1602, 1603, 1604, 1605, 1606, 1607, 1608, 1609, 1610, 1611, 1612, 1613, 1614, 1615, 1616, 1617, 1618, 1619, 1620, 1621, 1622, 1623, 1624, 1625, 1626, 1627, 1628, 1629, 1630, 1631, 1632, 1633, 1634, 1635, 1636, 1637, 1638, 1639, 1640, 1641, 1642, 1643, 1644, 1645, 1646, 1647, 1648, 1649, 1650, 1651, 1652, 1653, 1654, 1655, 1656, 1657, 1658, 1659, 1660, 1661, 1662, 1663, 1664, 1665, 1666, 1667, 1668, 1669, 1670, 1671, 1672, 1673, 1674, 1675, 1676, 1677, 1678, 1679, 1680, 1681, 1682, 1683, 1684, 1685, 1686, 1687, 1688, 1689, 1690, 1691, 1692, 1693, 1694, 1695, 1696, 1697, 1698, 1699, 1700, 1701, 1702, 1703, 1704, 1705, 1706, 1707, 1708, 1709, 1710, 1711, 1712, 1713, 1714, 1715, 1716, 1717, 1718, 1719, 1720, 1721, 1722, 1723, 1724, 1725, 1726, 1727, 1728, 1729, 1730, 1731, 1732, 1733, 1734, 1735, 1736, 1737, 1738, 1739, 1740, 1741, 1742, 1743, 1744, 1745, 1746, 1747, 1748, 1749, 1750, 1751, 1752, 1753, 1754, 1755, 1756, 1757, 1758, 1759, 1760, 1761, 1762, 1763, 1764, 1765, 1766, 1767, 1768, 1769, 1770, 1771, 1772, 1773, 1774, 1775, 1776, 1777, 1778, 1779, 1780, 1781, 1782, 1783, 1784, 1785, 1786, 1787, 1788, 1789, 1790, 1791, 1792, 1793, 1794, 1795, 1796, 1797, 1798, 1799, 1800, 1801, 1802, 1803, 1804, 1805, 1806, 1807, 1808, 1809, 1810, 1811, 1812, 1813, 1814, 1815, 1816, 1817, 1818, 1819, 1820, 1821, 1822, 1823, 1824, 1825, 1826, 1827, 1828, 1829, 1830, 1831, 1832, 1833, 1834, 1835, 1836, 1837, 1838, 1839, 1840, 1841, 1842, 1843, 1844, 1845, 1846, 1847, 1848, 1849, 1850, 1851, 1852, 1853, 1854, 1855, 1856, 1857, 1858, 1859, 1860, 1861, 1862, 1863, 1864, 1865, 1866, 1867, 1868, 1869, 1870, 1871, 1872, 1873, 1874, 1875, 1876, 1877, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900, 1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908, 1909, 1910, 1911, 1912, 1913, 1914, 1915, 1916, 1917, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050.

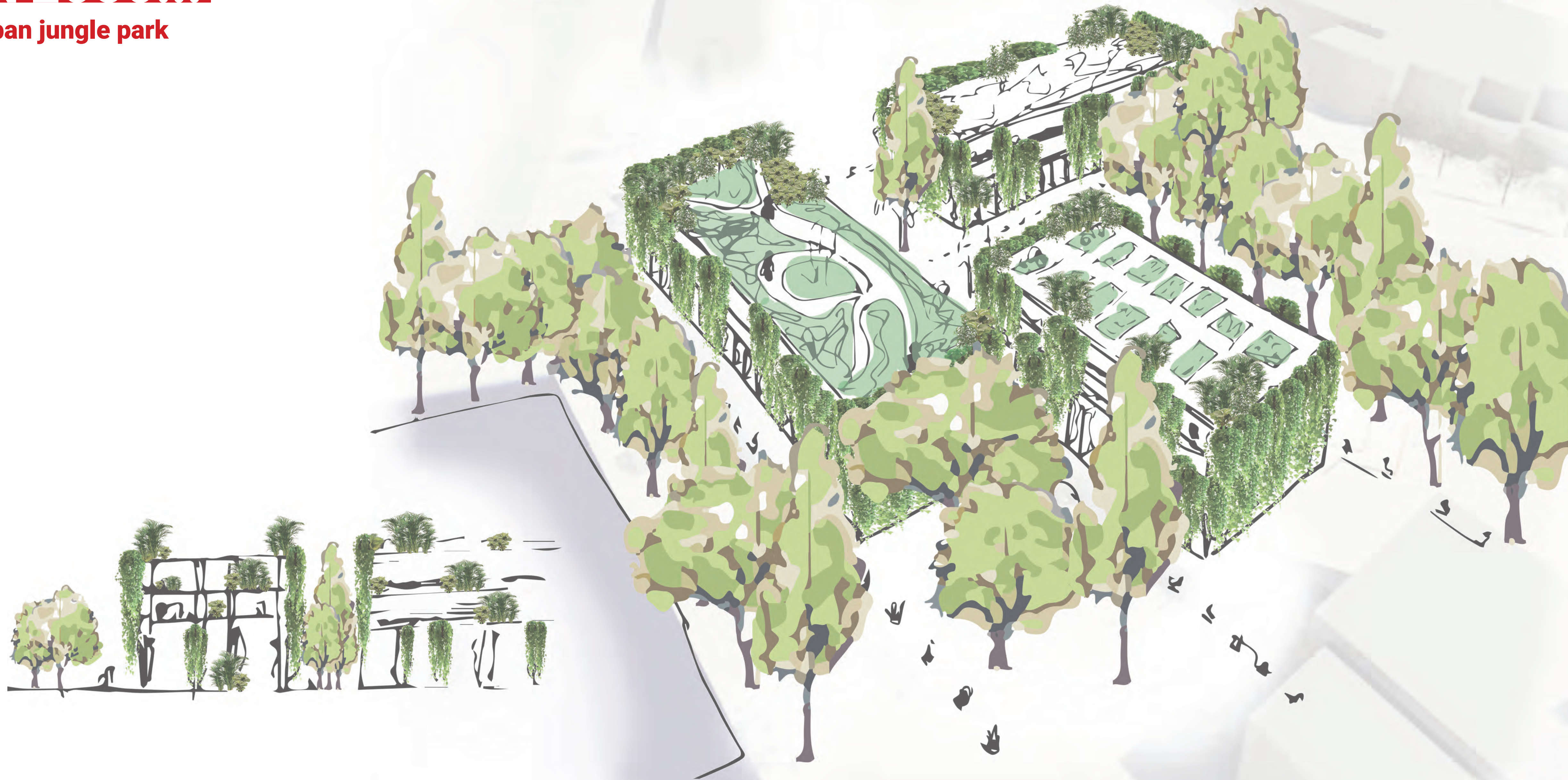
IN 2050...

Or stacking



A horizontal timeline bar with a color gradient from dark blue on the left to light blue on the right. The bar is marked with years from 1500 to 2050 in 10-year increments. The years 2018 through 2050 are highlighted in a lighter blue, indicating the period of focus for the data presented.

