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February 18, 1924.

The University of Chicago,
Chicago, Illinois.

Gentlemen:

We transmit herewith a preliminary "Analysis to Determine the Need for Certain Additional Roadways Across the Midway Plaisance."

It is our belief that the need does not exist. Further, we believe that if it should be found necessary at some future time to increase the capacities of the north and south streets crossing or intercepted by the Midway for north and south traffic, three schemes should be considered. They are:

- 1 $\frac{1}{2}$ Crossing the Midway with additional roadways.
- 2 - Widening one or more existing roadways.
- 3 - Separating the grades of Midway roads from existing north and south crossings.

Factors to consider in each case are:

Which of the three will most effectively improve north and south traffic conditions;

Which by improving traffic conditions will not increase danger to drivers and pedestrians;

Which will be the most compatible with uses of the Midway for through traffic;

Which will interfere the least with the uses of the Midway for other purposes, the most important of which is recreation.

Before a public improvement of any kind designed to accommodate traffic is entered upon, the petitioners should be required to convince the South Park Commissioners that there is a need, and if this is established, that the improvement accepted will compare favorably with other improvements proposed as to its effect upon the public safety.

Very truly yours,

BENNETT PARSONS FROST AND THOMAS

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ANALYSIS TO DETERMINE THE NEED FOR
CERTAIN ADDITIONAL ROADWAYS ACROSS THE
MIDWAY PLAISANCE.

Prepared for the
UNIVERSITY OF CHICAGO

by

HERBERT PARSONS FROST AND THOMAS

Chicago, Illinois

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ANALYSIS TO DETERMINE THE NEED FOR
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MIDWAY PLAISANCE

THE MIDWAY PLAISANCE

is a park extending from Cottage Grove Avenue to Stony Island Avenue between 59th and 60th Streets. It is integral with Washington Park and Jackson Park making them one (lying as the Midway does across the line of north and south traffic), and is crossed by five streets. The most important of these are Cottage Grove Avenue and Stony Island Avenue.

This general north and south circulation is supplemented by two driveways, one in Washington Park paralleling Cottage Grove Avenue and the other in Jackson Park paralleling Stony Island Avenue.

One mile south of the Midway, Oakwoods Cemetery stretches east and west for three-quarters of the length of the Midway and is a barrier to through north and south traffic between Cottage Grove Avenue and the Illinois Central Railway.

It has been proposed to open all streets north and south across the Midway.

THE PURPOSE OF THIS ANALYSIS

is to determine the need for roadways across the Midway other than the five now existing. There can be

ANALYSIS TO DETERMINE THE NEED FOR
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but one purpose for such roadways; viz., to increase the capacity of streets for north and south traffic.

If the need exists, consideration should be given to practicable solutions. If it can be shown that existing crossings are adequate to provide for present needs there would be no major purpose for the improvements under consideration. An inquiry into the traffic conditions is therefore of primary importance.

THROUGH TRAFFIC.

A map of the South Side (see next page) accompanies this analysis. The purpose of this map is to show to what extent Ellis, Woodlawn and Dorchester Avenues by reason of their position are now used or are likely in the future to be used for through traffic.

The streets which cross the Midway are used for mixed traffic, but for the purpose of this analysis all traffic should be divided into two broad classes: the first being through traffic, the second, local. Both include trucks, but in each class, passenger traffic predominates.

It is well known that the first of these classes (through traffic) does not to any appreciable extent use the north and south streets in the area between Hyde Park Boulevard on the north and Marquette Road on the south. And the map clearly reveals the reasons. Through traffic originating south of Jackson Park does not use the streets

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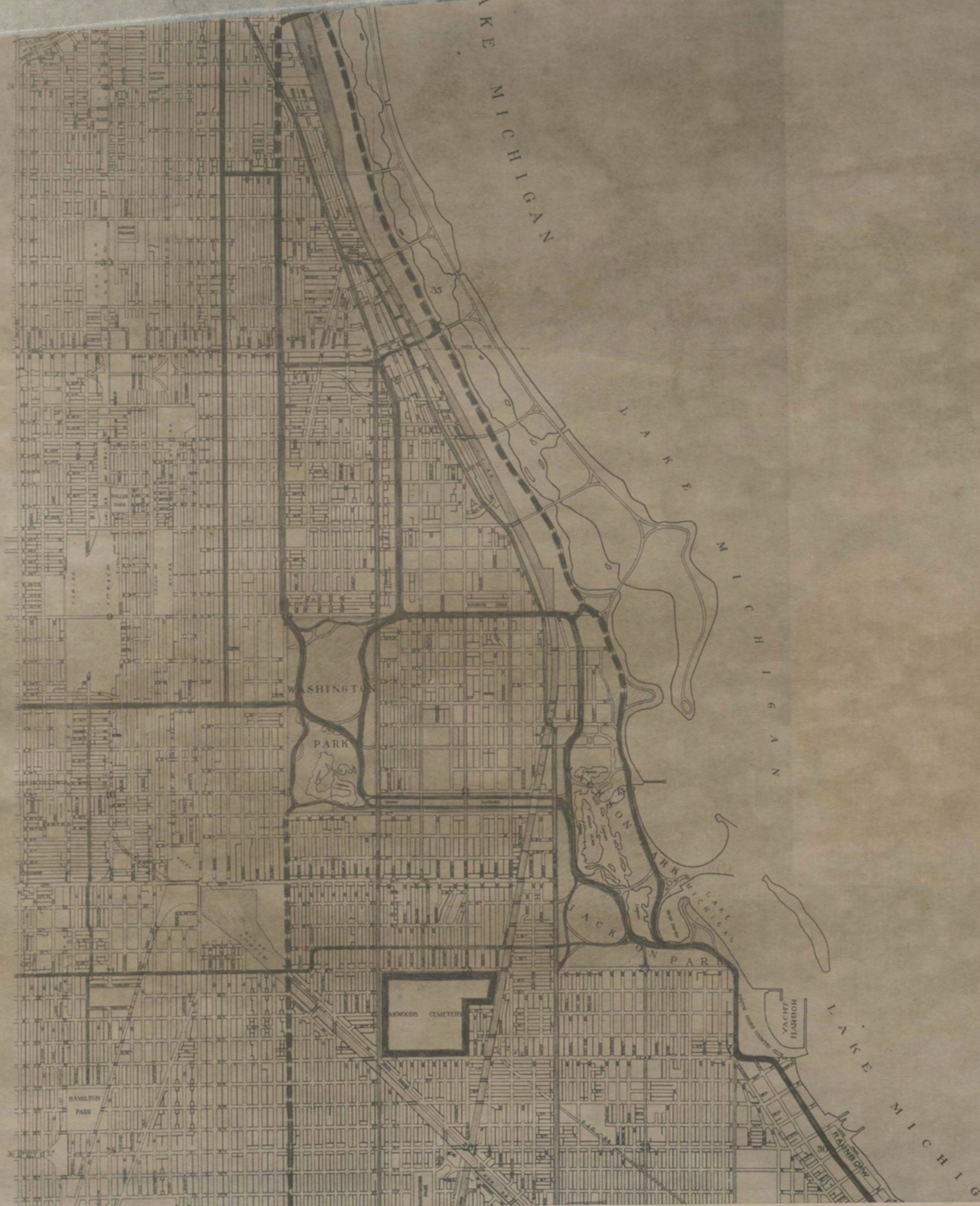
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crossing the Midway because other streets better serve the purpose; traffix originating between Stony Island and Cottage Grove Avenues south of Oakwoods Cemetery, does not have ready access to streets crossing the Midway; traffic originating west of Cottage Grove Avenue has no use for these streets.

