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ABSTRACT

This volume deals with methods for developing an inventory of the existing space on a given campus. The body of the report sets forth the responsibilities and modes of operation of the Room Inventory Office. The set of appendices comprises a manual of implementation, defining the particulars of maintaining the system as it is done at Duke University. All the pertinent documentation and formalization necessary to implement a computerized Room Inventory System are included. (FS)

INFORMATION NEEDS:

for planning physical facilities in colleges and universities

Room Inventory

July 1969

Educational Facilities Laboratories, Inc.
New York, New York

Duke University
Durham, North Carolina

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Houston New York

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FOREWORD

This paper was written in partial fulfillment of a research agreement between Educational Facilities Laboratories, Inc., and Duke University. It is the result of numerous committee meetings, interviews, trial and error, and investigation of the literature. It is meant to provide guidance to an institution at the level of the systems analyst/programmer who wishes to install a room inventory for use in external reporting and internal management.

This report is but one in a series of four generated by the project. The other volumes are:

Volume 1: Overview

Volume 3: Space-Demanding Activities: A Technique for Data Collection and Analysis

Volume 4: Space Planning: A Technique for Evaluating Alternative Campus Building Programs

Copies of these documents as well as this one may be obtained by writing Educational Facilities Laboratories, Inc., 477 Madison Avenue, New York, New York 10017.

It is becoming increasingly apparent that standard measures of inputs and outputs in institutions of higher education must be developed and applied to evaluation and planning of existing and proposed activities in order that these activities might be performed most efficiently. One of the most basic input elements to almost all institutional activities is the space in which these activities must operate. Therefore, any effective model for evaluation or planning must require information about the institution's space. Furthermore, controls to insure that all the institution's activities may continue to operate and co-exist within the physical plant present a need for space allocation which, in order to be effective, must be based on this same kind of space information. The Room Inventory System is a method for managing this information.

The body of this report is something of a constitution of the Room Inventory Office, setting forth its responsibilities and modes of operation. The set of appendices comprises a manual of implementation, defining the particulars of maintaining the system as it is done at Duke. In principle, the Room Inventory Office could be created and operated according to the *constitution* without the aid of a computer. However, where the number of rooms is large or when the data maintained for a room is voluminous, the clerical drudgery of keeping the file current is prohibitive. Also, when the data is used to fill reporting needs, to satisfy analytical purposes, and to solve need-projecting problems as a function of various growth rates and other determinants, the lack or misuse of a computer-driven room inventory file could easily make these applications impractical. Hence, the problem of a room inventory is approached with automation in mind. The set of appendices includes all the pertinent documentation and formalization necessary to implement a computerized Room Inventory System.

A great many people contributed materially to the development of the system outlined herein. Though they cannot all be named because of numbers, a few should be singled out for their contributions:

Hamilton Hoyler. Coordinator of Institutional Data Processing at Duke University, his extraordinary sense of information requirements for institutional planning was invaluable during the structuring and completion of the study.

Dr. Jane Elchlepp. In charge of physical planning at the Duke University Medical Center, she gave invaluable assistance in appraising and constructively criticizing file and report contents.

Bill Kirkland and staff in the office of the Director of planning at Duke were ingenuous and unflagging in their data collecting efforts which finally provided Duke with its room inventory built and maintained by the system described herein.

Jeff Lazarus, the author of this paper as well as of the component computer programs, accomplished his work while carrying a full academic load as an undergraduate junior at Duke University.

Walter Matherly -- Principal Investigator
July 1969

ROOM INVENTORY SYSTEM

The Room Inventory Office (RIO) is organized around the Room Inventory File (RIF). RIO's basic function is to systematize large volumes of data in such a way that small subsets of the pool of information are easily accessible. In particular, the principal responsibility of the RIO is to maintain a file of data about each room in the physical plant. The nature of the different data items are varied, and these items come from different sources. It is the charge of RIO to collect the various data and store them in such a fashion that they may be readily accessed.

Signals and data

Two kinds of inputs are required by the RIO. The first is a signal that supercessive data is available; the RIO must be notified that it must collect information to update its file. The sources of these signals are a report of occupancy, which indicates that new space has been completed and is being occupied by its user, and a copy of a

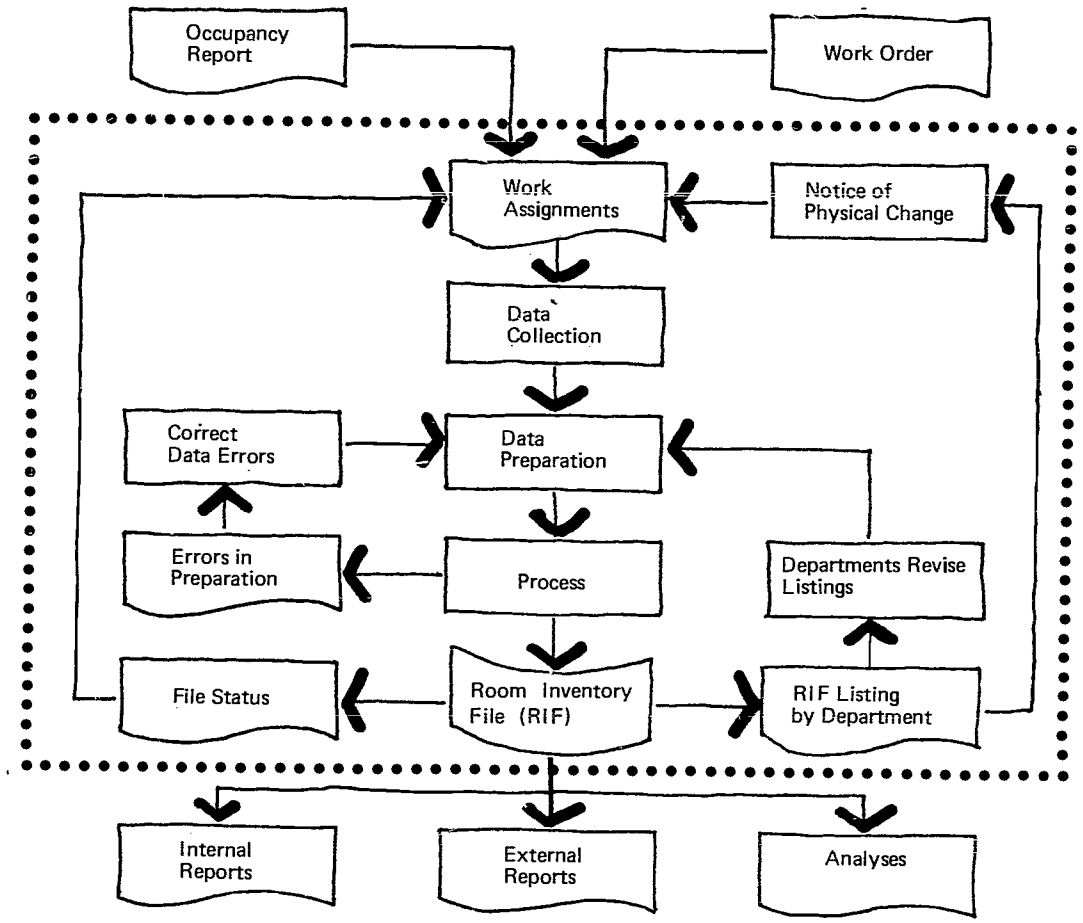


Figure 2.1: *Room Inventory Office Procedures.* Room inventory subsystem of the University Information system

4 maintenance department work order that indicates that some change has been made in the physical characteristics of a particular room. (See Appendix for examples of these forms.) Upon receipt of these signals, the RIO manager may assign his data-collection team the task of following through on the signals by contacting the department in the case of the occupancy report, or visiting the site in the case of the work order. (See Appendix for Work Assignment form.)

Another signal that causes a data-collection assignment is generated from within RIO. This internal signal is the file-status report which indicates to the RIO manager two types of short-comings of RIF. First, the report indicates those rooms for which part of the data is missing. (Obviously, some of the data for a particular room must have been introduced to the file for there to be a record that the room exists. Hence, the file-status report cannot note rooms that are totally absent from the file.) An assignment to collect the appropriate data is made. Secondly, the report indicates those rooms for which data has not been verified within the preceding two years. This signal generates an assignment by the manager for the data-collection team to visit the site to compare the data on file with the actual physical characteristics. If the data is accurate, the record is *validated* on the file by revising the date-of-inventory. Otherwise, the necessary revision is recorded.

The second type of input, of course, is the data itself, of which there are four basic types:

The Room Identifier
Assignment Data
Physical Data
Room Type

(See Data Definitions in the appendix for the specific items.)

The nature of the room identifier is such that it uniquely labels one space entity (called a room, but meaning a room, corridor, closet, etc.). Since the RIF is organized on the basis of room identifiers, these identifiers must have a logical order and standard form (e.g., building number – floor number – room number – room suffix). The room identifier on the file should correspond to the number affixed to the door of the room.

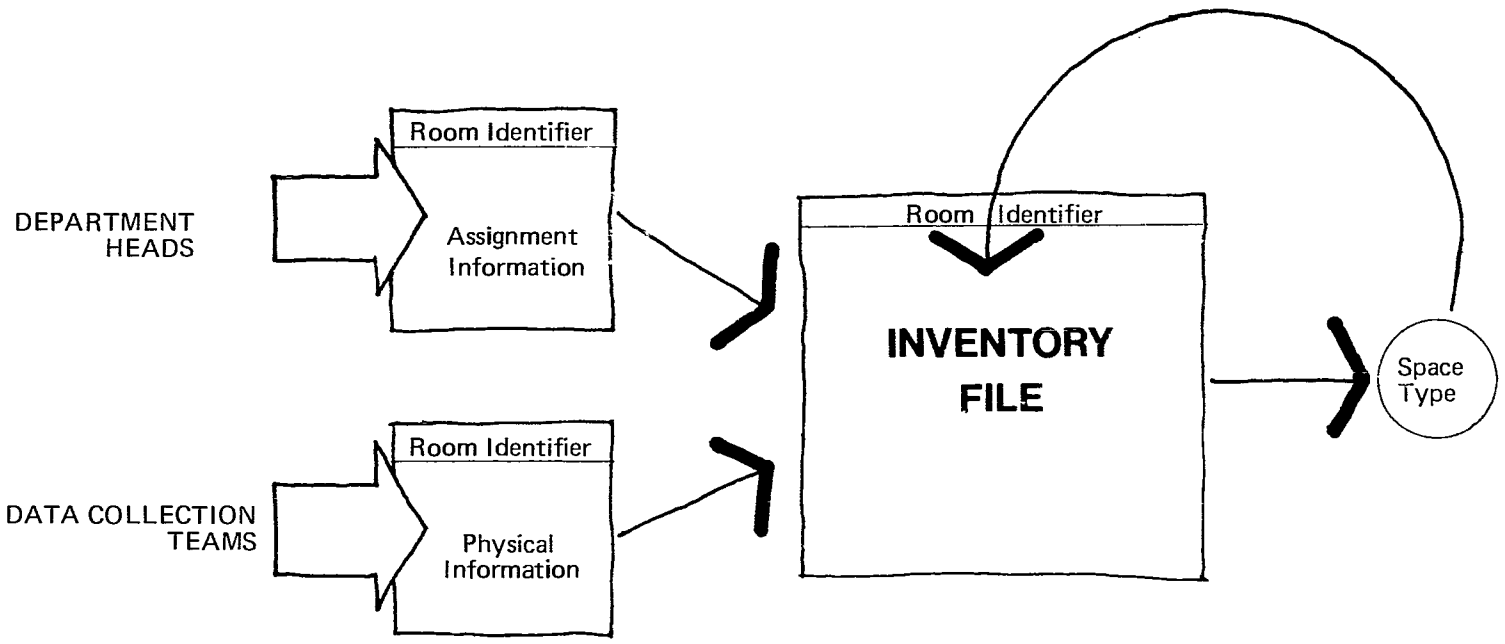
Assignment data comprise the non-physical (and usually non-permanent) extrinsic characteristics of a room, such as the name or code of the department (or departments) to which the room is assigned, the use to which the room is put, and the activities and people which function in the room. Assignment data is received via a semi-annual report to each department of its space as it is listed on RIF. The chairman or his designee is asked to examine the data. Should there be inaccuracies (changes, omissions), a note of the exact revision is made on that form and returned to the RIO, where the change is made on the RIF. (A program to produce this listing is included in the Appendix.)

