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MAJOR MAINTENANCE AND CAPITAL IMPROVEMENT PROGRAMME AT HEADQUARTERS

(Report by the Secretary-General)

1. In its report to the General Assembly on the budget estimates for 1958 (A/3800, paragraph 19), the Fifth Committee "agreed that the Secretary-General should submit a plan of the expected expenditure on maintenance and capital improvement that would be necessary over the next five years". This request was motivated by recognition of the fact that the property management problem at Headquarters is unusually complicated as a result of several factors.

2. Chief among these factors is the uneven impact of replacement and maintenance costs as a result of the almost simultaneous acquisition of equipment and furnishings and erection of buildings in 1950-51. There is a clear tendency for maintenance-replacement cycles to coincide in the absence of adjusted schedules based on advance planning. Another important factor is the necessity for providing or extending facilities that were either eliminated or reduced to minimum levels at the time of construction in order to remain within budgetary allocations in the face of rising costs. The effect of pressures resulting from the admission of new Members and of increased activities of the Organization generally has made it apparent in recent years that some additional construction is unavoidable, and lengthy delays will be detrimental to effective operations. Finally, there have been significant advances in technical knowledge and equipment in the decade since construction was planned, and advantage must be taken of the new techniques if maximum operational economy and efficiency are to be achieved.

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3. In response to the request of the Fifth Committee, and with the above factors in mind, a broad study has been undertaken of major improvements, replacement, and maintenance projects to which consideration will need to be given within the foreseeable future. In the course of this study, it became apparent that a five-year programme would be over-ambitious and possibly illusory: technical advances are so rapid that plans become out-dated quickly, and experience with buildings maintenance at Headquarters is still insufficient in many respects to permit accurate forecasts of replacement requirements on a long-range basis. Accordingly, the projects reviewed hereunder are presented in terms of a programme which, to the extent it should be decided to proceed with it in whole or in part, might be accomplished over a period of approximately three years.

4. This careful review has confirmed once again that the Headquarters plans were soundly conceived and that the construction and equipment are generally of a highly satisfactory quality. The maintenance requirements are in line with normal expectations for buildings and related facilities of a similar type, and in many cases are considerably less than normal; the only large exception relates to the Library Building, which was acquired by the United Nations from other owners and which is used for purposes not contemplated originally.

5. As noted in the budget estimates for 1959, the projects outlined in this paper constitute major non-recurring or periodic requirements which are exclusive of the annual and standard replacement, repair or maintenance items contained in the regular budget. Because of the uncertainty of the useful life of certain buildings equipment, the programme will require an annual examination to revise requirements and adjust work schedules. In developing the current proposals, particular attention has been given to the comparative costs of regular maintenance and repair of equipment and furnishings as opposed to their replacement. Recommendations for replacement or major repair have been entertained only where these could be clearly shown to be in the interest of economy and efficiency. As regards major improvements to premises, particular attention has also been given to proposals which would result in operational savings and therefore would be self-liquidating over a period of years.

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6. The total cost of the programme on the basis of its accomplishment within a three-year period is estimated at $1,628,500 divided as follows: first year: $593,200; second year: $810,100; third year: $225,200. Each year the programme would be revised and extended for an additional year in order to provide a projection of requirements for over-all budgetary planning.

7. The following table presents details of the distribution of expenditures between items and years. Explanations of each item were contained in the annexes attached.

Major Maintenance and Capital Improvements Programme at Headquarters

		First year $	Second year $	Third year $	Total $
I.	Major Improvements to Premises (see Annex I)				
	A. Construction of a television and film studio and production and processing centre	165,000	-	-	165,000
	B. Conversion of elevators in the Secretariat Building to a passenger operated system	131,700	485,600	18,700	636,000
	C. Additional seating in the Security Council Chamber	20,000	-	-	20,000
	D. Engineering and Architectural Survey	50,000	-	-	50,000
II.	Major Replacement Requirements (see Annex II)				
	A. Replacement of carpeting	124,000	181,000	158,000	463,000
	B. Re-landscaping of First Avenue perimeter area	-	35,000	-	35,000
III.	Major Buildings Maintenance Requirements (see Annex III)				
	A. Repair of the Library Building	61,000	36,500	-	97,500
	B. Repairs to refrigeration condensers	37,000	67,000	31,000	135,000
	C. Repairs to asphalt roadways	-	5,000	-	5,000
	D. Waterproofing second level of garage	-	-	7,000	7,000
	E. Redecoration of North Lounge	4,500	-	-	4,500
	F. Waterproofing north walls of General Assembly building	-	-	10,500	10,500
		593,200	810,100	225,200	1,628,500