Practically no north bound traffic crossing the Midway on Ellis, Woodlawn, and Corchester Avenues originates south of Oakwoods Cemetery and no south bound traffic except that having its destination between Cottage Grove Avenue and the Illinois Central Railway, in the small area south of the Midway to the Cemetery, uses the three Midway crossings. Indeed a large part even of this traffic to and from the downtown district moves through Washington Park or Jackson Park and does not cross the Midway.

THE WIDENING OF SOUTH PARK AVENUE

now nearing completion and its connection across the Illinois Central tracks into Lake Front Park and the extension of the driveway in Lake Front Park from Grant Park to Jackson Park now in the course of construction will offer the natural channels for through traffic originating on the South Side.

There are no highway improvements under construction or contemplated which will affect the area in question so far as through traffic is concerned except such as

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would tend to prevent further increased use of the Midway as a lateral distributor of north and south travel. To the extent that the constantly increasing through traffic is induced to use streets other than the Midway, so the present usefulness of the existing north and south streets crossing it will be maintained.

THE CONCLUSIONS

as concerns through traffic are these:

That through traffic on Ellis, Woodlawn and Dorchester Avenues is negligible;

That only a part of the through traffic originating south of the Midway in the neighborhood uses the three crossings, the remainder turning into the Midway rather than crossing it;

That highway improvements now under construction will have a tendency toward relieving the Midway of the growing South Chicago, Windsor Park and South Shore traffic.

LOCAL TRAFFIC CONDITIONS.

The three streets crossing the Midway between Cottage Grove and Stony Island Avenues carry a relatively small volume of traffic. It is the local traffic of a populous district.

Woodlawn Avenue carries three times as much traffic as does Dorchester Avenue or Ellis Avenue. There-

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COUNTS ON WOODLAWN AVENUE

taken at 57th Street in the evening of October 10th and 11th, 1923, by the Chicago Motor Club and published in Motor News for November, showed that 299 vehicles passed this intersection in both directions in one hour. On Dorchester Avenue at the same time there were 110 and on Ellis 99.

Counts taken during the evening rush at 59th Street and at the east and west drives of the Midway on February 14th, 1924, indicate that Woodlawn Avenue would not be overloaded if the traffic were three times as great. For the purpose of explanation, a diagram has been prepared (see next page) to show the relation between the value of actual traffic, at the time of its greatest density, and the carrying capacity of the street. The width of black line is proportional to the volume of traffic counted and the width of thoroughfare represents not its ultimate capacity but the number of units of traffic that it is capable of carrying conveniently.

The total traffic in both directions in one hour crossing 59th Street was 235 units. And the number of units that actually required a Midway crossing, that is, those which moved in such manner as to require a con-

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TRAFFIC OBSERVED -
IN TERMS OF CAPACITY OF STREET

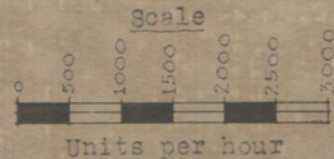
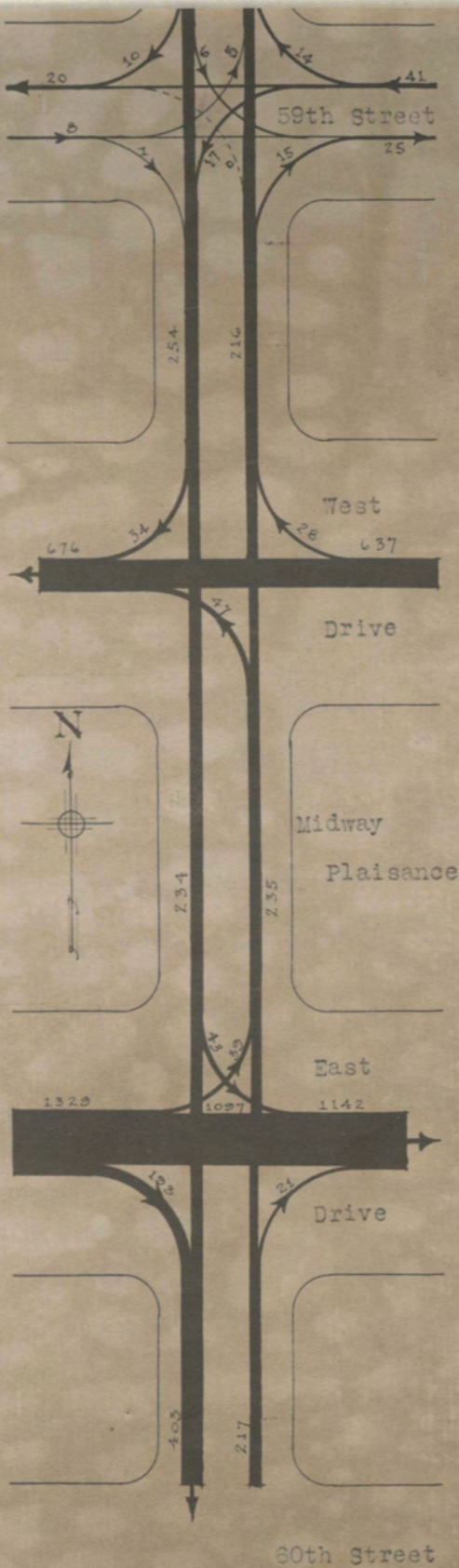
The diagram shows the approximate capacity in units of traffic of Woodlawn Avenue, and the traffic which each street carried during the evening rush (4:30 to 6:30) of February 14, 1924.