Physical data are, as suggested by this label, items regarding the plumbing, electrical, air conditioning, dimensional, and other intrinsic aspects of the room. Physical data is recorded by a simple visit to the room by a team of two men,

one of whom observes the various physical characteristics called for on their data collection forms, and the other of whom makes the appropriate notation on those forms. And so, as signals are received by the RIO marking the need to collect data, these types of information can be collected.

The room-type is a single data item which is not observed in the room. Rather, it is generated by the maintenance program as a function of the physical characteristics of the room. In principal, one room could be put to a variety of uses, depending on its built-in features. For example, a room without any of the special fixtures found in labs or bathrooms could likely be used as an office, a conference room, a storage room, or a lounge. This is the most basic type of space, called *general space.* On the other hand, a room with gas and water outlets might make a good lab, but its use as an office would create an inefficient application of the gas and water outlets. Hence, the philosophy of the room-type is that certain *types* of rooms can accommodate certain kinds of uses more effectively than others. The basis for the room-type is the average relative cost of each of the types and the cost of converting from one type to another. The six types are called *general, wet lab, bathroom, theater, janitorial,* and *special.* These names imply the distinguishing physical characteristics. Special type rooms are simply rooms that are not any of the other types. In addition to its value as a determinant of space potential, the notion of a room-type is useful for space costing analysis and budgeting as explained in the companion publication. The Appendix of this volume contains a diagram of the specific logic of the room-type function.

Figure 2.2: *Data Base: Room Inventory File.* Heads of Academic and Administrative Departments are responsible for preparing Assignment information, which consists of such items as department code, room use, and type of occupants. Physical data is prepared by the Data Collection Teams of the Room Inventory Office and consists generally of plumbing, heating, electrical and dimensional characteristics. Space type is determined by physical data.



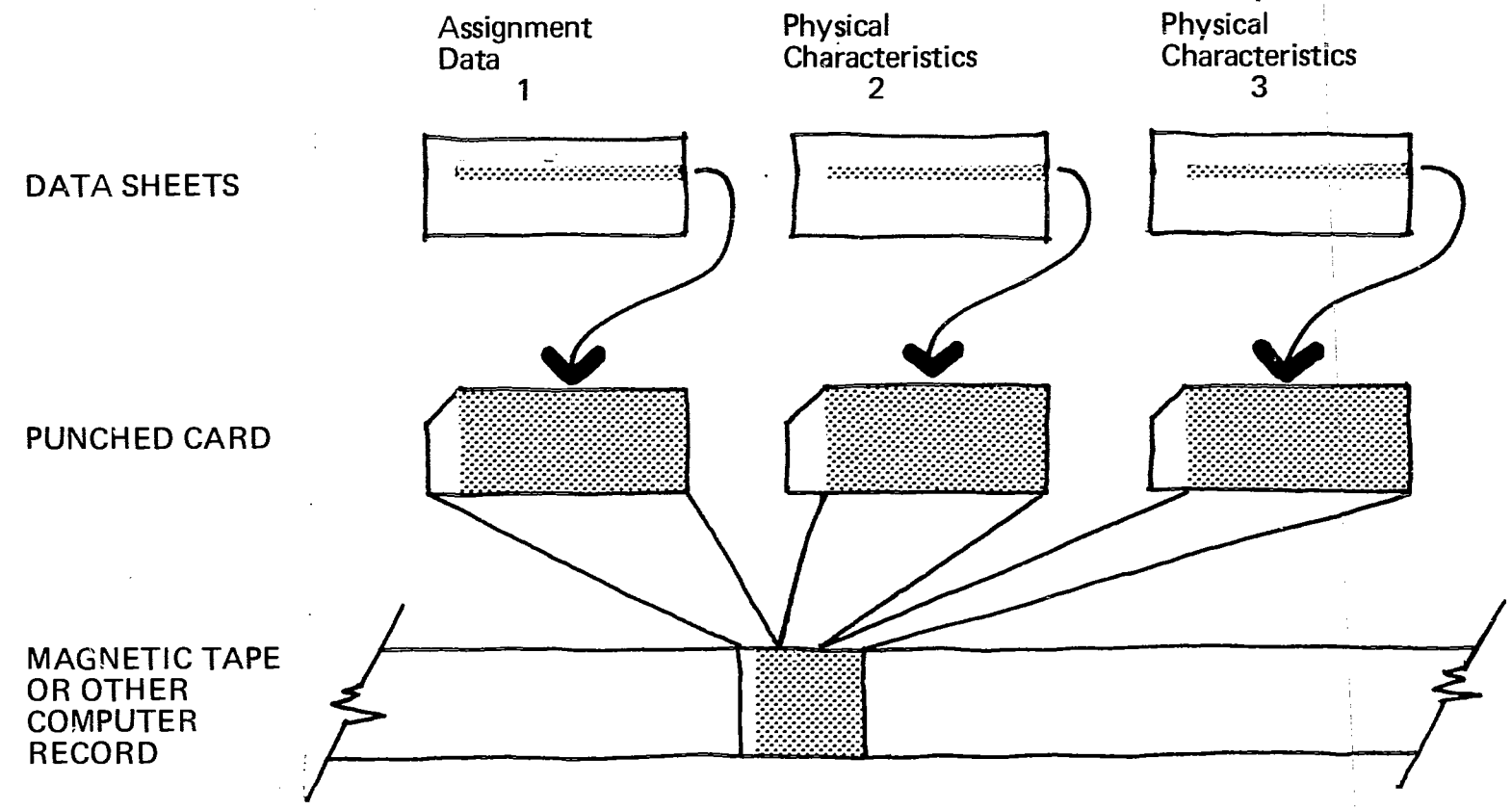


Figure 2.3: *Data Storage Process.* Data about several rooms can be entered on each data sheet. Each line on the data sheet can be punched into one data card. These cards are processed by a computer and consolidated into one continuous record concerning that room. The first part of cards 2 and 3 repeat the room identification which is necessary on separate data cards but is required only once on the continuous record.

Data preparation

As physical and assignment data are collected, they must be prepared for the monthly run of the RIF file-maintenance program. The data assembled on the data collection forms are visually inspected by the RIO manager or his data-processing personnel and the necessary data processing requirements are fulfilled at that time by inserting on the form the file-maintenance transaction code (code column 80).

Changes, deletions, and validations are prepared within RIO in accordance with the input requirements of the file-maintenance program (see RIF Maintenance documentation in Appendix).

Also within RIO, the manager or his data-processing assistant, must re-prepare that data from the previous month's file-maintenance run which was edited out due to errors. This process is simple in that the information output from the RIF maintenance program includes a set of those cards that were rejected and a numbered message that indicates the nature of the error.

The RIF maintenance documentation includes a description of the cause of such errors and the steps necessary to correct them.

As data are prepared, they are punched directly from the various forms. At the end of the month, the punched cards are sorted according to room identifier and submitted along with the RIF maintenance program for data processing.

Following the file maintenance run, the RIF back-up program is executed to generate a secondary or back-up file for safety. Also the RIF General Edit Program is run, which generates the file-status report. With the errors from the new run of the file maintenance program and the file status report in hand, the RIO manager is ready to assign the next month's work.

Files

The RIO is obliged to maintain specific files on a permanent basis. RIO will also find it necessary to maintain temporary files which may be discarded at prescribed intervals.

Room Inventory File

The information on the RIF is of four general types. As mentioned above, these are room identifier; physical characteristics such as plumbing; assignment data such as room use, department, types of occupants, and type of activity; and room type, which is generated as a function of the other data.

Backup File

The backup file is a copy of the current RIF that is stored on tape. It is destroyed monthly by replacing it with a copy of the updated RIF immediately after the file maintenance run.

History File

The history file is a copy of the RIF that is created annually and saved. Stored on tape, its purpose is to provide a source for statistical and budgetary analysis by other segments of the University system and, significantly, by the University planner.

Department File

The department file is merely a set of folders, one for each department represented on the RIF. Each folder contains the names and addresses of both the department chairman and his designee with whom contact is made concerning the semi-annual departmental space listing. Each folder also contains a copy of all such department listings and any correspondence between RIO and that department.

Room inventory file utility programs

Maintenance Program

The purpose of the maintenance program is three-fold. It inserts into the file all update and validation information for existing rooms. It adds to the file records of new rooms. It deletes from the file records of rooms no longer in existence.

8 **Backup Program**

The back-up program is used to create a copy of the room inventory file. Any packaged file to file utility program can be used. It is run after the results of the maintenance program have been verified. There are two reasons for keeping a copy of the file: To maintain a history of the growth of RIF for later analysis, and to provide a secondary file in case damage is done to the primary file.

General Edit Program

This monthly program is designed to report to the Room Inventory Office those rooms for which data is incomplete or possibly incorrect, and those rooms which have become due for their bi-annual physical data validation. It is run after the maintenance program in order to provide the most up-to-date assessment of the condition of the file.

Department Listing Program

This program is run semi-annually. It provides a list of the rooms and the room assignment data for each department whose space is recorded on the file. Each list is sent to the respective department for review by the department representative.

Reports

File-Status Report

The file-status report is generated monthly; and, since each report indicates the latest assessment, the old report is destroyed as the new one is created.

File-Maintenance Transaction List

This list, generated by the maintenance program, should be retained for the month following its generation in order to coordinate questions arising from the file status report.

File-Maintenance Cards

These cards should be retained for the month following their submission to RIF because of their possible value in correcting errors in the file that result from the maintenance run.

In addition to the RIF system reports listed above, RIO will frequently be called upon to generate three types of reports external to its own system. The first report is *internal* to the University system. This report will generally be either a listing of certain groups of data on RIF, a count of rooms with specified attributes, or a sum of area of rooms with specified attributes. A second report is *external* to the University system (i.e., to HEW, State Board of Education, or financial institutions). The information required here will be of the same general nature as that of the internal reports. Thirdly, some analytical result requested for such purposes as building-cost analysis, utilization, or planning analysis for estimating future space needs.

FILE	FORM	FREQUENCY	DISPOSITION
Room Inventory	Disk, tape	Updated monthly	Maintained indefinitely
Backup RIF	Tape	Monthly	Destroyed when new file created
History	Tape	Annually	Saved indefinitely
Department	Folders	Updated semi-annually	Saved indefinitely

Figure 2.4: *File Summary.* Files required by Room Inventory Procedures Magnetic Tape (Mag Tape) can be any appropriate computer secondary storage medium

REPORT	FORM	FREQUENCY	DISPOSITION
File-Status	Computer print-out	Monthly	Destroyed when replaced by new report
File-Maintenance Transaction List	Computer print-out	Monthly	Destroyed after one month
File-Maintenance Cards	Punched cards	Monthly	Destroyed after one month
Inventory Summaries	Computer print-out	As requested	Sent to requesting agency
Analytical Studies	Computer print-out	As requested	Sent to requesting agency

Figure 2.5: *Report Summary.* Reports generated by Room Inventory Office

APPENDICES

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Appendix A. RIF maintenance program

The Room Inventory File Maintenance Program is designed to introduce updating information to RIF. There are four principal types of transactions that the program will consumate:

Addition of a new room-record

Change of information on an existing room-record

Deletion of an obsolete room-record

Validation of a room-record

The program is written in PL/1 and has been compiled with the Release 14 Version 4 OS Compiler. The size of the load module is 41K. For efficiency, additional available core should be used for buffering. The program rewrites the room inventory file to a secondary file where sufficient disk storage is available, an efficient situation would be found in the creation of a generation data group. An alternate approach would be modification of the program in conjunction with establishing an ISAM file.

Essentially, all the I/O and editing is handled in the main program. Of the four subroutines, WARN and REJECT merely accomplish error-handling procedures. The third, TYPEPGM, generates a room type code as a function of new physical data introduced into either a new or existing room record. SUMRY produces a report of the transactions that have been attempted.

Appendix B. RIF maintenance program external files

The maintenance operates on the following files, all of which require appropriate *do* statements at execution time.

