



TIME CLOCK SYSTEM¹⁶
AND PARKING ANALYSIS¹⁹

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. SUMMARY

1. Install the time clock at the entrance to the building opposite the Laboratory to achieve the smoothest flow of employees in, out, and within the hospital and to enhance hospital security.
2. To accomplish the above and to ward off future complaints, reallocate parking facilities. Specifically, the Medical Staff should return to their old lot, revamped, to provide sufficient space to contain the medical, administrative, and Public Health Staff. Employees will use the present Medical Staff lot.
3. Implement the use of a three-part snap set time card to replace the time cards purchased from Simplex. They have agreed to accept the return of these time cards.
4. The new responsibilities of the Department Heads, the Payroll Department, and the individual employee are spelled out in this report.
5. Defer acquisition of a master clock system until its benefits in quelling employee difficulties appear to outweigh the size of the capital outlay necessary to implement such a system.
6. Use the present Addressograph equipment to change the employee plates and to print the time cards. Have a dater installed on the lister to assist in this task. Also, acquire new frames for timecard printing like the frames currently used by the Nursing stations. Then, frames can be numbered consecutively to print timecard numbers.
7. Attempt to attain a cost-sharing agreement for the reconstruction of the old Medical Staff parking lot between the hospital and the Public Health Department.
8. Until adequate computer services are acquired, use the three-part timecard to avoid duplication of effort and a waste of money.
9. Make arrangements, in the future, to have the payroll prepared by direct keypunching of single part timecards.

Introduction and Project Objective

The objectives of Community Systems Foundation for this analysis were to recommend procedures associated with the implementation of the time clock system. Since the hospital has already purchased one clock, it has also been C.S.F.'s task to recommend a suitable location for it. This location of the clock affects the flow of employees to, from, and within the hospital. Hence, analysis of the assignment of employee parking lots and building entrances became part of this study.

Implementation of this clock system should provide the following benefits:

1. Accurate record of each employee's arrival and departure times.
2. Control over the physical flow of employees entering and exiting from the hospital, leading to a greater degree of hospital security.

Design of the Time Clock System

A survey of all departments was made to determine the number of employees entering and leaving the hospital through the entire day. As expected, 7:00 a.m., 3:00 p.m., 3:30 p.m., and 11:30 p.m. were the times of peak demand upon the clock system and employee flow. A summary of these peak periods for each day of the week can be found in the appendices, p. 15. As indicated in this summary, 7:00 a.m. and 3:30 p.m. are the highest demand periods (205 and 165 respectively). The clock should be able to handle this volume. Waiting lines will only occur at shift conclusions and not at beginnings due to staggered arrival times of employees. Simplex claims that 100 employees can pass through a single clock within a minute and a half. Due to the varied locales of work stations and the number of floors to be traversed, waiting lines during the check-out periods should be short.

Location of the Clock

The best location for the clock is at the exit in the basement opposite the Laboratory. Positioning of a time clock should satisfy the following criteria:

- a. Near a door
- b. "Employees Only" door
- c. Away from public access
- d. Logical entry with respect to parking facilities
- e. Have sufficient queuing area
- f. Centrally located.

This entrance, designated as "employees only", will meet the above requirements and is believed the most practical location.

The clock should be placed on the north wall of the corridor and directly opposite the door. The timecard "Out" racks should be located on the east wall of the passway to the employee entrance (see Appendices, page 16.) This location will keep employees from the receiving dock/cafeteria areas when entering and exiting. Also, the receiving doors will be closed a greater portion of the time, providing warmth to patients being transported to and from the Physical Therapy Department.

Parking Solution

C.S.F. recommends a reallocation of present parking facilities; namely, a return of the Medical Staff to their former parking area, redesigned of course, and a relinquishing of their present lot to employee use.

These changes have been proposed because employee parking should be near their entrance. Doctors' parking facilities have an unusually high turnover, and therefore should be readily accessible to the public road. The low turnover of the employees' parking lot indicates the logical location of their lot to be a further distance from the public road.