The number of traffic units per hour that Woodlawn Avenue is capable of conveniently carrying is expressed in width of street (the ultimate capacity greatly exceeds this).

And the number of units actually carried is expressed in units of traffic by width of black line at the same scale.

Curb parking space is not included as having carrying capacity and is not included in the effective street width.

The figures on the diagram are the actual units of traffic passing in two hours (each passenger car or light delivery truck is one unit; each large truck is 4 units of traffic). About one half of this number would represent the traffic for one hour.



BENNETT PARSONS FROST AND THOMAS,
Chicago.

Feb. 13, 1924.

section between 59th Street and 60th Street was also 235 units.

While conditions more favorable to traffic indicate that there are times when traffic is greater than that most recently counted, there is no record of a condition approaching congestion.

Woodlawn Avenue has a roadway width of 34 feet which allows two lines of traffic, one in each direction, with ample space at the curb for standing vehicles.

AN ANALYSIS OF ROADWAY CAPACITIES

based on units of traffic and checked against the most used streets in Chicago shows that Woodlawn Avenue is capable of carrying 950 units of traffic in each direction in one hour; or at times when most of the movement is in one direction, proportionately more traffic in that direction, due to the flexibility of free wheel vehicle traffic upon streets having no surface car tracks. A passenger car or light motor delivery wagon is one unit, and a heavy wide truck, 4 units; since one heavy truck is considered as four times as great a factor in congestion as one passenger motor vehicle or one light delivery wagon. An addendum to this analysis reviews the carrying capacity of streets.

The ultimate capacity of a street without cross traffic (1400 units an hour for each line of traffic) as applied to Woodlawn Avenue at 57th Street is reduced

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by such factors as cross traffic to 930 units, or 1860 units in both directions when curb parking spaces are occupied by standing vehicles. Woodlawn Avenue is now policed as a "through street" and this kind of control materially increases its safe capacity, but it does not seem necessary in view of the present traffic conditions to determine to what extent its capacity is increased above that stated.

At the Midway traffic crossing Woodlawn Avenue greatly exceeds that upon Woodlawn Avenue itself. It follows that at rush times complete stagnation of traffic on Woodlawn Avenue or upon any north and south street which may at some time be carried through can exist if there is no control at the intersections.

But with proper control its capacity at this point should not be materially less than what it is at 57th Street.

In this report and upon the diagram, the convenient carrying capacity of Woodlawn Avenue is regarded as 75% of its ultimate capacity. Upon this basis, Woodlawn Avenue can conveniently accommodate 1400 traffic units, 700 in each direction in an hour.

It follows from the foregoing that Woodlawn Avenue was not used in the evening of October 10 and 11, 1923 to the extent of one-third of its convenient carrying capacity; and that Ellis and Dorchester Avenues

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It follows from the foregoing that Woodlawn Avenue was not used in the evening of October 10 and 11, 1923 to the extent of one-third of its convenient carrying capacity; and that Ellis and Dorchester Avenues

were not used to one-tenth of their capacities. And traffic observed was greater at that time than on February 14, 1924 when the later count was taken.

Inconvenience to local traffic within this district occurs when east and west traffic on the Midway is greatest and this is not due to lack of north and south street capacity but to this east and west interruption, which lengthens the average running north and south. And as has been pointed out all through traffic improvements under construction and contemplated will tend rather to decrease the cross traffic along the Midway than to increase it.

This demonstration is made to show that there is no lack in present street capacity. It cannot be argued that Woodlawn will become a highly intensive traffic street, although some increase must be expected in its use. Due to its location in the center of the area under discussion it gathers in a large share of the traffic which would not be affected greatly by the opening of other streets of less continuity across the Midway.

Additional crossings, particularly when the need for traffic purposes does not seem to exist, would tend rather to confuse than to simplify; and to the extent that this confusion would be augmented, danger

were not used to one-fifth of their capacities. And traffic observed was greater at that time than on February 14, 1924 when the later count was taken.

Inconvenience to local traffic within this district occurs when east and west traffic on the highway is greatest and this is not due to lack of north and south street capacity but to this east and west interruption, which lengthens the average running north and south. And as has been pointed out all through traffic improvements under consideration and contemplated will tend rather to decrease the cross traffic along the highway than to increase it.

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Additional crossings, particularly when the need for traffic purposes does not seem to exist, would tend rather to confuse than to simplify; and to the extent that this confusion would be augmented, danger

would be increased. Concentration of traffic on known streets a reasonable distance apart is safe and easily understood by drivers and pedestrians.

REFLECTIONS

upon the changes that have come to pass since 1910 are well worth while as having a very important bearing upon this problem. In 1910 the City Collector of Chicago licensed 58,000 horse drawn vehicles; today there are one-third of that number. In 1910 there were 800 trucks, today more than 20,000 trucks use our streets; in 1910, 10,000 passenger cars were licensed, today there are ten times that number.

Viewed in the light of traffic volume this means that in spite of the great increase in the number of trucks, the streets of Chicago are not occupied by vehicles carrying merchandise and freight today to more than two-thirds of the extent that they were fourteen years ago. And during that time the population has increased nearly 1,000,000. This condition is accounted for by the fact that a truck is the equal of nearly three wagons and that trucks contribute less to congestion than horse-drawn vehicles.

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But quite different is the passenger carrying record. In 1910 the people were hauled by the common carriers, today public funds cannot be gathered fast enough to buy ground and concrete sufficient to create broad and straight paths for the convenience of a large part of those same people who now prefer to guide their own carriers. Each car is an express with an unknown engineer operating with improvised signals. Twenty percent of drivers do not stop at through streets. A few travel in the wrong direction on one way drives. We sacrifice two lives a day and the responsibility is upon the whole community.

It is inevitable that traffic will increase but it must be made safer and cheaper. The advocate of new paths that will make his occasional journeys quicker and more pleasant must not be too prodigal in his regard for public funds. We must be sure that we are using effectively that which we have. We must exhaust the possibility that we could more effectively use that which we have if it were properly controlled.

CONCLUSIONS

as concerns the need for additional roadways across the Midway are these:

That there is no evidence to show that present conditions of traffic crossing the Midway warrant

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CONCLUSIONS

as concerns the need for additional roadways across the Midway are these:

That there is no evidence to show that present conditions of traffic crossing the Midway warrant

the construction of new roadways;

That additional roadways may not solve future traffic problems should they arise;

That a reasonable volume of traffic concentrated upon one street makes for greater safety than the diffusion of the same amount of traffic upon several streets;

That even though there should be a persistent demand for some sort of a change in present conditions (because of the increase in street traffic in the last decade, which has resulted in constant and always ready revision in methods of traffic control), new roadways should be constructed only after an analysis of other solutions have been proven to be less effective;

That because street traffic is a growing menace to life, no physical change in street circulation should be made without it first having been shown beyond any reasonable doubt that human life will not be unnecessarily endangered thereby.