FILE NAME	MEDIUM	MODE	ORGANIZATION	ORIENTATION	REC LENGTH	REMARKS
RIF	disk, tape	input	sequential	record	300	This is obsolete RIF
RIFOUT	disk, tape	output	sequential	record	300	This is updated RIF
SYSIN	card reader	input	sequential	record	80	Update cards
PUNCH	card punch	output		stream	80	Reproduced error cards
SYSPRINT	printer	output		stream	132	Transaction listing

Appendix C. Procedures for maintaining space inventory file data input

The following pages contain detailed information on how to prepare cards for updating the space inventory file. There are six principal modes of updates performed on the file, all of which can be handled concurrently by the file maintenance program. The six types of updates are as follows:

Changing one or more entries in an existing record

Changing one or more of the three major segments (cards 1, 2, 3) in an existing record

Adding a portion of an existing record that is absent within that record

Adding a new record

Deleting an existing record

Validating data on an existing record

In general, every update card will have the following information:

INFORMATION	CARD COLUMNS
Room identifiers:	
Building number	1– 4
Floor	5– 6
Room number	7–10
Suffix	11–13
Transaction Code	80

The Transaction Code (TC) can be one of the following six characters:

TRANSACTION CODE	TYPE OF TRANSACTION
1	Card No. 1 - Assignment, room use information
2	Card No. 2 - Physical characteristics data
3	Card No. 3 - Physical characteristics data
V	Validate Card
C	Change Card
D	Delete Card

The V, C, and D cards are explained below. The 1, 2, and 3 cards are those corresponding to the three data forms, for which formats and definitions are included under Data Reporting Formats and Definitions.

Before the cards are entered into the maintenance program, they must be put in order of identifier (i.e., in standard collating sequence). That is, the building numbers must be in sequential order, the floor numbers within each building, the room numbers within each floor, and the suffixes within each room group in order, also. Those cards with floor 99 (sub-basement) follow cards of other floors within a building.

To change a portion of existing records: It is necessary to use only a C card. To prepare this card, the following information must be punched:

INFORMATION	CARD COLUMNS
Building Number	1– 4
Floor	5– 6
Room Number	7–10
Room Suffix	11–13
File-Maintenance Code	
Position	14–16
Length	17–18
Change	19–
Transaction Code (TC) = C	80

see Change Card diagram

SYNTAX RULES

The building number must be four digits.

Floor is a two digit number. Note that "99" means sub-basement, "00" means basement, "01" is first floor, etc.

Room number must be a four digit number with lead zeros.

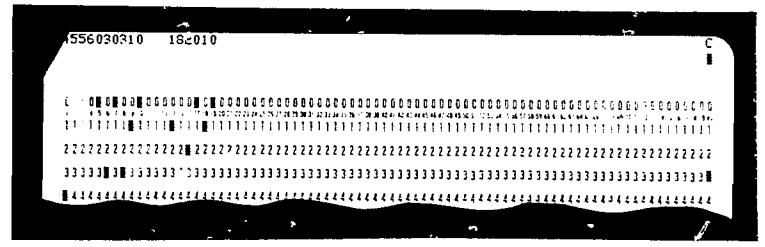
The suffix may consist of any characters. The first, however, must be alphabetical, and these must be embedded to the left. Trailing Blanks are allowed, and they will appear frequently.

The file maintenance code must be taken from the file maintenance position-length code list. Any entry in the file may be accessed with these codes. For example, if the flourescent light in a room was removed, to update the file, the file maintenance code 174 01 would be punched. It is also possible to make multiple changes by rewriting a block of information in the same way that a single change is made. For example, to change *all* the plumbing information, the code 155 19 would be used. Note that if a whole block is to be changed, *all* the entries in that block must be recorded on the change card; that is, even if one or more entries are not changed, they must be punched on the card in proper order.

The change must be recorded starting in column 19 exactly as it is to appear in the File. The number of columns of *change* information must always be exactly equal to the length code of the file maintenance code. A change with more characters than the length code will be rejected.

The character C must appear in column 80.

Building Number	4556
Floor	03
Room	0310
Suffix	
File-Maintenance Code	182 01
Change	0
Transaction Code	C



EXAMPLES

Example 1: The telephone outlet is removed from room 310 in AROD Building.

Example 2: There has been a major renovation in the ventilating system serving room 407A in the sub-basement of the hospital. Originally, there was a diffuser only. Now, an electric heater and a thermostat have been installed in addition to the diffuser.

16 The old data looks like this on the File (see Record Layout under Heat/AC):

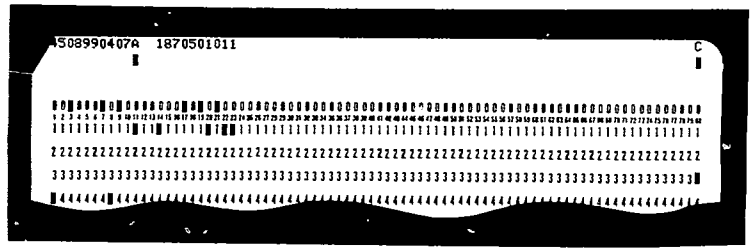
00010

The new data should look like this:

01011

The following information is needed to prepare the change card:

Building Number	**4508**
Floor	**99**
Room	**0407**
Suffix	**A**
File-Maintenance Code	**187 05**
Change	**01011**
Transaction Code	**C**



Note that although there is no change in the radiator, other steam, hood duct, and wall diffuser, these items are covered by the change (the original numbers are repunched) because the maintenance program will expect a change 5 characters long corresponding to the length code of the heat/air conditioning block, which is 05.

Example 3: Room 107 Social Science has been reassigned from the Department of Sociology to the AFROTC unit. It is still to be used as an office, but there is now one more secretary.

The old record appears:

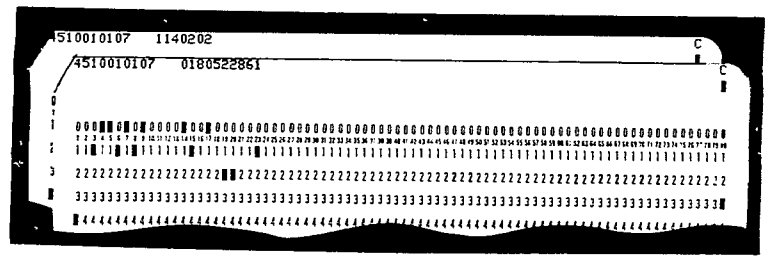
Department	**22940**
HTO No. 1	**0800**
Number	**01**

The new record should appear:

Department	**22861**
HTO No. 1	**0800**
Number	**02**

This update can best be accomplished with two change cards as follows:

(1)	Building Number	4510
	Floor	01
	Room	0107
	Suffix	
	File-Maintenance Code	018 05
	Change	22861
	Transaction Code	C
(2)	Building Number	4510
	Floor	01
	Room	0107
	Suffix	
	File-Maintenance Code	114 02
	Change	02
	Transaction Code	C

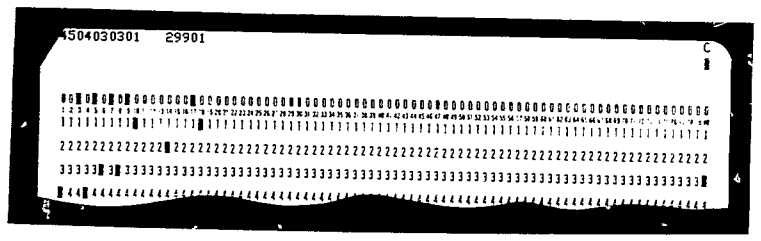


To change a major portion of one of the Three Major Segments of an Existing Record. To make a change using TC = 1, 2, or 3 (or combination of these cards), it is necessary to blank in the appropriate *card-record inclusion indicator(s)* by means of a change card. The maintenance program is designed to reject an attempt to write over any of the three major parts of the room record unless the data has not been validated within two years of the date of the update run (i.e., if the date of inventory on the record is two years or more previous). Thus, to change one or more of these card-records, an appropriate change card (TC = C), charging the record indicator to a blank, must precede the TC = 1, 2, 3 cards.

Example: A major renovation makes it necessary to change all of the card No. 2 information of an existing record, that of Library room 301. First, prepare a change card to create a blank in the card No. 2 record indicator so that the change will be accepted.

17

Building Number	4504
Floor	03
Room	0301
Suffix	
File-Maintenance Code	29901
Change	(blank)
Transaction Code	C



Next, the card No. 2 must be prepared with *all* information that is called for on this card (see card No. 2 diagram). It is important that the change card (TC = C) precede this card (TC = 2).

18 *To Add Information.* To add the entire segment of information from one or more of the inventory card records (i.e., cards 1, 2, or 3) to an existing room record in the case when the record segment is totally absent, it is necessary to include only that card.

Example: The card No. 1 information is totally absent from the record of room 221 of building 4014. To update this record, prepare only card No. 1 (see card No. 1 diagram) with *all* pertinent information. (Department, room use, and room function are required.)

To Add a New Room. To add a new room to the file, such as a room created by dividing one old room into two, it is necessary to include such basic information from inventory cards 1, 2, and 3 as may be available in the current batch of maintenance transactions. The presence of cards No. 1, 2, or 3 in the update batch for which there is no matching record on RIF will cause room records for those rooms to be created on RIF.

To Delete a Room. To delete a room from the file it is necessary to prepare a delete card (TC = D). The information required for this card is as follows:

INFORMATION	CARD COLUMNS
Building Number	1– 4
Floor	5– 6
Room Number	7–10
Suffix	11–13
Transaction Code (TC = D)	80

To Validate Data. When the data for a room that has become due for its bi-annual re-inspection has been updated or verified, it is necessary to prepare a Validate Card for that room. The Validate Card merely causes the date of inventory on the room record to be revised to the date of the update run. The required information is as follows:

INFORMATION	CARD COLUMNS
Building Number	1– 4
Floor	5– 6
Room Number	7–10
Suffix	11–13
Transaction Code (TC = V)	80

ERROR MESSAGES

During the execution of the maintenance program, errors in update data preparation are edited out in order to protect the room inventory file. There are four levels of errors that cause an update card to be rejected:

100 Errors in room identification. Editing of errors insures that there will be no deviations from the established 13-character room identifier and that the file will remain in perfect sequence.

200 Errors in data specifications. These errors arise when a transaction cannot be completed because of an error other than in the room identifier.

300 Improper essential data. Certain requirements of the actual room data have not been fulfilled.

400 Errors not arising from the actual update data.

Below are listed all possible error messages with an explanation of the nature of the error (E) and the steps required to correct the error (C).

REJ100 Update Card out of Sequence

E: Card was out of standard collating sequence.

C: Be sure identifier is correct. Resubmit card to next update run.

REJ104 Invalid Room Identifier

E: An incorrect character appears in the room identifier as follows:
blank in column 5
alphabetic in column 7
numeric in column 17

C: Determine correct room identifier, change card, resubmit to next update run.

REJ110 Attempt to Change or Delete Non-existing Record

E: There is a Change (C), Delete (D), or Validate (V) card with a room identifier that does not appear on RIF.

C: Determine correct room identifier for which card was intended, change card, resubmit.

REJ113 Attempt to Delete Room not Already on File

E: There is a Delete card (D) for a room that has been added during the same update run.

C: Determine room identifier for which card was intended. If there should be a reason to add and then delete a room, the deletion must be done in a subsequent update run.

REJ120 Attempt to Operate on Deleted Room or Card out of Sequence

E: An update card (of any transaction type) with a room identifier that is not sequentially higher follows a Delete (D) card.

C: If the room identifier is lower than the identifier of the delete card, check the identifier and resubmit. It is impossible to delete a room and add it back during the same update run. Hence, if there is a card that legitimately has the same identifier as a delete card, it must be submitted to a subsequent update run.

REJ200 Invalid Transaction Code

E: Column 80 does not contain one of the six valid transaction code characters (C, D, V, 1, 2, 3).

C: Determine the intended transaction code and resubmit.

REJ220 Invalid Length Specification

E: The length code on a Change (C) card is greater than 61. (The maximum number of characters of data that can be accommodated on a Change card is 61.)

20 C: Determine the correct length code using the list of File-Maintenance Position and Length codes and resubmit.

REJ221 Invalid Position and/or Length Spec Specification

E: The sum of the position and length codes on a Change (C) card exceeds 301. As the record length is 300, the position and relative displacement from that position is thus confined.

C: Consult the list of File-Maintenance Position and Length codes, change card, resubmit to next update run.

REJ222 Invalid Position Specification

E: The position specification of a Change (C) card is less than 018. This check protects the room identifier and thereby insures sequential room identification according to the room numbering convention.

C: If the room number must legitimately be changed, the old record must be deleted, and the new record (with all room data repunched) must be added via the transaction cards 1, 2, and 3.

REJ225 Length of Update String Exceeds Length Specification

E: On a Change (C) card, there are more characters in the *change* string than indicated by the length code. The length code must equal the number of characters in the change portion of the card, and the rest of the card, except for column 80, must be blank.

