



PRESS ENQUIRIES
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Jaccaud Spicher Architectes Associés

PRESS RELEASE

RENOVATION OF LE LIGNON, GENEVA

06/2021

Geneva architecture practice Jaccaud Spicher Architectes Associés has led a phased renovation of the listed, modernist housing complex Le Lignon; restoring its original identity and retaining its patina and original materials, while reconditioning the façades and glazing to improve the thermal performance as it enters its next phase of life. Over 11 years, this high-tech, invisible cloak of a project has methodically replaced ageing elements of the original residential buildings with rigorously tested new systems and materials, and sensitively restored interior features, honouring the original craftsmanship.

Built between 1963 and 1971 by the architects Georges Addor, Dominique Julliard, Louis Payot and Jacques Bolliger, Le Lignon is the largest residential complex in Switzerland, a satellite city boasting a total of 2,780 individual dwellings alongside a school, shopping arcade, medical centre, church, recreational space and urban farm with allotments. It is located on a sharply sloping site on the banks of the Rhône on the western edge of the city of Geneva. Built to address a housing shortage in the 1960s and early 70s, it continues to accommodate approximately 7,000 residents (a significant portion of Vernier's 34,000 population), to this day.

The plan is articulated into three main masses: two tower blocks of 26 and 30 storeys to the south of the site, and a 12-18 storey linear 'bar' building more than a kilometre long, that snakes along the cascading topography of the site. All apartments are dual aspect with views of the landscape, the Rhône, and the Alps and Jura beyond.

Since its completion in 1971 it has housed residents across a range of housing tenures: state subsidised social housing, free market rental and private ownership. Social housing is located in the eastern part of the bar building and is identical in spatial arrangements and material specification and fittings as the market sale apartments. The social diversity that is generated has ensured a long-lasting coherence for the entire neighborhood – a thriving community which includes three generations of families and residents of all ages and socio-economic backgrounds.

This extensive refurbishment focused on the fabric of the buildings and entrances and walkways, upgrading the original buildings to ensure that the high-density housing exemplar remains fit for purpose for a further 50 years.

The original buildings were constructed using prefabricated concrete structural units, and an aluminium and timber curtain walling system for the façades. It was the curtain wall that began to deteriorate by 2002, prompting the Geneva heritage authorities (OPS) to start a process to ensure the protection of the building, which led to Le Lignon's official listing in 2009.

JSAA was commissioned in 2010 by a consortium of eight of Le Lignon's main stakeholders – including pension funds and housing associations – to rehabilitate large sections of the

building, improving its comfort and energy efficiency to meet Switzerland's new thermal performance building standards.

Despite the complexity of ownership, the consortium was driven by a sense of responsibility to maintain the unity and identity of Le Lignon, appointing the practice to oversee a holistic and phased renovation framework to reinforce the unity between the different parts, which had diminished as a result of ad-hoc intermittent maintenance.

The practice was asked to devise a strategy in response to a research study into the required repairs undertaken by TSAM laboratory of the Federal Institute of Technology, Lausanne (EPFL), under the direction of Franz Graf and Giulia Marino. Several options were analysed and a prototypical approach identified.

The key elements of the renovation include conserving the outer aluminium and glass layers of the curtain wall façades and replacing the inner timber layers of the interior.

In 2012, a 'prototype' building comprising 24 apartments, No. 49 Avenue du Lignon, was refurbished, functioning as a trial to resolve details and identify suitable materials, and to measure performance over a duration of 24 months. The works included replacing the inner timber layer of the façade with double glazing and new frames, while the exterior aluminium skin and glazing were retained and cleaned. This approach would be applied to all units refurbished across the estate. In addition, works were carried out on the interior, replacing the glazing in room partitions and overhauling the original Formica kitchens with a scheme of metal cupboards and splashbacks, a fit-out which would be applied to vacant units between tenancies at the time of renovation. The building entrance was also refurbished with the installation of a new inner porch door to provide a thermal boundary to the residential block.