Respectfully submitted,

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ADDENDUM

THE CARRYING CAPACITY OF STREETS

Units in terms of which each vehicle is assigned a coefficient determined by its size, speed and elasticity of its movement are:

Motor drawn vehicles:

Gasoline motor passenger.....	equals	1	traffic unit.
" " light delivery....	"	1	" "
Electric passenger.....	"	1	" "
Motor bus.....	"	4	" "
Heavy motor truck.....	"	4	" "
Surface car.....	"	7	" "

Horse drawn vehicles:

Carriage.....	"	2	" "
Light delivery wagon.....	"	2	" "
" " 2 horse.....	"	3	" "
Heavy truck.....1 horse.....	"	4	" "
" ".....2 ".....	"	6	" "

The above scale of units will apply particularly to streets of moderate width.

Capacity (traffic units per hour) is fixed by (a) the amount of space in width of street and (b) the length of the block. The street width fixes the number of lines of traffic, while length of block determines the average speed.

Since in dealing with the problem of ultimate street capacity a condition approaching congestion is assumed, it is taken for granted that intersections will be policed. There is then waiting time at intersections which when totalled with maximum safe speed between stops will give an average speed.

APPENDIX

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Motor driven vehicles:

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" " light delivery.....	"	"	"
Electric passenger.....	"	"	"
Motor bus.....	"	"	"
Heavy motor truck.....	"	"	"
Tractor.....	"	"	"

Horse drawn vehicles:

Carriage.....	1	1	1
Light delivery wagon.....	"	"	"
" " 2 horse.....	"	"	"
Heavy truck.....	"	"	"
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Average speed has a definite bearing on capacity, and the length of block being closely related to waiting time makes length of block second to street width as a factor controlling street capacity.

Other factors which tend to decrease or increase the capacity of a street such as Woodlawn Avenue which has no car line and which is level are,

- (a) The use of the space at the curb. This space is here assumed to be occupied by standing vehicles, and is not considered as being available for moving vehicles. Under certain conditions it is available wholly or in part.
- (b) Lack of uniformity in rows of traffic, but this applies more particularly to wide streets.
- (c) Flexibility in use of the street. A street which has no car tracks may be required to carry more traffic in one direction than in the other at certain times, and where this happens during the peak load the greater part of the road may be devoted to traffic in the direction of the heavier load.

Passenger motor cars (one unit, see preceding table) may travel safely and without congestion at a speed of 15 miles an hour 50 feet to 55 feet apart (on centers). Along one line of travel at this speed and at a distance apart of say 50 feet, 1500 cars will pass a given point in one hour.

The theoretical capacity of a single line, uninterrupted by crossings and not modified by any other "factor controlling capacity" is then 1500

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(a) The use of the space at the curb. This space is here assumed to be occupied by standing vehicles, and is not considered as being available for moving vehicles. Under certain conditions it is available wholly or in part.

(b) Lack of uniformity in rows of traffic, but this applies more particularly to wide streets.

(c) Flexibility in use of the street. A street which has no car lines may be required to carry more traffic in one direction than in the other at certain times, and where this happens during the peak load the greater part of the road may be devoted to traffic in the direction of the heavier load.

Passenger motor cars (one unit, see preceding

table) may travel safely and without congestion at a speed of 15 miles an hour 50 feet to 55 feet apart (on centers). Along one line of travel at this speed and at a distance apart of say 50 feet, 1580 cars will pass a given point in one hour.

The theoretical capacity of a single line, uninterrupted by crossings and not modified by any other "factor controlling capacity" is then 1580

traffic units. In considering street traffic under ordinary conditions this figure must be somewhat reduced because of: lack of uniformity in speed; falling into and leaving the line by any one vehicle; uncertainty in the actions of any driver; unevenness of width of space allowed a line of traffic by other line in the same direction; by movements in an opposite direction or by uncertainty of movements of vehicles at the curbs. The ultimate capacity might be placed at 1400 units (90% of 1530). But this capacity (1400 units) represents a single line in one direction. Further reduction, as pointed out later, based upon other factors controlling capacity such as cross traffic and the relative length of blocks to cross blocks must be taken into account.

As the street fills to its capacity vehicles arrange themselves in well defined lines, and each of these should be allowed nine feet. The street capacity varies directly as the width in units of nine feet. Space for standing vehicles must be taken into account. Unless there is room for the free movement of one line of vehicles in each direction in addition to standing space there will be complete stagnation when the standing space is occupied.

Second only to width of street is the length of the block in its effect upon street capacity. The street capacity has a fixed relation to the running time

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and to the waiting time at crossings. If crossings are frequent, stops will be frequent and the length of time consumed in waiting will depend upon the volume of traffic and character of the cross street. When streets are occupied to capacity the waiting time will be generally as long as it takes to empty the cross block and the running time will be long enough to empty the block of the street under consideration. The relative widths of the streets is not a factor influencing the waiting time nor the running time.

The relation of capacities might be stated thus: waiting time is to cross block waiting time, as length of the cross block is to the length of the block. Examples: (a) Where the block is 600 feet long and the cross block 200 feet long, the 600 foot block traffic waits one third as long as cross block traffic. This is true when each street involved is operating at its approximate full capacity. It is therefore desirable to have long blocks in streets which by reason of their location are continuous thoroughfares. (b) Where blocks are square the traffic in each street waits the same length of time, and the time of waiting is equal to the time occupied in motion. If in this example the speed limit is 8 miles per hour the average speed cannot be greater than 4 miles per hour under the condition just stated. (c) Where the block is 400 feet long and the

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The relation of capacities might be stated thus:

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Examples: (a) Where the block is 800 feet long and the cross block 200 feet long, the 800 foot block traffic waits one third as long as cross block traffic. This is true when each street involved is operating at its approximate full capacity. It is therefore desirable to have long blocks in streets which by reason of their location are continuous thoroughfares. (b) Where blocks are square the traffic in each street waits the same length of time, and the time of waiting is equal to the time occupied in motion. If in this example the speed limit is 8 miles per hour the average speed cannot be greater than 4 miles per hour under the condition just stated. (c) Where the block is 400 feet long and the

cross block 200 feet and the 400 foot block traffic waits one-half as long as cross block traffic.