C: Review the data in the *change* string to be sure it reflects the actual intended change. Consult the File-Maintenance Position and Length codes for the correct length code. Resubmit.

REJ230 Invalid Character in Data String

E: Information on a card No. 1 that should be numeric contains a non-numeric character.

C: Repunch card with correct data, resubmit it.

REJ241 Attempt to Violate File Protection

E: An attempt was made to insert a card No. 1, 2, or 3 into a record that already contains that information. This condition will arise only if the *record indicator* is marked and the date of inventory is within two years of the date of update run.

C: If the new information is intended to replace the corresponding segment of the record, consult paragraph II of the data preparation manual.

REJ320 Attempt to Validate Room with Incomplete Data

E: A Validate (V) card was prepared for a record that does not contain all segments of data.

C: College the missing data (refer to File Status report for indication of what data is missing) and submit to next update run.

REJ330 Insufficient Assignment Data

E: The minimum requirements of a card No. 1 (department, room use, room function) have not been fulfilled.

C: Collect the omitted data, repunch card, submit to next update run.

REJ345 Attempt to Assign More Than Four Departments to Room

E: An attempt has been made to exceed the maximum provision for four departments to one room.

C: Review the record to be sure that no department code is repeated.

REJ411 Master Record Contains Invalid Data. Update Card Cannot be Processed

E: A multiple assignment card could not be processed because, in order to place multiple-assignment data on the room record, the program must examine the data already on the record to find what data field is available. Where a numeric is expected, an alphabetic character on the established room makes it impossible to perform this examination.

C: Review the room record and make the necessary corrections in the next update run.

WARNING MESSAGES

During the execution of the maintenance program certain conditions arise that are not necessarily errors in preparation of the update date but, nevertheless, cause an omission on the file. Update cards are not rejected although certain information may be ignored. The purpose of a warning message is to inform the room inventory office of inconsistencies in the RIF data.

800 Record Contains Invalid Data. Room Typing Routine Aborted

A conversion interrupt occurred while a room type was being generated. A character was found when numeric data was expected. Correct the master record.

801 Number of Room Uses Exceeds Standard Limits

Three room uses already exist. A multiple assignment card has tried to introduce an additional use. This use has been ignored. Valid data on the card has been processed.

802 Number of Room Functions Exceeds Standard Limits

Three room functions already exist. A multiple assignment card has tried to introduce an additional function. This function has been ignored. Valid data on the card has been processed.

803 Number of Assignees Exceeds Standard Limits

Three room assignees already exist. A multiple assignment card has tried to introduce an additional assignee. This assignee has been ignored. Valid data on the card has been processed.

804 Number of Occupant Types Exceeds Standard Limits

Three room occupant types already exist. A multiple assignment card has tried to introduce an additional occupant type. This occupant type has been ignored. Valid data on the card has been processed.

22 **805 Total Room Assignment may be More Than 100%**

This message will appear when a room previously assigned to one department becomes a multiply-assigned room. Use a change card to alter the original department's *% assignment* so that the total is 100%. (A blank *% assignment* is interpreted as 100%.)

Appendix D. Data reporting formats and definitions

ASSIGNMENT DATA (Sheet No. 1)

Column	Item and Description
1– 4	*Building Number.* This number is a four-digit code that identifies a single building owned by Duke. The codes and the respective building names appear in Appendix B.
5– 6	*Floor/House.* For each room, the floor on which the room is located is entered in two digits (e.g., first floor is 01, basement is 00). A sub-basement is coded 99. In dormitory quadrangles in which one building (i.e., there is one building number for the whole quadrangle) is divided into *houses* or separate living groups, the house letter appears in this space, *left justified*, instead of the floor number.
7–10	*Room Number.* This four-digit number is the numeric part of the room number. When the room number is less than four digits, zeros are filled in on the left to make a total of four digits.
11–13	*Room Suffix.* This three-character space is for the alphabetic part of the room number. If there is no suffix, this space is left blank. If the suffix is less than three characters, the suffix is *left justified,* and trailing spaces are left blank. If column 11 is not blank, it must contain a letter; it may *not* contain a numeral.
14–18	*Department Identifier.* This five-digit number, taken from the University Chart of Accounts, identifies the department that is assigned to the room. Codes have been assigned to those entities which occupy Duke space but do not have component codes assigned to them. The complete list is found in Appendix C.

19–20 *Percent Occupancy*. In a very few situations, more than one department is assigned to a room. In these special cases, representatives from each of the occupying departments must collude to complete the information for the room in question. For detailed instructions see Multiple-Department Assignment, which follows. If this multiple-assignment data is not applicable, the space is left blank and it is assumed that the room is assigned 100% to the indicated department.

21–24 *Room Use.* This four-digit number is taken from the list in Appendix D. Definitions for each use category are included there. At least one use must be associated with each room.

25–26 *Percent Use.* Some rooms accommodate multiple uses. If the room has more than one use, a statement of the proportion of each use must be made, and the second use must be indicated. Otherwise, this space is left blank (and so is the second use and second percent use), and the room is assumed to be used 100% as indicated.

27–30 *Second Room Use.* This is for multiple-use rooms, and additional use is indicated here. For single-use rooms it is left blank.

31–32 *Percent Second Use.* For multiple-use rooms, the proportion of the second use is entered. The total use of a room must always add to 100%. For single-use rooms, this space is left blank.

33–34 *Room Function.* This two-digit number is taken from the list in Appendix E. Definitions for each function category are included here.

35–36 *Percent Function.* Some rooms have more than one function. If the room does have more than one function, a statement of the proportion of each function must be made, and the second function must be indicated. Otherwise, this space is left blank (and so is the second function and second percent function) and the room function is assumed to be 100% as indicated.

37–38 *Second Room Function.* For rooms with more than one function, an additional function is indicated here. For rooms with only one function, this space is left blank.

39–40 *Percent Second Room Function.* For rooms having more than one function, the proportion of the second function is entered. The total function of a room must always add to 100%. For rooms with only one function, this space is left blank.

41–49 *Assignee.* The assignee is the individual, either administrative or instructional, to whom the room has been assigned by the department head. As a general rule, people who are classified as *assignees* are on the faculty payroll. If there is an assignee, his social security number is entered here. Otherwise, the space is left blank.

24 50 *Use by Assignee.* If there is an assignee indicated, this space indicates whether the room is the assignee's principal office (or the place of business) or whether it is a room used by other people under him. If it is the assignee's room, a 1 is placed here. If the room is assigned to him but is not used principally by him, 0 is placed here. Although more than one room may be assigned to one person, exactly one room should be indicated as *used by assignee 1.* If there is no assignee, this space is left blank.

51–59 *Second Assignee.* If the room is used by the second assignee, enter 1. If it is not used by the second assignee, enter 0. If there is no second assignee, this space is left blank.

60 *Second Assignee.* If there is more than one assignee, an additional social security number is indicated here. Otherwise it is left blank.

61–64 *Type Occupant.* If the room is occupied 20 or more hours per week by any persons other than the assignee(s) the type of activity of those persons is entered here. Codes and definitions are found in Appendix F. If there are no occupants (other than assignees) the space is left blank.

65–66 *Number.* The number of persons engaged in the indicated activity is entered here in a two-digit number. If there is no type occupant indicated, this space is left blank.

67–70 *Second Type Occupant.* If the room is occupied by additional persons engaged in a different activity, the second type occupant code is listed. If there is no second type occupant, it is left blank.

71–72 *Number.* If there is a second type occupant, the number of persons engaged in the second type of activity is entered here in a two-digit number. If there is no second type occupant, this space is left blank.

73 *Funds.* Enter 1 in this column if non-university sources have specifically allocated or granted funds to support the activities for which the space is used. Fund support of activities would include non-academic salary support as well as funds for supplies, equipment, and operating costs. Fund support of faculty salaries should not be included in determining this response. If *specific* support funds for the activities in the room are not available, enter 0 in this column.

74–78 *This Space Remains Blank*

79 *This column is used only in reporting multiple-assigned rooms. Instructions for its use are included in Multiple Department Assignment, which follows.*

80 *This column contains the numeral 1.*

The record for each room must contain the following minimum information:

Room Identifier
Department
Room Use
Room Function
Funds

MULTIPLE DEPARTMENT ASSIGNMENT

The following procedure should be followed when a room is assigned to more than one department:

Representatives from involved departments meet

The *Percent Assignment* of each department is decided. Of course, the total percent assignment must be 100%.

A data record for the room is prepared by *each* department, and the percent assignment is entered by each department in columns 19-20.

The room uses are determined according to standard instructions. The room uses are independent of the various departments, so room use information should be entered on only *one* department's data sheet. The room use information must *not* be duplicated by another department. On the file there is no connection between department and room use, so it does not matter which department reports the room use information.

Room functions are determined according to standard instructions. Like the room uses, the functions are independent of the department so room function data should be reported by only one department.

Assignees are listed by each department. Each department should list its own assignees (and use by assignee) according to the standard instructions. Assignees on the file *are* associated with the department that reported them.

Type occupants are listed by each department. Each department should list its own type occupants (and the numbers of each type in the particular department). Type occupants are associated with the department that reported them.

If the activity of any department is funded according to the standard definition, that department should enter 1 in column 73 of its data sheet.

Column 79 (DEP) of the data record for each multiple-assigned room should contain the character X on the data sheet of each involved department.

PHYSICAL DATA (Sheet No. 2)

Column	Item and Description
1– 4	*Building Number.* This number is a four-digit code that identifies a single building owned by Duke. The code and the respective building names appear.
5– 6	*Floor/House*. For each room, the floor on which the room is located is entered in two digits (e.g., first floor is 01, basement is 00). A sub-basement is coded 99. In dormitory quadrangles in which one building (i.e., there is one building number for the whole quadrangle) is divided into *houses*, or separate living groups, the house letter

26 appears in this space, *left justified,* instead of the floor number.

7–10 *Room Number.* This four-digit number is the numeric part of the room number. When the room number is less than four digits, zeros are filled in on the left to make a total of four digits.

11–13 *Room Suffix.* This three-character space is for the alphabetic portion of the room number. If there is no suffix, this space is left blank. If the suffix is less than three characters, the suffix is *left justified*, and trailing spaces are left blank. If column 11 is not blank, it must contain a letter — it may not contain a numeral.

14–15 *Day of Month.* Enter the date, with leading zero if before the 10th.

16–17 *Month.* Enter the numeric indication of the month with leading zero if necessary.

18–19 *Year.* Enter the last two digits of the year.

20–23 *Number of Stations.* This four-digit number is the number of desks or chairs or other places that are intended to accommodate one person in his work or study. In classrooms, exclude the instructor's chair. In all rooms, such as laboratories and offices, count all work areas. In rooms such as dining halls and conference rooms, count every chair. Fill in leading zeros.

24 *Floor Profile.* This one-digit number is taken from the code list in Appendix G. Definitions for each code are found there.

25 *Ceiling Profile.* This one-digit number is taken from the code list in Appendix H. Definitions for each code are found there.

26 *Number of Lavatories.* A lavatory is the facility such as those found in bathrooms for personal use (washing hands). Enter the total number. Enter zero (0) if there are none.

27 *Number of Sinks.* A sink is the facility such as those found in kitchens, laboratories, and maids' closets for cleaning use. Enter the total number. Enter zero (0) if there are none.

28 *Number of Showers.* A shower is a facility which a person uses to bathe or wash or wash in an emergency. Enter the total number. If there are none, enter zero (0).

29 *Number of Urinals.* A urinal is the facility found in men's toilets for urinating. Enter the total number. Enter 0 if there are none.

30 *Number of Commodes.* Enter the total number of commodes. If there are none, enter 0.

31 *Hot Water.* If there are any hot water outlets, enter 1. If not, enter 0.

32 *Cold Water.* If there are any cold water outlets, enter 1. If not, enter 0.

33 *Chilled Water.* If there are any chilled water outlets, such as a refrigerated drinking fountain, enter 1. Else enter 0.

34 *Distilled Water.* If there are any distilled water outlets, enter 1. If not, enter 0. Distilled water outlets should be marked as such.

35 *Floor Drain.* If there are any drains in the floor for water, enter 1. If not, enter 0.

36 *Acid Drain.* If there are any soap-stone sinks for the disposal of acids and other chemicals, enter 1. If not, enter 0.

