

CITY PLANNING PROJECT-See Page 4.

# NOVEMBER-DECEMBER 1951

IN THIS ISSUE:								
A CITY REPLANNE	D				•	PAC	GE FC	OUR
*MINNESOTA CODE	OF	ETHI	CS			PAG	E EI	GHT
HOTEL DESIGN	•					PAGE	TWE	LVE
THE SKY LINE			•		. P.	AGE FC	URT	EEN
STRUCTURAL TILE	FIRE	PROC	DFINC	3	•	PAGE 1		NTY
F. Y. I				. PA	GE		ry-fo	DUR
VOLUME XV						NUM	BER	SIX
	IN THIS ISSUE: A CITY REPLANNE MINNESOTA CODE HOTEL DESIGN THE SKY LINE STRUCTURAL TILE F.Y.I.	IN THIS ISSUE: A CITY REPLANNED MINNESOTA CODE OF HOTEL DESIGN THE SKY LINE STRUCTURAL TILE FIRE F.Y. I.	IN THIS ISSUE: A CITY REPLANNED . *MINNESOTA CODE OF ETHIC HOTEL DESIGN THE SKY LINE STRUCTURAL TILE FIREPROC F. Y. I VOLUME XV	IN THIS ISSUE: A CITY REPLANNED *MINNESOTA CODE OF ETHICS HOTEL DESIGN THE SKY LINE STRUCTURAL TILE FIREPROOFING F.Y. I VOLUME XV	IN THIS ISSUE: A CITY REPLANNED	IN THIS ISSUE: A CITY REPLANNED	IN THIS ISSUE: A CITY REPLANNED PAC *MINNESOTA CODE OF ETHICS . PAGE HOTEL DESIGN PAGE THE SKY LINE PAGE FO STRUCTURAL TILE FIREPROOFING . PAGE T F.Y. I PAGE TWENT VOLUME XV NUM	IN THIS ISSUE: A CITY REPLANNED PAGE FO MINNESOTA CODE OF ETHICS . PAGE EN HOTEL DESIGN PAGE TWEE THE SKY LINE PAGE FOURT STRUCTURAL TILE FIREPROOFING . PAGE TWENTY-FO VOLUME XV NUMBER

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# A home that says: "Come In!"...

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# NORTHWEST ARCHITECT

Official Publication Minnesota Society of Architects E. RICHARD CONE, ST. PAUL, President

# WHERE There's FIRE There's SMOKE

**P**EOPLE READ the warnings, then they say, "you just watch out for fire why, 6,500 persons were burned to death in buildings only the past year and that is a lot of men, women and children. That's twenty every day." Now such statements are more dangerous than a house on fire, because they make for false security. True enough 6,500 persons did lose their lives in burning buildings last year but only a few of these people suffered burns, at least while still alive. Some were killed in leaps from windows, MOST OF THEM DIED OF ASPHYXIATION.

SAVING ONESELF from the FIRE in a burning building usually offers a choice of escapes and the warnings are likely to be heard long before the actual fire is upon you. But SMOKE AND FUMES give few warnings. They quickly reach areas remote from the blaze. There is little protection possible in the halls or out the windows. Two or three gasps of "air" sapped of oxygen which you didn't realize was also loaded with hot gas you couldn't even see and you are past help from conventional safety measures. The warnings read, "DECIDE WHAT YOU WILL DO IN CASE OF FIRE." "THIS WAY TO THE FIRE ESCAPE." "FIRE DOOR." "HOSE AND AXE FOR FIRE ONLY," but what such signs TELL you is misleading; "FUMES," "SMOKE" should be the telling word.

**F** OR EFFECTIVE PROTECTION ask yourself "what could I do if that hall were filled with hot GAS and more of the same pouring up past this window." And for the best insurance ask your city building authority to demand doors against up-flow of gas fumes.

W. G. Purcell

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ARCHITECT

3

# A CITY REPLANNED:



This is an oblique view of the project model which also is our cover picture.

Acting on the principle that all students in the last year of Architectural Design at the University of Minnesota should have the experience of a planning problem on a relatively large scale, the staff for the senior students presented the problem illustrated here.

The critics responsible for the program and its progress were Professor Robert T. Jones, Professor Robert Cerny and Norman Nagle. The problem consisted of the following conditions: an area near the downtown or loop area of Minneapolis, bounded by Franklin Avenue on the south, Chicago and 8th Avenue on the west, 5th Street on the north and the rail-

As a change of pace in our presentation of outstanding student theses submitted to the University of Minnesota School of Architecture as a senior requirement, we are privileged this issue to have a city planning project discussion. The introductory portion of this has been written for us by Norman Nagle of the school's staff, to whom and to the other members of the architectural staff we give our thanks for this material.

# Loopside Area Of Minneapolis Is Basis For University Group Planning Project

road tracks to the east, was selected for re-development.

This area had a total population of some 8,830 persons and was composed mainly of tenement and lowpaying or tax-delinquent properties. The average value of the land as a result of over-crowding under the present system of housing and the encroachment of industry and railroads has brought the price per square foot down to an over-all average of about 17 cents. There were no buildings of real value with the exception of a large spinning mill and one or two hospitals.

After the area was indicated to the students they were divided into teams of four or five each and the resulting four teams began research on the project. Their research covered population studies, i.e., professions, age groups, religious affiliations, etc. They also



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The five standard mixes in the table below have been fully approved by the Perlite Institute and its Technical Committee for Concrete. Architects desiring a certain"K" factor, can determine from the chart what wet density, as poured, will develop the desired insulation value. The contractor can determine exactly how much cement, perlite, gallons of water and air entraining agent must be purchased for each cubic yard of placed concrete. The designer may know in advance what the weight of the dry concrete will be and what its compressive strength will be.

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walls—partition or wall masonry units—roof decks on short spans between steel joists, then Johnston Perlite Lightweight concrete has the quick drying characteristics, lightweight, and high insulating values which are obviously desirable.