The analysis leads to the conclusion, as before stated, that a short block street has only one-half the capacity of a street with blocks twice as long. The reason for this is that in each case the waiting time is of long enough duration to empty the block. We know from observation that traffic control functions in this way and that as a result of regular stops the vehicles are grouped. But we know also that the capacity of the short block street may be increased by intersection regulation at the expense of the long block street which it crosses.

Aside from the consideration of length of waiting time, the number of stops is important as affecting capacity. Eight or ten stops to the mile is more desirable than twenty.

The foregoing analysis is purely theoretical and must be modified under certain operating conditions. But it will serve as the basis for setting down in a definite form the capacity of streets and the relation between capacities of streets.

The above statement of capacities of streets has been carefully compared with traffic counts taken at Dearborn Street between Randolph and Wabash, State Street between Madison and Washington Streets; Michigan Avenue

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between east South Water and River Streets, Wabash Avenue between Monroe and Adams, Fifth Avenue, New York, at 42nd Street, and others. And the field observation as to when congestion existed and when it did not on either or both of the streets at a crossing verified the foregoing conclusions.

In a system of rectilinear blocks three methods of increasing capacities may be considered; viz., (a) widening, (b) separation of grades, (c) traffic regulation tending to ^{de}crease the values of the traffic unit.

In the first of these capacity is increased without shortening running time. In the second, the increase is the result of reducing time. In the third, such regulations as limiting turnouts to certain crossings or simultaneous control of many crossings will tend to lessen confusion thus increasing speed and reducing waiting time. The scheme to be adopted depends entirely upon conditions.

In heavily traveled or congested streets, the benefits from widenings soon reach their limit. The radical one - that of separation of levels on important cross thoroughfares is more effective. This solution has been applied to Michigan Avenue for a distance of several blocks. This illustration is a good one as the cross traffic is still largely horse drawn while that of Michigan Avenue is practically all passenger motor vehicles.

* * *

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Heckman
COUNSEL AND BUSINESS MANAGER

December 26th, 1917. *7*

Re:

Ans. yours of

Bo
Outman
To Mr. Robertson:

I am sending with this a report on the heat
in the President's offices, which I thought you might
like to glance at.

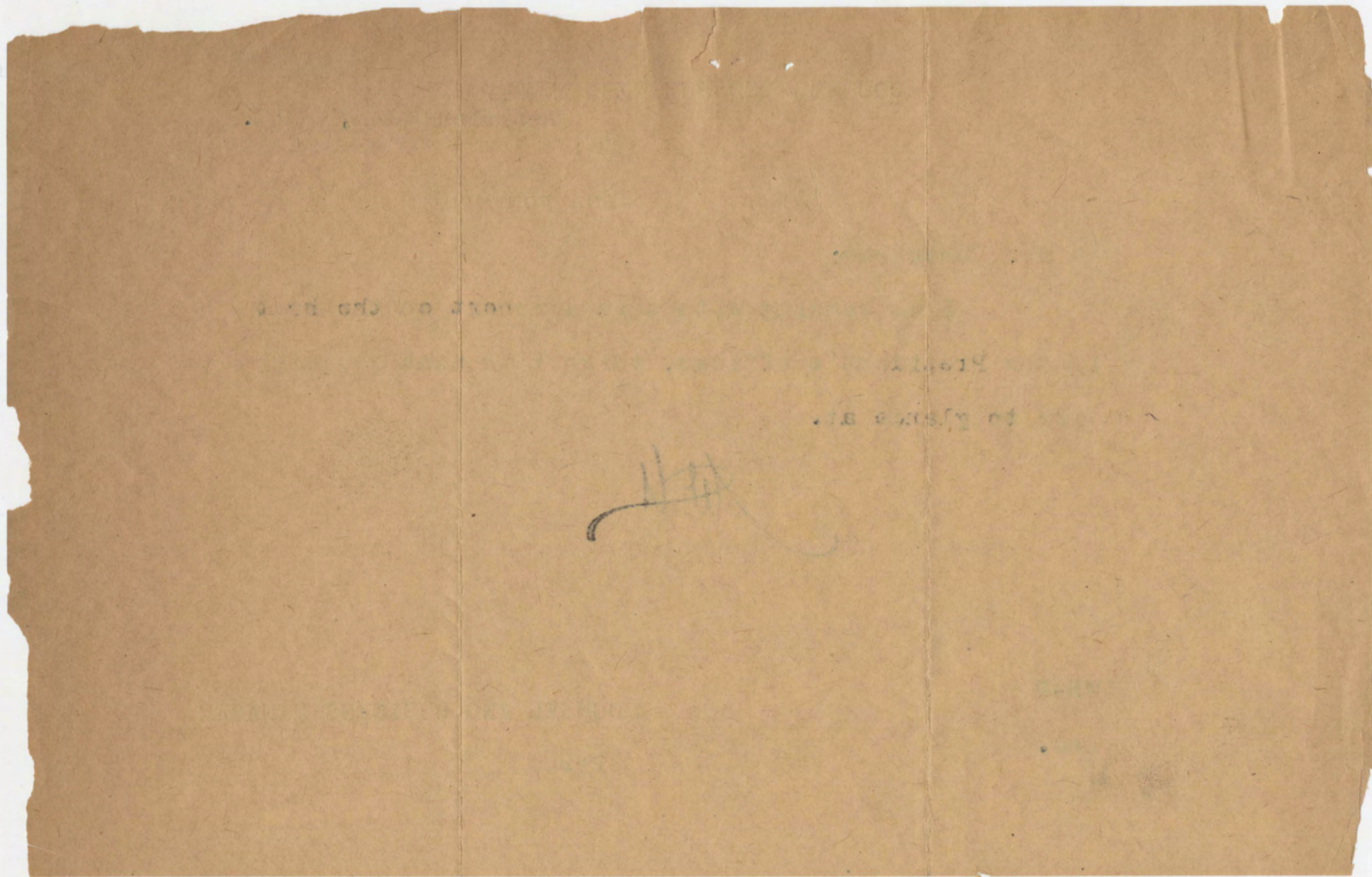
W.H.

WH-R

Enc.

COUNSEL AND BUSINESS MANAGER

Per _____



DEPARTMENT OF BUILDINGS AND GROUNDS

Dec. 20, 1917.

Re: Heat in Harper Library.

Ans. yours of

To Mr. Wallace Heckman:

Pursuant to phone conversation with Mr. G.O. Fairweather, the writer is furnishing you with additional report tests and control record pertaining to President Harry Pratt Judson's suite of offices in Harper Building.

