

# The restoration of the Durban post office

by Nicholas Matter of FWB Consulting Engineers

In a challenging Monuments Council constrained project, the Durban City Hall (originally built in 1895) has been restored to its former shape but with the addition of lots of concealed "mod cons" and lots of fresh air!

The restoration on the old building formed part of the SA Post Office upgrading programme in Kwazulu-Natal. The air conditioning and ventilation work was carried out over a three-year period with the tenant occupying different parts of the building while the construction work was in progress. Most spectacular was the rebuilding of the roof at the original level to create a new hall which now houses 32 tellers. The total air conditioned floor area is 6400m<sup>2</sup>.

## Equipment installed

A new chiller plantroom was built in the basement and cooling towers located over the Church Street side stairwell. 23 new chilled water air handling units were installed and five existing chilled water air handling units were re-conditioned.

The computer network room received a close-control AC unit plus standby. And the main hall has flour smoke ventilation fans which were located in dormer-type roof spaces.

## History of the post office

A young British architect, Phillip Dudgeon, who was later to design several other important Natal buildings which still stand today, won the competition for his design of the original building which was intended to be the Durban Town Hall. It was completed in 1885 at a cost of £50 000 and housed the council chambers, a telegraph office, a post office, public toilets and a museum.

By 1910, the new Durban City Hall had been completed, and the old Town Hall was sold to the General Post Office for £17 000. The entire building was extensively converted to accommodate mail sorting, numerous counters, 3000 private



*The lofty heights of the new banking hall provided 6400m<sup>2</sup> of floor space and many more cubic metres of air conditioning. The side-wall diffusers are visible and the beautifully restored ceiling, with side arched windows and central skylights, house many concealed smoke-extractor fans.*

mail boxes, the main telegraph centre, the telephone exchange and the office of the Natal Post Master General. Unfortunately, the Main Hall was demolished in the process as, at the time, there seemed to have been no purpose for a room of such proportions.

In 1926, a large addition was built on the northern side of the original building. The style of the exterior is a very good replica of the original design, from which it can hardly be distinguished. The style of the interior, however, is that of the 1930s and is clearly visible in the finishes.

Today, very little record remains of accurate plans of the original building. There were four photographs taken directly after the building was completed in 1895. The originals of these photographs are kept at the Local History Museum in Durban and these were referred to extensively, mainly to study the architectural contents of the original Hall.

During 1994, the General Post Office became S.A. Post Office Ltd, after splitting telecommunications (now Telkom) and postal services. The function of the building had to change again, this time housing a Regional Management Department, 6 000 private boxes, Marketing division, Public Postal Services with 31 counters, training rooms as well as various related administrative facilities. This required an additional 3 000 square metres of floor area. As it was impossible to relocate the Post Office while alterations were being done to the building, staff were required to move from one area to another as work progressed.

## Design aspects

As the entire building is a declared national monument, the National Monuments Council stipulated that the exterior should not be affected by the alterations. It was accepted that internal alterations would be necessary to accommodate the new administrative function inside the old shell. The design approach taken



*Overlooked by the stately clock tower, are a pair of BAC Baltimore Aircoil cooling towers.*

was in line with this "foreign" function of a Post Office housed in a Town Hall. All additions were treated as foreign in that they contrast with the old. Whatever old elements were found in the course of the alterations were kept and, where

possible, restored to their former glory, at the same time, forming the basis of archeological findings inside the building. New glass and steel elements were added in a modernistic way to sharply contrast with the historical, mainly wooden elements. The other design constraint was the fact mentioned previously that there were true Victorian elements in the 1895 original structure, and authentic 1930 elements in the later addition. As both were to be treated with the same respect, the new additions were designed so as to make it clear that the building spanned design features from both eras.

Research revealed little information regarding the interior design elements, so great care had to be taken to ensure that no new "historical elements" such as cornices, wall and ceiling mouldings, which would cause confusion, were added during the restoration. The new

Main Public Postal Hall was re-built in the space where the 1885 Main Hall used to be.

