

**CONFIDENTIAL**

20 February 1957

MEMORANDUM FOR: Mr. Paul Borel

SUBJECT: Evaluation of Walnut System

1. At the request of the Deputy Director, Plans, and at the invitation of the International Business Machines Corporation, a qualified and experienced engineer of the National Security Agency, Mr. Turner S. McLaughlin, was chosen by the Agency to furnish an independent technical evaluation of the Walnut project. Mr. Albert E. Highley, of FI/D, participated and furnished his own separate evaluation.

2. This has resulted in the two attached Highley engineering papers which I would appreciate your reviewing. We expect a contract proposal for machinery from IBM in the middle of April which will come before the Committee for consideration.

(Signed) WALTER JESSEL

WALTER JESSEL  
Secretary  
CS Records Committee

2 Attachments - as stated

Distribution:

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**CONFIDENTIAL**

National Security Agency  
Fort George G. Meade, Maryland  
Attn: Mr. Turner S. McLaurin,  
MPRO  
19 February 1959

Mr. Walter Jessel  
~~RI Division~~ **AF XO**  
Central Intelligence Agency  
Washington 25, D. C.

Inclosed is my evaluation report of the WALNUT information retrieval system. In the absence of a prescribed format for the report, I elected to write it in narrative form, loosely organized into sections which coincide with the major subject areas of the system. I have also taken the liberty to include a few operational suggestions along with the technical comments; these are based on personal association with complex electronic processing systems for many years.

It is my hope that your purposes in asking me to review this system are reasonably well served by this report. I would be gratified to receive an invitation to view the system in operation when it is installed, and also to be informed of your operational experiences with it at a later date.