8. While the programme is shown above on a three-year basis, in line with the request for a projection of requirements over a specific period, it is not considered to be rigid and inflexible. Certain projects obviously have a greater degree of importance than others, and considerations with regard to timing also vary. The suggested pattern represents, in the opinion of the Secretary-General, the most effective scheduling of necessary projects, but it is recognized that in addition to deciding whether specific work is warranted the General Assembly must consider the financial impact for any given year. In making its final determinations with regard to the timing of each project, the Assembly will wish to take into account such factors as probable rises in costs if work is delayed; anticipated savings in running costs upon completion; degree of urgency in terms of safety and convenience; and the weight to be given to considerations involving appearance and decor.

ANNEX I - MAJOR IMPROVEMENTS TO PREMISES

A. Construction of a television and film studio and production and processing centre $165,000

1. The Secretary-General has, on two prior occasions, recommended construction under this heading (A/C.5/681 and A/3600). The first proposal envisaged the expenditure in 1957 of $50,000 for the studio, to be followed by a further request in a subsequent year for the construction of the processing centre at a cost of an additional $100,000. The Advisory Committee on Administrative and Budgetary Questions, in its report (A/3440) on the proposal suggested that there was need for an additional study of the matter and indicated that it might appropriately be included in the 1958 budget estimates. Accordingly, the Secretary-General re-studied the matter, with particular reference to production costs and revenues, and included in the 1958 budget estimates a provision of $160,000 for the project. The higher figure resulted primarily from increased labour costs during the intervening year. In its Fifth Report to the Twelfth Session of the General Assembly (A/3624), the Advisory Committee stated that in view of the increase in the total budget, it could not, at least for the year 1958, recommend approval of this request. The question was discussed extensively by the Fifth Committee and, although it was decided not to appropriate funds for the purpose in 1958, there was approval in principle of the project.

2. The reasons which occasioned the previous proposals are fully set forth in the documents listed in the preceding paragraph and are still valid. The ad hoc arrangements which have been utilized for television production are not only inadequate from a technical standpoint, but are also wasteful in man-hours of both production and operating staff. Furthermore, because of the unsatisfactory facilities, some commercial requirements cannot be met and there is a resultant loss in revenue. Under the present circumstances, it is becoming almost impossible to maintain the level of production expected of the United Nations public information programmes.

3. It is now estimated that the construction of the television and film studio and production centre will cost $165,000. The increase over the previous estimate of $160,000 is soley attributed to increase in local labour costs since 1957. On the other hand, for the same reason there is an increase in the estimated annual

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savings arising from reductions in the set-up time of cameras, lights and other equipment, which involves the services of telecommunications engineers, electricians, labourers and guards. The total annual saving, including the reduction in wear and tear, is now estimated at $13,000 as compared to the previous estimate of $12,000. The estimated increase in rental revenue of $8,000 remains unchanged.

B. Conversic of the Elevators in the Secretariat Building to a passenger operated system $636,000

1. The steady upward trend in the cost of labour and materials in the Headquarters area has required the re-examination of the standards and methods used for the cleaning and maintenance of the Headquarters buildings on several occasions. As a result of one such study in 1954, new standards for cleaning and elevator operation were established, which permitted a reduction of over forty contractual employees. A further study of these standards in 1958 has led tc additional decreases in contractual staff. However, the lowering of standards and services which has accompanied these actions has barely kept pace with the increase in contractual wage rates, and as a result the actual cost of the services has remained constant. There is no further possibility of stabilizing costs by this method without undesirable ccnsequences. The possibility of substantially reduced annual operating costs does exist, nevertheless, through the conversion of the elevators in the Secretariat building from manual to automatic operation. Investigation of this building modification, points to the fact that not only is it feasible but it could in the long run prove definitely advantageous from both the economic and servicing standpoints.

2. When the Secretariat building was constructed, the elevator installation included the "autotronic" control system, at that time considered to be the furthest advance in automatic elevator operation and control. This system automatically schedules and dispatches elevators according to a pre-determined pattern, in order to adjust runs to meet varying usages throughout all hours. It does, however, require the assignment of an operator to each elevator in use.