37 *Sprinkler Head.* A sprinkler head is a fire-prevention device in the ceiling. If there are any, enter 1. If not, enter 0.

38 *Air.*

39 *Gas.*

40 *Vacuum.*

41 *Oxygen.*

42 *Nitrous Acid.*

(These outlets should be marked as such. Enter 1 in the appropriate column if any o these outlets exist. If not, enter 0.)

43 *Fire Equipment.* This is a fire hose or an active fire extinguisher. Enter 1 if there is such a facility. If not, enter 0.

44 *Other.* Enter 1 if there is any type of special plumbing facility that does not fit any of the above categories. If not, enter 0.

45 *Electric Outlet.* This is a standard 110V outlet. Enter 1 if there are any. If not, enter 0.

46 *Special Outlet.* This is a 220V outlet or other non-standard electric outlet. Enter 1 if there are any and, if there are none, enter 0.

47 *Emergency Outlet.* This is an electric outlet that is connected to an auxiliary power source. It will be marked as such. Enter 1 if there are any. If not, enter 0. 27

48 *D–C Outlet.* This type of outlet will be marked as such. Enter 1 if there are any. Otherwise, enter 0.

49 *Incandescent Lighting.* If there is any permanent incandescent lighting, enter 1. If not, enter 0.

50 *Fluorescent Lighting.* If there is any permanent fluorescent lighting, enter 1. If not, enter 0.

51 *Rheostat Switch.* This is a switch for controlling the brightness of lighting. Enter 1 if there are any and 0 if there are none.

52 *Audio-Visual Outlet.* An audio-visual outlet is an electrical jack into which earphones, amplifiers, etc., can be plugged. Enter 1 if there are any. If none, enter 0.

28	53	*Telephone Outiet.* Enter 1 if there is a telephone or a facility for a telephone. Otherwise, enter 0.
	54	*Intercom.* Enter 1 if there is an intercom system with a receiver in the room. If not, enter 0.
	55	*Closed-Circuit Television.* Enter 1 if there is any facility for CCTV. Otherwise, enter 0.
	56	*Fire Box.* A fire box connects to a system for reporting fires. For example, one type of fire box is a lever behind a glass plate which must be broken in order to send in the alarm. Enter 1 if there are any and 0 if there are none.
	57	*Other.* Enter 1 if there is any type of special electrical facility not covered by any other category. Otherwise, enter 0.
	58	*Radiator.* Enter 1 if there are any permanent heating radiators. Otherwise, enter 0.
	59	*Thermostat.* Enter 1 if there is any device to control heating or cooling. If not, enter 0.
	60	*Exhaust.* Exhaust is identified by a hood or exhaust fan or other device to remove fumes. Enter 1 if there are any of these devices. If not, enter 0.
	61	*Diffuser.* Enter 1 if there is any permanent facility that blows out air (heating or cooling). Else enter 0.
	62	*Other.* Enter 1 if there is any type of special heating, ventilating, or cooling facility not included in any other category. If not, enter 0.
	63	*Air Condition Code.* This code is taken from the list in Appendix I. Definitions for each category are found there.
	64	*Chalkboard.* Enter 1 if there is any chalkboard. If not, enter 0.
	65	*Windows.* If there is any transparent window that is cut through the exterior of the building, enter 1. If not, enter 0.
	66–67	*Type Stations.* Column 66 contains the primary type of station; 67 the secondary. Codes are taken from the list in Appendix K. Definitions for each category are found there.
	68–79	*This space remains blank.*
	80	*This space contains a 2.*

PHYSICAL DATA (Sheet No. 3)

Column	Item and Description
1–13	*Room Identifier.* See definitions for room identifier components under Sheet No. 2.
14–16	*Height.* This number shows the primary height of the room to the nearest tenth. A decimal point is assumed between columns 15 and 16. Fill in lead zeros.
17–20	*Length.* This number shows the primary length of the room to the nearest tenth. A decimal point is

assumed between columns 19 and 20. Fill in lead zeros.

21–24 *Width.* This number shows the primary width of the room to the nearest tenth. A decimal point is assumed between columns 23 and 24. Fill in lead zeros.

25–30 *Total Area.* Enter the total area of the room. Examples of how to compute total area are found on
Fill in lead zeros.

31–79 *Comments.* This space is used to record unusual features of the room. It may be left blank if there is no unusual feature. Examples of comments are found on

80 *This column contains a 3.*

Appendix E. File maintenance codes

Entry	Position	Length
File Code	001	04
System (45)	001	02
File (01)	003	02
Room Identifier	005	13
Building Number	005	04
Floor	009	02
Room	011	07
Room Number	011	04
Suffix	015	03
Assigned Departments	018	28
Department No. 1	018	07
Department Code	018	05
%	023	02
Department No. 2	025	07
Department Code	025	05
%	030	02
Department No. 3	032	07
Department Code	032	05
%	037	02
Department No. 4	039	07
Department Code	039	05
%	044	02
Room Uses	046	21
Use No. 1	046	07
Use	046	04
%	050	02
Use No. 2	052	07
Use	052	04
%	056	02
Use No. 3	058	07
Use	058	04
%	062	02
Room Functions	064	15
Function No. 1	064	05
Function	064	02
%	066	02
Function No. 2	068	05
Function	068	02
%	070	02
Function No. 3	072	05
Function	072	02
%	074	02
Room Assignees	076	33
Assignee No. 1	076	11
Department	076	01
Social Security Number	077	09
Use by Assignee	086	01

29

Assignee No. 2	087	11
Department	087	01
Social Security Number	088	09
Use by Assignee	097	01
Assignee No. 3	098	11
Department	098	01
Social Security Number	099	09
Use by Assignee	108	01
Type of Occupants	109	28
Type No. 1	109	07
Department	109	01
Type	110	04
Number	114	02
Type No. 2	116	07
Department	116	01
Type	117	04
Number	121	02
Type No. 3	123	07
Department	123	01
Type	124	04
Number	128	02
Type No. 4	130	07
Department	130	01
Type	131	04
Number	135	02
Funds	137	01
Unused (blank)	138	05
Date of Inventory	143	06
Day	143	02
Month	145	02
Year	147	02
Number of Stations	149	04
Profiles	153	02
Floor	153	01
Ceiling	154	01
Plumbing	155	19
Items by Number	155	05
Lavatory	155	01
Sink	156	01
Shower	157	01
Urinal	158	01
Commode	159	01
Items (Yes/No)	160	14
Hot Water	160	01
Cold Water	161	01
Chilled Water	162	01
Distilled Water	163	01
Floor Drain	164	01
Acid Drain	165	01
Sprinkler Head	166	01
Air	167	01
Gas	168	01
Vacuum	169	01
Oxygen	170	01
Nitrous Oxide	171	01
Fire Equipment	172	01
Other	173	01
Electric (Yes/No)	174	13
Electric Outlet	174	01
Special Outlet	175	01
Emergency Outlet	176	01
D—C Outlet	177	01
Incandescent Light	178	01
Fluorescent Light	179	01
Rheostat Switch	180	01
Audio-Visual Outlet	181	01
Telephone Outlet	182	01
Intercom	183	01
CCTV	184	01
Fire Box	185	01
Other	186	01
Heat/Ventilation/Air Condition (Yes/No)	187	05
Radiator	187	01
Thermostat	188	01

Exhaust	189	01
Diffuser	190	01
Other	191	01
Air Condition Code	192	01
Chalkboard	193	01
Window	194	01
Type Stations	195	02
Unused (blank)	197	12
Dimensions	209	11
Height	209	03
Length	212	04
Width	216	04
Total Area	220	06
Comment	226	49
Room Type (Generated Only)	275	01
Unused	276	19
Record Indicator	295	06
Card No. 1	295	04
Department No. 1	295	01
Department No. 2	296	01
Department No. 3	297	01
Department No. 4	298	01
Card No. 2	299	01
Card No. 3	300	01

Appendix F. Room use codes and descriptions

Note: These room use codes and the room function codes are adapted from the OEO publication, *Facilities Classifications and Inventory Procedures for Institutions and State Agencies,* (August 1967). Supplementary definitions follow this list.

0100	Custodial Area
0200	Circulatn Area
0300	Mechanical Area
0400	Constrctn Area
0810	Inactive Area
0820	Alteration Area
0830	Unfinished Area
1100	Classroom
1150	Classroom Srvc
2100	Class Lab
2150	Class Lab Srvc
2200	Spec Cls Lab
2250	Spec Cls Lb Srv
2300	Ind Study Lab
2350	Ind Stdy Lb Srv
2500	Non-Cls Lab
2550	Non-Cls Lab Srv
3100	Office
3101	Office, Clinical
3102	Office, Educ-Res
3150	Office Srvc
3151	Ofc Srv, Clin
3152	Ofc Srv, Ed-Res
3500	Conference Room
3550	Conf Room Srvc
4100	Study Room
4200	Stack
4300	Open Stak Rd Rm
4400	Libr Proc Room
4550	Study Fcl Srvc
5100	Armory Facility
5150	Armory Fcl Srvc
5200	Athletic-PE Fcl
5230	Athl-Spect Seat
5250	Athl Fcl Srvc
5300	Aduio-Vis Fcl Srv
5400	Clin, Non Med
5450	Clin Srv, Non Med
5500	Demonst Fcl Srv
5600	Field-Srvc Fcl
5900	Oth Spec Use
5950	Oth Spc Use Srv
6100	Assemb Fci

6150 Assemb Fcl Srvc
6200 Exhibition Fcl
6250 Exhibit Fcl Srv
6300 Ford Facility
6450 Stdnt Hlth Srvc
6500 Lounge
6550 Lounge Srvc
6600 Merchansg Fcl
6650 Merchnd Fcl Srv
6700 Recrtn Fcl Srvc
6900 Gen Use Fcl
6950 Gen Use Fcl Srv
7100 Data Proc Fcl
7150 Data Proc Srvc
7200 Shop Facilty
7250 Shop Fcl Srvc
7300 Storage
7350 Storage Srvc
7400 Vehicle Storage
7450 Vehcl Stor Srvc
7900 Oth Suppt Fcl
7950 Oth Sup Fcl Srv
8100 Human Hsop-Clin
8110 Examin Room
8111 Exam-Outpat
8112 Examin-In & Out Pat
8120 Spec Examin Rm
8121 Spec Exam-Out
8122 Spc Exam-In & Out
8130 Treatment Room
8131 Trtmnt-Out
8132 Trtmnt-In & Out
8133 Trtmnt-In
8150 Hosp Clin Srvc
8151 Clin Srvc-Out
8152 Clin Srv–In & Out
8153 Clin Srvc-In
8200 Patient Care
8210 Min Care Room
8220 Gen Acute Care
8221 Med-Acute Care
8222 Surg-Acute Care
8223 M/S Acute Care
8224 Obs/Gyn Act Car
8225 Ped-Acute Care
8226 Psyc Acute Care
8230 Intes Care Rm
8231 Cardiac Care
8232 Intens Nursg Un
8233 Intens Recov Rm
8250 Pat Care Srvc
8400 Dental Clin
8450 Dental Clin Srv
8500 Vet-Clinic
8550 Vet-Clin Srvc
8600 Vet-Animal Care
8650 Vet-Animal Srvc
9100 Resd-Singl
9200 Resd-One Famly
9300 Resd-Mult Famly
9400 Centrl Food Str
9500 Centrl Laundry
9990 Prorate

