

23rd August, 1962.

NI/GP/62/23

NATIONAL INSTITUTE FOR RESEARCH IN NUCLEAR SCIENCE

GENERAL PURPOSES COMMITTEE

LECTURE THEATRE

Note by the Secretary

1. Approval to proceed with a plan for a lecture theatre at the Rutherford Laboratory was given by the Governing Board on 10th March, 1960. A brief specification of requirements was drawn up for a lecture theatre for about 200, together with a coffee lounge. A small lecture theatre and smaller meeting room were to be included if they fitted in conveniently e.g. under the seats of the main theatre. (These two rooms have been omitted in the design now put forward for approval). The first designs produced by S.W.O. were considered to be too expensive, and a good deal of time was lost by efforts at economy which proved to be not sufficiently radical. A fresh start was however made in February, 1962, when S.W.O. were asked to make a special effort to produce a really simply scheme, with the help of a rough estimate from an outside "package deal" firm. A very much simplified scheme was produced at an estimated cost less than half that of the previous one, and approval for it is requested in this paper.
2. The proposed lecture theatre, as was always intended, adjoins the restaurant. It is a plain rectangular hall 45' x 58' with straight rows of seats, with ventilating plant and a chair store underneath. The hall is linked to the restaurant foyer by a hall 40' x 36', to provide the essential assembly space for informal discussion, coffee between lectures, information centre for conferences etc. At other times it can be used as a large committee room.

The capacity of the lecture theatre (200) is still thought to be adequate for the needs of the Rutherford Laboratory even though it is now expected that 1,020 staff will ultimately be needed, compared with about 700 estimated in 1960 when the figure of 200 was fixed. This is because many of the uses will concern the university users of the Laboratory, whose estimated numbers have not very greatly increased. Large international conferences do not have to be provided for, because the Board decided in 1960 that the large lecture theatre under construction at the Physics Department in Oxford should be relied upon instead. Also for lectures requiring a seating capacity slightly greater than 200, the A.E.R.E. Cockcroft Hall, seating 250, can be used.
3. Sketch plans of the proposed lecture theatre are enclosed. A token estimate (considered accurate to $\pm 10\%$) was received from S.W.O. on 28th June, 1962 and is as follows:-

	£
Architect	24,000
Engineer	8,000
	32,000
Furniture for Lecture Theatre	4,000
Tables and Chairs for Entrance Hall	1,000
Total	£37,000
Plus Fees to be charged at cost, estimated not more than	£5,000

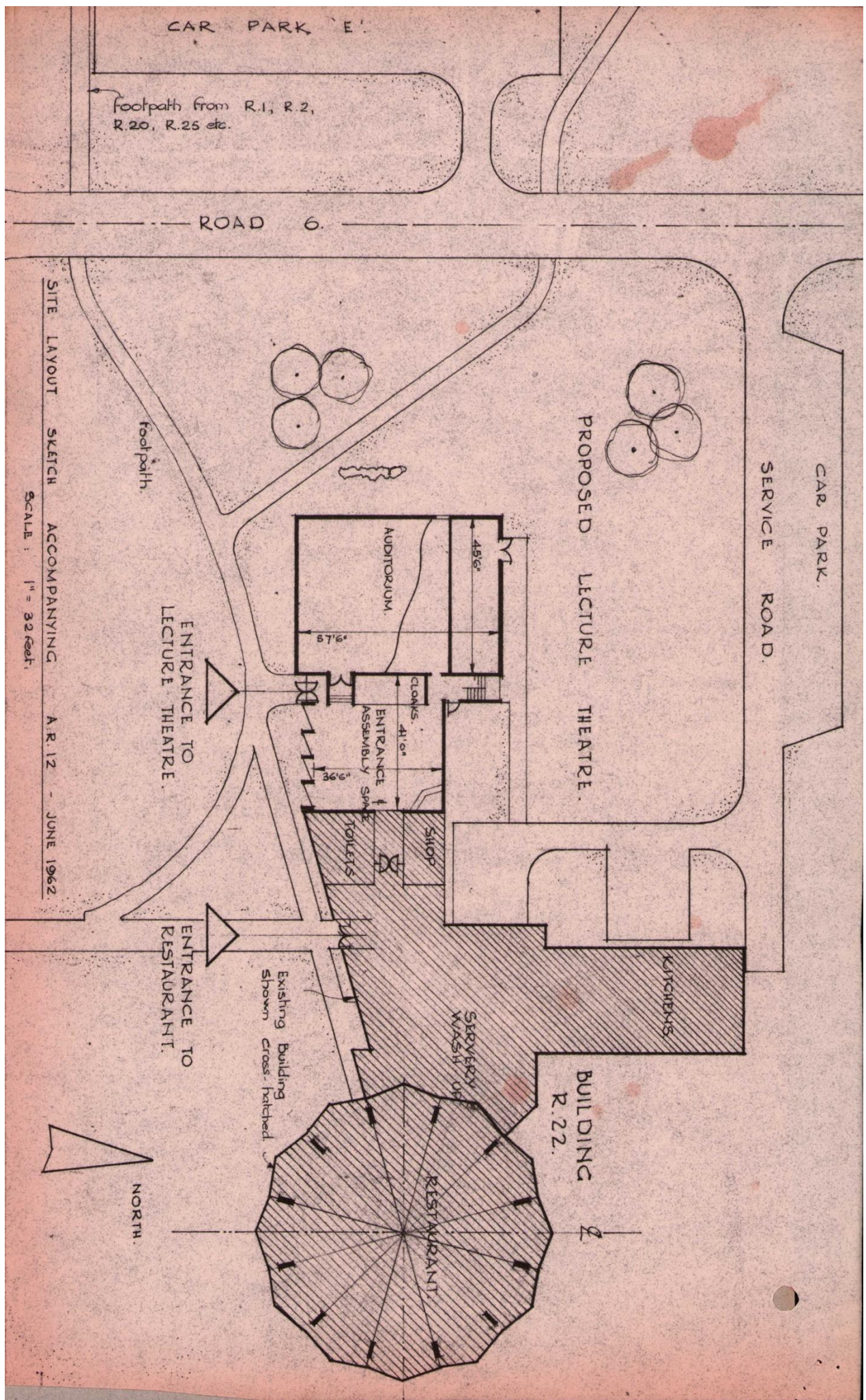
The estimate includes the cost of Externals, i.e. drains, footpaths and re-soiling for landscaping.