Respectfully,



TURNER S. McLAURIN

Deputy Chief, Office of Machine Processing  
Production

Incl:  
a/s

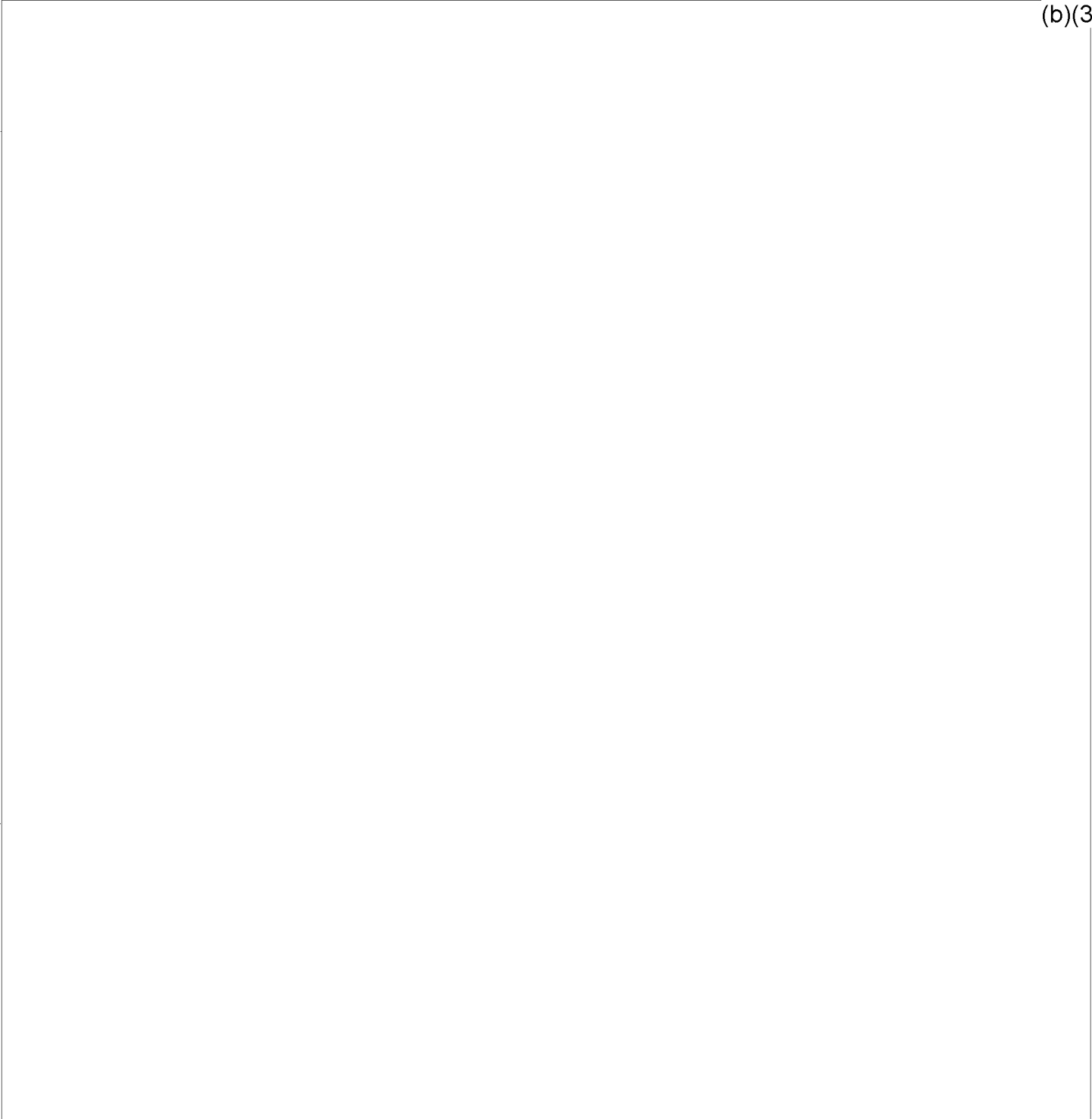
Evaluation of Project WALNUT

Introduction

This report is the result of an independent assessment of the WALNUT project by an individual outside the sponsoring Agency. The fact-gathering phase of this study consisted of:

- a. Three days devoted to reviewing rather voluminous documentation such as system study and development progress reports,
- b. Conversations with various people intimately associated with the project, and
- c. Three days spent reviewing the status of work in progress at the IBM Research Laboratories in San Jose, California.

(b)(3)



(b)(3)

(b)(3)