3. Since 1951, rapid advances have been made in the field of operatorless elevator systems, and many new buildings constructed in the United States have incorporated such system. Experience has shown that automatic elevators

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provide adequate and efficient service at far less cost than manually operated installations.

4. In the Secretariat building, satisfactory service can be provided with the present elevator system only if operators are made available for all cars in all three banks. Compared to the average single-occupancy building, the Secretariat building has a much higher and more unpredictable movement of personnel during off-peak periods. Consequently, a general reduction of elevators cannot be scheduled which will assure adequate service at all times. On the other hand, with operatorless elevators maximum service is always available; cars respond automatically to the traffic requirements, day or night, and are never dependent upon the availability of operators; and running costs are drastically reduced.

5. The savings which could be achieved through conversion to fully automatic elevators are estimated on the basis of current wage rates to approximate $112,000 per year. The actual savings would probably be somewhat larger, however, since the upward trend of wage rates for operators is expected to continue. For example, wages of operators in the Secretariat building will amount to almost $9,500 more in 1958 than in 1956.

6. The conversion of the elevators in the Secretariat building would include, in addition to the basic rewiring and mechanical changes in the existing cars, the installation of an additional operating panel in each car to provide a more effective means of registering floor stops. It would also include a new communications system permitting the starter to communicate freely with the cars and a new central control panel enabling regulation of cars in the three elevator banks by one starter. This panel would replace the present three panels located in separate elevator banks at the terminal floor.

7. The modernization programme, should it be approved, would be planned for accomplishment in several stages in order always to maintain adequate service while completing the conversion of all cars in the shortest time. To accomplish this, two cars in each bank would be converted at one time, leaving four constantly in service. Four cars represent the number required for minimum service; converting only one car at a time in each bank would unduly extend the changeover time and the cost. After an order has been placed, approximately ten months will be required for engineering and fabrication of the necessary parts before the actual work could begin. Completion time for the installation would require an additional fifteen months.

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8. Although all the cars in the Secretariat building would be converted, one or more cars in the bank servicing the 38th floor would continue to be manually operated. It is not intended, however, that the conversion should apply to any cars in the General Assembly or Conference buildings for reasons of security and in deference to their primary users.

9. The total cost of the conversion, on the basis of figures provided by the manufacturer, will amount to $636,000. The attached table shows the proposed expenditures during the modification period for operators, maintenance and conversion work. From this table it can be ascertained that the entire cost of the installation, assuming it were to commence in 1959, could be amortized before the end of 1965. A comparison of the present staff requirements with that under an operatorless system is also attached.

Tabulation showing total cost of elevator operation for present manual operation, conversion period and full automatic operation

Elevator Operations and Starters Costs

	Cost of Manual Operation	Cost of Automatic Operation	Cost of Conversion	Cost of Maintenance	Total Operation, Maintenance and Converion Costs
	$	$	$	$	$
1958	138,700.00	-	-	49,500.00	188,200.00
1959	131,000.00	-	131,700.00	47,000.00	309,700.00
1960	42,500.00	7,000.00	485,600.00	36,500.00	571,600.00
1961	-	20,900.00	18,700.00	53,000.00	92,600.00
1962	-	20,900.00	-	56,000.00	76,900.00 (Total automatic operation)

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TABLE OF COMPARATIVE ANNUAL COSTS WITH AUTOMATIC ELEVATORS AND ATTENDED ELEVATORS

	Attended	Operatorless
	$	$
1 Starter	5,000	5,000
2 Assistant starters	9,500	9,500*
1 Relief starter	4,500	4,500
21 Elevator operators	93,600	-
2-1/2 " " (weekends)	4,600	-
2 " " (nights)	8,900	-
Overheads	12,600	1,900
Total Operation Service	138,700	20,900
Elevator maintenance	49,500	56,000
Total Secretariat building elevator operation	188,200	76,900

* will also serve as operators on high-rise bank in accordance with paragraph 8.

C. Additional seating in the Security Council Chamber $20,000

1. The original design of the Security Council Chamber provided a limited number of seats for delegates along the north and south walls. By 1954, experience had shown the necessity of increasing the capacity of the delegates area, and modifications were undertaken.

2. Since then, due to the increased membership of the United Nations, the seating arrangements for observers in the Security Council Chamber has again proven inadequate. It has been necessary to install temporary chairs to provide for delegates wishing to attend the deliberations of the Council. There is no provision for telecommunication facilities at these chairs, and the arrangements have given rise to many complaints.