4. As this is only a token estimate approval is requested to proceed with a scheme at a total cost not exceeding £50,000 and to invite tenders to the attached design from several firms including ones familiar with 'package deal' contracts.

The cost would fall mainly in 1963/64. Provision has been made in forecast estimates.

Comparison of cost of proposed N.I.R.N.S. lecture theatre withcost of the Cockcroft Hall, A.E.R.E.

	N.I.R.N.S. Lecture Theatre	Cockcroft Hall, A.E.R.E.		Remarks
		As at 1954/55.	Brought up to 1962 rates by adding 33 $\frac{1}{3}$ %	
	£	£	£	
Building and Civil	24,000	35,000		33 $\frac{1}{3}$ % is considered a minimum % to add.
M. & E. Engineering	8,000	14,000		
Total	£32,000	£49,000	£65,000	
Furniture	5,000	6,500		
Total	£37,000	£55,500	£74,000	
<u>Analysis of Costs including Furniture</u>				
No. of seats	200	250		
Cost per seat	£185	£220	£293	
Area sq. ft.	4,290	6,789		
Cost per sq. ft.	£8 12. 6.	£8 3. 5.	£10 17. 10 $\frac{1}{2}$ d.	
Cubic capacity	72,813	93,743		
Cost per cub. ft.	10. 1 $\frac{1}{2}$ d	11. 10 $\frac{1}{2}$ d	15. 9d.	
<u>Analysis of Costs Excluding Furniture</u>				
Cost per seat	£160 0. 0.	£196. 0. 0	£260 0. .0.	
Cost per sq. ft.	£ 7. 9. 2.	£ 7. 4. 4.	£ 9. 11. 4.	
Cost per cub. ft.	8. 9 $\frac{1}{2}$ d	10. 5 $\frac{1}{2}$	13. 10.	



2.

SHOP.

TOILETS

SERVICE COUNTER

40'0"

36'6"

UP

Emergency
Staircase.

CLOAKS

Telephones

mat.

ventⁿ input duct.

45'6"

UP.

separate inner lining
walls for sound
insulation

EXTRACT LOUVRES

CHAIR
STORE.

AUDITORIUM.

Blackboard &
Screen

PLATFORM.

M. & E. PLANT
ROOM.

ventilation duct under.

UP.

steps up.

vent input duct.

57'6"

INTAKE LOUVRE

Emergency door

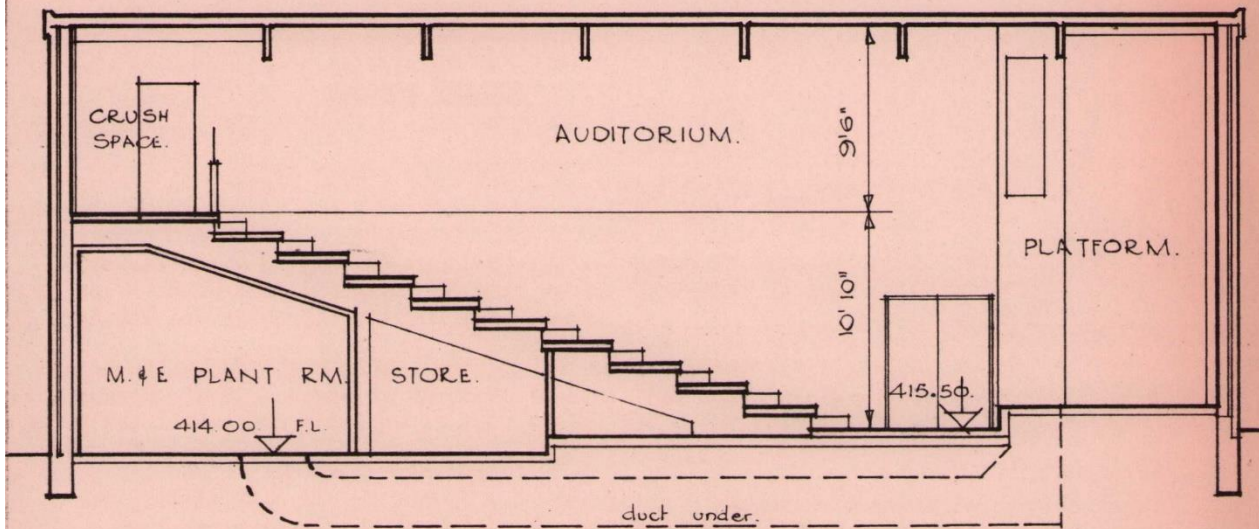
GROUND FLOOR PLAN.