*DR Pl	Y CONCR	ETE	MIX PROPORTIONS BY VOLUME MATERIAL CU. YARD						3Y VOLUME MATERIALS REQUIRED FOR ONE CU. YARD OF PLACED CONCRET			
Density (Lbs/cu. ft. Oven Dry)	Com- pressive Strength (psi at 28 days)	Thermal Conduc- tivity "k"	Cement (Sacks)	Perlite (cu. ft.)	Water (Gal. per Sack Cement)	Air Entrain- ing Agent (Pints)	* Wet Density as Poured (Lbs./cu. ft.)	Cement (Sacks)	Perlite (cu. ft.)	Water (Gals.)	Air Entrain- ing Agent (Pints)	
35	490	.93	1	4	9	1	49	6.50	26	581/2	61/2	
29	280	.77	1	5	11	11/4	421/2	5.20	26	57	61/2	
26	220	.70	1	6	13	11/2	40	4.33	26	561/2	61/2	
231/2	160	.65	1	7	15	13/4	38	3.70	26	56	61/2	
211/2	125	.62	1	8	17	2	37	3.25	26	55	61/2	

TYPICAL MIX DESIGNS

\*Based on average aggregate density of 8.0/cu. ft. Strength data based on ASTM Type I Portland cement. For higher early strength, use ASTM Type III Portland cement.

Other desired properties of strength, insulation and density may be obtained by varying proportion of cement, air entrainment, or addition of supplementary aggregates.

For best results, use the following mixing procedure:

- 1. Put required amount of water and Johnston Air Entraining Agent in mixer.
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- 3. Add perlite aggregate and mix until desired workability is obtained—usually about 2 minutes.

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8



included studies on traffic, existence of utilities, size and number of schools, total land value, total tax rate and the existing zoning and projected zoning ordinances. After this material was gathered the students were in a position to begin the work of rehabilitating the area in a planning sense.

It became obvious to the students that no project of this size could be accomplished without replacing on the land sufficient numbers of people to support it by taxes at a higher level than the level at which it presently exists. It also became obvious that to raze the area in its entirety would not be economically feasible. For this reason certain industries were allowed to remain. The hospital group was utilized and sufficient small industries were introduced between the railroad right of way and the new boulevard to provide employment and tax capital for the development.

With this general program resulting from their research the student teams began the actual replanning of the area. The illustration included in this article is one of the solutions submitted by a student team. It is apparent from the illustration how the industries have utilized the area between the railroad and the new proposed through-way. At the north end of the site is the hospital group, which uses one of the existing hospitals in the area as a starting point and was developed into a medical center for the Twin Cities.

Immediately south of the medical center is an area that once was Elliot Park. Because this park was surrounded by three heavily traveled thoroughfares the students felt it should be abandoned as a park site and used for high density living. In this solution they have indicated an apartment hotel which would serve visitors to the hospital group and would also be adjacent and convenient to the loop. The park, which could not be abandoned completely, was moved to the area southeast of the hospital group.

Along the through-way and to the west of the small industry strip they elected to place multiple dwelling units which would act as a buffer for the smaller row houses and neighborhood behind. The remaining southeast section of the site was devoted to neighborhood units. Throughout the problem the students attempted

# Sectional introductory page (left) gives idea of presentation by the student groups.

to maintain the best social values of our present culture. All living units are arranged or placed so that they do not look directly into their neighbors' quarters and have yards provided. The streets are arranged so the students can walk to school (in this case in the center of the site) and/or to the shopping center without crossing a major street. On the basis of population and income the shopping center was designed which included the facilities required to support a neighborhood of this size. Also included were churches and a central commons which would serve as a teen age and adult recreation area.

Throughout the work on this problem the students were assisted and advised by Herman Olson, chairman of the City Planning Commission, and they also received great help from the various city departments having knowledge or facts concerning the area.

In general the area was redesigned in order to make it liveable and able to support itself. We feel that the problem indicated the type of solution which though





ideal in concept is in the last analysis completely practical as a means of saving our cities.

(The following excerpts from the several plan discussions of the teams give a cross sectional idea of how the problems involved were approached and solved.)

### The Economics of Redevelopment

The goals of the committee on economic research were necessarily limited. It has been assumed that the broader economic conditions of the proposed redevelopment will be satisfied. We have not concerned ourselves, for instance, with the ability of the city to pay for the project, the local economic health, labor markets,

(Continued on Page 28)



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# CIRCULAR OF INFORMATION ON ARCHITECTURAL PRACTICE

# Including Code of Ethics, Services and Recommended Minimum Fees for Minnesota Architects

Prepared by The Minnesota Society of Architects, State Association Member of the American Institute of Architects, Comprising the Duluth, Minneapolis,

Minnesota and St. Paul Chapters, A.I.A.

### STATEMENT OF PURPOSE

This circular on Architectural Practice has been prepared in the interest of the Public, Individual Owners and Architects to establish a better understanding of the Architect's services, their necessity and value to the Owner, and of the fees which it is necessary to charge in order to perform such services in a manner which will result in satisfaction to the Owner and a legitimate compensation to the Architect.

The Profession of Architecture calls for men of high integrity, business capacity, technical and artistic ability. The Architect is entrusted with financial undertakings in which his honesty of purpose must be above suspicion; he is charged with the exercise of judicial functions as between client and contractor and must act with entire impartiality; he has moral responsibilities to his profession, associates and employees; he must not knowingly compete with a fellow architect on a basis of professional charges; further, he is engaged in a profession which carries with it grave responsibility to the public, therefore,

The Minnesota Society of Architects, a State Association Member of the American Institute of Architects and the Duluth, Minneapolis, Minnesota, and St. Paul Chapters of the A.I.A., seeking to maintain that high standard of practice and conduct, have set up the following principles of practice, including a schedule of recommended basic minimium fees.

These fees are not intended to be mandatory, but merely to indicate charges which are generally considered by the profession to be reasonably adequate under normal conditions, and which will enable the Architect to perform the services and maintain the standards herein set forth in a manner which will best serve the interest of the public, owner and architect.

### DIVISION I

### ARCHITECTURAL REGISTRATION AND CODE OF ETHICS Section 1

### Architectural Registration

In 1921 the legislature of the State of Minnesota, recognizing the necessity of safeguarding life, health and property and of promoting the public welfare, passed a law requiring that any person in either public or private capacity practicing or offering to practice Architecture, Engineering or Land Surveying in Minnesota shall be registered. The original law was subsequently amended in 1933, 1945 and 1949. No one can legally use the title "Architect" in Minnesota unless he is registered as such through the State Board of Registration. If an applicant for registration as an Architect passes the prescribed examinations he is registered only after subscribing to the following Code of Ethics which is quoted from the rules of the Minnesota State Board of Registration for Architects, Engineers and Land Surveyors:

### Section 2

### Code of Ethics

"Technical work based upon the professional practice of Architects, Engineers and Land Surveyors has become an increasingly important factor in the progress of civilization and in the welfare of the community. These professions are held responsible for the planning, construction and operation of such work, and are entitled to the position and authority which will enable them to discharge this responsibility and to render effective service to humanity.