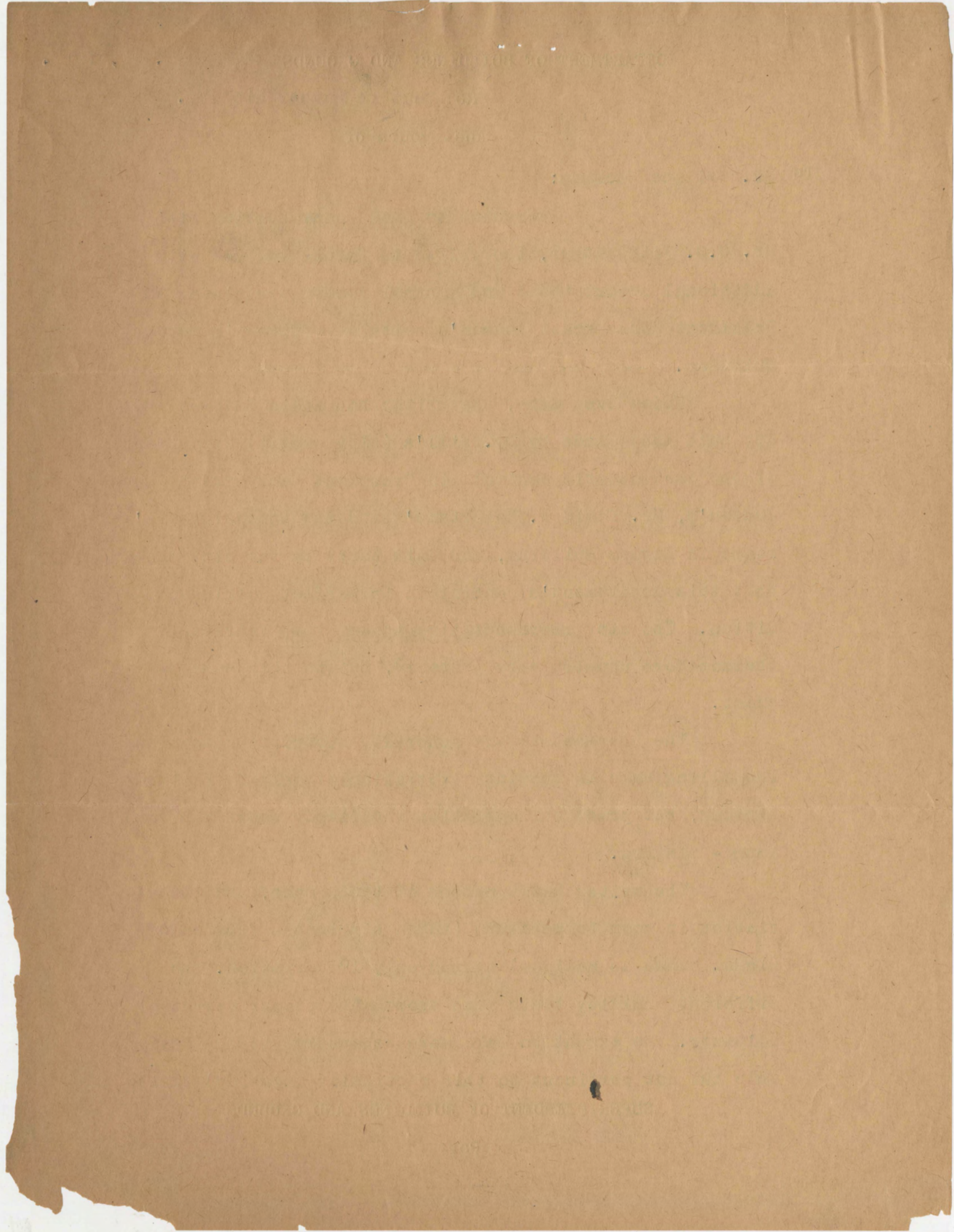
Under even date, the writer has again had wet and dry bulb tests made by Dr. Hill's (city expert) department of the thermostatic control in President Harry Pratt Judson's, Mr. David A. Robertson's and the stenographers' rooms in Harper Building, and said tests by the city show that this department's control is in perfect working condition. The city representative stated that Fahrenheit thermometers usually vary $\frac{1}{2}^{\circ}$ to 1° , but in this case was exact.

The thermostats are generally quoted by companies installing same as showing a variation of only 2° maximum - minimum, but practical operation invariably shows a 3° maximum - minimum.

The writer had a number of tests made, and the variation in room temperature (taken six inches from cold window panes as maximum) showed only 1° variation. The different humidity tests made showed the proper degree of moisture. We expect to make more exhaustive tests (desirable but not pertinent to this particular question) taking

SUPERINTENDENT OF BUILDINGS AND GROUNDS

Per _____



DEPARTMENT OF BUILDINGS AND GROUNDS

Re:

Ans. yours of

To Mr. Wallace Heckman -3-

all items into consideration, such as condensation, wall conditions, human body and illumination radiation, and air currents, more or less desirable, from atmospheric contamination standpoint.

President Harry Pratt Judson's, Mr. David A. Robertson's and the stenographers' rooms are supplied with both direct and indirect radiation; the lobby entrance has no supply at present, and the writer suggests the re-opening of the indirect wall duct, same entailing a very small expenditure, approximately \$12.00, to take the chill from the outside air before same reaches the stenographers' room, which seem to require 4° more heat than the other room.