PROPOSED LECTURE THEATRE

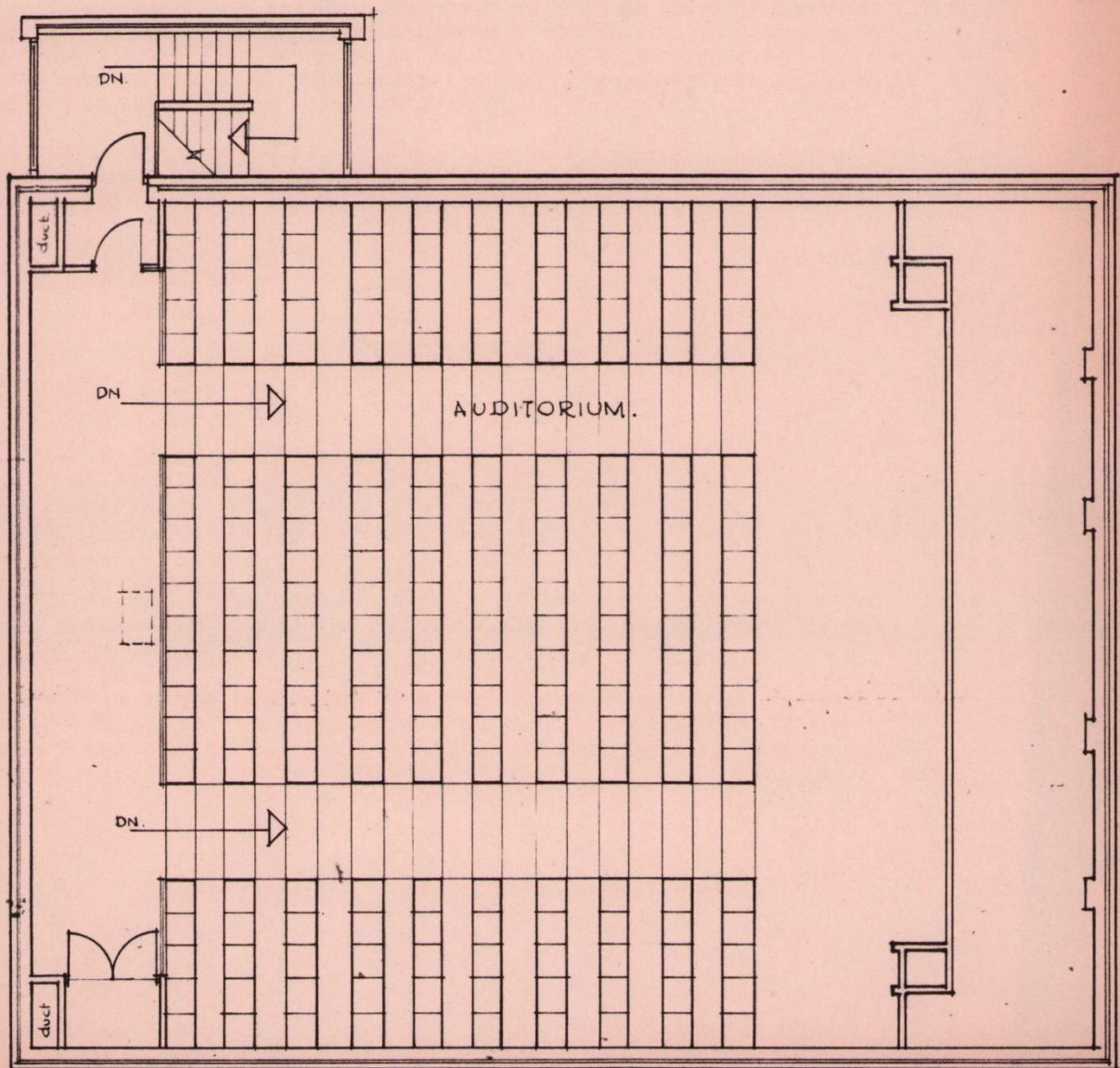
3.

N.I.R.N.S.

sketch accompanying A.R.12 dated June 1962.



LONGITUDINAL SECTION.



FIRST FLOOR PLAN.