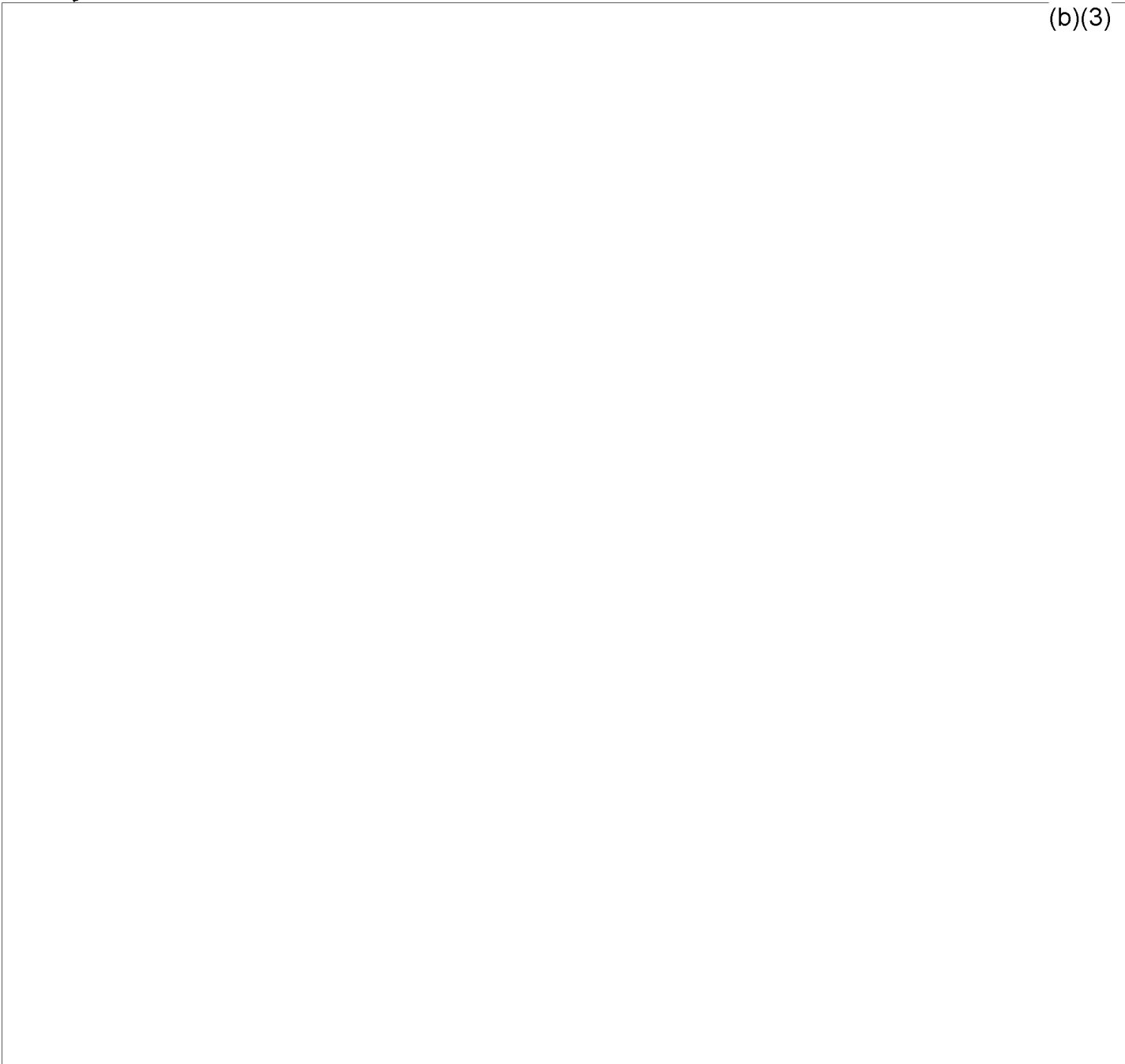


(b)(3)





(b)(3)



19 February 1959

MEMORANDUM FOR: AEXO/DDP

SUBJECT: Report on WALNUT Equipment Development

1. The undersigned visited the IBM laboratories at San Jose on 4-6 February to inspect the progress of equipment development and system planning for the WALNUT project.

2. It is my opinion that the development of the [redacted] [redacted] has passed its most critical phase. The problems remaining to be solved appeared to be relatively simple and should not be an obstacle to successful completion. The machine should more than meet the minimum specifications. The [redacted] is also well along in basic development. The engineers estimated that it should be possible to complete one model about the same time that the [redacted] [redacted] is completed. (b)(3)

3. It is recommended that the development of the Document Storage Machine be continued with a view to earliest possible procurement of operational equipment.