"That the dignity of his chosen profession may be maintained and that his obligation and responsibility to the public be impressed upon the applicant, it is required before registration is granted that each applicant subscribe to and agree to exemplify the following Code of Ethics:

"a. To maintain interest in the public welfare and be ready to apply his special knowledge, skill and training for the use and benefit of mankind.

"b. To refrain from associating himself with, or allowing the use of his name in connection with, any enterprise of questionable character.

"c. To carry on his professional work in a spirit of fairness to all concerned, fidelity to clients and employers, loyalty to his country, and to be devoted to high ideals of courtesy and personal honor.

"d. To regard as confidential any information obtained by him as to the business affairs and technical methods or processes of a client or employer.

"e. To discourage consulting practice by manufacturers and contractors, and endeavor to have all architectural or engineering plans, other documents, surveys and plats signed by the Architect, Engineer, or Land Surveyor directly responsible for them.

"f. To inform a clicht or employer of any business connections, interests, or affiliations which might influence his judgment or impair the disinterested quality of his services.

"g. To accept financial or other compensation for a particular service from one source only.

"h. To advertise only in a manner supporting the dignity of his profession.

"i. To refrain from submitting competitive bids for pro-





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Residence of Architect DONALD S. HAARSTICK 204 W. Minnesota Avenue, St. Paul, Minnesota

Pella Casements . . .



fessional services or using other improper or questionable methods of soliciting professional work.

"j. To avoid using unfair means to win professional advancement or to injure the opportunities of another to secure or retain employment.

"k. To confine his professional service to the profession or division thereof in which he is registered.

"1. To refrain from associationg in a partnership, with a person not professionally qualified, and to refrain from lending his name or seal for the approval of plans or other documents for the preparation of which he was not directly responsible.

"m. To refrain from using the advantages of a salaried position to compete unfairly with other Architects, Engineers, or Land Surveyors.

"n. To cooperate freely with architectural and engineering agencies in advancing the architectural and engineering professions."

### Section 3

### Signature on Drawings

To even better safeguard and protect the Public and Individual Owner, it is made mandatory (Section 326.12, Subd. 3, M.S. 1945) that all documents required by the law to be prepared or supervised by a registered architect (plans, specifications, plats, etc.) shall have a certification and signature incorporated in them. The certification reads as follows:

"I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Architect under the laws of the State of Minnesota.

Name Dated...... Reg. No.....

This certification should be looked for and demanded by

an Owner in order to protect both himself and the public and as evidence that the man he has employed to render architectural services is a Registered Architect. Should that Architect also be a member of the A.I.A. it would be further proof of the competency of that Architect as such membership is evidence of the recognition of his competency by his fellow practitioners.

### DIVISION II SELECTION OF AN ARCHITECT

### Section 1

### Functions of An Architect

No building can be built without plans and the more studied and better the plans, the better and less costly will be the building. Proper planning requires skillful study of the utilitarian aspects of the business, industry or activity to be housed so that all parts of the building may be properly proportioned, arranged and co-ordinated to permit and promote the most convenient and full use of same and the elimination of unusable and unnecessary space and construction. To do this properly is the principal function of the Architect; it is an essential feature of his professional training and experience.

### Section 2

### Qualifications of An Architect

The Architect must be experienced and skilled in the many phases of his profession including the planning and layout of buildings for specific purposes; the selection of materials and methods that will give proper and most economical service for the period and purpose for which they are intended; the combining of functional and aesthetic requirements with a proper economic understanding and judgment; the co-ordination of architectural, structural and mechanical engineering requirements; the knowledge of laws, regulations and restrictions affecting the construction and of matters safeguarding the Owner from loss through accident, fire or other hazards by means of proper insurance, guarantees and bonds; in the obtaining of competent and experienced builders either through direct selection or competitive bidding; in preparation of construction contracts; the inspection, selection and approval of materials, methods and equipment; and in supervision of construction, including the keeping of construction records and

accounts and the issuance of orders for changes and certificates of payment for work performed by the contractors.

The total cost of complete architectural service amounts to only a small per cent of the total cost of the construction. It is evident that the services of a qualified man can and does pay for itself from economies effected in the planning alone and again from operational and investment value to the Owner of a well planned building. As agent for the Owner during the selection of contractors and in the supervision of the work, the value of the Architect's services is invaluable. It is, therefore, obvious that it is poor economy for an Owner to request or for an Architect to offer less than full and complete architectural service, since the saving of a fraction of or even the total fee can be discounted at once by the slightest increase in cost of construction due to less studied planning or other factors resulting from a deletion or reduction of any of the Architect's services.

The interests of the Owner and Architect may, therefore, be summarized as follows:

a. The *Owner* expects and is entitled to the most that he can buy with his building dollar. This is represented to him by the sum of all construction costs plus the cost of architectural services. Both of these are dependent largely on the skill and experience of his Architect.

b. The *Architect*, in performing his services in the best interests of the Owner, expects and is entitled to just and reasonable compensation therefor. This compensation must be sufficient to defray the Architect's production and operating costs and provide a fair remuneration for his own time, efforts and skill.

### Section 3

### Methods of Selecting An Architect

Architects may be selected by one of the following methods: a. *Direct Selection* is intended to mean that the Owner, after careful inquiry and consideration, makes his own selection on the basis of competence and experience.

b. Selection on the Basis of Professional Qualifications is intended to mean that the Owner with the assistance of an Architectural Professional Adviser, selects the Architect from a panel of Architects without resort to competitive drawings.

c. Selection on the Basis of Drawings in Competition. A competition exists when two or more Architects prepare sketches at the same time for the same project. Competitions should not be conducted or entered into except according to the current documents on Competitions of the A.I.A.