3. It has also long been considered desirable to provide a table and advisers' seats in the Security Council Chamber for non-members of the Council who are invited to speak before the Council. At present, non-members are required to sit at the end of the Council table, a practice which has created certain difficulties.

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4. Accordingly, it is proposed that a table with seats for three non-members and six advisers be installed in the Security Council. The table would be located directly opposite the President's chair and would be aligned with the existing table along the curved steps which give access to the Secretariat working area in the centre of the present table. It would be separated on either side from the existing table by approximately a six foot area. It is also proposed that 56 observers chairs be installed in two rows along the wall which separates the press and delegates areas. Eleven additional observers chairs would be placed in front of the two rows of chairs which at present are installed along the east wall.

5. The estimated cost of this work in the Security Council is $20,000, which is detailed as follows:

Chairs and tables	$8,700
Telecommunications equipment	2,000
Labour, contractors' fees, etc.	9,300

D. Engineering and Architectural Survey $50,000

1. At the time the Headquarters was designed, the facilities planning was based on an assumed maximum membership of 70 Member States. Since that time the membership has grown to 81. This increase, far beyond initial expectations, has required the installation of additional seats and tables in the Plenary Hall and Conference Rooms, where fortunately sufficient space was available to permit the modifications without complete rearrangement of the rooms. At the present time there is room at the tables in the Plenary Hall and Conference Rooms for only one more Member nation.

2. It is considered necessary to plan for the possibility of further expansion of the membership of the Organization. Since this can be accomplished only through structural change and major alterations to the existing facilities, the Secretary-General believes that the problem needs to be studied with special care.

3. Accordingly, he considers that provision should be made, under any capital improvement and major maintenance programme, for the services of an architectural or engineering firm on a short-term contractual basis to survey the requirements of the Organization and to propose plans for the expansion of conference room and allied facilities. Although the major problem would appear to be in the meeting rooms, it is expected that the study will also embrace lounge and dining facilities, as well as other requirements of the delegates and the servicing staff. A technical study of this nature will provide the Organization with a sound guide as to the best manner in which maximum use of existing facilities can be assured as well as to the most suitable means by which they might be expanded. While negotiations have not yet been undertaken with any firm, and the precise scope of the survey remains to be planned, it is considered that the amount of $50,000 would cover the essential work. This would permit the assignment of a small team of architects and draftsmen for several months, with provision for incidental supplies and other expenses.

ANNEX II - MAJOR REPLACEMENT REQUIREMENTS

A. Replacement of carpeting $463,000

1. It is also considered that early provision will need to be made for replacement of carpeting throughout the second floor. By 1959 the present carpeting will be eight years old and will be worn beyond the point where it is feasible to continue to patch or repair. It has been possible to extend the life of this carpet only because of a careful programme of maintenance, under which large sections of carpet from little-used areas have annually been taken up and relaid, exchanging position with the more worn pieces.

2. In order to spread a replacement programme over a minimum of three years, this process will continue during the replacement period. In the first year, new carpet would be laid in the North Lounge. The carpet removed would be used to repair the existing carpet in the connecting corridors between the General Assembly and Conference buildings. The schedule for the first year also contemplates replacement of some of the carpet in Conference Rooms 1, 2, and 3, the Clinic, the 38th floor, and a few offices in the Secretariat building. In the second year, the carpet in the main corridor of the second floor would be replaced, as well as a substantial part of that in the General Assembly building, and additional amounts in the various conference rooms. Repairs in other areas would be made with the best of the carpet which was removed. In the third year, the balance of the carpet on the second floor, in the Plenary Hall and the conference rooms would be replaced.

3. It is intended to botain carpet of a quality comparable to that now being used. The estimate makes provision for replacement of 10 per cent of the carpet cushion and also provides for contractual labour to make the installation in the major areas.

B. Re-landscaping of First Avenue perimeter area $35,000

1. It is proposed that the area along United Nations Plaza between the flag poles and the sidewalk be re-landscaped. Several attempts have been made to grow ground cover in this spot, but they have not been satisfactory. Experience

gained to date would indicate that a part of the area should be paved and the remainder separated from pedestrians by a barrier-hedge or some similar arrangement.

2. Specific plans for this project have not been detailed, and the estimate is based on the cost of other landscaping work in the Headquarters area.