Urban jungle park

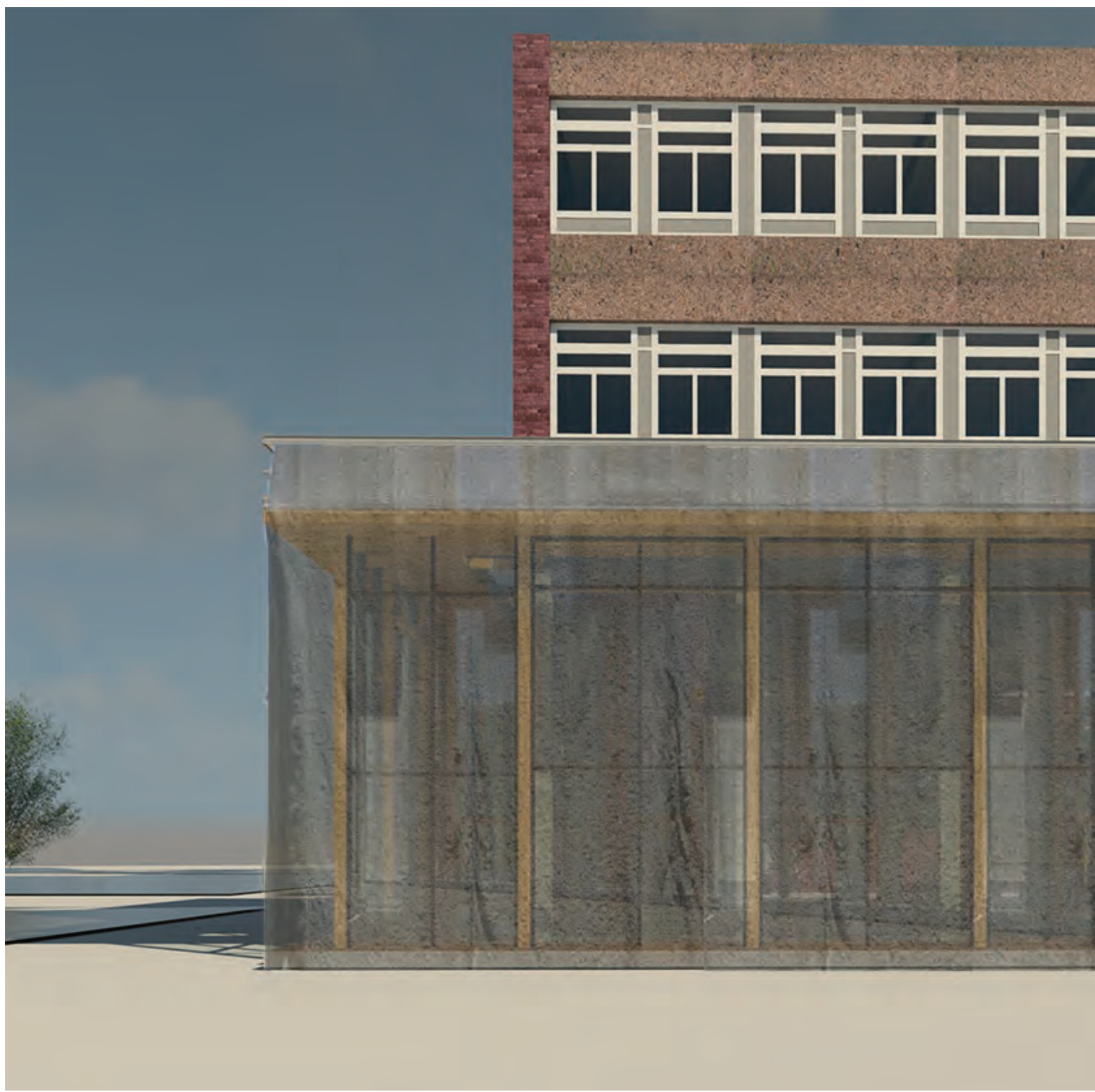
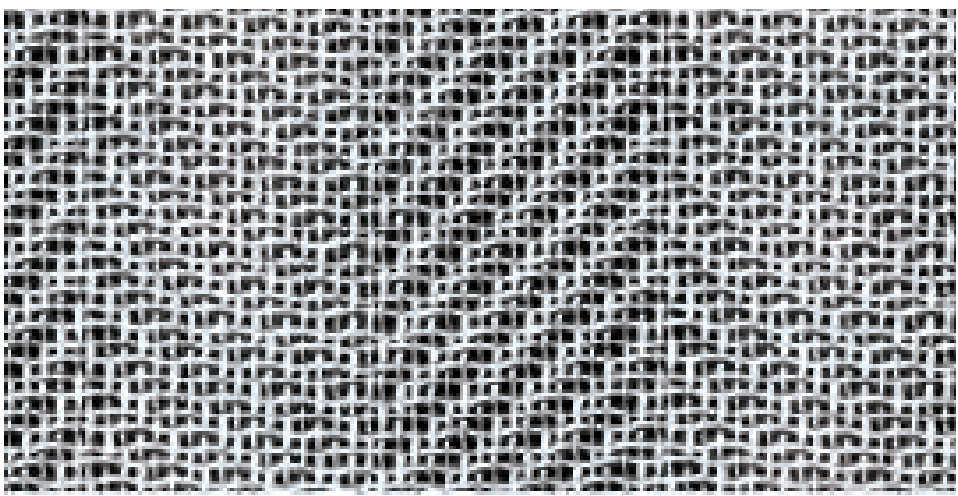
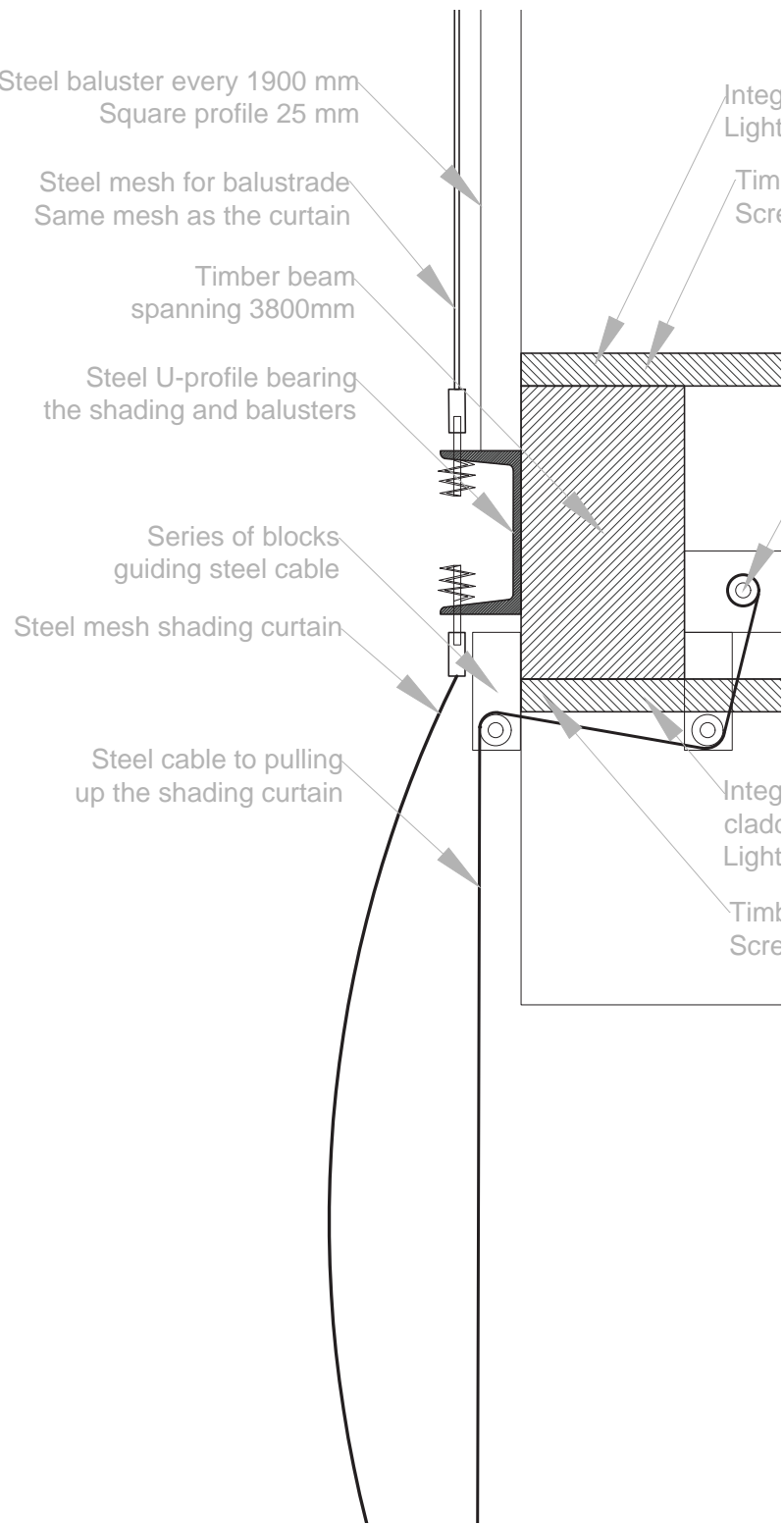
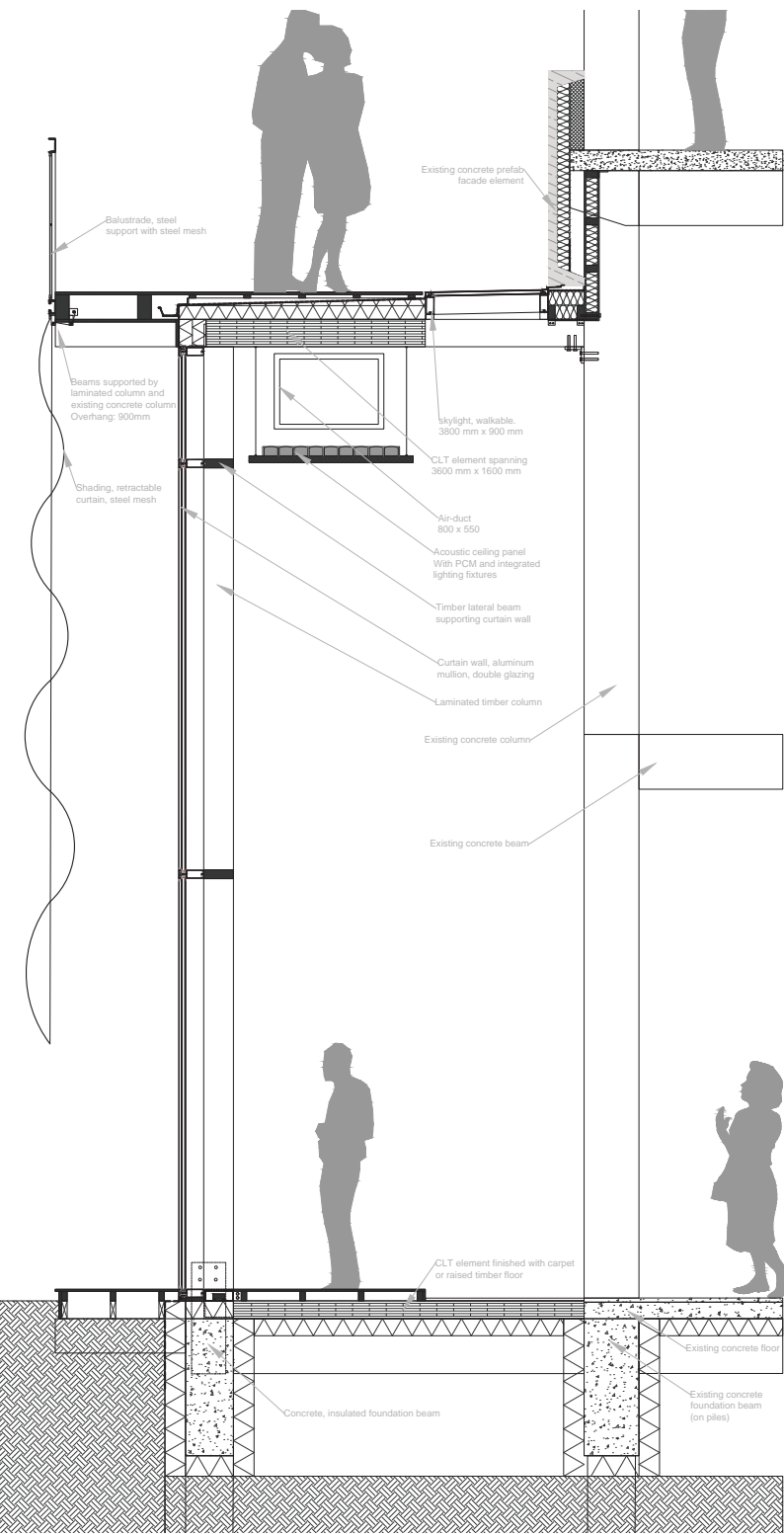


A horizontal timeline bar spanning from 1500 to 2050. The bar is divided into segments. The first segment, from 1500 to 2018, is red. The subsequent segments, from 2018 to 2050, are grey. The years 1500, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, and 2050 are labeled at the top of the bar.

The image consists of a large white rectangular area. At the top, there is a solid red horizontal bar. Inside this bar, the word "QUESTIONS?" is written in a bold, white, sans-serif font. At the bottom of the image, there is another solid red horizontal bar. Inside this bar, a timeline is displayed in white text. It starts with the year "1500" on the left, followed by a series of small red squares. Then, the years "2018", "2019", "2020", "2021", "2022", "2023", "2024", "2025", "2026", "2027", "2028", "2029", and "2030" are listed in order. This is followed by another series of small red squares, and finally, the year "2050" is written on the far right. The entire image is set against a white background.