TAPE RECORD LAYOUT

Appendix F

SYSTEM

DV. D66. ACOZ83. LAZARUS. RIF

FILE NAME

RECORD SIZE 300

BLOCKING FACTOR 24

0

FILE CODE		SYS	1–2
FILE CODE		FILE	3–4
ROOM IDENTIFIER		BLDG	5–8
ROOM IDENTIFIER		FLOOR	9–10
ROOM IDENTIFIER	ROOM	Number	11–14
ROOM IDENTIFIER	ROOM	Suf	15–17
ASSIGNED DEPARTMENTS	1st DEPT	Comp Code	18–22
ASSIGNED DEPARTMENTS	1st DEPT	%	23–24
ASSIGNED DEPARTMENTS	2nd DEPT	Comp Code	25–29
ASSIGNED DEPARTMENTS	2nd DEPT	%	30–31
ASSIGNED DEPARTMENTS	3rd DEPT	Comp Code	32–36
ASSIGNED DEPARTMENTS	3rd DEPT	%	37–38
ASSIGNED DEPARTMENTS	4th DEPT	Comp Code	39–43
ASSIGNED DEPARTMENTS	4th DEPT	%	44–45
USES	USE No. 1	Code	46–49
USES	USE No. 1	%	50–51
USES	USE No. 2	Code	52–55
USES	USE No. 2	%	56–57
USES	USE No. 3	Code	58–61
USES	USE No. 3	%	62–63
FUNCTIONS	Fn No. 1	Code	64–65
FUNCTIONS	Fn No. 1	%	66–67
FUNCTIONS	Fn No. 2	Code	68–69
FUNCTIONS	Fn No. 2	%	70–71
FUNCTIONS	Fn No. 3	Code	72–73
FUNCTIONS	Fn No. 3	%	74–75
ASSIGNEES	ASSIGNEE No. 1	Dep	76
ASSIGNEES	ASSIGNEE No. 1	Social Sec. No.	77–85
ASSIGNEES	ASSIGNEE No. 1	Use	86
ASSIGNEES	ASSIGNEE No. 2		87
ASSIGNEES	ASSIGNEE No. 2	Social Sec. No.	88–96
ASSIGNEES	ASSIGNEE No. 2	Use	97
ASSIGNEES		Dep	98
ASSIGNEES			99–100

100

ASSIGNEE No. 3		Social Sec. No	1–7
ASSIGNEE No. 3		USE	8
TYPE OCCUPANTS	1st TYPE	Dep	9
TYPE OCCUPANTS	1st TYPE	Code	10–13
TYPE OCCUPANTS	1st TYPE	Num	14–15
TYPE OCCUPANTS	2nd TYPE	Dep	16
TYPE OCCUPANTS	2nd TYPE	Code	17–20
TYPE OCCUPANTS	2nd TYPE	Num	21–22
TYPE OCCUPANTS	3rd TYPE	Dep	23
TYPE OCCUPANTS	3rd TYPE	Code	24–27
TYPE OCCUPANTS	3rd TYPE	Num	28–29
TYPE OCCUPANTS	4th TYPE	Dep	30
TYPE OCCUPANTS	4th TYPE	Code	31–34
TYPE OCCUPANTS	4th TYPE	Num	35–36
FUNDS			37
			38–42
DATE OF INVENTORY		DAY	43–44
DATE OF INVENTORY		MONTH	45–46
DATE OF INVENTORY		YEAR	47–48
NO. OF STA–TIONS			49–52
PROF		FLOOR	53
PROF		CEIL	54
PLUMBING	NUMBERS	Lav	55
PLUMBING	NUMBERS	Sink	56
PLUMBING	NUMBERS	Shower	57
PLUMBING	NUMBERS	Urinal	58
PLUMBING	NUMBERS	Commode	59
PLUMBING	(Yes/No)	Hot H2O	60
PLUMBING	(Yes/No)	Cold H2O	61
PLUMBING	(Yes/No)	Chilled	62
PLUMBING	(Yes/No)	Distld	63
PLUMBING	(Yes/No)	Floor Dn	64
PLUMBING	(Yes/No)	Acid Dn	65
PLUMBING	(Yes/No)	Spnklr Hd	66
PLUMBING	(Yes/No)	Air	67
PLUMBING	(Yes/No)	Gas	68
PLUMBING	(Yes/No)	Vacuum	69
PLUMBING	(Yes/No)	Oxygen	70
PLUMBING	(Yes/No)	Nit. Ox.	71
PLUMBING	(Yes/No)	Fire Eqp.	72
PLUMBING	(Yes/No)	Other	73
ELECTRIC (Yes/No)		Elec. Outlet	74
ELECTRIC (Yes/No)		Spec. Outlet	75
ELECTRIC (Yes/No)		Emer. Outlet	76
ELECTRIC (Yes/No)		D-C Outlet	77
ELECTRIC (Yes/No)		Incand Lt.	78
ELECTRIC (Yes/No)		Fluorsnt. Lt.	79
ELECTRIC (Yes/No)		Rheo Sw.	80
ELECTRIC (Yes/No)		Av. Outlet	81
ELECTRIC (Yes/No)		Tel. Outlet	82
ELECTRIC (Yes/No)		Intercom	83
ELECTRIC (Yes/No)		CCTV	84
ELECTRIC (Yes/No)		Fire Box	85
ELECTRIC (Yes/No)		Other	86
HVAC (Yes/No)		Radiator	87
HVAC (Yes/No)		ThermStat	88
HVAC (Yes/No)		Exhaust	89
HVAC (Yes/No)		Diffuser	90
HVAC (Yes/No)		Other	91
AC CODE			92
CHALK BRD			93
WINDOW			94
TYPE STA			95–96
			97–100

200

			1–8
DIMENSIONS		Ht.	9–11
DIMENSIONS		Lngth.	12–15
DIMENSIONS		Width	16–19
TOTAL AREA			20–25
COMMENTS			26–74
RM TYPE			75
			76–94
RECORD INDICATOR	No. 1	1	95
RECORD INDICATOR	No. 1	2	96
RECORD INDICATOR	No. 1	3	97
RECORD INDICATOR	No. 1	4	98
RECORD INDICATOR	No 2		99
RECORD INDICATOR	No 3		100

DEFINITIONS FOR EXPANDED CLASSIFICATION

CATEGORY 3000 – OFFICE

3100 OFFICE FACILITIES

3100 Office Facilities, Unspecified

Included in this category are all offices not suitable for classifications 3101 or 3102.

3101 Office Facilities, Clinical Service

Definition. A room used by faculty or professional staff or other employees or students in which office or desk work directly related to patient care is done.

3102 Office Facilities, Education/Research

Definition. A room for faculty, staff, or students in which desk work related to teaching or research programs is done.

Note: Expansion of this category was made in order to obtain space data relevant to cost studies on medical care. Many of the clinical faculty offices will need several cards subdivided according to percent use and/or component code assignment. For example, a clinical faculty office may have a card assigned to a PDC component card indicated 3101 room use, 25%, and a card with a departmental component code indicating 3102 room use, 75%. Both cards would have the same First Assignee indicated. Alternatively, a room may have two cards assigned to a single component code, one card showing 3101 room use, 25%; the other card showing 3102 room use, 75%.

3150 – OFFICE FACILITIES SERVICE

Definition, Description, and Limitations are as described on page . Differentiation noted above for 3100, 3101, 3102 apply to the following:

3150 – Office Facilities Service, Unspecified

3151 – Office Facilities Service, Clinical

3152 – Office Facilities Service, Education/ Research

DEFINITIONS FOR EXPANDED CLASSIFICATION

CATEGORY 8000 – MEDICAL CARE

8100 HOSPITAL/CLINIC FACILITIES

Definition. A room used for the medical examination and/or treatment of humans as inpatients or outpatients.

Description. This category includes several types of rooms which are described under the expanded classification numbers given below. These are facilities which are (or may be) used in the examination and/or treatment of several patients within the course of a day.

8110 — Examination Room

Definition. A room used for the routine physical examination and/or history-taking of humans as inpatients or outpatients. This classification should be used for standard examination rooms in any of the various clinics as medical, surgical, obstetrical-gynecological, pediatric, psychiatric, ENT, and eye. Physical Therapy examination room should be included. For management purposes the following differentiations should be made if possible.

8111 Examination Room, Outpatients Only

8112 Examination Room, Inpatients and Outpatients

8113 Examination Room, Inpatients Only

8120 Special Examination Room

Definition. A room having specific space standards or requiring special utilities or equipment for the examination and/or diagnosis of human patients. Diagnostic X—ray rooms, EKG, EEG, etc., would be included in this classification.

8121 Special Examination Room, Outpatients Only

8122 Special Examination Room, Inpatients and Outpatients

8123 Special Examination Room, Inpatients Only

8130 Treatment Room

Definition. A room used for the treatment of humans as inpatients or outpatients. This classification includes rooms restricted to hospital admitted patients which are (or may be) used in the treatment of several patients within the course of the day. It includes such rooms as operating rooms, recovery rooms, labor rooms, diagnostic X—ray rooms.

8131 Treatment Room, Outpatients Only

8132 Treatment Room, Inpatients and Outpatients

8133 Treatment Room, Inpatients Only

8150 HOSPITAL/CLINIC FACILITIES SERVICE

Definition. A room which serves a Human Hospital-Clinic Facility as a direct extension of the activities in such a room or as a support facility for such a room.

Description. This category includes the rooms listed on page In addition to the types of rooms listed there, this classification should be applied to reception areas, waiting rooms, and history storage areas of the Medical Record Library. In the latter case, two room cards should be assigned to the Record Library storage area, one indicating room use as Human Hospital-Clinical Facilities Service and the other indicating room use as Human Hospital Patient Care Facilities Service. Use percentage should be assigned on the basis of clinic visit and bed day care statistics.

The differentiations indicated below for this classification should be applied in relation to the room use and percent use assignments. That is, in the case of the Medical Record Library, for the

card indicating room use as Human Hospital-Clinical Facilities Service, 8151 or 8152 would be used to indicate the room use.

8151 Clinic Facilities Service, Outpatients Only

8152 Clinic Facilities Service, Inpatients and Outpatients

8153 Clinic Facilities Service, Inpatients Only

8200 HUMAN HOSPITAL/PATIENT CARE FACILITY

Definition. A room which provides a bed for patients in a hospital. Further definition would stipulate that this room is assigned to a specific patient (or patients) for extended periods of time.

8210 Minimal Care Rooms

Definition. A room which provides basic bedroom facilities for patients who do not require the conventional hospital care, supervision, or equipment. These patients are usually ambulatory.

8220 General Acute Care Room

Definition. A conventional hospital bed care room, usually equipped with oxygen, suction, and other utilities or equipment necessary to the care of an acutely ill patient.

8221 General Acute Care Room, Medicine

8222 General Acute Care Room, Surgery

8223 General Acute Care Room, Medicine/Surgery

8224 General Acute Care Room, Obstetrics/Gynecology

8225 General Acute Care Room, Pediatrics

8226 General Acute Care Room, Psychiatry

8230 Intensive Care Room

Definition. A room which is equipped, furnished and staffed to provide a specific type of care to specific categories of acutely ill patients.

8231 Intensive Care Room, Cardiac Care

8232 Intensive Care Room, Intensive Nursing Unit

8233 Intensive Care Room, Intensive Care Nursery

8234 Intensive Care Room, Intensive Recovery Unit

8250 HUMAN HOSPITAL/PATIENT CARE FACILITY SERVICE

Definition. A room which serves a Patient Care Facility as a direct extension of the activities in such a room or in support of the activities of such a room.

Description. This category includes rooms generally referred to as nursing stations, charting rooms, tub rooms, medication rooms, nourishment rooms, formula rooms, and food service facilities for patients.

These support facility rooms are not further subdivided as to classification.

36 DEFINITIONS OF FUNCTION CATEGORIES

10 Instruction. Any activity the primary objective of which is the transmission or dissemination of knowledge to college students on a group or individual basis, including that portion of graduate instruction involving organized classes for which credit is awarded.

For the Medical Center, this functional classification should also be applied to instructional activities involving organized classes for certification and in-service training programs (e.g., Physical Therapy, Inhalation Therapy, Radiologic Technology, Licensed Practical Nursing). It should *not* be applied to on-the-job training activities in diagnostic, therapeutic, patient care, or research spaces. Exception to this would be permissible only where additional rooms or areas in rooms have been specifically allocated to such training activities. It should *not* be applied to rooms primarily associated with research or clinical activities in which medical students, graduate students, or postgraduate trainees (house staff or fellows) participate as part of their training.

Examples of the types of rooms often wholly allocated to this function are classrooms, class laboratories, and related service facilities. Areas used for organized activities relating to educational departments such as laboratory schools and demonstration facilities should also be included here, except to the extent allocable to research and/or public service.

20 Research. Any activity the primary objective of which is the discovery or application of knowledge, including the research activities engaged in by students as a part of their graduate training.

For the Medical Center, this functional classification should *not* be applied to activities primarily associated with clinical care objectives (diagnostic, therapeutic, patient care activities) which also have a research component. Exception to this would be activities in the research wards where the primary objectives is the research activity.

Examples of the types of rooms often wholly allocated to this function are non-class laboratories, offices assigned to research personnel, and related service facilities.

30 Public Service. Any activity the primary objective of which is to make available to the general public the benefits of the instructional and/or research activities of an institution of higher education. This definition is intended to include activities of a cultural nature as well as activities frequently described as *extension* or *adult and continuing education.*

Examples of the types of room wholly allocable to this function are classrooms and offices used exclusively for extension or continuing education programs.