ANNEX III - MAJOR BUILDINGS MAINTENANCE REQUIREMENTS

A. Repair of the Library Building $97,500

1. At the time the Headquarters was planned, it had been intended to make extensive alterations to the Library Building to permit full utilization of the floor areas for stock rooms and to provide other desirable library facilities. In view, however, of the high cost of the proposed alterations and the relatively small basic improvement which would have resulted, it was decided to utilize the building in its present state with as few changes as possible.

2. In recent years repair and maintenance work on the present building has been held to an absolute minimum, in view of the fact that the possibility of financing, outside the regular budget, a new Library Building, has been under active exploration. In the event of this possibility materializing within the next few months, it would be the Secretary-General's hope that such major repair and maintenance expenditures as those detailed below could be avoided. If, however, present expectations should not be realized, and if excessive deterioration is to be prevented, it will be essential that extensive repairs be undertaken urgently. The work will include:

(a) Modification of the windows - $61,000

The windows in the Library Building were of a poor design and now after fifteen years of use, many of them cannot be opened due to danger that they will fall out. Others which can be opened constitute a serious safety hazard if left unlocked during a storm, since they could be forced open by air pressure and blown off the hinges to the street or sidewalk below. It is also almost impossible to wash the windows because so many of them cannot be opened. After exploration of all possibilities, it is clear that the only feasible approach is to modify the windows to eliminate the existing defects.

(b) Improvements to air-conditioning system - $25,000

The air-conditioning in the building has never been satisfactory and has required an abnormal amount of maintenance. On unusually hot and humid days it is impossible to cool the building properly, and during extended periods of this kind of weather the occupants suffer much discomfort.

As the least expensive solution, it is proposed to dispense with the present independent refrigeration system and to tie in the Library Building with the main refrigeration plant. This will require modifications to the main plant, as well as the installation of chilled water lines to the Library Building. The air distribution system will also require modification to permit proper air circulation. These modifications will provide a satisfactory air-conditioning system for the Library Building and there will be some resultant savings in maintenance and steam usage.

(c) Installation of new exterior stairs - $5,000

It is proposed that the temporary wood stairs on the west side of the Library Building be replaced with a permanent installation. The estimate is based on simple concrete construction, the least expensive method.

(d) Repointing exterior stone work - $3,000

This is a normal building maintenance project required periodically to prevent leaks and water seepage.

(e) Repainting and decorating building interior - $3,500

B. Repairs to Refrigeration Condensers $135,000

1. The refrigeration condensers constitute an integral part of the air-conditioning system. The condensers contain 1,200 to 1,400 tubes through which river water is pumped. Due to the corrosive effect of this water, the tubes eventually wear out and develop leaks. Normal practice in the area in industrial plants using river water is to replace the tubes every three or four years, but, as a result of an extensive maintenance programme which involves pre-treatment of the water to eliminate most of the noxious elements, a life for the tubes of six to nine years is expected.

C. Repairs to Asphalt Roadways $5,000

1. The normal maintenance of asphalt roadways requires the application of a seal coat at approximately five-year intervals. The asphalt surfaces surrounding the building entrances are in generally good condition, but cracks

are beginning to appear and patches have already been required in several places. Continual erosion and alternate freezing and thawing during the winter months will accelerate the deterioration of these roadways. It is in the interests of both economy and appearance to make provision for a seal coat, rather than to let the surfaces disintegrate to a point where complete replacement will be required.

D. Waterproofing Second Level of Garage $7,000

1. Four years ago, when a portion of the third level of the garage was converted to warehouse and storage areas, it was necessary to waterproof the area in the second level immediately above. The remainder of the second level was left unfinished. During the winter snow melting off cars creates substantial amounts of dirty water on the second level which leaks through to the third level. This has occasioned some damage and many complaints from the garage users, and it is recommended that steps should be taken to eliminate the problem. Accordingly, it is proposed to cover the unfinished area of the second garage level with an inexpensive waterproofing material.

E. Redecoration of North Lounge $4,500

1. The North Lounge will shortly require complete repainting and this should be done at the time the new carpet is laid. This project will require the erection of extensive scaffolding and cannot be done by the regular maintenance staff. The estimate makes provision only for repairs to the plaster and the painting of the room.

F. Waterproofing North Wall Windows, General Assembly building $10,500

1. As a result of normal deterioration of the caulking material, the windows in the North Wall of the General Assembly Building will require to be waterproofed. Under certain wind and rain conditions at the present time leakage occurs which is damaging the surrounding paint and plaster. If not corrected, the damage will eventually reach a point where major repairs to the interior walls will be required.