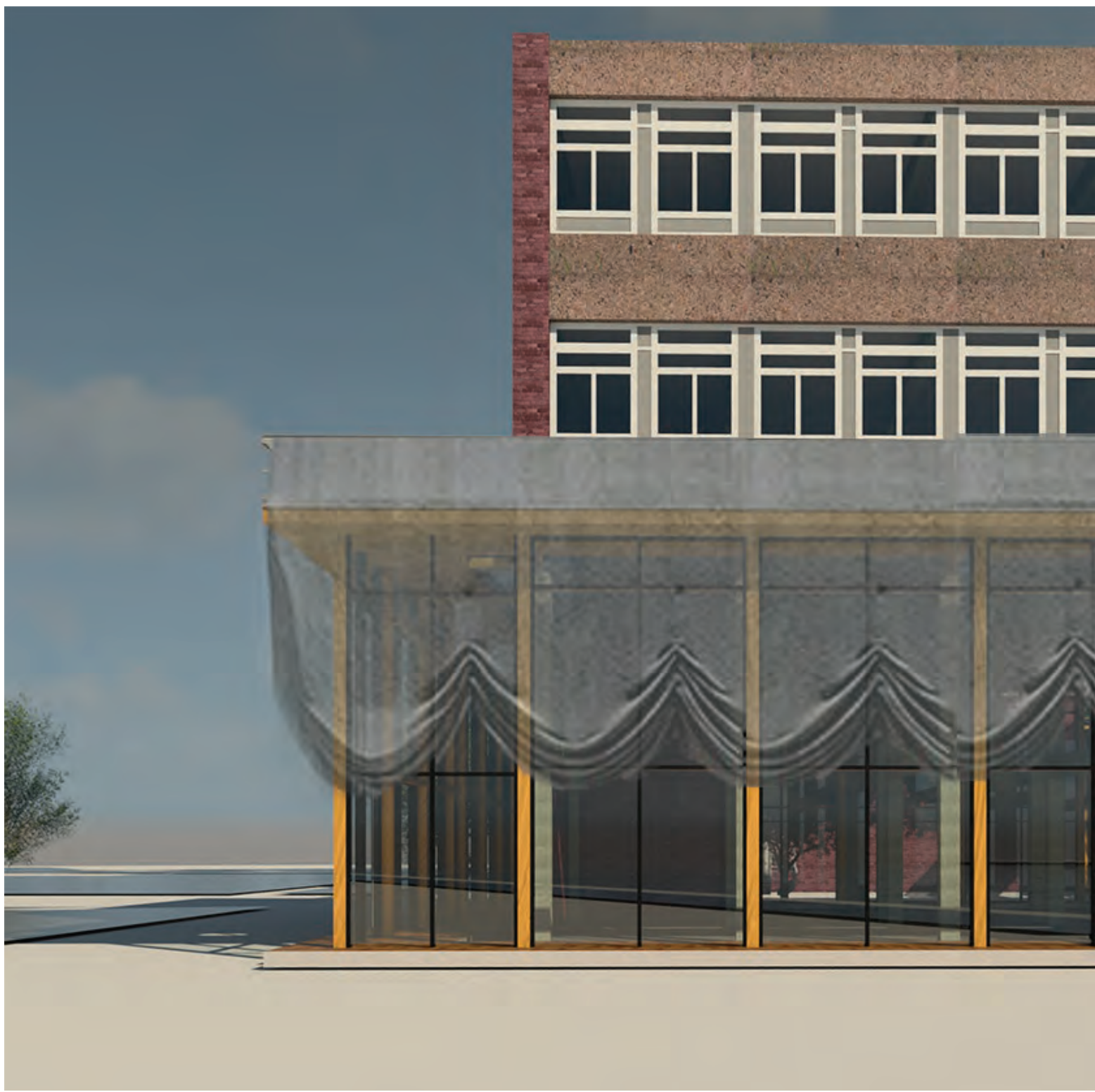
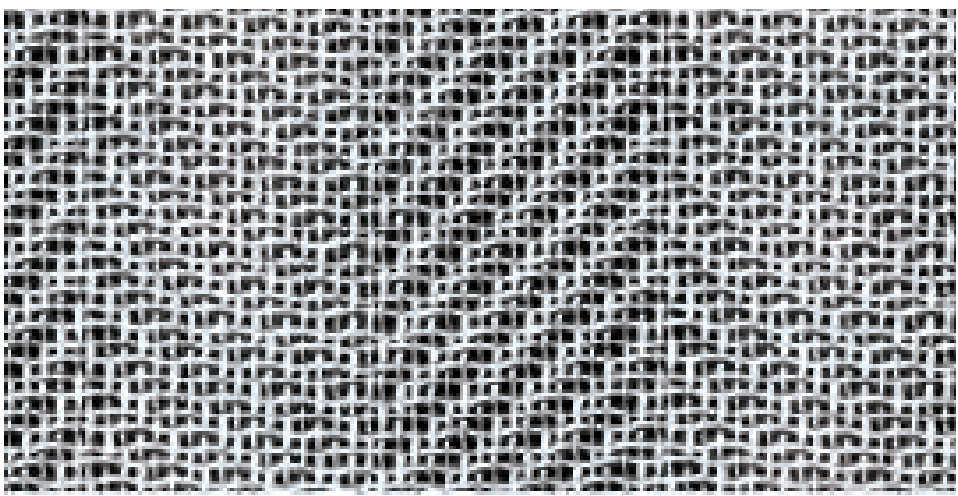
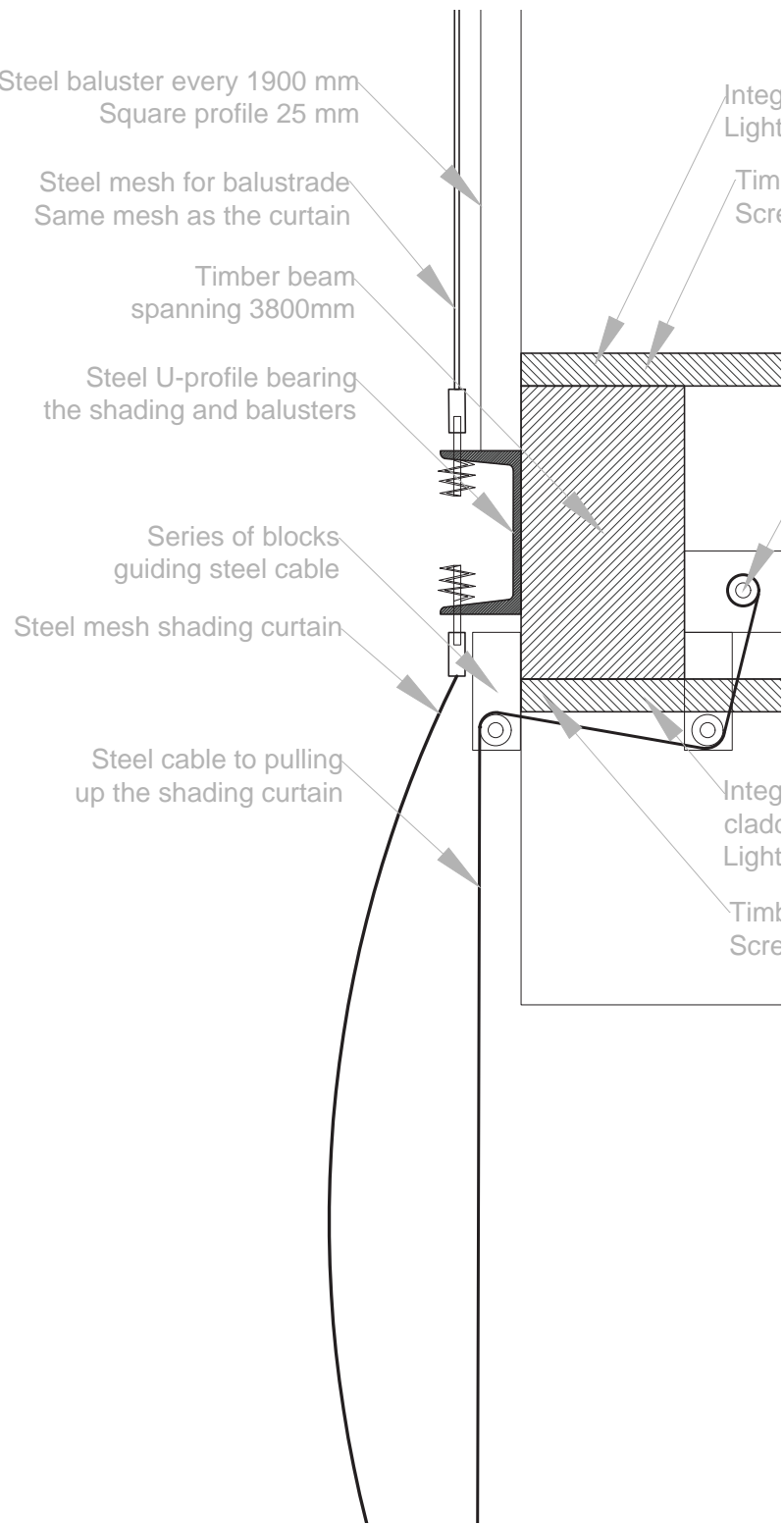
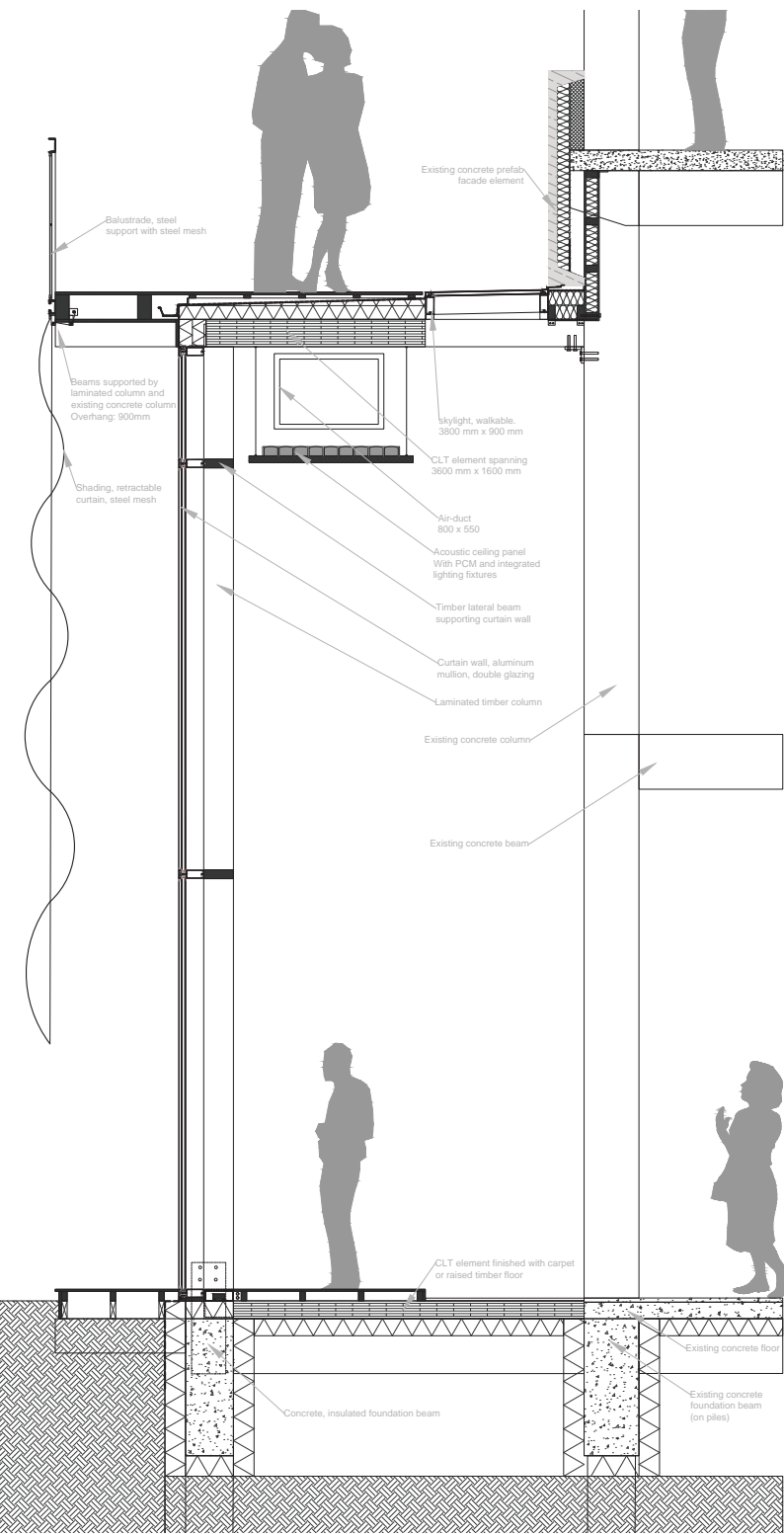
CLIMATE DESIGN