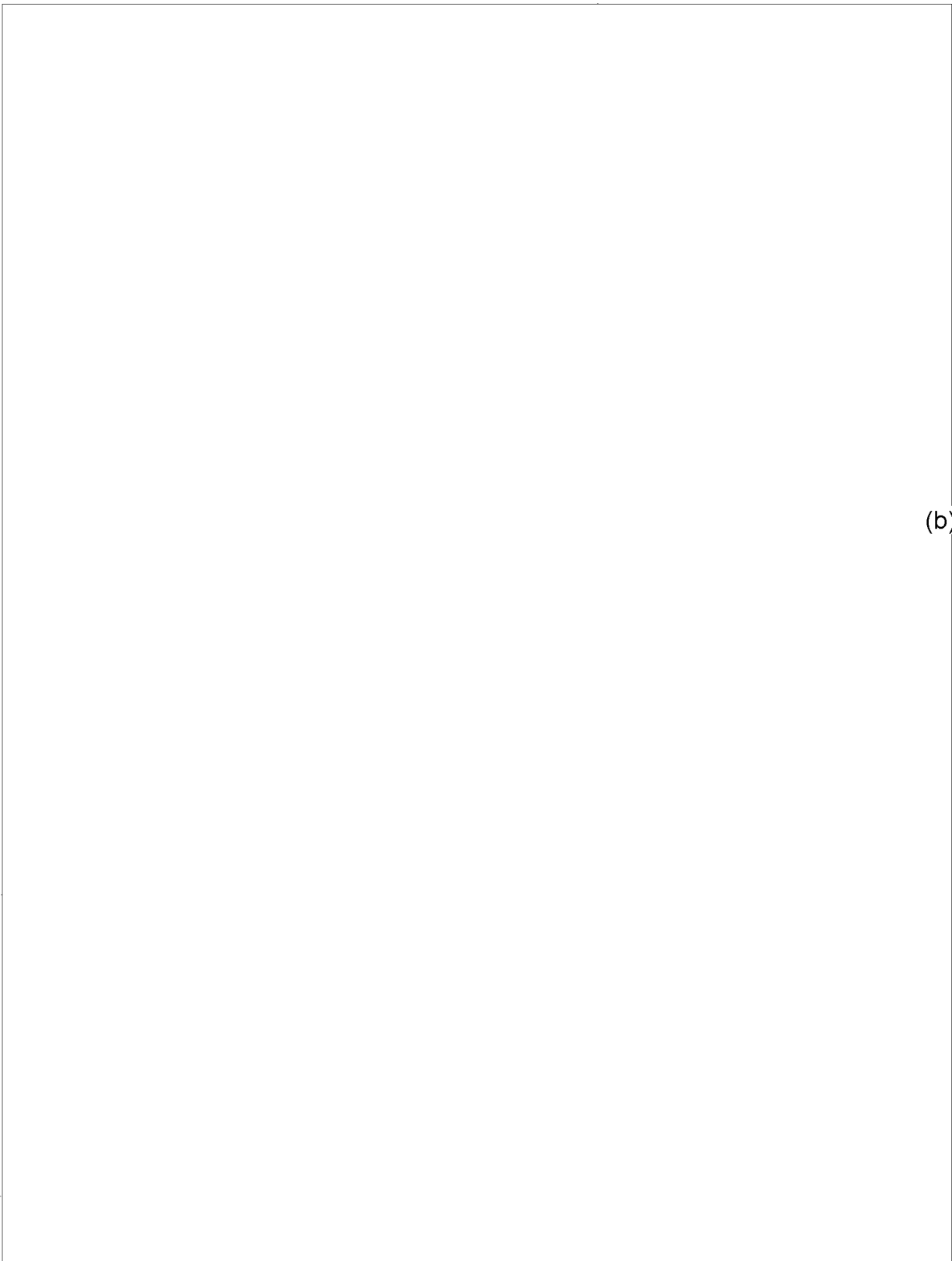
4. Because of the desirability of getting the whole WALNUT system into early operation, it is also recommended that a module of the [redacted] be obtained as early as possible and that it be used both as the index and as the auxiliary index. (b)(3)

5. In order to get a better understanding of the benefit to be realized from automatic insurance against garble and of the effect of so doing on the volume of material to be examined and in order to assess the most efficient initial loading of the [redacted] it is recommended that there be undertaken an immediate testing [redacted] (b)(3)

[redacted] (b)(3)  
[redacted] (b)(6)  
A. E. HIGHLEY [redacted] (b)(3)  
[redacted] (b)(6)  
[redacted] (b)(3)

Attachments:  
Comments on: [redacted]

(b)(3)