31 Public Service, Medical Care. This functional classification should be applied to all activities relating to delivery of health care.

40 Library. The orderly collection, storage, and retrieval of knowledge. This activity may be housed in a central location or decentralized and housed in two or more separate facilities. In either case, those activities which are under the supervision and control of a Director of Libraries and are available for use by more than one department within an institution of higher education should be included in this category.

50 General Administration and Institutional Services. Any activity the primary objective of which is the orderly planning and operation of the instruction, research, and/or public service functions of an institution of higher education in terms of academic affairs, fiscal affairs, personnel, student affairs, public relations, development, etc. For the purposes of this classification system, this category is intended to include the functions represented by the budget categories of General Administration, General Services, and Physical Plant.

60 Auxiliary Services. Activities which are characteristically represented by the types of physical facilities classified by Room Type and General-Use Facilities and Residential Facilities, except to the extent such activities support instruction, research, public service, library, and/or general administration and institutional services.

70 Non-institutional Agencies. Public or private agencies not under the supervision or control of the institutional administration.

80 Unassigned. All areas which are unassigned at the time of the inventory either because of the nature of the space or because of its present condition.

81 Inactive Space. Included in this category are areas which are available for assignment to one of the above functions but are unassigned at the time of the inventory.

82 Alteration or Conversion. Included in this category are areas which are temporarily out of use because they are under alteration or conversion.

83 Unfinished. Included in this category are areas in new buildings or additions to existing buildings which are unfinished at the time of the inventory.

Appendix G. Type occupant classifications and code number definitions

0100 *Administrative Staff.* All personnel who perform administrative duties. Do not include administrative secretaries unless the work performed is wholly or predominantly administrative.

0200 *Faculty Instructors.* All faculty members performing instructional duties [i.e., those holding the rank of Professor, Associate Professor, Assistant Professor, or Associate (in the Medical School — equivalent in the university is Instructor)]. Do not include any faculty member in the Type User response if already listed as a First Assignee or a Second Assignee for the specific room.

0300 *Student Instructors.* All students of the university performing instructional duties.

0400 *Other Instructors.* All individuals other than university students or faculty performing instructional duties.

0500 *Professional Staff.* Professionally-trained personnel directly engaged in research activities (with Master's degree or higher), engaged solely or predominantly in clinical service, and performing duties for which special training is required. Technical personnel holding positions as laboratory managers or supervisors may be included. Do not include personnel with administrative duties relating to research grants.

0510 *Medical Professional Staff.* Intern, resident, clinical staff member who is not a member of the university Faculty.

0520 *Research Professional Staff.*

0530 *Nursing Professional Staff.* Registered Nurses, School of Nursing staff members who are not members of the university Faculty.

0540 *Paramedical Professional Staff.* Physical Therapist, Occupational Therapist, Supervisory Medical Technicians, etc.

0550 *Other Professional Staff.* Librarian, Certified Public Accountant, Dietitian, etc.

0600 *Technical Service.* All personnel (other than students) performing duties of a special character other than of an office or professional nature.

0610 *Technical Service General.* All personnel performing specialized duties for which on-the-job training or direction is adequate (orderlies, aides, laboratory technicians I without college training, etc.).

0620 *Technical Service Advanced.* All personnel performing duties for which specific technical or academic training (or its equivalent in job experience) is required or for which some form of licensure is required or for which some form of registration is given (Licensed Practical Nurses, Laboratory Technicians II or III, Registered Medical Technicians, etc.).

0700 *Student-Technical.* All students performing 0600 duties. This category would include research assistants and paper graders.

0800 *Clerical-Secretarial.* All employees (other than students) performing duties of a clerical, secretarial or office nature.

0900 *Student-Clerical-Secretarial.* All students performing 0800 duties.

1000 *Housekeeping/Culinary.* All personnel (other than students) performing duties of a housekeeping nature. Illustrative of this category are maids, janitors, kitchen help, and porters.

1100 *Student-Housekeeping/Culinary.* All students performing 1000 duties.

1200 *Other.* All personnel (other than students) performing duties of a manual nature other than those for which specific codes have been established. Illustrative of this category are groundskeepers, maintenance workers, and laborers.

1300 *Student-Other.* All students performing 1200 duties.

1400 *Student-General.* All students of the university who do not perform duties which would place them in any of the foregoing categories relating to Type Users of a room. This is an inclusive grouping which should not be used when one of the foregoing categories is applicable.

1410 *Student-Undergraduate Medical.*

1415 *Student-Graduate School.*

1420 *Student-Undergraduate Nursing.*

1425 *Student-Paramedical.*

1500 *Post-Doctorals.* All those who have completed degree requirements who use university space for research or training programs.

1600 *Patients.* All persons utilizing university space listed as patients.

1700 *Experimental Subjects.* All persons occupying university space as subjects for a research project.

Appendix H. Floor profile codes

1 Flat Floor
2 Inclined Floor
3 Step Floor
4 Multi-level Floor

Appendix I. Ceiling profile codes

1 Flat Ceiling (not necessarily smooth)
2 Inclined Ceiling
3 Irregular Ceiling

Appendix J. Air conditioning codes

0 No heating, no cooling
1 Central heating, no cooling
2 Local heating, no cooling
3 No heating, central cooling
4 No heating, local cooling
5 Central heating, central cooling
6 Local heating, local cooling
7 Central heating, local cooling
8 Local heating, central cooling

Definitions

Central. One system that provides more than one room with heating or cooling (or both).

Local. A unit that provides only the room in which it is found with heating or cooling (or both). Example: window-type air cooler.

Appendix K. Room type codes

The following list is intended only to label the space type codes on RIF. These codes are a function of the physical characterics of a room, and they are generated automatically. Full details of the space-typing routine appear elsewhere in the RIF documentation.

Standard
Special Plumbing (wet laboratory)
Bathroom
Lecture Hall/Theatre
Special characterstics
Janitor closet

Figure 2.6: *Room Type Classification Scheme*

Appendix L. Room type classification scheme

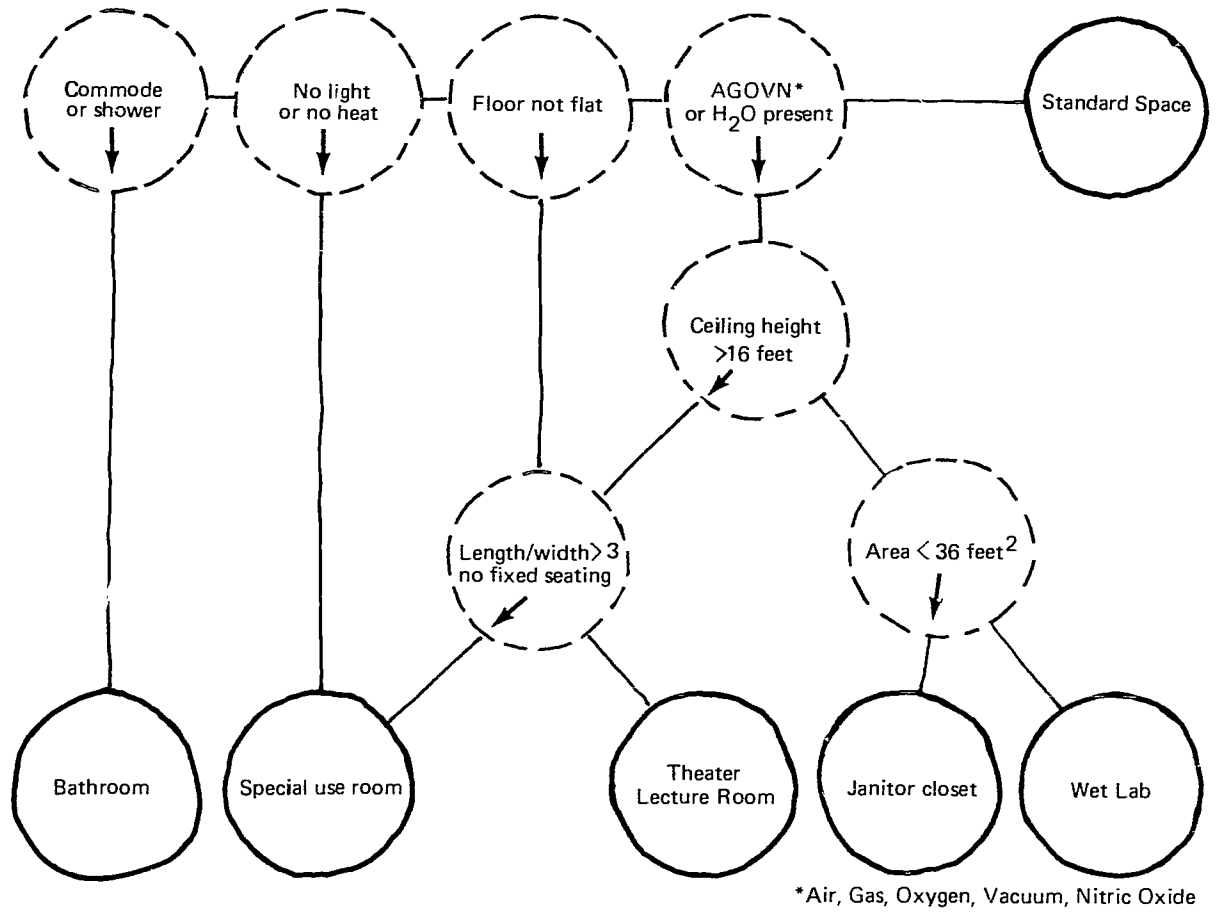


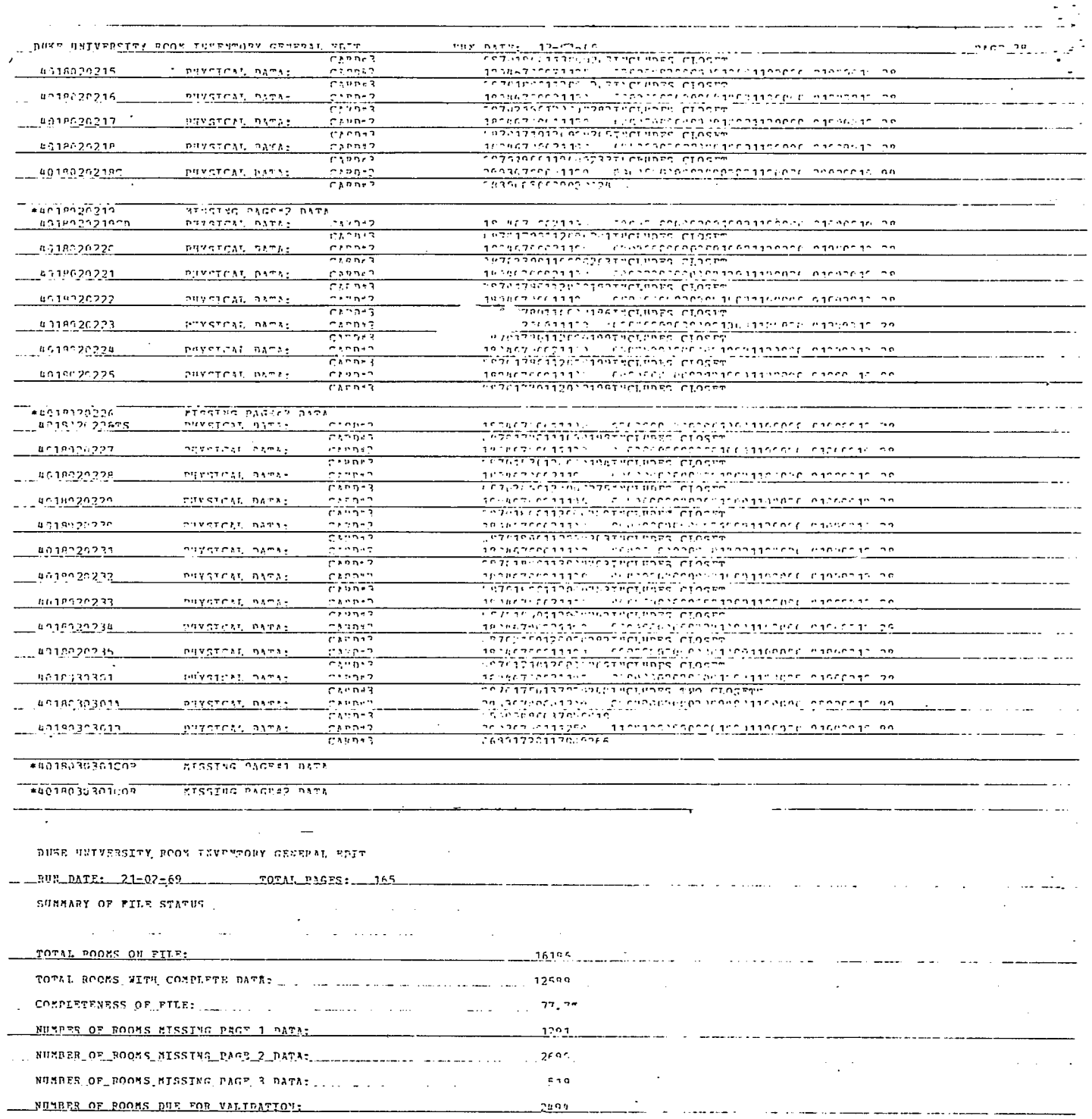
Figure 1.7: *Room Type Classification Scheme*

