The unrivalled facilities available to BRE at Garston, Watford (*left*) have grown from small beginnings. The station as it was in 1938 (*below*).

▶ with a purpose and a necessary financial discipline.

As the main "customer" was the DOE – it still provides 85 per cent of BRE expenses, while private industry contributes no more than two per cent directly – the research programmes at the laboratories over the past decade have inevitably become geared to matters of public policy. But neither was this necessarily limiting, for in that period the application of research results has been implemented where perhaps it matters most, namely in codes and regulations.

This, of course, has always been a feature of official research activity, and similarly it is invidious to highlight a particular time-period when the regulatory input was greatest. Nevertheless, the past decade has seen the culmination of much BRS-BRE work in regulatory form, not only with the building regulations themselves and the deemed-to-satisfy advice, but in structural codes for foundation design and in the "limit state" concepts of the concrete codes. This applies only to a lesser extent in heating and ventilating codes, but the influence is there, and of course it was BRS which virtually gave us our U-values and our single-stack drainage, while much of the newest energy-conservation data is still emerging from Garston.

The catalogue of achievements is formidable, spanning across time and bureaucratic history. Almost at random one thinks of glass reinforced cement, the operational bill, lightweight aggregates, studies of operatives' skills and house-building productivity, smoke control in fires, toxicity of burning plastics, stress grading of timber, cheap sanitation systems in Africa and, on the horizon, possibly crucial advances in deep offshore oil rig foundations and in energy conservation and substitution.

Where do we go from here? Despite talk of a greater industry involvement in the direction of research through the EDC, the situation is confused. Certainly BRE is under pressure to cut its staffing further. Its costs are arguably still slight in relation to the turnover of the industry and, when inflation-adjusted, are on a par with, say, 1973. But new construction turnover has fallen in real terms by about 24 per cent in the period, a dichotomy which now begins to look ominous. The government itself is, both by budgetary necessity and ideology, anxious to reduce public spending.

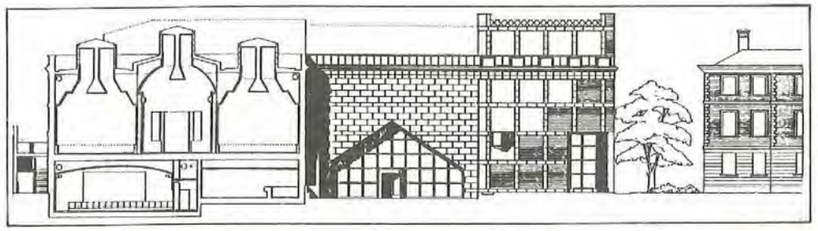
Hence three quite separate but inter-related issues have arisen. First, can BRE recover more of its costs, as proposed? It can, of course, but not easily when its staffing is being cut and possibly not without changes to its programme, which is committed to its existing government customers anyway; and any extra income is not likely to ease the agreed constraints on costs or staffing. More advisory contracts, more complex – but not routine – testing, perhaps, but anyone who believes that this approach could cover, say, 15 per cent of its costs, as in some other national research organisations, is very optimistic indeed.

Can private industry play a bigger role? The intention seems to be that it should, but the tentative links between DOE and the EDC for industry advice on objectives seem limited for the moment to that part of the budgetary allocation which is specifically earmarked for industry benefit. Maybe in fact it is a Ministerial sprat to catch a mackerel, for the real objective of "privatisation" may be to get private industry to put up a fair slice of the money, to do for research what has been mooted for industrial training. If it is, then it is not easy to see at present where the money is going to come from.

These propositions lead to the ultimate question – what should be the status of government-sponsored building research? Is it primarily to aid government policy, to aid its user-industry or to benefit the public? This is the central, strategic issue which is not yet resolved and probably never will be satisfactorily, for in truth building research has always pursued all three objectives, in varying degree depending on the political and economic climate of the time. This central issue, however, may well help to concentrate minds wonderfully, in which case the debate would be no bad thing.

But, just as BRE may feel puzzled that it has to justify its function further when it is already being squeezed, so members of the industry may question, as good taxpayers, why they should be asked to pay twice over. As we said at the start, these are harsh times ●

A committee set up by the Building EDC under the chairmanship of Sir Peter Trench is due to report on the Department of the Environment's proposed research programme for 1982-83 by Mid-September.



Below: the new L-shaped Clore Gallery will stretch between the classical Tate Gallery and the Wrenaissance lodge of the military hospital. The modern architectural elements all draw their inspiration from the two buildings that flank the scheme.
Left: section through sky-lit painting galleries with elevations of entrance portico and end pavilion.

STIRLING'S TURNER RETURN

After a decade spent on overseas projects, architectural superstar James Stirling returns home triumphantly to design the new Turner gallery. *Martin Spring* reports.

The James Stirling that is designing the new Clore Gallery next to the Tate to house the massive collection of Turner paintings and watercolours is not the same James Stirling that produced Cambridge University's history library, St Andrews University's halls of residence and other British landmarks of the 1960s. In the decade since he last carried out a major building in this country, "Big Jim" has grown immeasurably in stature – both physically and in acclaim.

More importantly Stirling's style has developed notably down the road of Post-Modernism. He still revels in architectural compositions that juxtapose architectural elements in unexpected fashion. But his style has become more eclectic, drawing in a wealth of classical motifs into his compositions.

But perhaps most significant of all is Stirling's recent discovery of architectural context. It is a lesson he has clearly learnt in Germany, where his projects such as Stuttgart's state gallery are located in the heart of formal European cities, facing tree-lined boulevards and bounded by grandiose civic edifices – situations where intruders with bad manners are not tolerated.

The Clore Gallery is planned by Stirling to abut the east side of the Tate and extend into the site at present occupied by a military hospital. It is designed as an L-shaped block stretching between the Tate and the front lodge of the hospital, which is to be retained.

"We wanted the new building to be sympathetic to the original buildings, but expressing its own identity," explains Stirling. "The sort of thing we've been aiming at is the distinguished addition that you find on a country house, which is often of a distinct architectural period."

What Stirling has produced is a quirky composition of architectural elements all of which are unmistakably modern but which draw their cues entirely from the two existing buildings on either side – the Portland Stone baroque classicism of the Tate and the red-brick Wrenaissance of the hospital. The main walls of the new gallery are composed of square stone-bordered panels with stucco infill. The stone borders, as with the cornice above, reflect the main gallery, while the stucco panels, which will be coloured ochre and terracotta, allude to the lodge.

The entrance to the new gallery faces sideways back to the main gallery so as not to compete with the main entrance. "This sets up an architectural conversation across the terrace between the new entrance and the pavilioned corner," says Stirling. He points to the stylistic games played between the highly sculptured arch below with portico above on the flank of the existing Tate, and the pared-down, reversed-out portico below with arch above in the new gallery.

The new building has been designed with a garden atmosphere, "like a gazebo or conservatory in relation to the main building". It will enclose a sunken terrace with lily pool, sculptures, pergolas and sheltered seating, and creepers will cascade down from roof-top parapets.

The top floor of the building is designed as a series of galleries of varying sizes. Daylighting will enter through rooflights and reflect off baffles on the paintings. The lower floor comprises the entrance hall, lecture theatre and other ancillary spaces.

The 3880 square metre building will be funded by a £6 million bequest from the late property developer, Charles Clore, and it is scheduled to start on site early next year with a completion date fixed for some time in 1984 ●