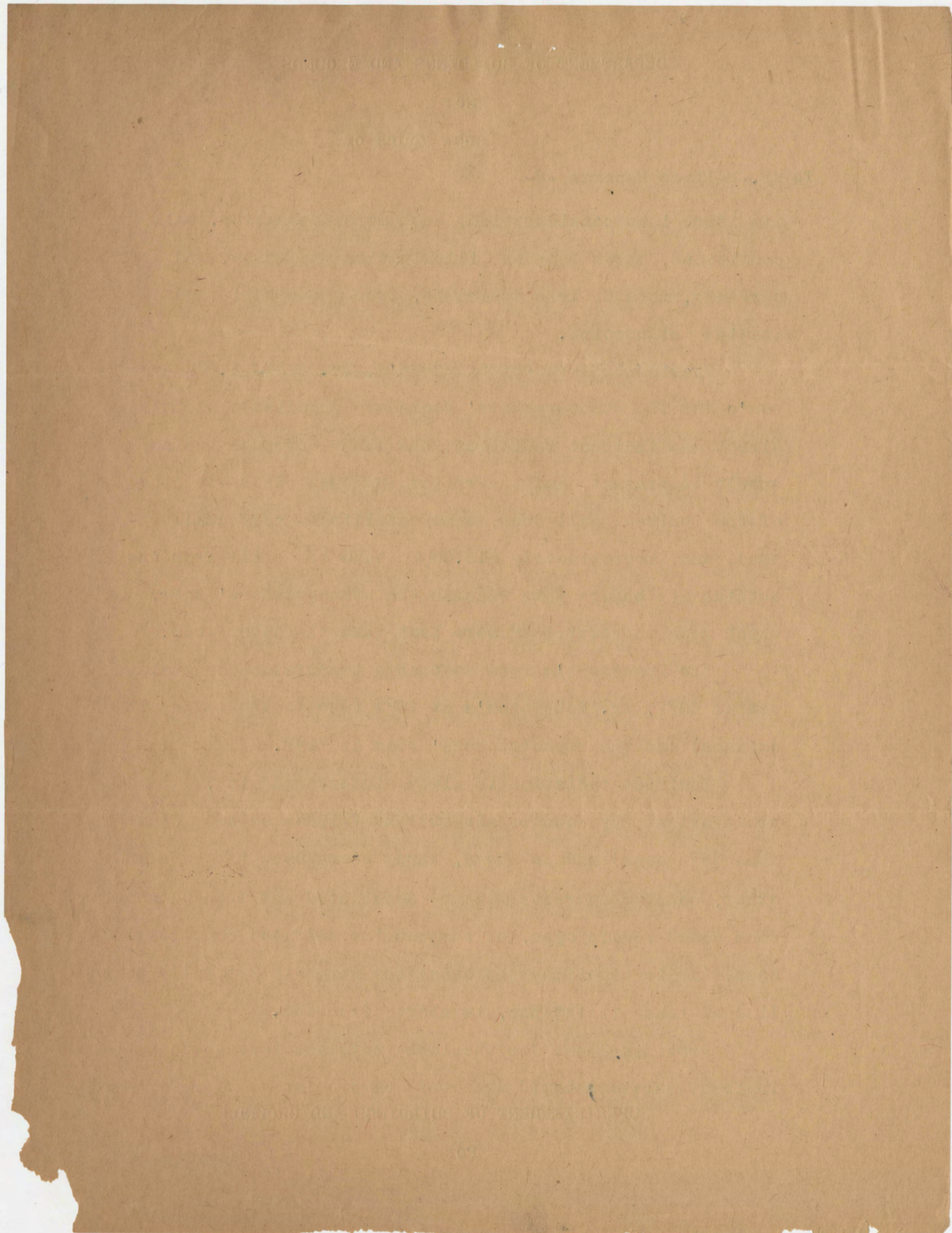
The President's room automatic temperature control is set at 68°F, Mr. Robertson's at 70°F, (due to the large window expanse) and the stenographers' room at 72°F.

Indirect radiation is always interfered with, due to a great extent, by counter air current (window or door openings when left open) and as above, three rooms open into one another, counter currents must be considered and when connecting room doors remain open, or the outside entrance door remains open, (as is sometimes the case) the warm air naturally taking line of least resistance, is short circuited.

Providing heat for the lobby entrance (even though the indirect service) should make this particular problem far more

SUPERINTENDENT OF BUILDINGS AND GROUNDS

Per _____



DEPARTMENT OF BUILDINGS AND GROUNDS

Re:

Ans. yours of

To Mr. Wallace Heckman -3-

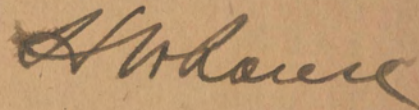
simple) as the three rooms opening into each other, and set at different degrees Fahrenheit are, with great difficulty, kept at different temperatures.

By the above ~~above~~ arrangement, we may be able to set all three rooms at one temperature control, and thus obtain even temperature.

Should the above not prove sufficient (due to the opening and shutting of the outside door of the office lobby entrance) more heat may be supplied by the installation of direct radiation or by the use of a deflector attached to the proposed indirect register in this entrance at very small expense and should solve this problem.

Enclosed please find two-hour readings taken in the above rooms from their control dated December 19th and 20th respectively.

Respectfully,



HWR/HL

SUPERINTENDENT OF BUILDINGS AND GROUNDS

Per _____

THE UNIVERSITY OF CHICAGO

1902

THE UNIVERSITY OF CHICAGO

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THERMOMETER READINGS IN HARPER MEMORIAL LIBRARY.

December 20th.	10 am.	12 n.	2:30 pm.	4:30 pm.
President's Office	68	68	70	69
Mr. Robertson's Office	70	70	71	70
Stenographer's Office	72	70	72	72

December 21st.	8 am.	10 am.	12 n.	2:30 pm.	4:30 pm.
President's Office	68	--	69	69	--
Mr. Robertson's Office.	70	71	70	70	69
Stenographer's Office.	69	72	72	69	71

THURSDAY, DECEMBER 12, 1907

December 12, 1907. 10 am. 11 am. 12 noon. 1 pm. 2 pm. 3 pm. 4 pm. 5 pm. 6 pm. 7 pm. 8 pm. 9 pm. 10 pm. 11 pm. 12 midnight.

December 12, 1907. 10 am. 11 am. 12 noon. 1 pm. 2 pm. 3 pm. 4 pm. 5 pm. 6 pm. 7 pm. 8 pm. 9 pm. 10 pm. 11 pm. 12 midnight.

Copy.

Nov. 27, 1907.

Re: Steam in Harper Library.

To Mr. Wallace Heckman:

Replying to your favor of November 21st regarding the heating system in the Harper Memorial Library building, stating same to be seriously defective.

Referring to the second statement, viz. "The first floor being heated by direct radiation, and the second floor by indirect radiation makes it impossible to reduce the heat on the first floor to a proper temperature". This is not quite the condition, as the major portion of the main floor is indirectly heated and only the ~~exceptions~~ (as shown in list) are supplied with combination radiation directly and indirectly. The situation is this: the indirect radiation on all floors supply heat to an individual room by means of an individual duct from the re-heating chamber and is automatically controlled by means of a thermostat, in each individual and separate room.

As previously stated the classrooms and offices on the main floor of Harper are heated by means of indirect radiation, excepting President Harry Pratt Judson's office (direct and indirect), Mr. David A. Robertson's office (direct and indirect), and the adjoining stenographer's office (direct and indirect).

All of the corridors, stairwells, and vestibules are heated by means of direct service, controlled by individual hand valves.