### DIVISION III ARCHITECTURAL SERVICES

The Architect's professional services may be divided into three parts, viz.: (1) preliminary services, (2) working drawings and specifications, (3) taking bids, supervision and administration of the work. These divisions may be enlarged upon as follows:

### Section 1

### Preliminary Services-These consist of :

a. Necessary conferences with the Owner sufficient to determine and outline the essential features and requirements of the problem.

b. Study of the site and surrounding area and any structures having any relation to or effect upon the problem. This includes the inspection of site, the study of survey and report of sub-surface conditions; investigation of utilities, laws, codes, etc., and conferences with jurisdictional agencies where necessary.

c. Preparation of preliminary sketches outlining a satisfactory solution of the problem sufficient to give an over-all idea of arrangement and cost; further discussion with the Owner and revision of sketches as may be required to satisfactorily meet the requirements as to cost and arrangement.

d. Development of preliminary plans, elevations and sections at a scale to show clearly the intent in arrangement and general design and to permit obtaining cubage within a reasonable percentage of the final drawings.

e. Writing outline specification clearly stating the type of construction and general nature of materials to be used and including description of general structural and mechanical design with equipment. This information in conjunction with

(Continued on Page 34)

and the states



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he fire damaged building shown was framed with Stran-Steel. The floor system with steel joists and corrugated steel decking stopped the fire and prevented its sweeping upward through walls and ceilings. After this fire a coat of paint was the only repair the Stran-Steel frame required. Stran-Steel construction has an excellent fire protection rating, and can command a low insurance rate.

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ARCHITECT

# Hotel Design . . .



A forward looking step in hotel design was accomplished this year with the completion of the 86-room "motelized" Hotel Mead in Wisconsin Rapids, Wis.

The hotel was designed and built by the engineering staff of Consolidated Water Power and Paper Company, with Donn Haugen as consulting architect. The \$750,000 structure was specifically designed for the majority of accommodation seekers coming to Wisconsin Rapids, the heart of the paper industry. Salesmen and engineers who call on paper manufacturing plants in the area come mostly by car. It was for them that the drive-to-your-room feature was planned.

Here's how it works. A canopied driveway leads to the main entrance. This entry is used only when a guest registers or checks out. After registering the guest drives into the 84-car parking lot in the rear and parks by the one door of three which is nearest his room. It's always just a few feet to the door and only a few steps more to his room.

Hotel Manager Edward P. Kurtz predicts the motelized hotel is the coming thing in the hotel industry.

"It's the hotels' answer to the motels," he says. "The Mead has all the features of a hotel, except bellboys, and yet it has motel convenience. Guests can drive to their rooms and don't have to encounter the bellboy's palm. Yet, if they want any particular service, we can give it to them. The hotel is in a quiet residential district but within easy walking distance from downtown. Guests save parking fees, too.

"Hotel Mead has all the hotel comforts—telephones in every room and a central switchboard, a comfortable lobby, a cocktail lounge and a restaurant that is considered the best in town.

"Maintenance is light at the Mead, too. The automatic heating system needs no engineer. There are only two stories, so we don't need elevators or elevator operators. We don't have to hire bellboys or a doorman. The only thing to such a long, low structure that's

# ... Adapts Useable Features of Motels Without Sacrificing Hotel's Comforts

on the minus ledger is the added cost of landscaping the wide front expanse."

The two-story, 335-foot long Hotel Mead is functionally and economically planned, in terms of original investment, upkeep and daily charges to the traveler.

Cost-per-room was \$8,700, moderate for the facilities included. Of the 86 rooms, eight have a double and a single bed, 28 have a double bed and the rest have twin beds. Eight pairs of rooms can be joined by double interconnecting doors. The majority of rooms are 11 feet by 17 feet 8 inches. All rooms have complete baths and they are all outside rooms. In keeping with modern hotel design, the Mead has a small lobby. The lobby, cocktail lounge and dining room are all liveably modern and flexible.

Construction of the building was planned with economy in mind. Four loadbearing walls of 12 inch cinder block along the length of the hotel support the structure over concrete footings, with expanded steel joists supporting the second floor and roof. The exterior is a veneer of Ohio brick. The two block walls running through the center form the corridor on each floor, off which all rooms branch. Cores of the blocks in the outside walls are filled with vermiculite for insulation.

Eight-inch cinder blocks are used in room partitions. The halls are left with the cinder block finish, painted (Continued on Page 30)



Mr. Lewis Mumford architectural critic and author, wholeheartedly confirmed our recent disapproval of the new UNITED NATIONS BUILDINGS in New York City.

# YOU HAVE READ the first of his two pieces in the "New Yorker" in the last issue of NORTHWEST ARCHITECT.

# WE GIVE YOU now the second and final chapter.

The Sky Line

### MAGIC WITH MIRRORS-II

### by Lewis Mumford

Reprinted by permission Copyright, 1951, The New Yorker Magazine, Incorporated

Viewed from without, the thirty-nine-story United Nations Secretariat Building, whose east and west fronts form oblong green mirrors, is the glass of present-day fashion. But, once inside it, one discovers that it can make no claim whatever to being the future mold of form. So far from being the model office building it might have been, a light and a lesson to all builders, it is really a very conventional job, and the mistakes in conceiving and planning have unfortunate results upon the comfort and routine of the people who work there. To paraphrase General Bradley, this is the wrong sort of building, in the wrong place, facing in the wrong direction, for the wrong purposes.

The interior has, however, certain striking and even ingratiating features. One arrives at the main lobby, reached from the west, by a semicircular driveway or the walk that parallels it. Though full-grown trees have been planted about the plaza in which these approaches are set, the only object that actually helps to give the structure scale is the mediocre little leftover building to the southwest, built for the New York City Housing Authority and now the United Nations library. By placing the tall and narrow Secretariat parallel to the East River, the architects have included in the vista for all who approach the building from the west the jeering, jangling hulk of the plant that ventilates the Queens Midtown Tunnel and the towering chimneys of the Edison works, farther to the south. (From the entrance of the General Assembly Building, under construction immediately to the north, this industrial area will be even more prominent.) As one passes a side entrance, one gets a pleasing glimpse of the East River through windows that reach from floor to ceiling on the east and west sides of the building. This entrance is, by the way, the logical place for the visitor to enter the building, for the Information Desk has been placed here. The main entrance is marked on the outside by a curving marble bay and an irregularly curved alumiunm marquee that, alas, recall the "modernique" of the Paris Exposition of 1925. The absence of fine sense or scale here is conspicuous, for the entrance, only one story high, is crushed into insignificance.