To substantiate these revisions, a survey was conducted in which it was determined that the new Medical parking facilities were under utilized, and

presumably in an undesirable location for doctors. The doctors are using their former lot; in fact, on December 7, 1967 at 8:15 a.m., twenty-four unauthorized vehicles (twelve doctors' cars and twelve cars without parking stickers) were found in the old Medical Staff parking lot. Returning this lot to the Medical Staff should be a well-accepted change.

The physical layout of the old medical lot will have to be revised. The changes are shown in an accompanying drawing. The revised lot will have sixty-six parking spaces. This is an increase of eight spaces over the present medical lot. In fact, this new lot could conceivably be used by Public Health vehicles, since adequate space will be provided. Perhaps a share of the reconstruction cost could be absorbed by the Public Health Department.

This shift in parking will reduce the number of persons passing through the Emergency Entrance. Employees will enter near the time clock, leaving physicians as the major users of the Emergency entrance. It certainly seems more desirable to permit the Medical Staff to use this entrance than the remainder of the hospital personnel. It should be simpler for the security guards to detect unauthorized persons trying to gain access through this entrance.

Allocated Responsibilities Under the Time Clock System

Supervisors - The supervisors will be responsible for the following:

1. Collection of employee time cards from "out" rack on Monday morning at 7:00 a.m.
2. Determining the number of hours worked for each employee according to the design of the time card. (i.e., recording the employee's time in the proper row - regular time, time and a half, and double time. See appendix, P. 17)
3. Indicating the hours for which shift differential should be paid.
4. Approving and assigning of overtime in advance.
5. Determining when an employee should be paid for days when he is not working (paid sick days, holidays, or vacation).
6. Use of all proper codes to convey information, such as found in No. 5 above.
7. Docking employee's pay for late minutes or, for instance, when employee "punches out" prior to scheduled quitting time.
8. Conducting periodic audits of employees to be sure that all employees who have cards punched in are actually working (to guard against someone punching in for a person who is not at work).
9. To comply with the Fair Labor Standards Act amendments of 1966, overtime and deduction for tardiness etc. should be rounded to the nearest 15 minutes, as follows:

<u>Minutes</u>	<u>Hours of Overtime or Deduction</u>
00 to 07	None
08 to 22	$\frac{1}{4}$
23 to 37	$\frac{1}{2}$
38 to 52	$\frac{3}{4}$
53 to 60	1

10. Time cards should be processed as rapidly as possible and forwarded (all copies intact) to the Payroll Office by 12:00 noon on Mondays.

11. Supervisors should see that every employee has a time card, and send all new employees who haven't been assigned time cards to the Payroll Office for one.

Payroll - Payroll personnel will be responsible for:

1. Placing the name and number, etc. of each employee on the time cards.
2. Placing new time cards in the "out" racks at the beginning of each pay period (By 7 a.m. Mondays)
3. Performing a periodic audit of each department's cards to see that the supervisors are following hospital policy.
4. Auditing "out" card racks periodically to see if all employees are leaving their cards where they should.
5. Upon completion of processing of time cards, burst the snap-set (multicopy timecard) and forward copy 1 to the department involved, copy 2 to City Hall, and copy 3 retain for payroll records. These records must be retained for a period of three years, after which it is suggested that they be discarded, since a duplicate is retained indefinitely at City Hall.

Employee - The employee will be responsible for:

1. Using his designated door(s) under penalty of disciplinary action. (It is suggested that the employees' entrance in the rear at the Laboratory, and if necessary the Main Entrance at _____ be the only authorized entrances).
2. Transporting his time card to his department, and depositing it immediately on arrival at department in its designated location (to be set by Department Head).
3. Depositing card at his assigned "out" rack position when leaving the hospital.
4. Calling irregularities to the attention of his supervisor within one day of the occurrence. Irregularities may be a misprint of the clock, or an overprint caused by the employee inserting the card more than once (the only

way an overprint could occur). Employees who cause overprints on their cards may be trying to cover up something, and should be warned and dismissed if it persists.