Shading curtains



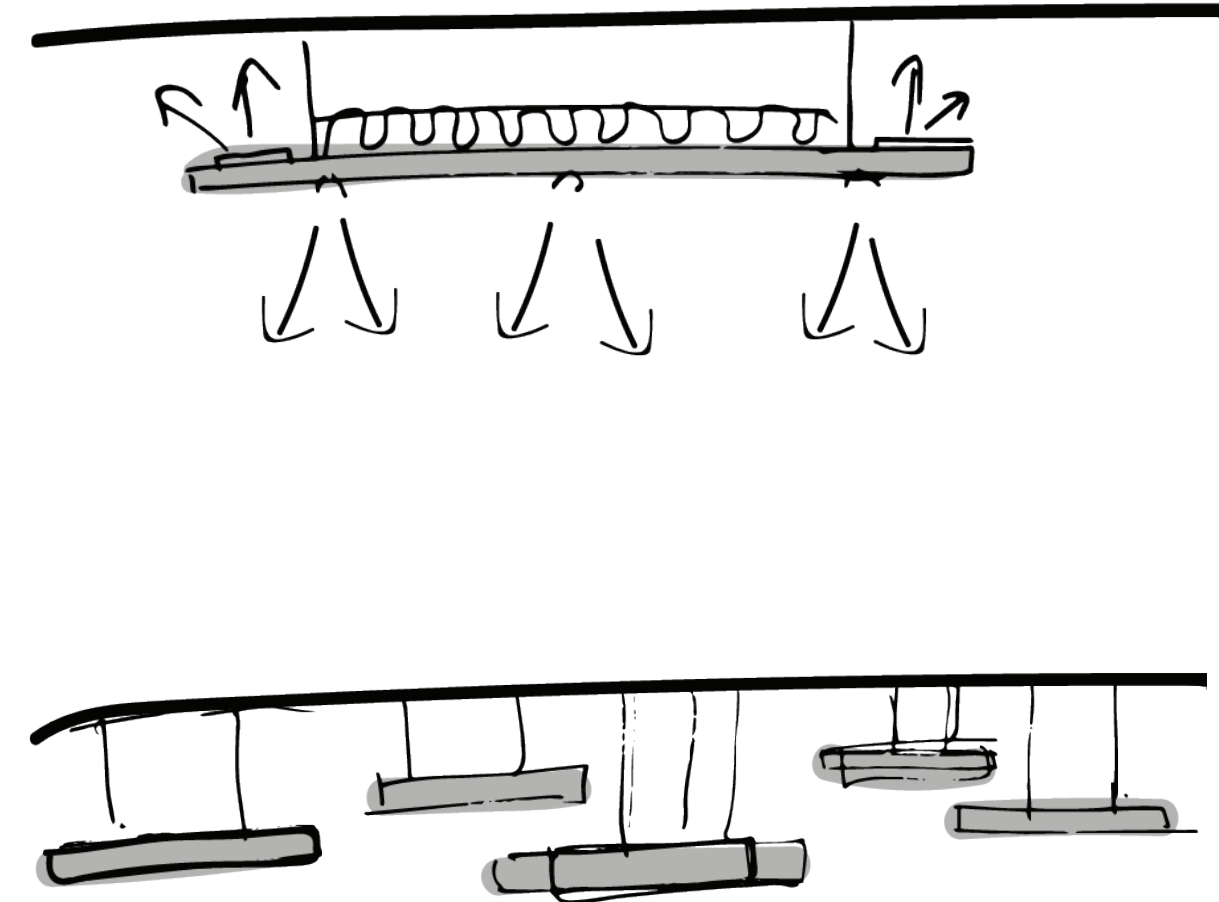
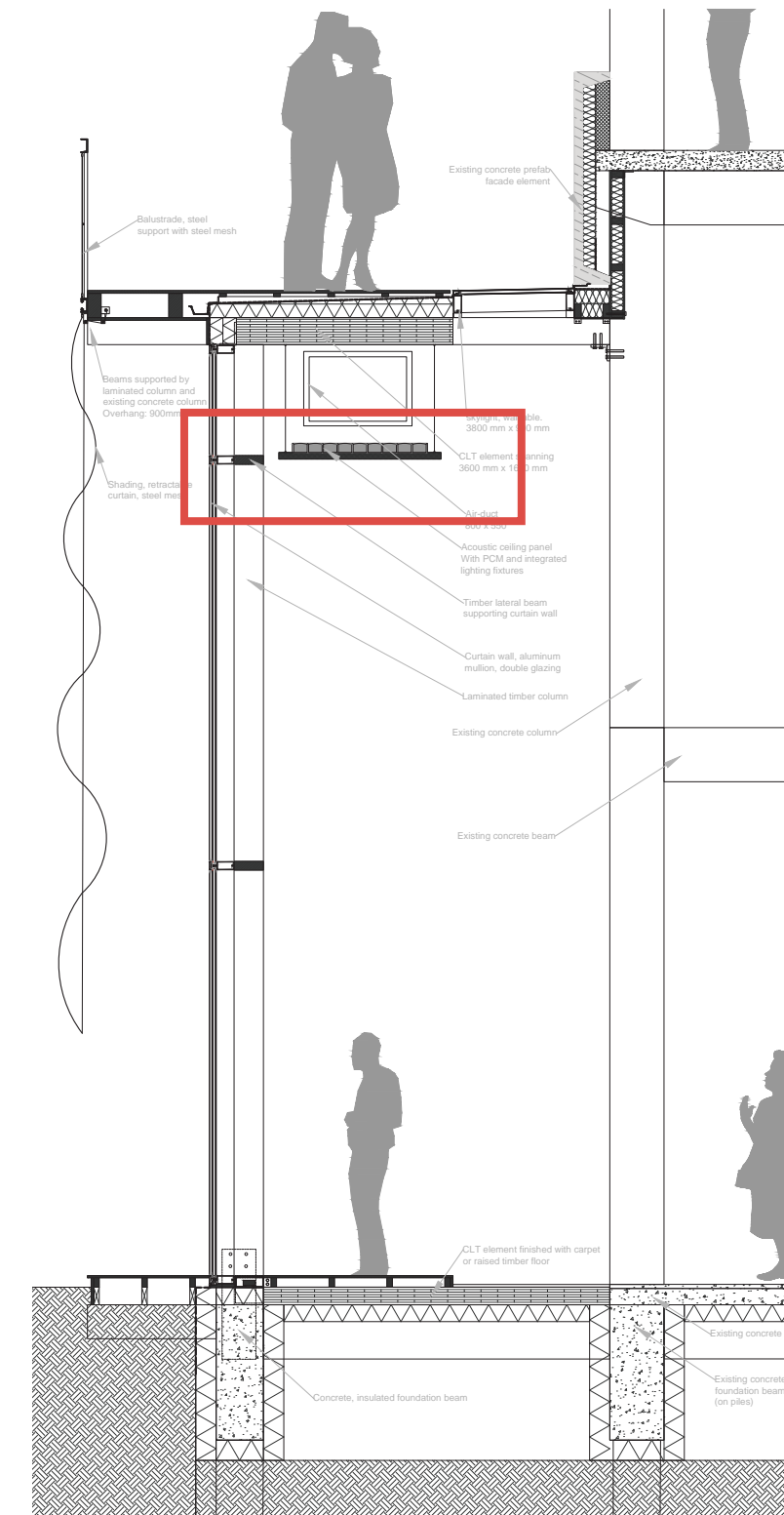
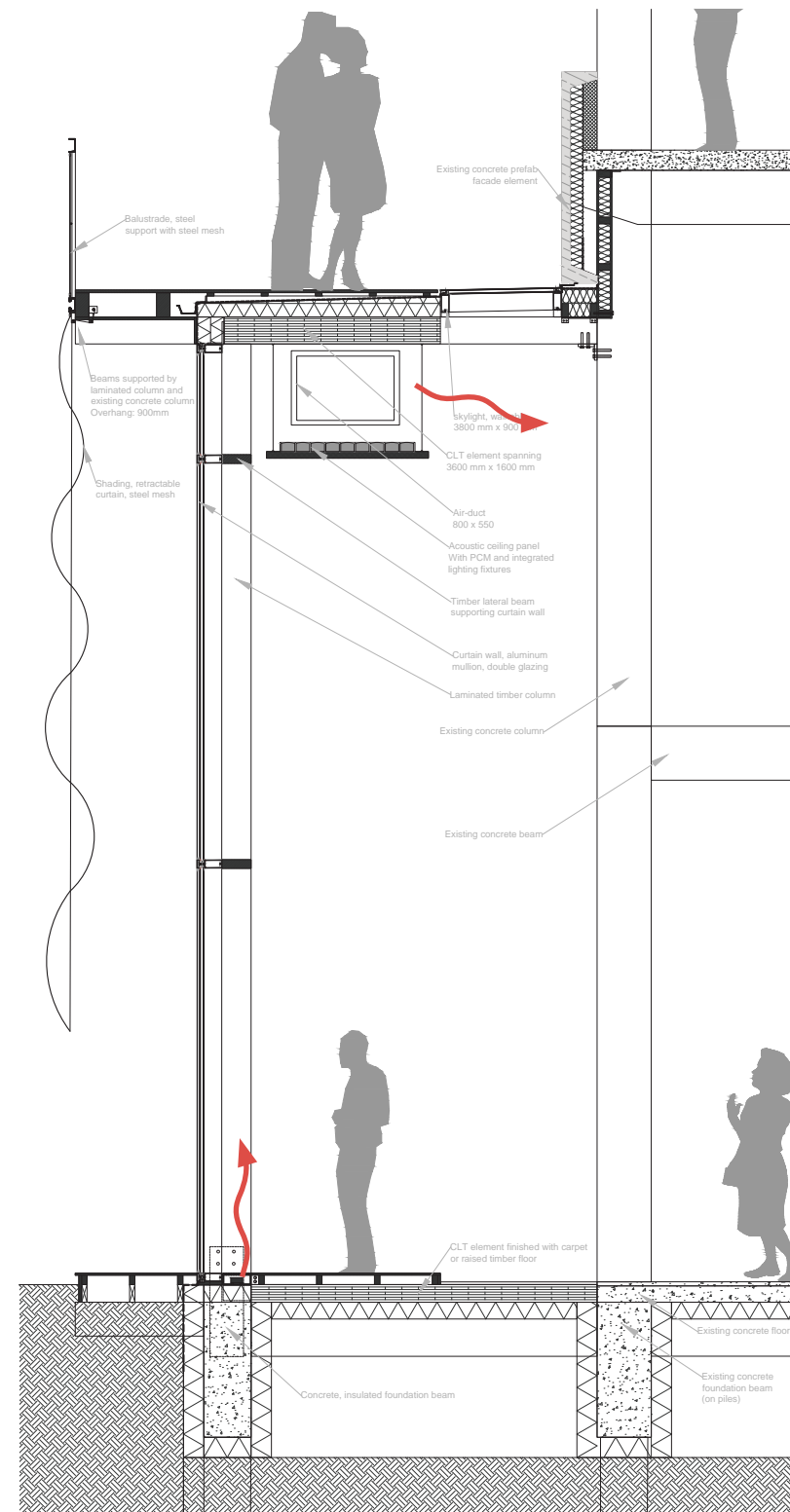
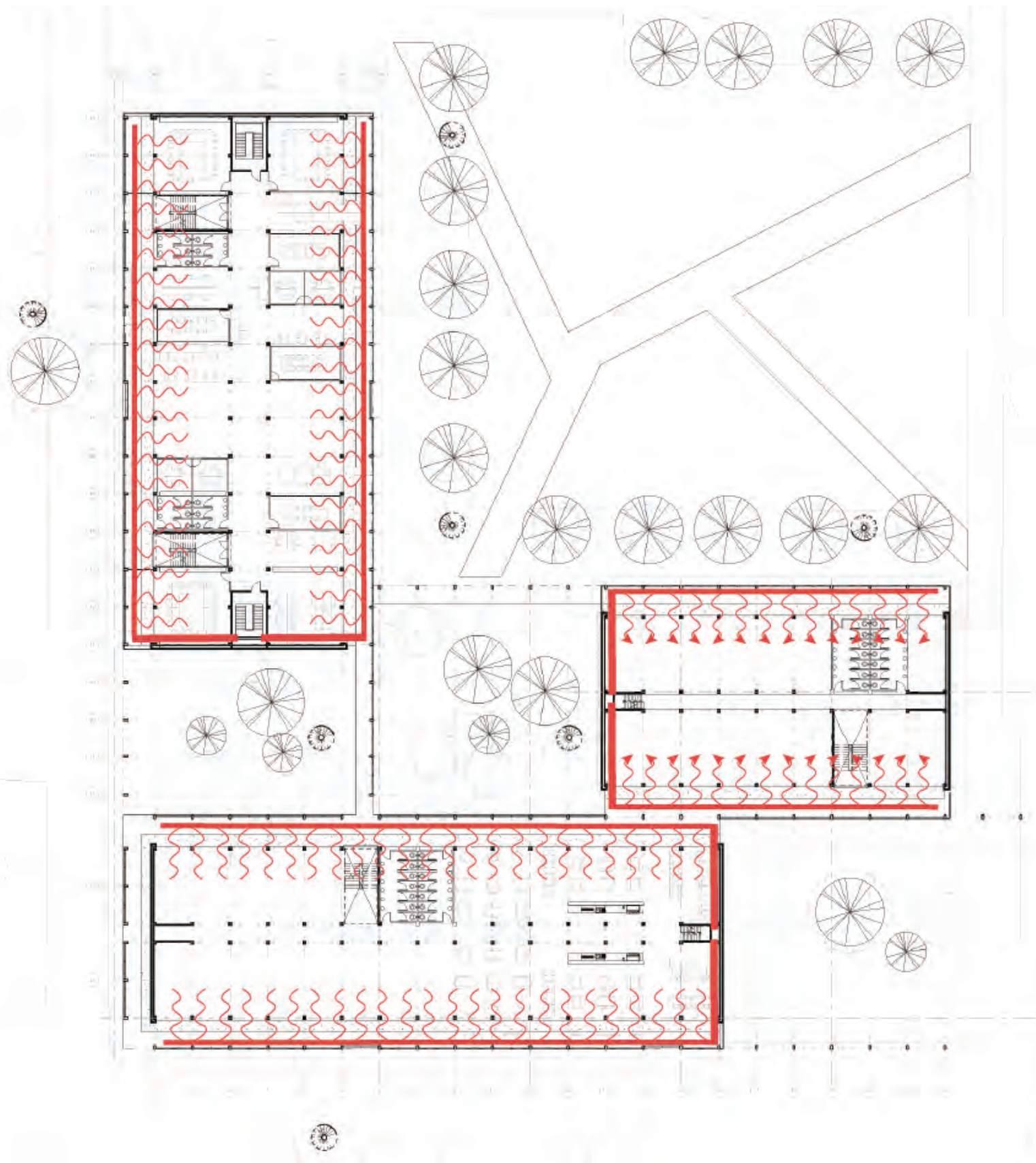
CLIMATE DESIGN