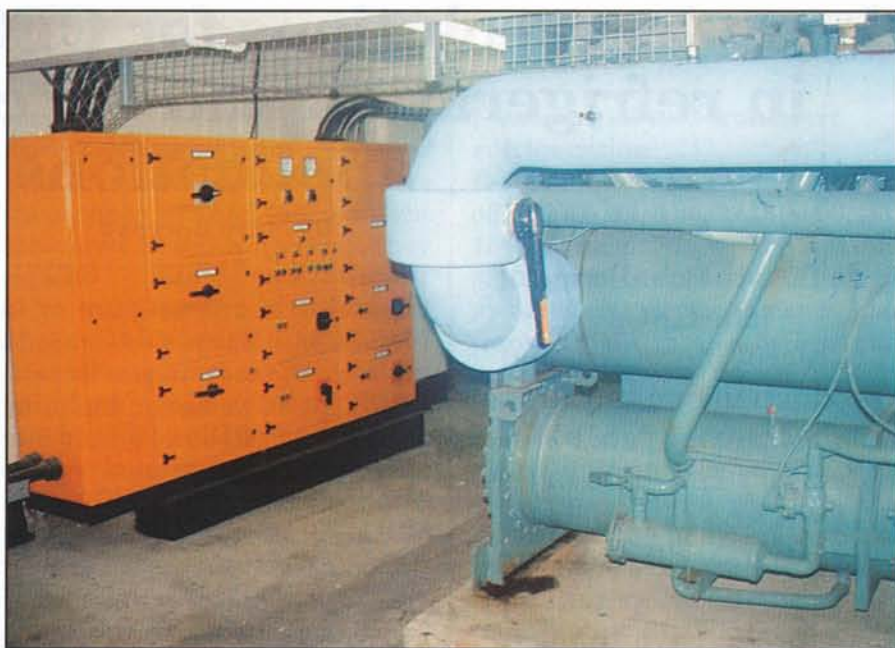
The only recognisable historical element found in this area was the outline of the Procenium archway, which used to span over the stage.



*Chilled water and condenser water pumps in the plant room.*

It is under this archway, where Sir Winston Churchill must have stood when he gave his important speech leading to the consolidation of the four colonies. This important speech, given by Churchill, was made on the main steps outside the Hall. The historical value of the Hall was therefore of utmost importance, and reconstruction of the Town Hall had to be treated with the necessary care and consideration. It was considered vital that the important historical events associated with the Hall would resemble the old without looking and feeling like "an old hall". The constraints were numerous. The photographs were studied for clues to the proportions and materials of each and every element assessed as accurately as possible.

On the recommendation of Albrecht Holm, these elements were painted in outline only in order to represent the image of the 1895 Hall. Just as an archeologist would not attempt to remake a clay pot after finding small segments of the original, it was correct not to replace the architectural elements of the building. Where the old balcony used to be, an abstract metal beam and column were erected as a representation of the balcony. New doors were constructed in aluminium and glass in the same proportions as could be determined



*The York chiller in the plant room.*

from the original photographs. The design could be likened to that of a museum reconstruction based on information derived from an archeological excavation.

The image of the 1885 Town Hall now proudly houses the modern S.A. Post Office Public Hall.

## Services

When architect Dudgeon was confronted over a century ago on the electrification of the building, he announced that he wanted nothing to do with such gimmicks! Over the

past 110 years, the building was fitted with all the necessary amenities and obviously the easiest route was taken to fit these essential services. All old services were made redundant and fitted with the latest technology. All services are neatly hidden including such essential modern amenities as smoke detection, electrification, data cabling, telephones and air conditioning.

## CREDITS RELATED TO THE AIR CONDITIONING ASPECTS OF THE PROJECT

**Client:** SA Post Office

**Architects:** Francois Smith and B Sounes at Arcotek

**Mechanical Engineers:** Nicholas Matter at FWB Consulting Engineers

**Electrical Engineers:** A Schoombie and B Burrows at E & C Engineers.

**Structural Engineers:** R Young at Young & Satharia

**Air Conditioning Contractors:** R Killian and M Govender at Climatic Control

**Suppliers:** Chiller – York

**Air handling units:** Apache

**Controls:** Ultimate Systems

**Pumps:** M & B

**Cooling towers:** Baltimore Aircoil

**Fans:**– Luft



*The new chiller plant room was built in the basement.*