5. Punching his time card and only his time card, under penalty of dismissal for violation of this rule.

Recommended Policies

1. Employees should be expected to be at their work station when the shift begins and not to leave their work station until the shift ends.
 - a. If an employee's starting time is 8:30 a.m., the employee must be at his work station at 8:30 a.m., prepared to begin work; therefore the time card should read prior to 8:30 a.m. For example, if an employee is scheduled in at 8:30 a.m., and his time card is punched at 8:30 a.m., then obviously he could not have been at his work station at 8:30 a.m., therefore, his hours should be adjusted accordingly.
 - b. If an employee's starting time is 8:30 a.m. and his time card reads some time prior to that, but he did not arrive in his department until after 8:30 a.m., the employee should be marked tardy and his pay adjusted accordingly.
 - c. If an employee's quitting time is 5:00 p.m., it should be expected that he will not leave his work station prior to this time. For example, if an employee's quitting time is 5:00 p.m. and his time card punched out reads 5:00 p.m., this could mean the employee did not work until 5:00 p.m.
2. Employees should be required to punch their time card whenever they enter or leave the hospital, even during their shift (except when on hospital business).

3. Overtime should only be paid for time worked which is authorized in advance.
4. It should be expected that the supervisor will allow necessary time prior to the employee's quitting time so that the employee may properly clear and/or straighten up his work area; this period of time might be as little as a minute, or as much as five to ten minutes, depending upon the employee's job. Employees should be scheduled in all departments to eliminate overtime for accomplishing these clean-up tasks.

Timecards and Payroll Office Procedures

Given the restrictions of the limited service supplied the hospital by Manufacturers National Bank and the requirements of the City Personnel Department, C.S.F. recommends the use of a three-part timecard to be used with the time clock system. The alternatives to the use of this three-part form are, 1) single copy timecards and xeroxing to obtain information copies required for the present method, or 2) continuing the weekly time journal, which is a handwritten duplication of the information from the time clock system. Both of these alternatives are inadequate. Xeroxing is too expensive, and use of the weekly time journal in conjunction with the time clock system adds the burden of manually reproducing the attendance time computations. However, use of the three-part timecard should only be a short run need, to be replaced by an integrated payroll system. The hospital should engage the services of a computer service which is capable of flexibility in its programming so as to suit the hospital's unique payroll needs. When this occurs, C.S.F. recommends the use of the single part timecards which can be prepared by the service bureau, and it is suggested that direct keypunching of timecards be adopted. A copy of the recommended three-part time card can be found in the appendices, p. 17.

With the implementation of the time clock system should come a revision of the clerical procedures and functions of the Payroll office. A consecutive number should be assigned to each addressograph frame to represent timecard location numbers. Frames will have to be purchased to hold this timecard number plate. These new frames should be identical to the plates currently used by the nursing department.

For unification, a timecard should be provided for every employee, regardless of status. Timecards of personnel not required to punch the clock should be distributed via messenger to the respective departments.

Existing addressograph equipment can be employed to print employee information on the timecards. New plates will be required containing the following information in the approximate location as depicted below:

	11111
	2222222222
3333	4444444444
5555	66666

Code Explanation

1. Timecard number (fixed with frame)
2. Date pay period ends (Accomplished through the addition of a date to the accessories of the lister.)
3. Department number
4. Employee's name
5. Social Security Number
6. Rate (coded if desired)

On Fridays, the timecards should be prepared for the following week's distribution. The recommended sequence for assignment of timecard numbers can be found in the appendices, p. 18.

Master Clock System

The administration should not purchase a master clock to control the time clock and regular clocks distributed throughout the hospital buildings. This master clock would assure that all clocks connected to it are at the same time, and in case of a power failure, will keep running for 12 hours and will automatically correct all clocks linked to it when the power is available. This clock system would be set to the correct Eastern Standard Time.

Justification of the master system cannot be made either economically or practically. A survey of twenty-seven clocks throughout the hospital revealed the highest total variance (plus and minus correct E.S.T.) was only 6.5 minutes (plus 4 minutes at the 2 West nursing station and minus 2.5 minutes at the Dietary Kitchen). The clocks could periodically be set according to correct E.S.T. by having a maintenance employee synchronize them, using a watch set to the correct time via telephone service.