On the inside, the ceiling, low enough as it is, seems much lower because of the length of the lobby. The interior walls and columns parallel to the east and west green glass façades are faced with green marble. Those parallel to the north and south façades, which are unbroken surfaces of mottled white marble, are faced with the white marble. The floor, which is made up of large squares of black and white terrazzo, calls attention to itself too emphatically. The happiest feature of the lobby, humanly speaking, is the long bench at the south end. This should be a convenient place—like the information desk at Grand Central—for meeting people. The lack of such a feature is a weakness in most office-building design. (Someday, perhaps, this bench will be turned to face the splendid East River view.) Otherwise, the interior is in the frigid, impeccable taste that is the modern equivalent of what the architectural bureaucrats in Washington seek when they invoke the classic. If you like the Mellon Gallery interior, you should like the Secretariat interior, even if its proportions are not so noble.

The lobby, the first of five floors devoted partly or wholly to the social functions of the building, is connected by escalators and elevators with an underground garage and passagesone of which leads to Forty-second Street-as well as with the bank, the post office, the health clinic, the press center, and the temporary cafeteria. (As soon as the Conference Building is finished, the cafeteria will be shifted to its summit.) At the top of the Secretariat is the Secretary-General's floor, which is carpeted and includes a small but commodious apartment for the Secretary-General and rooms for the President of the Assembly. If the decoration of the interior is without a notable dash or elegance, it is also inoffensive. In general, the color scheme of the working floors is gray-light-gray walls, dark-gray floors-relieved only by the blue of the doors, the sky blue of the United Nations flag. This, incidentally, is just about the only sympbolic indication in the whole building that it has anything to do with the United Nations.

The plan of the working quarters is simple. The elevators, at the center of the building, open on corridors, one on each floor, that run north and south. Since the windows are continuous along the two glass façades, the office space can be arranged and rearranged, when that is necessary, without the interference of external columns; at the moment, the smallest cubicle is two windows wide, Yet even the lucky executives with an ample office at one corner of the structure cannot have the luxury of cross-ventilation, because of the blank north and south outer walls.

The problem of making such a building livable as well as comely was a tremendous one. Let us consider first the matter of orientation. The Secretariat's long axis runs north and south. If the building had been turned so that it was parallel to Forty-second Street, it would not merely have blocked out, for those approaching the General Assembly Building, the unkempt industrial district I have referred to but would have shielded the Secretariat's occupants from our intolerable summer sun, which can turn the completely exposed rooms on the east and west fronts into big Dutch ovens unless the Venetian blinds are drawn and the air-conditioning system is working full blast. Furthermore, the build-



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ing could, like the Conference Building, have jutted out over Franklin D. Roosevelt Drive. It would then have been conspicuously visible for great distances north and south, especially when it was lighted up at night.

The engineers concerned estimate that the present orientation of this narrow building, because of this exposure to the sun during the summer, puts a load on the cooling system that raises the operating cost two and a half per cent. The human cost is greater; many of the occupants a e compelled to work a good part of the day under artificial light behind their drawn Venetian blinds. Thus it is sadly necessary to remove the view the walls of glass were designed to reveal and to cut off the sunlight they were designed to admit. Even when the summer heat presents no problem, there is no possibility of natural ventilation or a pleasant natural light to work in, despite the vast amount of window space. Only overhead light, of course, is really important in an office; a window ending four or even four and a half feet above the floor would give proper light, and could be opened in summer to admit a breeze without sweeping unanchored papers off the desk. A combination of such a window and ventilating louvers at floor level, would probably provide a superior system of ventilation. Why no one has tried this in office buildings (it has been successfully used in houses) is one of the mysteries of an age that boasts of its capacity for experiment.

The result of misorienting the Secretariat and using glass so exuberantly is to create a building that functionally is often windowless on all four sides. On this matter, the architectural historian, Professor Henry Russell Hitchcock, seems to me to have said the last word. "The most significant influence of the Secretariat," he recently observed, "will, I imagine, be to end the use of glass walls in skyscrapers-certainly in those with western exposures, unless exterior elements are provided to keep the sun off the glass." In this sense, Mir Joseph Paxton's dream of an all-glass building, which grew out of his experiences as a gardener, has been reduced to absurdity in the Secretariat. The desire for sunlight is sound, for direct sunlight kills bacteria and increases the amount of Vitamin D in the body. Perhaps a window mounted on vertical pivots, so that it could admit sun and air yet be turned so that no capricious wind could disturb a man's desk, is the answer. Lacking such a contrivance, the all-glass wall is an architectural folly, costly in both money and human comfort.

The standard floor of the Secretariat contains offices of various sizes. Because of the shallowness of the building (no point in the interior is very far from the windows, except on the blind ends of the building), this seems an admirable arrangement. Unfortunately, it produces far from ideal working conditions for the secretaries, who occupy the interior offices, where the only daylight is what seeps through the semi-opaque glass partitions that separate the outer rooms from the inner ones. New York's tenements of the eighteenfities had exactly the same kind of partition, a pitiful effort to atone for the fact that no daylight or ventilation was provided for he inner bedrooms. To see this symbolic substitute for light and air reappearing in a building that prides itself on its aesthetic modernity is like seeing Typhoid Mary pose as a health inspector. By opening up the blind walls and by moving some of the lavatories that are unaccountably on the perimeter to the interior, the designers could have given a certain number of the secretaries decent exterior working quarters instead of the stuffy interior chambers they occupy.

In choosing to house the Secretariat in a single monumental skyscraper, the architects forgot more than the important matter of maintaining the health and good temper of the secretaries. They forgot the necessity of maintaining an esprit de corps in such an organization by means of friendly and professinoal contact between people in related departments. At Lake Success, the United Nations personnel were housed in horizontal quarters and they went about the lów building under their own steam. Sometimes they complained about the pedestrian distances, but they had only to be installed in the skyscraper to realize what an advantage horizontal circulation is in promoting accidental as well as planned meetings and conversations. Elevator transportation does not favor this kind of intercourse, and a large cafeteria for mass feeding does not favor it, either. You would not guess, from the plan and fitments of this building, that during the last twenty years a much higher regard for the welfare of the personnel had been making its way even into hardboiled business organizations, and that to further efficiency, if not sociability, little breaks in the day have everywhere become common. A big insurance corporation in New York has actually encouraged the British habit of "elevenses." It is astonishing to find that the only provision for this kind of refreshment in the Secretariat is the cafeteria. How pleasant it would have been if the architects had at least provided a solarium on every other floor or so for the relaxed serving of coffee, tea, and iced drinks. Such rooms would have given people a destination when they wanted to stretch their legs, which is almost essential for workers as dependent upon human contact and stimulus as the international staff in the Secretariat.