Appendix M. Sample output from maintenance program

```
DUKE UNIVERSITY ROOM INVENTORY FILE MAINTENANCE        RUN DATE:  16-01-69                    PAGE  2

          TRANSACTION COMPLETED:          4507000018C  13350  8100                              1
          TRANSACTION COMPLETED:          4507000004S  73700  4400                              1
          TRANSACTION COMPLETED:          4507000008AM 73700  4400                              1
          TRANSACTION COMPLETED:          4507000008B  73700  4400                              1
          TRANSACTION COMPLETED:          4507000008D  73700  3100                              1
          TRANSACTION COMPLETED:          4507000008E  73700  4200                              1
          TRANSACTION COMPLETED:          4507000008EM 73700  4200                              1
          TRANSACTION COMPLETED:          4507000008F  73700  4400                              1
          TRANSACTION COMPLETED:          4507000008GM 73700  4300                              1
          TRANSACTION COMPLETED:          4507000008H  73700  4200                              1
          ROOM ADDED:    4501450700008H  73700                4200

                                                                                                1

          TRANSACTION COMPLETED:          4507000008HM 73700  4300                              1
          TRANSACTION COMPLETED:          4507000008JM 73700  4200                              1
          TRANSACTION COMPLETED:          4507000008KM 73700  4200                              1
          TRANSACTION COMPLETED:          4507000008LM 73700  4200                              1
          TRANSACTION COMPLETED:          4507000008NM 73700  4200                              1
          TRANSACTION COMPLETED:          4507020252M  73170  0820                              1
          TRANSACTION COMPLETED:          4507030311M  73151  2250                              1
          TRANSACTION COMPLETED:          4507030321M  73170  8150                              1
          TRANSACTION COMPLETED:          4507030326M  77492  8150                              1
          TRANSACTION COMPLETED:          4507990008P  73700  4200                              1
          ROOM ADDED:    4501450799000PP  73700                4200

                                                                                                1

          TRANSACTION COMPLETED:          4507990008R  73700  4200                              1
          ROOM ADDED:    4501450799000RR  73700                4200

                                                                                                1
REJ241    ATTEMPT TO VIOLATE FILE PROTECTION
          4508000042HH 77450  8130                                      1                       1

          TRANSACTION COMPLETED:          4508010104H  73630  3101                              1
          TRANSACTION COMPLETED:          4508011263   20803080                                  1
          TRANSACTION COMPLETED:          4508033035T          0300                              1
          TRANSACTION COMPLETED:          4508033064T          0300                              1
          TRANSACTION COMPLETED:          4508033105R          0300                              1
          TRANSACTION COMPLETED:          4508033116T          0300                              1
          TRANSACTION COMPLETED:          4508040006C          0200                              1
          TRANSACTION COMPLETED:          4508040006D          0200                              1
          TRANSACTION COMPLETED:          4508040006E          0200                              1
          TRANSACTION COMPLETED:          4508040006F          0200                              1
          TRANSACTION COMPLETED:          4508040006G          0200                              1
REJ200    INVALID TRANSACTION CODE
          4508040006H          0200

          TRANSACTION COMPLETED:          4508040006J          0200                              1
          TRANSACTION COMPLETED:          4508040006K          0200                              1
          TRANSACTION COMPLETED:          4508040006L          0200                              1
          TRANSACTION COMPLETED:          4508040006M          0200                              1
          TRANSACTION COMPLETED:          4508040006N          0200                              1
          TRANSACTION COMPLETED:          4508040006P          0200                              1
          TRANSACTION COMPLETED:          4508040006Q          0200                              1
          TRANSACTION COMPLETED:          4508040006R          0200                              1
          TRANSACTION COMPLETED:          4508040006S          0200                              1
          TRANSACTION COMPLETED:          4508040045T9 77840   8153                              1
          TRANSACTION COMPLETED:          4508040076T          0300                              1

DUKE UNIVERSITY ROOM INVENTORY FILE MAINTENANCE
RUN DATE :  16-01-69          TOTAL PAGES:    5

SUMMARY OF TRANSACTIONS

TOTAL NUMBER OF UPDATE CARDS:                                  59

TOTAL NUMBER OF TRANSACTIONS COMPLETED:                        32

TOTAL NUMBER OF TRANSACTIONS REJECTED:                         27

TOTAL NUMBER OF ROOMS DELETED:                                  1

TOTAL NUMBER OF ROOMS ADDED:                                   18

PREVIOUS NUMBER OF ROOMS ON FILE:                             107

CURRENT NUMBER OF ROOMS ON FILE:                              124
```

Figure 2.7: *Sample Output from Maintenance Program*

Appendix N. Sample output from edit program



DUKE UNIVERSITY BOOK INVENTORY GENERAL EDIT

RUN DATE: 21-07-69 TOTAL PAGES: 165

SUMMARY OF FILE STATUS

TOTAL BOOKS ON FILE:	16166
TOTAL BOOKS WITH COMPLETE DATA:	12588
COMPLETENESS OF FILE:	77.7%
NUMBER OF BOOKS MISSING PAGE 1 DATA:	1291
NUMBER OF BOOKS MISSING PAGE 2 DATA:	2690
NUMBER OF BOOKS MISSING PAGE 3 DATA:	519
NUMBER OF BOOKS DUE FOR VALIDATION:	2989

Figure 2.8: *Sample Output from Edit Program*

Appendix O. Sample output from department list program

```
                                CONTROL SHEET--DATA VERIFICATION PROCEDURE

                THE FOLLOWING IS A LISTING OF THE DUKE SPACE INVENTORY
                ROOM ASSIGNMENT DATA FOR THE INDICATED DEPARTMENT

                                                SYSTEMS & PROGRAMMNG        13929
        EPI PROJECT-DUKE UNIVERSITY
        360 A P O D BUILDING,Y-2130             THIS DATA IS CURRENT AS OF 09/03/68


BLDG  BLDG NAME   ROOM NO     USE #1      *    USE #2      *  ASSIGNEE1 ASSIGNEE2  OCCUPANT  NO  OCCUPANT  NO  OCCUPANT  NO

4556  ARDD        0258    OFFICE                                                  SECRETARY   01
4556  ARDD        0260    OFFICE                                 2653480913
4556  ARDD        0262    OFFICE                                                  PRESNL STAFF 02
4556  ARDD        0406    OFFICE                                                  PRESNL STAFF 04

THE FOLLOWING IS A SUMMARY OF ROOMS IN THE ABOVE LIST.

          USE          PRIMARY    SECONDARY
       OFFICE              4          0

TOTAL NUMBER OF ROOMS:     4   NUMBER OF MULTIPLE USE ROOMS:     0

                                APPROVAL:
                                                DEPARTMENT CHAIRMAN        DATE
                                DEPARTMENT:  SYSTEMS & PROGRAMMNG
```

Figure 2.9: *Sample Output from Department List Program*

Appendix P. Sample forms

RENOVATION WORK ORDER SUMMARY

DATE:

The following Work Orders altered the physical characteristics of the spaces indicated:

WORK ORDER NO.	BLDG. NO.	ROOM NO.	DATE OF COMPLETION

WORK ORDER NO.	BLDG. NO.	ROOM NO.	DATE OF COMPLETION

46 # TEAM ASSIGNMENT SHEET

DATE:

TEAM ASSIGNED:

(Leader)
(Enumerator No. 1)
(Enumerator No. 2)

(RIO Manager)

(Team Leader)

TYPE OF INSPECTION[1]	BLDG. NO.	ROOMS TO BE INSPECTED	ROOMS INSPECTED	COMMENTS[2]

[1] R — Renovation
P — Periodic Inspection
N — New Building or Building Addition

[2] Indicate: a) Room assigned but not inspected and why
b) Special observation on day's work

ROOM IDENTIFIER				DEPT.		USES				FUNCTIONS				ASSIGNEES				TYPE OCCUPANTS				FUNDS	DEP	CC
BLDG. NO.	FLOOR	ROOM NUMBER	ROOM SUF.	COMP. CODE	%	USE NO. 1 CODE	USE NO. 1 %	USE NO. 2 CODE	USE NO. 2 %	FN.NO.1 CODE	FN.NO.1 %	FN.NO.2 CODE	FN.NO.2 %	ASSIGNEE NO. 1 SOCIAL SECURITY NUMBER	ASSIGNEE NO. 1 USE	ASSIGNEE NO. 2 SOCIAL SECURITY NUMBER	ASSIGNEE NO. 2 USE	TYPE NO. 1 CODE	TYPE NO. 1 NUM	TYPE NO. 2 CODE	TYPE NO. 2 NUM			
1 2 3 4	5 6	7 8 9 10	11 12 13	14 15 16 17	18 19 20	21 22 23 24	25 26	27 28 29 30	31 32	33 34 35 36	37 38	39 40		41 42 43 44 45 46 47 48 49	50	51 52 53 54 55 56 57 58 59	60	61 62 63 64	65 66	67 68 69 70	71 72	73 74 75 76 77 78	79	80

2

ROOM IDENTIFIER				DATE				Prof		PLUMBING																			ELECTRICAL													HVAC											
		ROOM								NUMBER					YES/NO													(1 or 0)	YES/NO												(1 or 0)	(1 or 0)					Y/N						C C
BLDG. NO.	FLOOR	NO.	SUF.	DAY	MONTH	YEAR	NUMBER	FLOOR	CEIL	Lavatory	Sink	Shower	Urinal	Commode	Hot H2O	Cold H2O	Chilled "	Dstl'd "	Floor Drn.	Acid Drn.	Sprnklr.	Air	Gas	Vacuum	Oxygen	Nit. Ox.	Fire Eqp.	Other	Elec. Outlet	Spec. Outlet	Emer. Outlet	D–C Outlet	Incand. Light	Fluorsec. "	Rheo Switch	A–V Outlet	Tele. Outlet	Intercom	CCTV	Fire Box	Other	Radiator	Thermostat	Exhaust	Diffuser	Other	AC Code	Chalkboard	Window	Type	Space		
1 2 3 4	5 6	7 8 9 10	11 12 13	14 15	16 17	18 19	20 21 22 23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68 69 70 71 72 73 74 75 76 77 78 79	80
1 2 3 4	5 6	7 8 9 10	11 12 13	14 15	16 17	18 19	20 21 22 23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68 69 70 71 72 73 74 75 76 77 78 79	80

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ROOM IDENTIFIER				DIMENSIONS			TOTAL AREA	COMMENTS
BLDG. NO.	FLOOR	ROOM NUMBER	ROOM SUF.	HT.	LENGTH	WIDTH		
1 2 3 4	5 6	7 8 9 10	11 12 13	14 15 16	17 18 19 20	21 22 23 24	25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80
1 2 3 4	5 6	7 8 9 10	11 12 13	14 15 16	17 18 19 20	21 22 23 24	25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

ROOM IDENTIFIER				DIMENSIONS			TOTAL AREA	COMMENTS
		ROOM						
BLDG. NO.	FLOOR	NUMBER	SUF.	HT.	LENGTH	WIDTH		

ROOM IDENTIFIER				MAINT. CODE			
BLDG. NO.	FLOOR	ROOM NUMBER	ROOM SUF.	POSITION	LNGTH	CHANGE	CC
1 2 3 4	5 6	7 8 9 10	11 12 13	14 15 16	17 18	19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79	80
1 2 3 4	5 6	7 8 9 10	11 12 13	14 15 16	17 18	19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79	80