The economic reasons for not choosing the master system are self-evident. If a master system is desired, the most practical and economically feasible installation would include the components listed below:

Cost of Master System

One (1) Type 9-12 Impulse Master Time Control	\$260.00
Two (2) Type 55-42 12" single, Round Face Clocks	50.00
Five (5) Type 65-42 12" Double Face Clocks	390.00
	<u>\$ 700.00</u>
Estimated Installation Fee	<u>1,690.00</u>
Total Cost of Master System	\$2,390.00

If it is believed that the benefits accruable to this master system, such as the deterring of future grievances, are sufficient reason to justify this expense, then this system should be installed.

Steps to Aid Implementation

1. Defer implementation of time clock until parking lot changes have been completed.
2. Disseminate via the Monday Monitor all rules and hospital policies governing the employee under the time clock system.
3. Have Department heads assign locations within their department for storing timecards.
4. Let employees know exactly when the changeover will occur and where the clock and card racks are located.
5. Assign a person to the clock location to observe and assist employees through the introductory phase:
 - a. For two or three days from the beginning of system
 - b. For several Mondays, so employees will learn what card to punch.
6. Print and post around the time clock location informative and directive signs to assist and guide employees.

APPENDICES

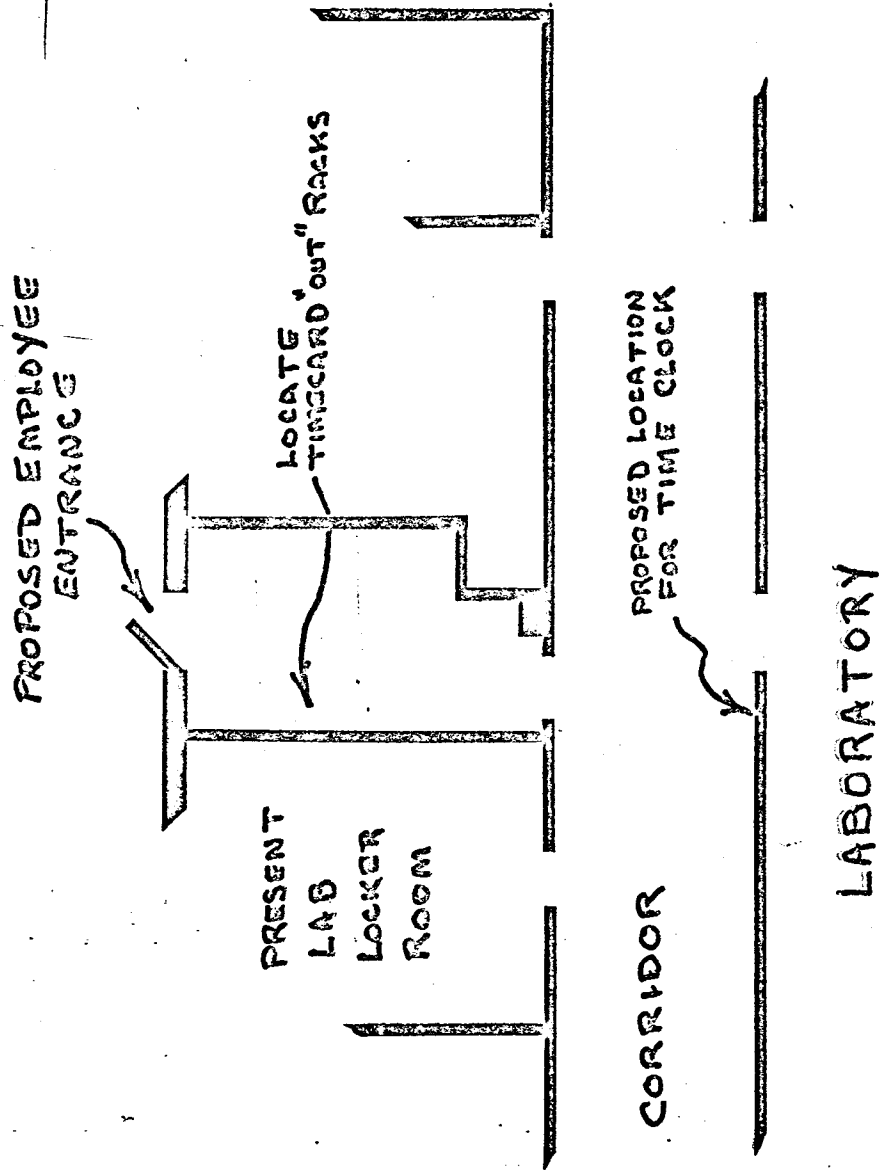
SUMMARY OF PEAK DEMAND PERIODS

<u>Time</u>	<u>No. Personnel "In"</u>	<u>No. Personnel "Out"</u>	<u>Total</u>
<u>Mondays</u>			
7:00 a.m.	166*	39	205*
3:00 p.m.	72	12	84
3:30 p.m.	1	162*	163*
11:30 p.m.	-	64	64
<u>Tuesdays</u>			
7:00 a.m.	166*	38	204*
3:00 p.m.	73	12	85
3:30 p.m.	1	162*	163*
11:30 p.m.	-	65	65
<u>Wednesdays</u>			
7:00 a.m.	169*	37	206*
3:00 p.m.	74	12	86
3:30 p.m.	1	165*	166*