The Secretariat has been presented to the world as a building built about human needs, but that pious profession should bring a blush to the architectural ears of Mr. Pecksniff. Humanly considered, the Secretariat Building is as obsolte as iron dumbbells. The skyscraper form was conceived in Chicago, in the eighties, as a means of making the land in the Loop more valuable by increasing the amount of office space that could be piled on it, and it was not long afterward that the tall towers began to serve a secondary function of publicity and advertisement. At no point in the evolution of the skyscraper was the efficient dispatch of business under conditions that maintained health and working capacity the controlling element in the design. Given a magnificent opportunity to break completely away from the stereotypes of narrow-gauge business standards, the architects of the United Nations Secretariat could do no better than perpetuate an outmoded form, save for a few structural innovations that merely decrease its usefulness.

I am aware that I am putting in a minority report on the Secretariat Building. But those who praise it without severe

reservations do modern architecture a disservice by judging it mainly on its superficial elegance. A building to house an international personnel devoted to bringing about world cooperation and world peace should be more than a slick mechanical job-and, as I have said, even the mechanical details of this structure are sometimes far from slick. Such a building should, by its zealous attention to human functions and human needs, itself symbolize the great purposes it serves. It should give at least a preliminary glimpse of the new world, the world in which human considerations will be uppermost and will set the mold for all our organizations and institutions. It should be both a visual and an operational symbol, and its beauty should arise out of the due fulfillment of all its functions, graded in the order of their human importance. That is almost the last merit one could impute to the new United Nations Secretariat Building.

-LEWIS MUMFORD

### PHILIPPINE MAHOGANY AGAIN SHIPPED IN QUANTITY

Philippine mahogany in a wide range of finished lumber is again being shipped to the United States in pre-war quantities, it has been announced by Henry S. Thompson, president of the Insular Lumber Co., Philadelphia. Insular, whose plant facilities have been restored after war devastation, is reported to be the only mill in the Philippines capable of shipping kiln dried, finished island hardwoods in quantity.

Dark and light red Philippine mahogany are available in beveled and V-type exterior siding, interior wall paneling and a variety of moulding patterns for interior trim, the company reports.



# Minnesotans Seek To Shake Loose Laggard Building Backing

Faced with the serious fact that less than 10 per cent of Minnesota's 1952 non-defense building projects have been okehed for critical materials by the federal government, some 400 of the state's architects and builders met in Minneapolis, December 4, to take definite action toward breaking the log jam.

As a result the group passed three resolutions—(1) asking Governor C. Elmer Anderson to select a small committee from among state agencies and the construction industry as his advisory group, (2) requesting the state's congressional delegation to unite in obtaining more defense aid for the state and (3) asking Dean Schweickhard, who will represent the state at a governors' conference with federal officials in Washington in December, to forcefully present Minnesota's needs.

The status of the Minnesota building projects was determined by a survey made by the state's architects and engineers, results of which were announced before the meeting by E. Richard Cone, of St. Paul, president of the Minnesota Society of Architects. There are more than \$100,000,000 worth of large building projects slated for construction during the year. Of these onethird have had applications for allotments filed already and only one-third of these have been approved. This situation hamstrings construction, industry leaders said, and threatens the industry with one of its greatest crises in the coming seasons. Many of the industry's 120,000 employes also face layoff as construction comes to a halt because of non-availability of materials.

Minnesota was reported as second to the last among the states in obtaining defense aids in money grants, it was said. The only other state lower is North Dakota, which has none at all.

A. R. Shiely, representing the four Minnesota builders' exchanges, told the more than 400 industry leaders present that supply firms are bewildered as to what they will be able to do with stocks of non-critical buildings materials intended for projects which will not be built if action is not forthcoming soon. Similarly, building supply dealers and others are harrassed with a \$250,000,000 warehouse investment involved in these projects, according to Theodore R. Hidding, representing the Producers' Council.

That this crisis is part of a "long-range decline of the Northwest," was pointed out by a member of the state's

congressional delegation, Rep. Eugene McCarthy of St. Paul. He said that Minnesota's low defense project allotment figure is not due to any favoritism among states but is because the Northwest lacks cheap power and is too far from transportation centers.

"We are faced with a long-range decline and the only way to check it is for our capitalists to promote the things in which we excel—chiefly our superior skilled labor," he told the conference.

Senator Edward Thye, promising his complete assistance in Washington's fight to ease allotments for non-defense projects, called on the industry to put forth a united effort to get more defense dollars channeled to Minnesota.

Other speakers in the industry and in government castigated the mess of red tape which hampers the building industry, called for more grassroots' pressure on the federal agencies to clear away this red tape and make work easier, warned of the crisis's effects on our road and other facilities and expressed doubt as to status of many important building projects now at the about-to-be-built stage.

### ACTIVITIES OF THE WOMEN'S GROUP

On December 14 the Women's Group of the Minneapolis Chapter of the American Institute of Architects launched its new project as sponsors of the nursing school of the Minneapolis General Hospital with a Christmas tea at Harrington Hall Nurses Home. This affair was such a social success that the women may make it an annual undertaking. Miss Georgia Nobles is superintendent of nurses.

After January 1 the Women's Group expects to go ahead with various phases of their new project, among which will be the directing of students who wish to try out and take part in plays coached by Mr. Fred W. Hilgendorf, long active in little theater work in Minneapolis. Also the painting of murals in the children's room at the hospital will be undertaken.

A number of students wish to be taught how to play contract bridge, and the women are looking for volunteers who wish to give some of their time for this.

Later the Women's Group is expected to lend its support to the School Recruitment Committee when needed.

The wives of the A.I.A. members have long wanted a project on which to work, and perhaps the sponsorship of the General Hospital School of Nursing will open new avenues of thought to them and they will have the opportunity of doing a real service to the City of Minneapolis.

