

# SPECIALISTS IN BUILDING ENVELOPE TECHNOLOGY

TECHNICAL STUDIES WORKS SUPERVISION BUILDING PHYSICS EXPERTISE

## DESIGN OF BUILDING ENVELOPES

Recognised experts in façade and energy assessment, BIFF develops projects with a global concept for the building façade. Our specialized engineers are experts in all aspects of facade technology, and therefore able to bring solutions tailored to refurbishment and building projects.

Our expert knowledge of materials and the façade market together with our ability to innovate, enable us to support ambitious architectural projects within strict cost parameters. The great strength of BIFF lies in our ability to combine aesthetic and functional expertise while maintaining sustainable development.



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### A COMPREHENSIVE APPROACH TO OUR SERVICES



BIFF can offer a universal approach to building envelope technology by employing all services and disciplines within the same office.

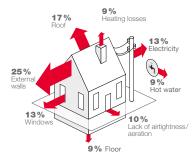
Thanks to our know-how, experience and attention to detail, BIFF personnel bring custom designed solutions to the many challenges that façade building or refurbishment projects pose.

BIFF is able to provide extensive expertise related to the dynamics of the envelope of a building, leading to better comfort for the building occupants together with improved focus on air and water tightness

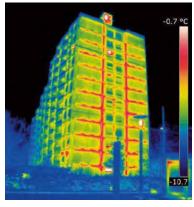
During refurbishment projects, we also strive to ensure savings of over 50% in heating consumption.

The division of services into four areas of activity enables BIFF to react fully to the specific needs of the building envelope for building and refurbishment projects.

## OUR TECHNICAL **EXPERTISE TO ENHANCE YOUR** CREATIVITY



BUILDING ENVELOPE LOSSES REPRESENT MORE THAN 60% OF THE TOTAL ENERGY CONSUMPTION. THE BUILDING ENVELOPE THEREFORE HAS THE GREATEST ENERGY ECONOMY POTENTIAL.



OUR THERMOGRAPHIC FINDINGS AND OUR ENERGY AUDITS FORM THE BASIS FOR THE SANITATION STATUS OF EXISTING BUILDING PROJECTS.



#### TECHNICAL STUDIES

As engineers, BIFF's primary aim is to advise, design and develop the technical requirements of the façade, taking into account their structural gualities, location, exposure and functional requirements.

With our team of specialists in the building industry, BIFF brings valuable know-how in the optimisation of architectural concepts while ensuring strict compliance with the specification. Our knowledge of materials (structural analysis, acoustic and thermic resistance), responsiveness and flexibility guarantee a customised development of highly quality projects.

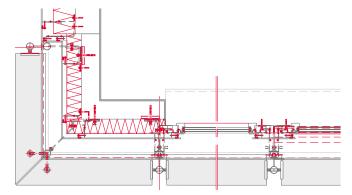


#### **BUILDING PHYSICS**

Building physics are essential as the first step towards efficient planning of building refurbishment. Not only do BIFF engineers undertake studies and diagnostic analysis for the renovation of the building envelope, but also prepare detailed reports of sanitation solutions.

We have all the elements to manage a refurbishment project to ensure the right choices are made: review of performance capabilities and state of dilapidation of envelope components, potential for energy savings, bespoke sanitation variants, budgetary considerations, etc.

As in many other fields, the accuracy of the diagnosis is key to the success of the project.



BIFF HAS THE SKILLS TO UNDERTAKE INNOVATIVE STUDIES ACCORDING TO THE CONSTRAINTS OF EACH PROJECT. BIFF PROVIDES THE CHOICE OF MATERIALS AND OPTIMAL SOLUTIONS WITH IMPARTIALITY THANKS TO ITS EXPERIENCE AND KNOWLEDGE WITHIN THE MARKET.