In parallel with this prototype, planning permission was obtained for the renovation of the entire complex, authorising the owners of each individual dwelling to instruct works on their properties. JSAA then followed through with a phased renovation of large segments of the bar building and the smaller tower building, in close cooperation with building owners and the Comité Central du Lignon (which oversees the maintenance of the entire complex), grouping residents by stairwells to ensure that the conservation process could be undertaken without causing disruption to life on the estate.

Throughout the renovation residents have been able to remain in their homes, and all residents have benefitted from reduced maintenance costs and savings on energy bills, which is supplied through a centralised district heating system. Geneva's LDTR law prohibits the passing on of costs during the first three years, which means that tenants can enjoy the improved level of comfort without facing an upsurge in rent.

Construction began in earnest in 2017 with the instruction of the renovation of the linear bar building and the smaller tower block of 26 storeys. These renovations will complete in June 2021.

Jean-Paul Jaccaud, Partner, Jaccaud Spicher Architectes Associés, said:

"The challenge of this refurbishment has been to deliver an inconspicuous treatment which retains the integrity of the original estate. The heritage listing of Le Lignon has imposed tight restrictions on the scope of our work, but it would have been a travesty to modify the original design. In our minds it was crucial to keep a sense of the whole, especially since it is a place cherished by its community, many of whom have lived here for decades."



Press enquiries:

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NOTES TO EDITORS

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| Address: | Le Lignon, 1219 Vernier, Switzerland |
| Total floor area: | 107,910m ² |
| Volume (SIA): | 302,150m ³ |
| Cost: | CHF 90,124,000 |
| Clients: | Anlagestiftung Pensimo Bellerive Immobilien AG BVK, Comité Central du Lignon Immobilien Anlagestiftung Turidomus Imoka Immobilien Anlagestiftung La Fondation HBM Camille Martin La Rente Immobilière SA Marconi Investment SA |
| Architects: | Jaccaud Spicher Architectes Associés |
| Team: | Jean-Paul Jaccaud, Lionel Spicher, Stephan Gratzler, Benoît Cousin (associate in charge), Roxane Doyen (project architect), Sylvia Palhão, Fanny Noël, Oriana Nguyen, Mathias Balkenhol, Nicolas Schmutz, Miguel Gomez, Marie Sonnerat, Alice Bieber |
| Façade engineering: | BCS Façades SA |
| Mechanical & thermal engineering: | Effin'Art Sàrl Buclin Ingénieurs-conseils |
| Security & safety consultants: | Archisecu |
| Structural engineer: | ESM Ingénierie SA |
| Main contractor: | Losinger Marazzi SA |
| Photography: | © Paola Corsini, © Joël Tettamanti |
| Chronology | |
| Original construction: | 1963-1971 |
| TSAM-EPFL study: | 2008-2011 |
| Listing of buildings: | 2009 |
| First phase: | 2010-2012 |
| Planning permission: | 2011 |
| Second phase: | 2017-2021 |

Jaccaud Spicher Architectes Associés was founded in Geneva in 2004, by Jean-Paul Jaccaud. The firm's experience spans architecture, town planning and building renovation. The office oversees projects in Switzerland and internationally, ranging from urban planning to the construction of housing and public facilities, to the restoration of modern heritage buildings. All projects are rooted in an interest in cultural and morphological continuity, and seek pragmatic design solutions to offer precise, sensitive and lasting answers. Recently completed projects include the refurbishment of Le Lignon, and the creation of new social housing at Avenue Henri Golay, both in Geneva.

Awards include an RIBA International Award 2012 for Rue du Cendrier (in partnership with Sergison Bates Architects); and the Distinction Romande d'Architecture (DRA) 2014.

Founding director Jean-Paul Jaccaud has led projects in the UK with Tanya Zein as Jaccaud Zein Architects, including Shepherdess Walk housing in London (2015), which was shortlisted for the European Union Prize for Contemporary Architecture - Mies van der Rohe Award 2017 and the RIBA Awards 2016 and won a Hackney Design Award in 2016.

jsaa.ch



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