11:30 p.m.	-	66	66
<u>Thursdays</u>			
7:00 a.m.	165*	37	202*
3:00 p.m.	75	12	86
3:30 p.m.	1	161*	162*
11:30 p.m.	-	66	66
<u>Fridays</u>			
7:00 a.m.	165*	38	203*
3:00 p.m.	72	12	84
3:30 p.m.	1	161*	162*
11:30 p.m.	-	65	65
<u>Saturdays</u>			
7:00 a.m.	115*	38	153*
3:00 p.m.	68	11	79
3:30 p.m.	1	112*	113*
11:30 p.m.	-	63	63
<u>Sundays</u>			
7:00 a.m.	116*	38	154*
3:00 p.m.	70	11	81
3:30 p.m.	1	113*	114*
11:30 p.m.	-	62	62

The above sample includes all departments of the Hospital that are on the hospital payroll. It only, however, includes those employees who will be required to punch the time clock. For security purposes the employee entrance can be locked from the hours of 11:05 p.m. to 4:45 a.m.

* The asterisk indicates the time periods where maximum stress will be placed on the time clock system. It is at these periods where difficulties could arise.

PROPOSED LOCATION OF TIME CLOCK



J.B.W.
12-7-67
1/8"

Recommended Numbering Sequence

<u>Departments</u>	<u>Time Card Numbers</u>
01 Administration	1 - 8
02 Admitting, Switchboard and Information	9 - 21
03 Anesthesia	22 - 31
04 Blood Bank	32 - 38
05 Central Supply	39 - 51
06 Delivery Room	52 - 60
07 Dietary	61 - 145
08 EKG - EEG	146 - 149
09 Emergency	150 - 164
10 Employee Health and Welfare	165 - 167
11 Housekeeping	168 - 232
12 Laboratory	233 - 260
13 Laundry and Linen Service	261 - 276
14 Medical Education	277 - 310
15 Medical Records	311 - 321
16 Nursing Education	322 - 324
17 Medical Library	325 - 327
18 Nursing - R.N.'s	328 - 392
19 O.R. and Recovery Room	393 - 420
20 Operation of Plant	421 - 436
21 Pharmacy	437 - 444
22 Physical Therapy	445
23 Radiology	446 - 466
24 Radio Isotope	467
25 Receiving and Purchasing	468 - 473
26 Non-Geriatric	474 - 518
27 Business Office	519 - 542
28 Collections	543 - 553
29 I.C.U.	554 - 570
30 Inhalation Therapy	571 - 578
31 Nursing - LPN's	579 - 663
32 Ward Clerks	664 - 678
33 Nurses Aides and Orderlies	679 - 738