Shading curtains



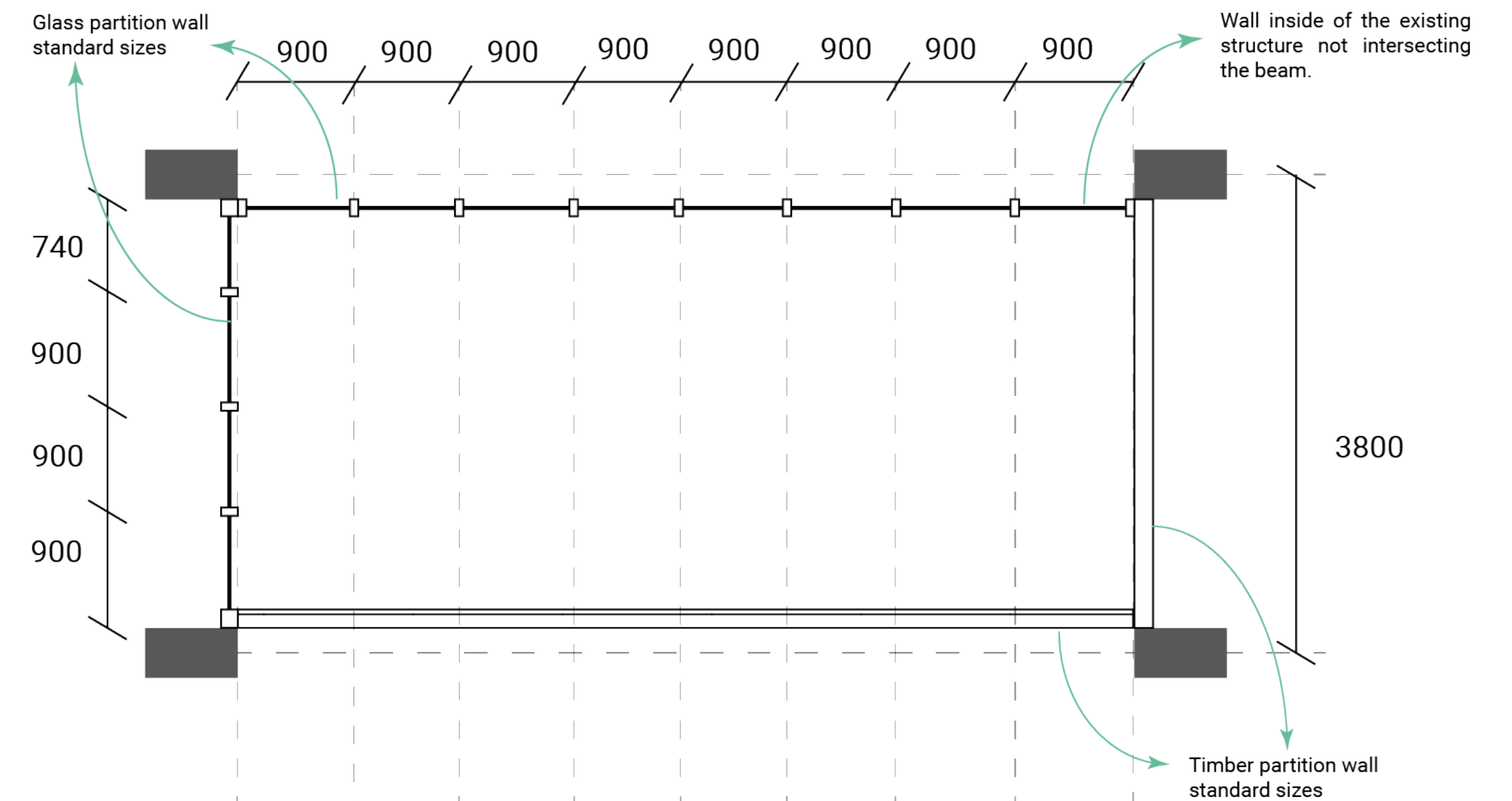
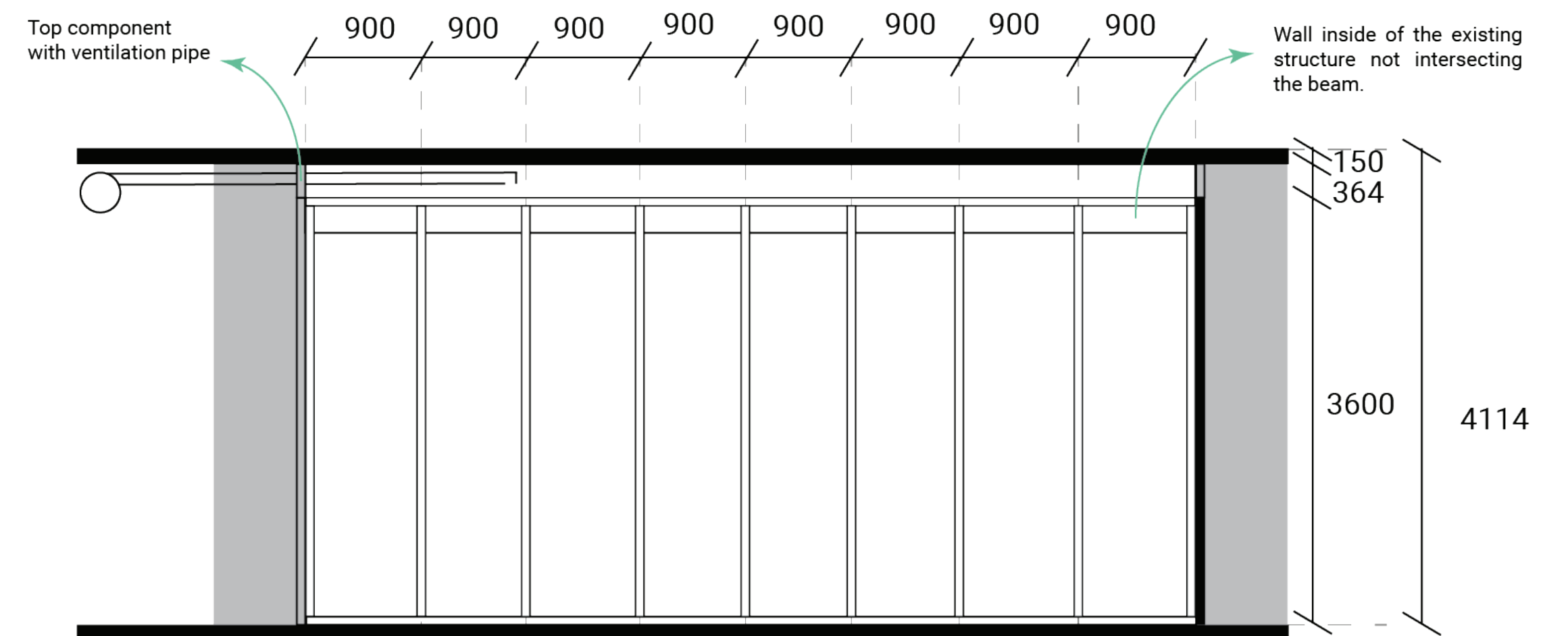
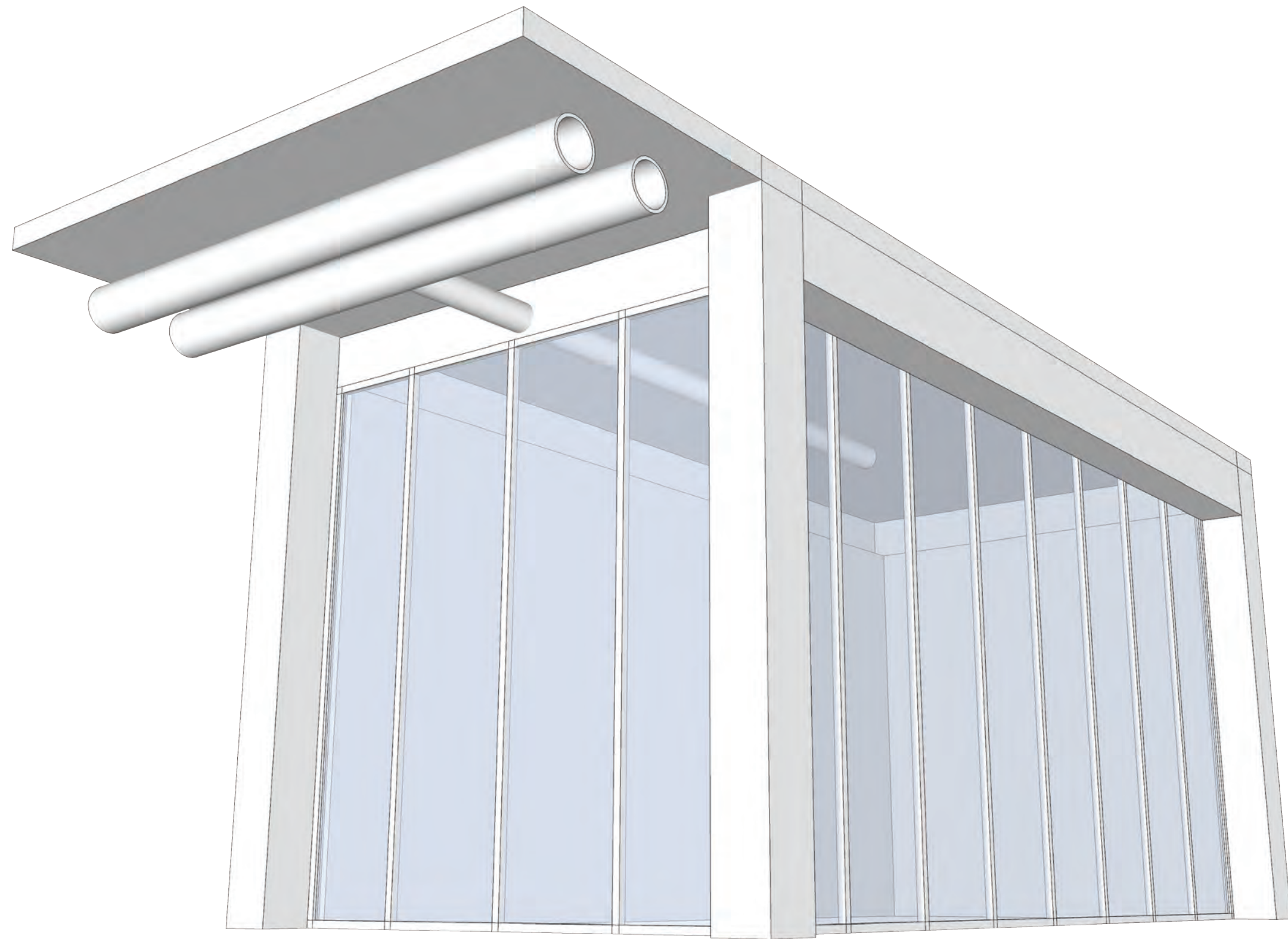
CLIMATE DESIGN