### ARCHITECT DESIGNS LOW-COST BANDSHELL

That bandshells need not be expensive was proved recently in Stillwater, Minn., upon completion of one by the city park department at a cost of less than \$5,000. Designed by Architect Wendell Beardsley, the bandshell utilized a compressed wood fiber board as a lining inside, with 1 x 4 matched and beaded ceiling. The fiberboard was also used for the face of the exterior arch. Other materials included concrete blocks for foundation and decorative pillars and asphalt roofing, lapped. The framing is built-up rafters. Only the finest <u>ARCHITECTURAL QUALITY</u> Redwood Bears this mark



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# Structural Clay Tile

# FIREPROOFING

While structural steel is classified as a fire-resistive material, it must be protected or insulated against the action of fire when used in fireproof construction. It is well known that unprotected structural steel will increase in strength when subjected to temperatures up to about 600° F., and at approximately 800° F. it will be equal to the normal temperature strength. However, beyond 1000° F. it rapidly loses strength and is incapable of sustaining its own weight at 1700° to 2000°F. Accordingly the whole theory of fireproof building construction must be based upon so designing and building the structures that the above critical temperatures can never occur in the steel; also that the spread of any fire will be so retarded that it may be extinguished before any extensive material damage occurs.

Experience has proved that structural clay tile covering is particularly desirable for the fire protection of structural steel beams, girders and columns, and it has been recognized as a standard fireproofing material for over 50 years. No other material used for, this purpose can compare in volume of construction and actual job performance. Any protective covering must be durable under all ordinary conditions of wear. A material that will disintegrate under the action of moisture should not be used since condensation may often occur within "the walls, particularly near exterior spandrels and around pipe chases and "wet" columns. Fireproofing should be adapted to resist not only the destructive effect of fire but also the water and action of the fire streams used in extinguishing the fire.

In addition to its basic function as an effective and permanent fire protection for columns, girders and floor beams of steel skeleton buildings, structural tile fireproofing has many inherent advantages. Several of the most important features are as follows:

**Reduces dead load**—tile covering saves from 50 to 75 percent in weight over concrete covering.

**Economical**—tile fireproofing can, in general, be erected in place at nearly the same cost as the formwork required for concrete beam fireproofing.

**Speed of erection**—since no forms are required to hold the tile units in place, no period of waiting is required for concrete to set before shores and forms can be removed.

**Excellent plastering surface**—tile units with plaster base finishes provide a very desirable plastering surface. Only two coats of plaster are needed on the tile.

**Glazed or unglazed finishes**—in many types of buildings, the plaster finish on walls, partitions and columns may be eliminated by the use of tile units with smooth unglazed or glazed finishes. Shapes and sizes are furnished in various thicknesses and percentages of voids to provide any required fire protection. Load-bearing—tile fireproofing has the required strength to carry floor loads of ordinary spans with the factor of safety allowed by building codes. Where the spans are long and where there is a heavy load on the floor beam, it is customary to use tile fillers with the cells vertical. These cells are filled with concrete when the enclosing panel members, ribs and topping are poured in place. This provides a solid monolithic bearing on the lower flange of the beam.

Barrier against corrosion—when the space between the tile and the steel is filled solidly with good cement mortar, the structural steel is thoroughly protected against corrosion. Exterior steel members should, therefore, be built in solidly with tile masonry. This also increases the lateral strength and provides additional fire resistance.

Fire-resistance ratings of various building materials are established on the basis of standard fire test results or by experience and performance in actual fires. The ASTM Standard Methods of Fire Tests of Building Construction and Materials, E119-47, are the most generally recognized test methods.

Tables I and II indicate the fire-resistance ratings of columns, beams, girders and trusses protected by various types of brick and tile construction.

Structural clay tile used for fireproofing the lower flanges of steel beams and girders are known as "clip" tile, "angle" tile and "soffit" tile. Frequently for smaller beams, only the clip tile are required. However, when the beams extend below the lower floor surface, the web must be protected with filler tile of the required thickness, generally 3- or 4-in, tile unless otherwise specified. Filler units vary in height from 2¼ to 12 in. in 1-in. increments. At spandrel beams and loose steel lintels over window heads and other openings, a single clip tile will provide a good return for plastering and thoroughly fireproof the flange section.

When combination tile and reinforced concrete rib or slab floors are used it may be desirable to permit the concrete to fill the cells of the web tile to provide direct bearing on the beam flanges. This is required only for heavy loads as it is usually desirable to reduce the weight and lower the cost by using slabs or horizontal cell units at the top course to prevent excess concrete from entering.

In accordance with building code requirements for fire resistance, the reentrant spaces of steel columns are generally filled with cement mortar, brick, structural tile or concrete for additional security against fire and to prevent the possibility of corrosion.

When the fillers are used for web covering, the proper size of unit should be selected from the various

(Continued on Page 32)

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The photo above shows the loading dock and a portion of the rear and south side of the building. Construction on the warehouse was started in May 1951. All work is scheduled to be substantially completed about April 1, 1952. The Peterson Construction Company, Minneapolis, is the general contractor.

PAPER - CALM COUNTY ROAD B AND WA ST. PAUL 8, MINNES

# enough STEEL for a

When this photo was taken from the roof of the expansive one-story Minneapolis-Moline warehouse, most of the steel erection had been completed. Approximately the last one-third of the structure to be erected is shown here nearly ready for the application of roof insulation.







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ing. The slab was built up of a 4inch concrete slab, 4-inch Zonolite Asphalt Mix slab and a concrete floor.

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The new A.I.A. General Conditions A2105 fixed sum contract has recently been revised and is now available through blueprint houses and other normal sources of supplies. It should be used in lieu of the older form where applicable.

terial from all parts of the body in 15 seconds, without rubbing. Two other models to combat hazards of lesser degree are also manufactured by the company.

### STEEL COMPANIES PUSH RESEARCH

Further intensification of metallurgical research in the specialty and stainless steel fields on the part of steel companies themselves and company-sponsored laboratories in colleges and universities has been reported by the committee of stainless steel producers of the American Iron and Steel Institute.

The two main purposes of the research are to make available for essential defense purposes as much stainless and high alloy steel as possible and to assure supplies of stainless steel for worthwhile civilian purposes. While production capacity for such steel is being pushed to the limit, the committee reports, research engineers are seeking solutions to metallurgical problems arising from high temperature applications such as those in jet engines and from extreme corrosive conditions.

