

*executive committee of
the directing council*



PAN AMERICAN
HEALTH
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WORLD
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107th Meeting
Washington, D.C.
June 1991

Provisional Agenda Item 5.5

GE107/16 (Eng.)
9 April 1991
ORIGINAL: ENGLISH

PAHO BUILDING FUND AND MAINTENANCE AND REPAIR OF PAHO-OWNED BUILDINGS

Resolution XII of the XXXI Meeting of the Directing Council provided for the capitalization of the PAHO Building Fund, on a permanent basis, to meet the costs of major maintenance and repair projects of PAHO-owned buildings. The same resolution required that proposed projects, as well as a report of projects charged to the Fund, be presented to the Executive Committee each year.

By decision of the WHO Director-General, confirmed by the Executive Board, the WHO Real Estate Fund contributes 25% of the costs of AMRO's approved major maintenance and repair projects.

This document is a status report on current projects and requests the approval of two new projects: to repair the concrete screen wall of the Council Chamber and to replace its roof.

I. STATUS OF PREVIOUSLY APPROVED PROJECTS

1. Air-Handling Units and Associated Air-Movement Equipment

This project was approved by Resolution XVII of the 103rd Meeting of the Executive Committee. It called for the removal and replacement of the air-handling units and their associated automatic control devices in the Headquarters Building.

The insulating asbestos which covered the structures surrounding these units has been removed, and the contract for their replacement has been let. This project is therefore expected to be completed by August 1991.

2. Emergency Systems

This project was also approved by means of Resolution XVII of the 103rd Meeting of the Executive Committee. This work will improve and modernize the standards in life-safety systems in the PAHO Building. The project entails installation of a back-up electrical system for the elevators, installation of centrally-wired smoke and heat detectors throughout the building, replacement of the fire alarm system, etc. To the extent this project involves the air-handling units, it has to be carried out after that work is completed.

3. New Roof for the Conference Room and the Second Floor Corridor in the PAHO Office in Peru

This project was approved by Resolution XI of the 105th Meeting of the Executive Committee. It refers to the replacement of the roof areas mentioned above with a sound and waterproof structure.

This project was not approved for contributory financing by the WHO Executive Board as it did not involve the Headquarters Building. Therefore, the total cost of the project, estimated at \$22,000, will be borne by the PAHO Building Fund. The Peru Office is now in the process of requesting proposals for the execution of the work.

II. PROPOSED NEW PROJECTS

1. Concrete Screen Wall of the Council Chamber

The exterior wall surrounding the Council Chamber is constructed of precast reinforced concrete panels forming a diamond pattern. Individual panels are connected at the intersections of the diamond pattern by galvanized steel bolts through decorative, precast concrete wedges inserted between adjacent panels. The structure has suffered the effects of the weather over the years. There are a number of cracked concrete wedges and rusted bolts. In an effort to determine the extent of the damage, the Organization contracted with a firm of consulting engineers to survey the structure and offer recommendations for its repair.

Some of the steel bolts holding the decorative concrete wedges have corroded from the original 3/8 inch diameter to 1/8 inch. It is believed that slight acidity in rain resulting from automobile traffic and airplane traffic to National Airport has contributed to the rusting of the bolts. Some of the concrete wedges are cracked, most along the

bolt. Corrosion of the bolts appears to be the primary reason for the cracked concrete wedges. However, the state of corrosion of the bolts, concealed in the apparently sound concrete wedges, is practically impossible to determine by non-destructive means.

Structural support for the whole concrete masonry screen wall is provided through connections at each floor slab and at the roof. Exposed areas have been waterproofed. However, over the years water has leaked through the coating which, combined with freezing and thawing, has allowed water to penetrate the concrete. If unchecked, this would lead to the deterioration of the reinforcing steel in the concrete slab.

The engineering study concluded that action is required to repair the potentially hazardous conditions associated with the components of the screen wall. As a temporary measure, all loose pieces, cracked wedges, concrete and grout have been removed. However, the major problems remain: the deterioration of the screen wall and the reinforced concrete slabs, and the water leaks.

The long-term solution is to cut out all galvanized steel bolts and replace them with stainless steel, replace the cracked wedges, remove and replace the waterproof coating on all connections to the concrete slabs and to the roof, paint and prime steel and, in general, protect all areas from water damage.

The total cost of this project is estimated at \$455,000. Included in this amount is \$225,000 which will be used if more than 20% of the bolts are severely deteriorated. This determination can only be made after an investigation of the existing bolt conditions at apparently sound concrete wedges. It should be noted that additional repairs might be necessary, if in the course of the work other problems are encountered. If approved by the Executive Committee and the World Health Assembly, \$341,250 would be charged to the PAHO Building Fund and \$113,750 to the WHO Real Estate Fund.

2. Council Chamber Roof

The original roofing system for the Council Chamber includes an asphalt build-up membrane and a vapor barrier on a gypsum plank supported by steel framing. In an effort to control leaks, a bitumen recovery membrane was added to the roof covering in 1981. This membrane was applied on top of the old roofing. However, very little if any of the gravel was removed from the original asphalt membrane before the bitumen was applied. Consequently, the gravel prevented complete adhesion of the bitumen membrane and subjects it to possible detachment during high winds.

Visual surveys of the fourth floor ceiling in the Council Chamber have identified several water leaks around the perimeter. The steel framing, fireproofing and interior finish materials are damaged by water leaks. Even though leaks are noticeable only at the perimeter, it is difficult to determine the source of those leaks in recovery roofs. Water can travel between the two membranes and leak into the building at a point quite distant from the entry point. The recovery bitumen membrane is 10 years old and in poor condition. Open seams and joints and cracked roofing cement allow water infiltration.

Test cuts into the original membrane indicate that the insulation under the asphalt is wet, particularly at the perimeter, indicating that it might be inadequately fastened.

After a thorough survey of the situation, our consultants have recommended that the entire roof covering, from the bitumen membrane down to the gypsum plank, be replaced. The completed work is estimated to cost \$80,000. If approved by the Executive Committee and the World Health Assembly, \$60,000 would be charged to the PAHO Building Fund and \$20,000 to the WHO Real Estate Fund.

In view of the above considerations, the Executive Committee may wish to entertain a resolution in the following terms:

Proposed Resolution

THE 107th MEETING OF THE EXECUTIVE COMMITTEE,

Having reviewed Document CE107/16, which reports on actions taken by the Secretariat in relation to the approved projects financed by the PAHO Building Fund and describes additional project requirements,

RESOLVES:

1. To approve the project to repair the concrete screen wall of the Council Chamber at an estimated cost of \$455,000.
2. To approve the project to replace the Council Chamber roof at an estimated cost of \$80,000.