Ventilation & Phase changing materials



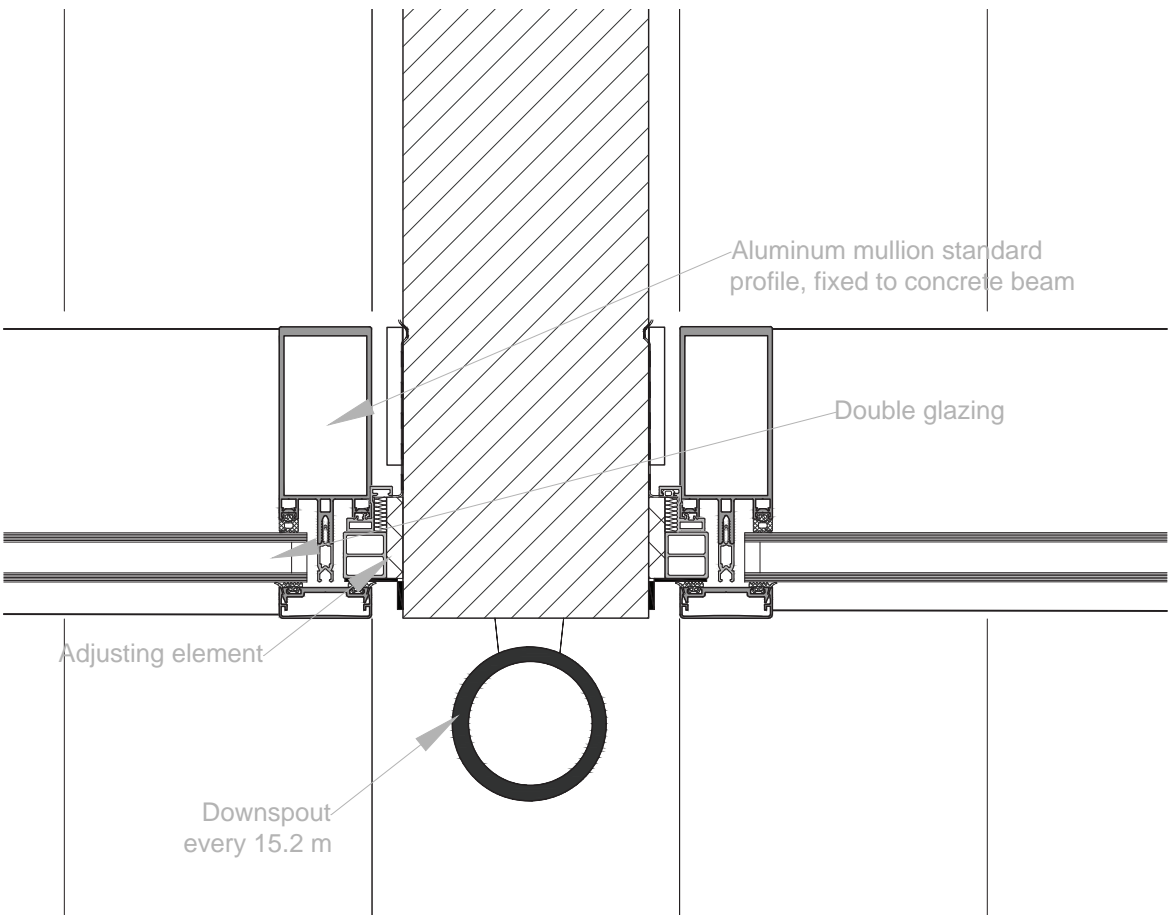
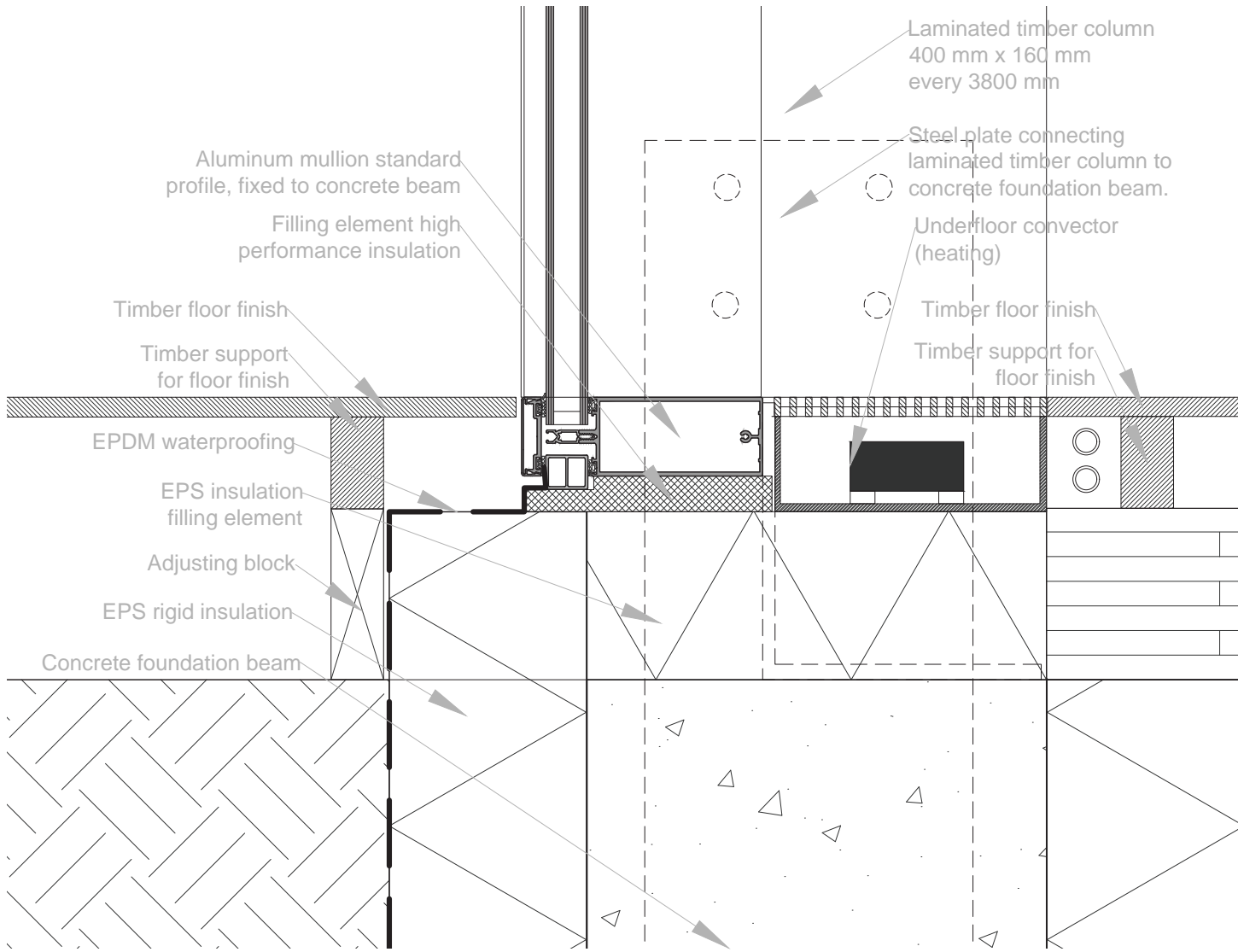
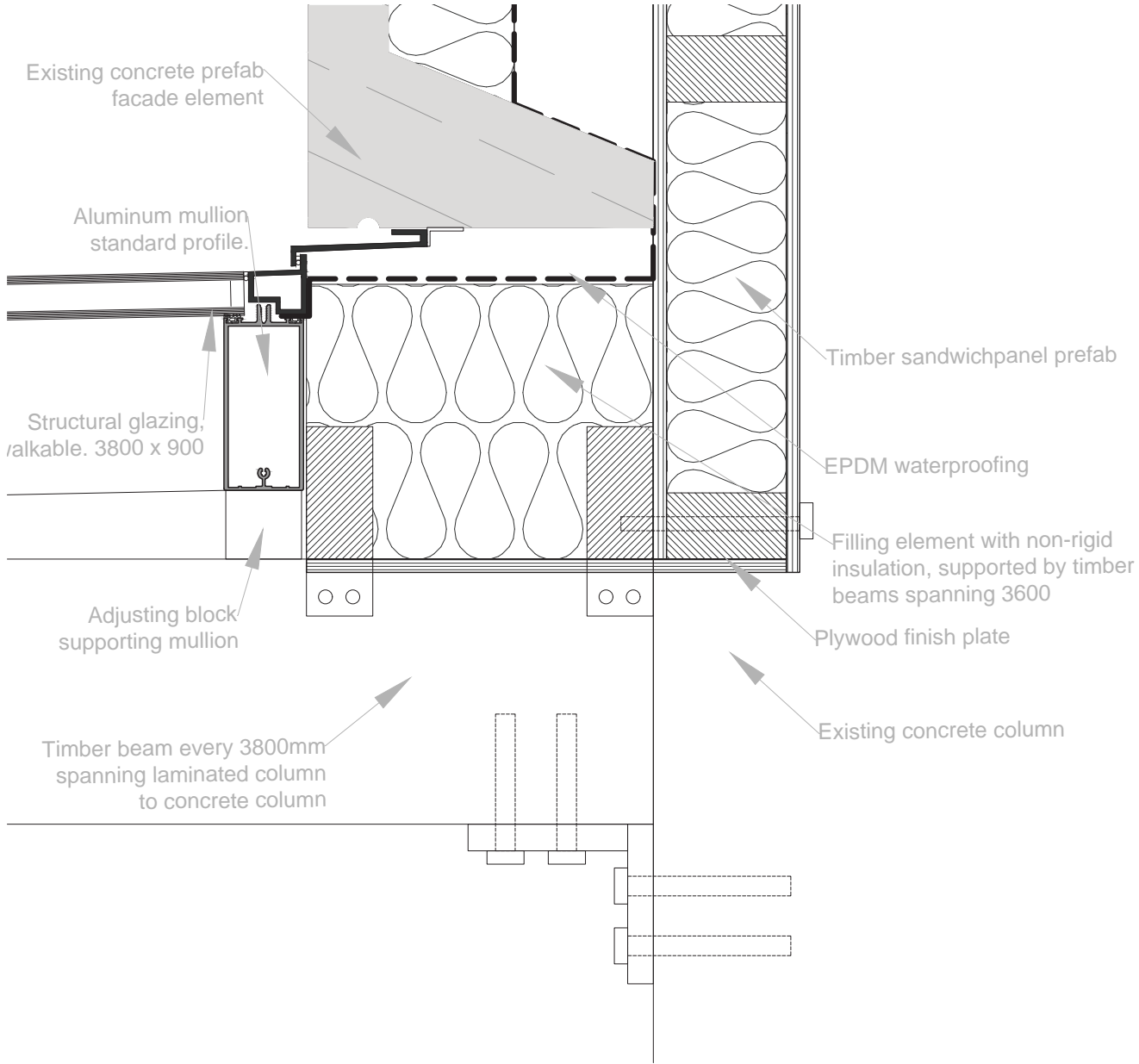