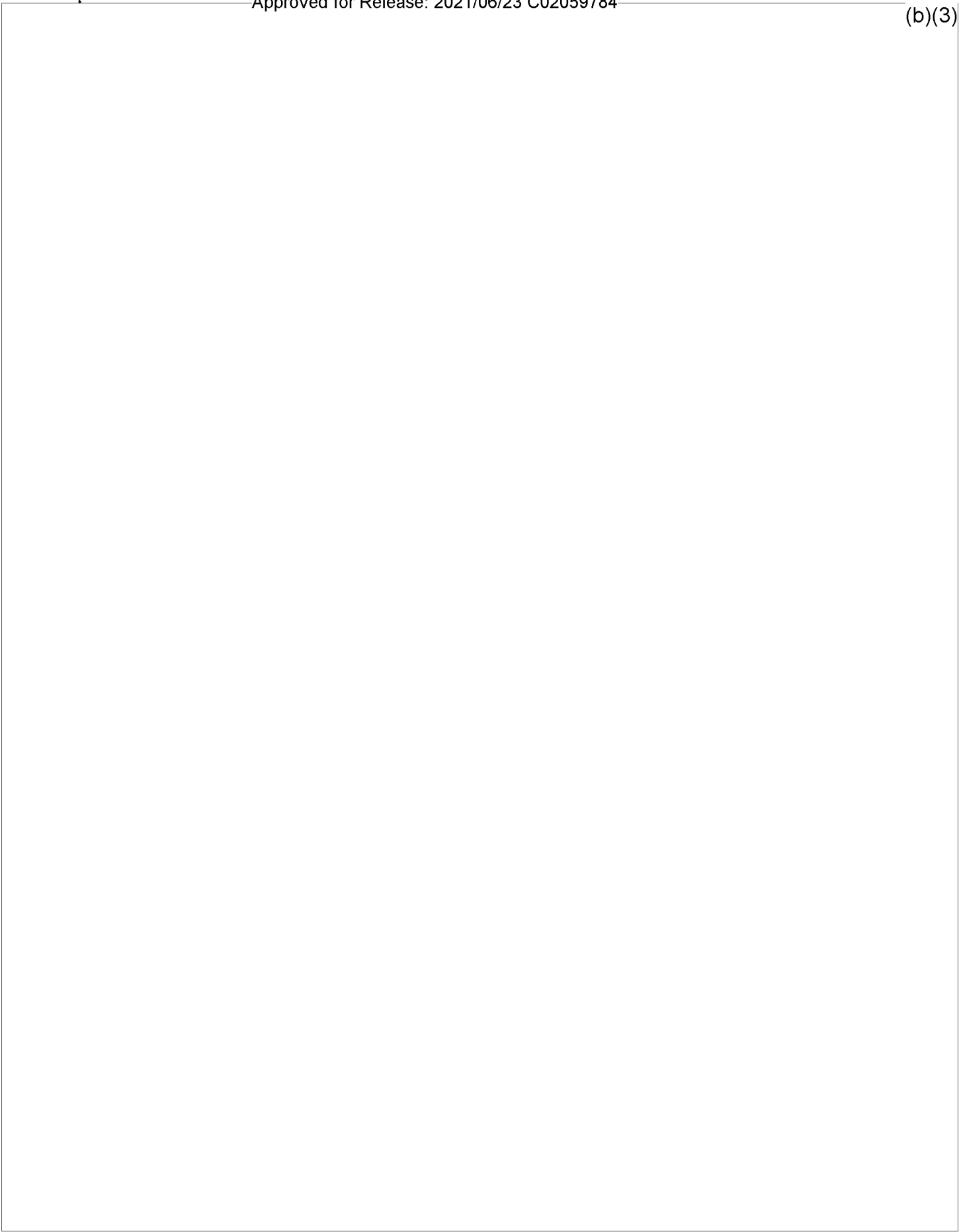
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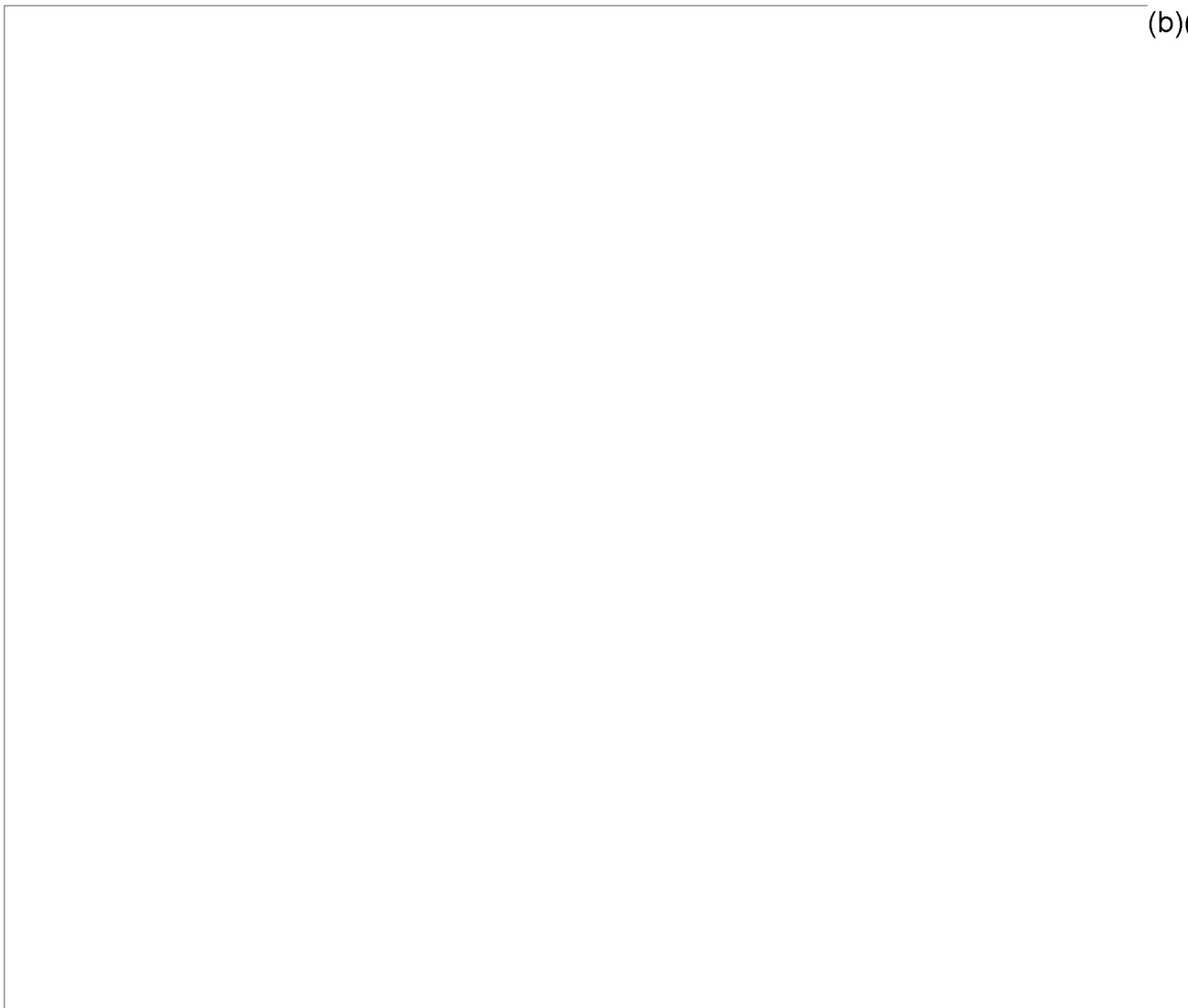


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### ROUTING AND RECORD SHEET

SUBJECT: (Optional)

FROM:

AEXO/DDP  
2119 Curie Hall

NO.

DATE 27 FEB 1951

(b)(3)

TO: (Officer designation, room number, and building)

DATE

OFFICER'S INITIALS

COMMENTS (Number each comment to show from whom to whom. Draw a line across column after each comment.)

RECEIVED

FORWARDED

1. Mr. Paul Borel  
1053 - M

2. SMAD/CR

1-✓  
Please review as soon as possible. Coordinate with BK PWD

(b)(3)

(b)(3)

"Walnut" papers for A D S collection