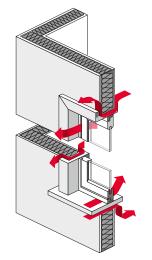
THE ARCHITECTURAL IMPACT AND THE PERFORMANCE OF THE BUILDINGS ARE DICTATED BY THEIR ENVELOPE. THAT'S WHY BIFF WORKS CLOSELY WITH ARCHITECTS FROM DESIGN STAGE AND, VERY OFTEN, AS EARLY AS THE COMPETITION STAGE.



BIFF has the necessary experience to manage all the phases and suppliers undertaking façade projects. From assisting in the design to the supervision of the works, BIFF has the necessary resources to plan and complete the most complex projects while keeping to deadlines and budgets.

Thus, if necessary, BIFF provides its services in the management of the works, whether for the refurbishment of a façade, the construction of a bespoke, complex façade with prototypes or any other service related to efficient project management.

## WE HELP THE OPTIMAL MANAGEMENT OF A BUILDING

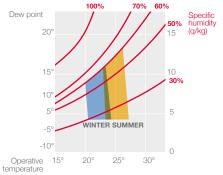


UNDERTAKING EXPERTISE INSPECTIONS IS OFTEN USED TO DETECT WATER OR AIR INFILTRATION DEFECTS, CONDENSATION OR MOULD. MISTAKES IN DESIGN, SIZING, MANUFACTURING, IMPLEMEN-TATION, CHOICE OF MATERIALS OR SEALING ISSUES ARE AMONG THE DISORDERS BIFF IS ABLE TO DETECT AND ANALYSE.

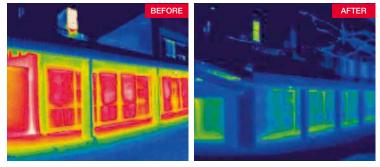


Thanks to its thorough knowledge of the industry, but also as a Member of the Chamber of Experts UTS Swiss Engineering and SWISSEXPERTS, BIFF engineers are qualified to provide complete technical analysis of building envelopes and issue authorised notices to individuals, institutions, insurance companies or courts of justice.

Our audits and expertise are used to determine those disorders which affect a building, seek out their cause and suggest remedies and cost of repair but also, in some instances, to address the subject of responsibility.



THE QUALITY OF THE BUILDING ENVELOPE IS KEY TO THE COMFORT OF THE INHABITANTS. TEMPERATURE, NATURAL LIGHTING AND NOISE PROTECTION ARE KEY FACTORS TO TAKE INTO ACCOUNT.



REFURBISHMENT OF THE BUILDING FACADE WITH A HIGH-PERFORMANCE APPROACH HELPS TO REDUCE ENERGY CONSUMPTION BY UP TO 5 TIMES WHILE CORRECTING DEFECTS, PRO-VIDING A FRESH FACADE AND OPTIMISING THE COMFORT OF THE OCCUPANTS.



AS A CERTIFIED ITC LEVEL 1 THERMOGRAPHY EXPERT, BIFF UNDERTAKES INSPECTIONS PRIOR TO REFURBISH-MENT SO AS TO DETERMINE THE KEY ACTIVITIES AND TO VERIFY THE QUALITY OF THE WORK.



### OUR REFERENCES





LA SOURCE CLINIC, LAUSANNE RICHTER - DAHL ROCHA & ASSOCIÉS ARCHITECTES SA

AMAG AUDI CENTRE, VERNIER. BUGNA & BARRO ARCHITECTES, DE GIULI & PORTIER ARCHITECTES SA



GRAND-PRÉ RESIDENCY, GENEVA CITOLLIN POLLI & ASSOCIÉS SA



ST MORITZ PALACE ARCATURE ARCHITECTES



CHAMPAGNY BUSINESS CENTER, ST-SULPICE GROUPE H



COLLÈGE LA COMBE, PRANGINS OLIVIER HENCHOZ



BUREAU INTERNATIONAL DU TRAVAIL BIT, GENEVA CONSORTIUM GROUP H - INTERTECNO



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