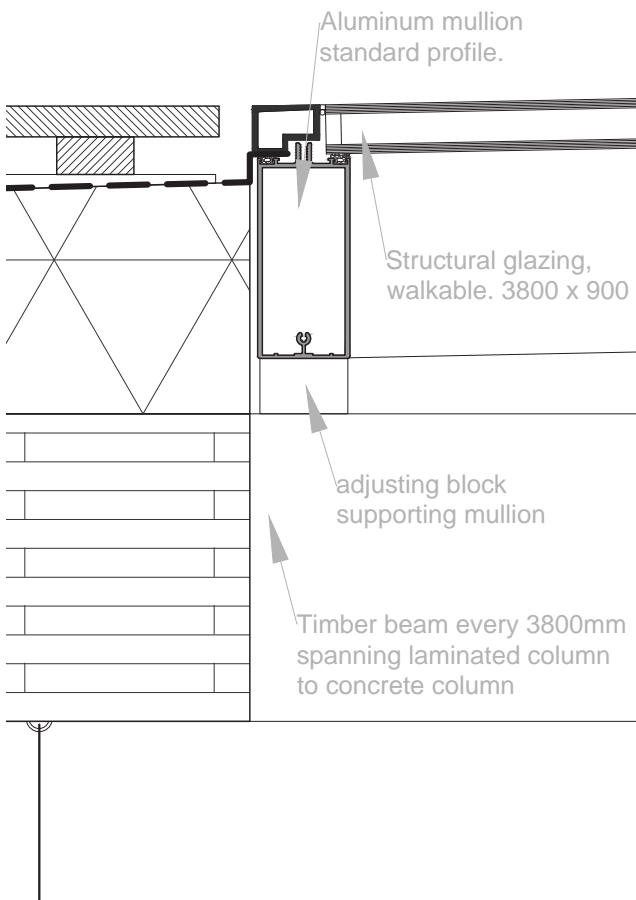
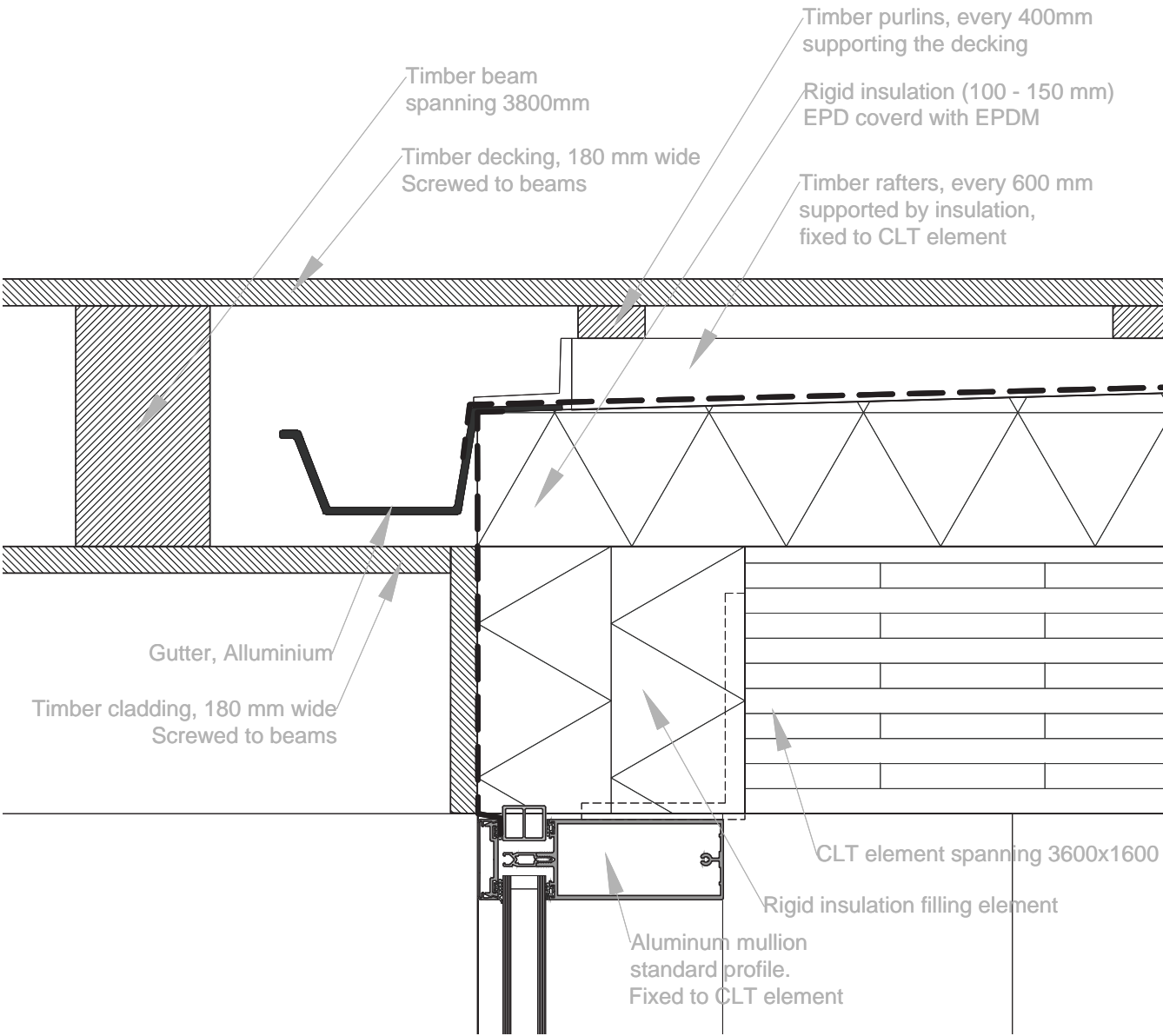
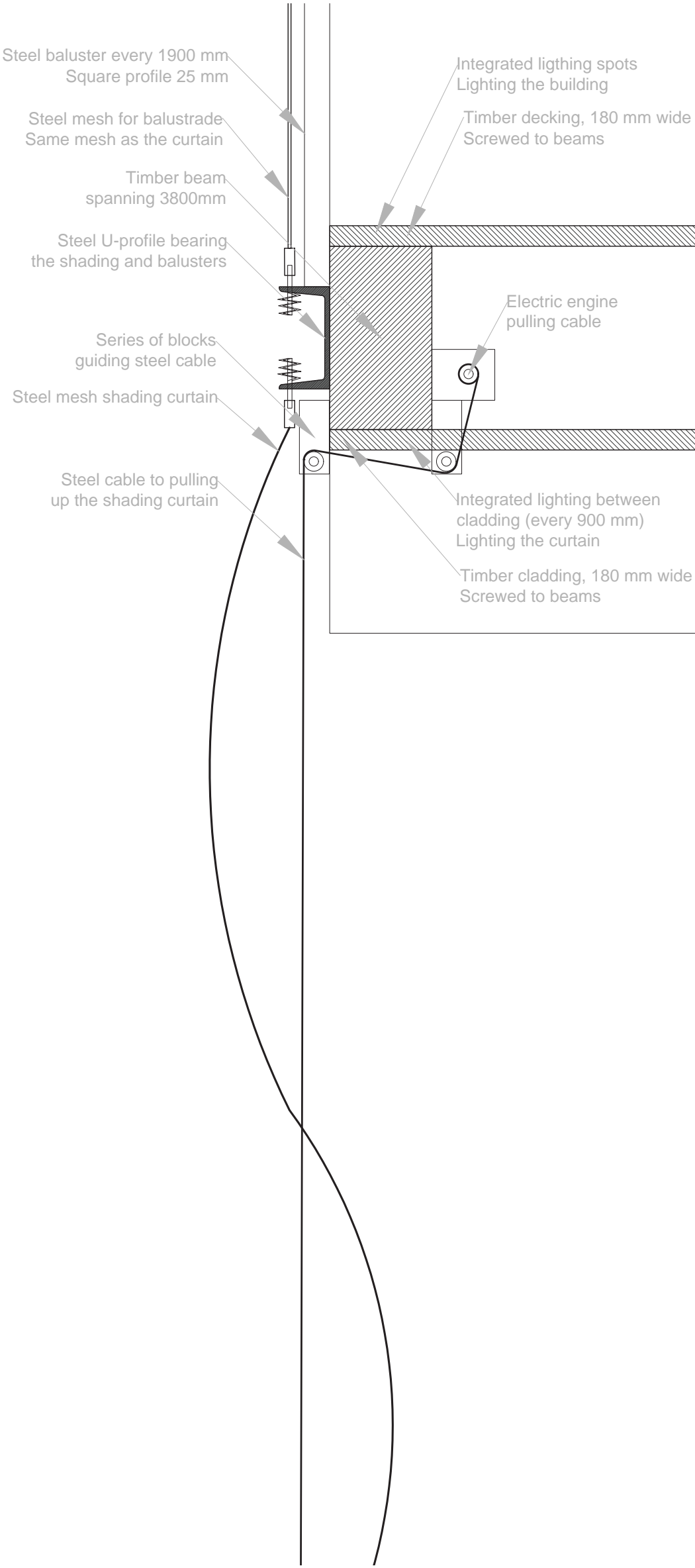
CLIMATE DESIGN