Some of the rooms on the 2nd floor, the Buildings and Grounds Department was obliged to supply with extra heat (about 1915) through the medium of direct radiation, viz. E-20 and M-28, and at the present time, the writer has in mind Dean Small's office which is badly in need of more heat (now being supplied by indirect service) estimated cost approximately \$95.50 for direct.

The writer takes the liberty of stating that in his mechanical opinion, all rooms on a par and type with those of Harper, should be supplied with both direct and indirect radiation, especially where they have a north frontage, and with such great expanse of windows. However, the construction of Harper is such (concrete walls) that it would be quite an expensive operation to install, in any great number of rooms, direct radiation (after erection of building) as the building is not supplied in many cases with steam risers, and in a number of instances, to supply direct service would necessitate steam risers.

This department received complaint from Harper on the 17th current month, asking that the heat be decreased at certain points on the main floor, but as the temperature outside was 72° it was almost impossible to keep the building at 68° when the temperature outside was higher, unless the entire building were cut off.

The writer has personally in the past instructed Mr. Foss regarding these items, and it is his intention at all times that no one shall complain of excessive heat but rather, if complaint should arise, it would be from lack of heat.

Replying to last paragraph (as to recommendation for correction), each room being a separate unit (as to radiation), there is only one recommendation, namely where great cold is experienced, and said room

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Some of the rooms on the 2nd floor, the Buildings and Grounds Department was obliged to supply with extra heat (about 1915) through the medium of direct radiation, viz. N-20 and N-28, and at the present time, the writer has in mind Dean Small's office which is badly in need of more heat (now being supplied by indirect service) estimated cost approximately \$95.50 for direct.

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This department received complaint from Harper on the 17th current month, asking that the heat be decreased at certain points on the main floor, but as the temperature outside was 72° it was almost impossible to keep the building at 68° when the temperature outside was higher, unless the entire building were cut off.

The writer has personally in the past instructed Mr. Ross regarding these items, and it is his intention at all times that no one shall complain of excessive heat but rather, if complaint should arise, it would be from lack of heat.

Replying to last paragraph (as to recommendation for correction), each room being a separate unit (as to radiation), there is only one recommendation, namely where great cold is experienced, and said room

Copy.

To Mr. Wallace Heckman -2-

has a large north exposure, to install direct radiation. If individual rooms are too warm, the individual room may be cut off. If the entire building is too warm, the entire building can be cut off from the steam main.

SUPERINTENDENT OF BUILDINGS AND GROUNDS

Per (Signed) H. W. Rouse.

Copy.

To Mr. Wallace Heckman -2-

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SUPERINTENDENT OF BUILDINGS AND GROUNDS

Per (Signed) H. W. Rouse.

correctness of all claims which in his judgment should be paid, and keep a record of all such bills and report the same to this Committee, and that Charles L. Hutchinson be appointed said Committee.

That each of said special committees shall report all of their acts to this Committee.

That the Secretary of the Committee on Buildings and Grounds may call a meeting of this Committee at any time when in his judgment it is to the interest of the University so to do. That it shall be the duty of the Secretary to call a meeting of this Committee at any time when he is requested so to do by any member of the Committee.

That it is expected that each of the above-named sub-committees will faithfully perform the duties hereby assigned to each, and that if at any time either of said sub-committees is to be absent from the city, or otherwise engaged so that he cannot perform the duties assigned him, he shall either arrange with some other member of the Committee to perform said duties, or he shall notify the Chairman of this Committee of the fact of his absence or inability to perform said duties, and the Chairman shall arrange with some other member of this Committee to perform said duties, or call a meeting of this Committee to arrange for the duties of said sub-committee to be performed.

Buildings & Grounds

THE SUB-COMMITTEES
OF THE
COMMITTEE ON BUILDINGS AND GROUNDS

WHEREAS, The amount of business necessary to be transacted by the Buildings and Grounds Committee has become so great that for each member of the Committee to investigate all questions so that he can act intelligently would consume more time than the members of the Committee are able to devote to the interests of the University:—

AND WHEREAS, It is believed that by the appointment of special committees, or subdividing the work so that it will lessen the duties of each member of this Committee, better service and better results to the University will be accomplished:

Therefore be it resolved, That a special Committee be appointed to be known as the Committee on Plans and Specifications, whose duty it shall be to examine thoroughly and criticise the plans and specifications for all permanent buildings to be built by the University previous to their being submitted for approval, and that the duties of this Committee shall extend to the letting of the con-

tracts authorized by this Committee for the erection of each building, and generally to the relations of this Committee with the architect, and that Martin A. Ryerson be appointed said Committee.

That a Committee be appointed to be known as the Committee on Construction, whose duty it shall be to look after the buildings during construction; to see that proper material is used; that the plans and specifications are being fully carried out, and that the contractor is performing his work in a good, workmanlike manner, and generally to look after the construction of all permanent buildings, and that E. L. Corthell be appointed said Committee.

That a Committee be appointed to be known as the Committee on Grounds, whose duty it shall be to take care of all of the grounds at the University proper; to look after the paving of the streets, the location and construction of all sewers and sidewalks, the care of trees, the grading and ornamentation and everything connected with the Campus of the University, and that D. L. Shorey be appointed said Committee.

That a Committee be appointed to be known as the Committee on Buildings, whose duty it shall be to look after all matters pertaining to the buildings of the University after the same have been completed by the contractor and turned over to the University to be occupied. That said Committee shall have charge of all janitors, engineers and all other servants of the University, and shall employ,

discharge, discipline and control the same, and shall control and manage all matters of repair connected with the buildings, and that E. B. Felsenthal be appointed said Committee.

That a Committee be appointed to be known as the Committee on Temporary Buildings, whose duty it shall be to look after the construction of all temporary buildings authorized by this Committee; said Committee to make or cause to be made by the architect the plans and specifications for all such buildings, and either to let contracts or to build said buildings by the day, as this Committee may direct; and to said Committee shall be referred all questions of temporary buildings and the temporary heating of buildings, and that F. E. Hineckley be appointed said Committee.

That a Committee be appointed to look after all interests of the University at Morgan Park, including the grounds, buildings, improvements and repairs, and generally everything pertaining to the property of the University at Morgan Park, and that W. B. Brayton be appointed said Committee.

That a Committee be appointed to be known as the Auditing Committee, whose duty it shall be to examine all bills rendered against the University that properly belong to the Committee on Buildings and Grounds, including the estimates of the architect and all other bills for materials or supplies or any purpose connected with the duties of this Committee, and that said Committee shall certify to the