Interior partition walls

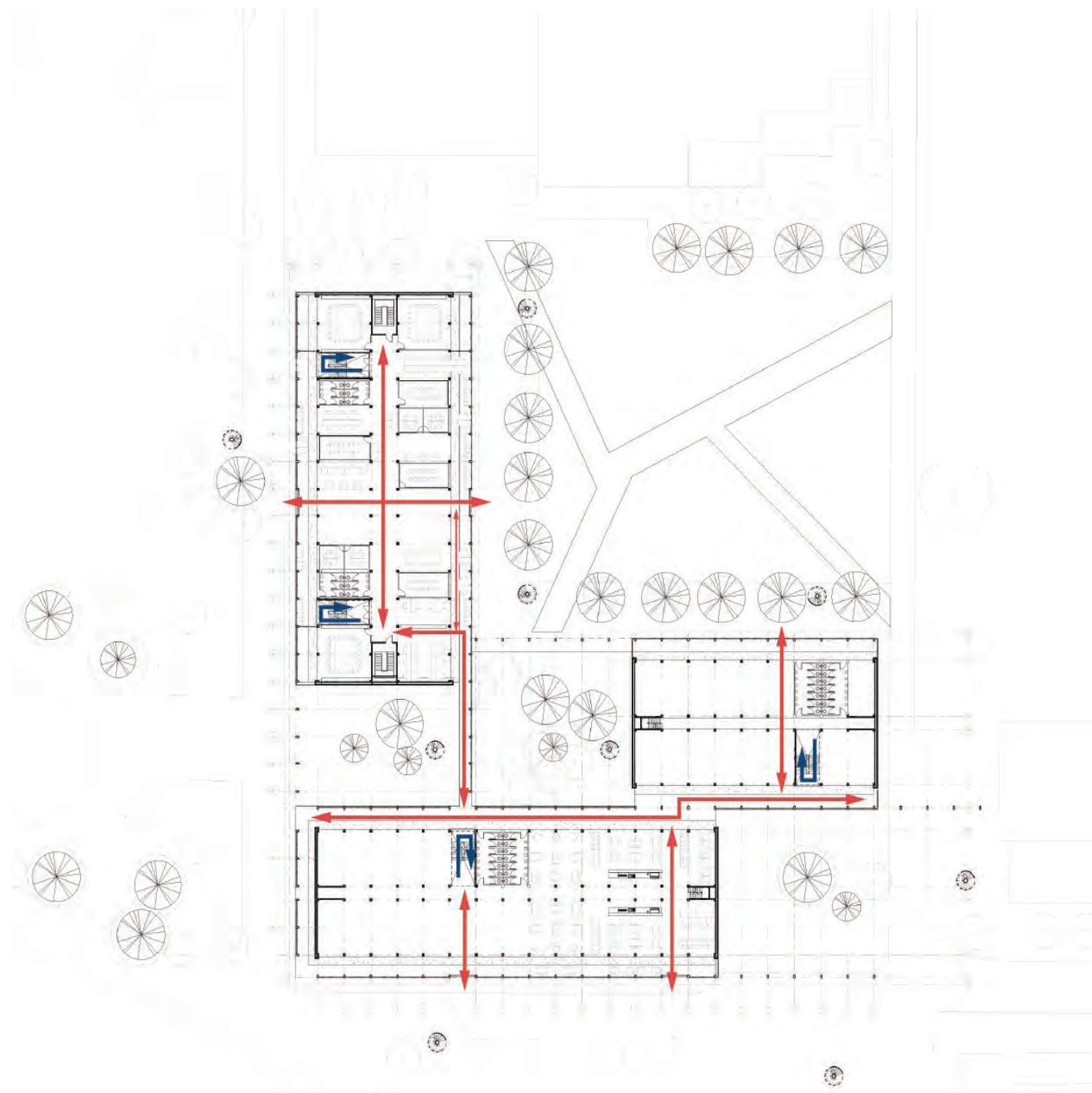


TECHNICAL DESIGN

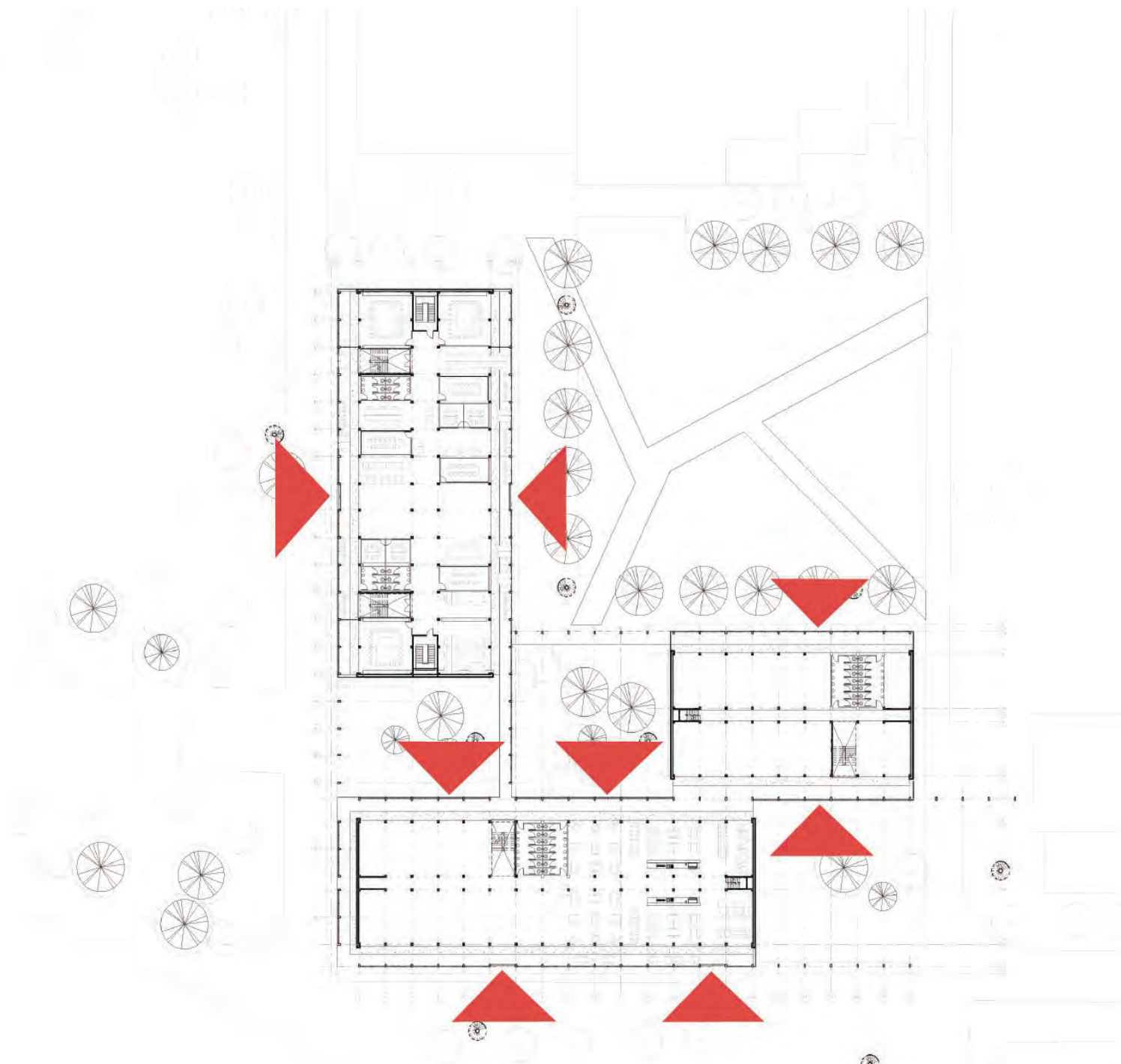
Details



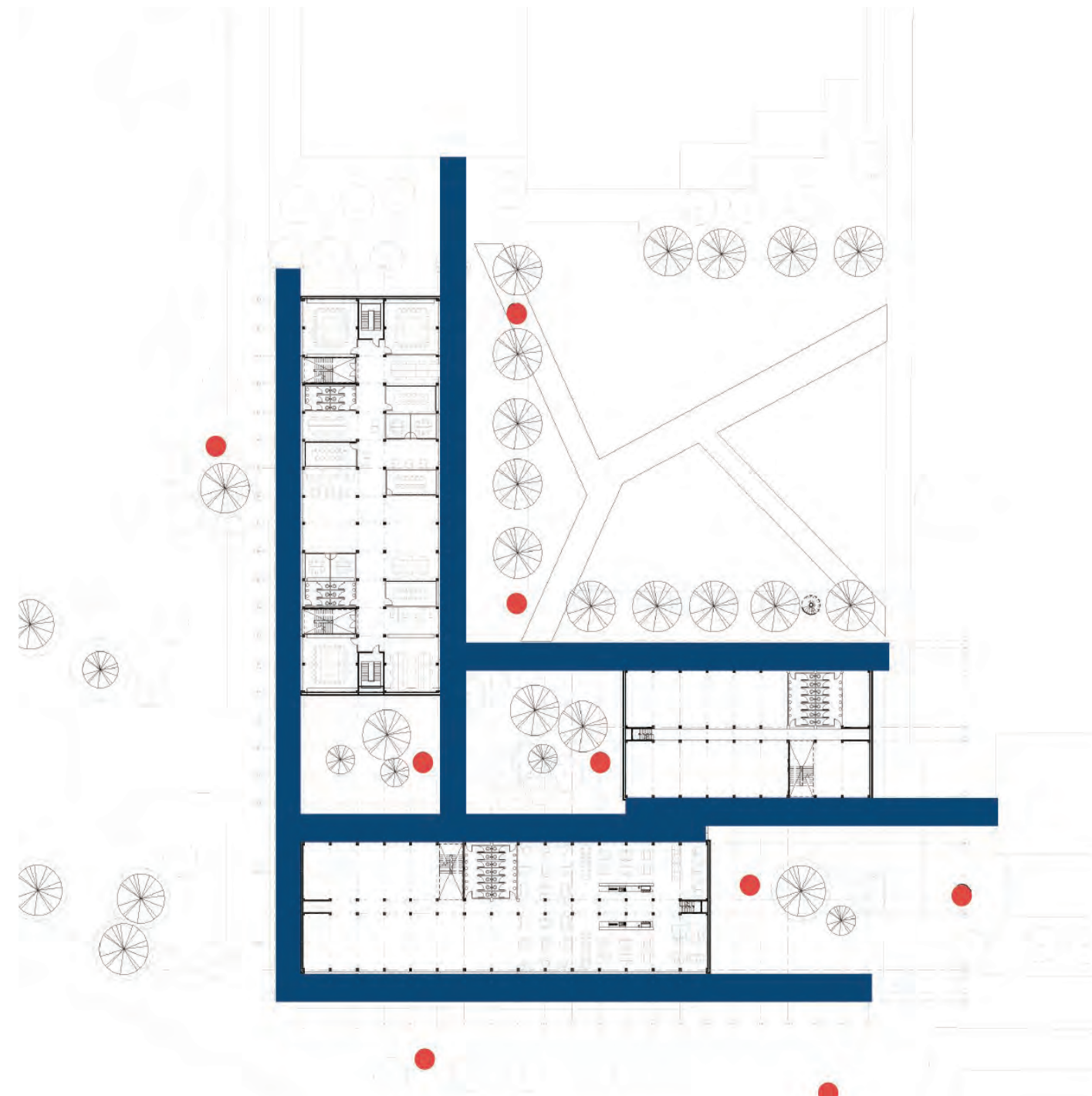
DESIGN DETAILS



Routing



Entrances



staircases to walkways