### PITTSBURGH PLATE GLASS TO ENTER FIBER GLASS FIELD

Pittsburgh Plate Glass Co. will enter the fiber glass production field in the near future, according to Richard B. Tucker, executive vicepresident of the firm. Formation of a separate development and production unit, to be known as the fiber glass division, is now in process.

Two types of fiber glass, strand fiber and super-fine fiber, will be manufactured under licensing agreement with Owens-Corning Fiberglas Corp. The new division will be headed by J. Hervey Sherts, who will serve as general manager.



Sherts has been with Pittsburgh Plate Glass Co., since 1928 and has been director of the firm's product development department since 1939.

### DAVIDSON FILE AVAIL-ABLE

The complete Davidson Architectural File (A.I.A. File 15-H-2) is now available to architects and chain store engineers, it is announced by Davidson Enamel Products, Inc., Lima, Ohio. Contents include a 12-

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### NEW BOOKLET ON HEMLOCK

The qualities and use of hemlock in building get an interesting treatment in Three Life Hemlock, a brochure recently issued by the St. Paul and Tacoma Lumber Co. Liberal use of photographs points up the durability of the wood on exteriors and its beauty and adaptability for interior use. According to St. Paul and Tacoma, west coast high altitude hemlock does not split easily, holds nails well, stays remarkably straight, works easily, holds paint well, is easy to nail and saw, is tasteless and odorless, is attractively light in color, is light in weight compared to its strength, is free from pitch, is amply strong for all frame construction, is resilient, is durable and yards well.

### NEW COPPER EXPANSION JOINT

A new 18-ounce copper joint to provide for expansion and contraction of copper flashings at the base of parapet and main building walls is being produced by Chase Brass & Copper Co., Waterbury, Conn. The new base flashing expansion joint is formed at an angle to fit exactly the standard dimensions of copper base flashing. It has a 4-inch horizontal leg and a 12-inch vertical member. Open seams on the edges of the joint permit easy interlocking and soldering of adjoining lengths of base flashing.

### NOISE AND CLASSICAL DESIGN

A problem of eliminating street noises and still retaining a classical ceiling design confronted the staff of Bellman, Gillett and Richards, Toledo architects, in drawing plans for remodeling the office of Blake-More Godwin, director of the Toledo Museum of Art. Willard J. Wendt, supervising architect, states the problem was solved by using Fiberglas accoustical board, a product of Owens-Corning Fiberglas Corp.

The accoustical board, 728 square feet of it in 24-inch squares, threequarters of an inch in thickness, was installed one inch from the masonry walls to the base of the classical designed ceiling. The ceiling skylight and ventilating system were undisturbed.

### NEW PREFINISHED WALL-PANEL

Marlite Velwood, a prefinished wallpanel, developed to give interiors of finished wood appearance at a retail price below that of many unfinished materials, is being produced by Marsh Wall Products, Inc., Dover, Ohio, a subsidiary of Masonite Corp. Made in four, fully finished authentic wood grains, the panels are available in blond mahogany, red mahogany, silver walnut and brown walnut. Says the company, "its tough, durable plastic finish cleans like magic with a swish of a damp cloth. Installation is quick and easy. Maintenance costs are extremely low because Marlite Velwood eliminates painting and periodic redecorating, stays new years longer."

### 25 PER CENT MORE LIGHT IN NEW STRUCTURAL PANELS

A new transparent and shatterproof building panel, transmitting 25 per cent more daylight for areas where maximum lighting is required, is being produced by the Corrulux Corp., plant in Houston, Tex., under the trade name Duralux. The company states that strength was not sacrificed to provide the greater light transmission. Several miles of glass filaments reinforce each panel to give flexural strengths in excess of 15,000 psi and loading capacities of more than 100 pounds per square foot on a four-foot span are built into each panel. Inquiries may be addressed to the Corrulux Corp., P. O. Box 20026, Houston 26. Tex.



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### A CITY REPLANNED

### (Continued from Page 6)

etc. Our research has been confined to those factors, within the area, which will be of consequence in acquiring the land and buildings and replacing the revenue now brought in by taxes. We are indebted to the



Live data—an example of how the groups made their statistics come to life.

Minneapolis City Planning Commission, county auditor's office and county treasurer's office for their valuable assistance.

The total value of land in this area, with the exception of land owned by churches, the city, the state or land now occupied by hospitals, computed from real and true valuations as given in the county auditor's office, is \$942,563.

The total value of buildings in the area, with the exception of churches, schools, hospitals and libraries, is \$3,085,200. It can be expected that a portion of this amount can be recovered in demolition. At present the area is a source of \$234,691 in yearly tax revenue. Whether it will be practical to meet this figure or attempt to obtain a modified tax policy will be determined by the design.

### Planning-

*Our Problem:* Since the dawn of recorded time man has been beset by the communal desire, at first as a

matter of sheer existence and subsequently to further the individual station through group actions. As these small gatherings developed into large activities and great metropoliti, problems began to multiply into chaotic disorder. The individual was reduced to a unit in an almost animalistic society of dog-eat-dog. It wasn't until the Industrial Revolution with its great concentration of masses that the problem became acute. To quench the devastating thirst for minimal shelter the great swarms of human beings were thrown together into a hodge-podge of sociological decadence and mere existence became a dire challenge. Life meant nothing but a day-to-day monotony of drabness. The human equation was divided again and again by tragic denominators. The all too familiar slum sections began like plagues that threatened to engulf the entire society.

Out of this bedlam arose a germ of an idea. This seedling caught on fast, especially in the over-multiplied areas of industrial Europe. Community planning became a basic necessity if anything was to be saved. Trial and error was the rule of the day. Everywhere mushroomed model projects. Thought was once more directed towards the human scale with man, as an individual, the ruler and the family group as a basic unit. Physiological and sociological concern was shown towards man's everyday life. His problems and needs were carefully scrutinized and solutions extended. Many of these solutions were unsuccessful. Many were steps in the right direction.

Practically every great city and most smaller communities suffer from this disease. We are on the threshold of a great necessity. A new birth of community enterprise is at hand. The "City Beautiful" is the by-word of the era. We must quicken the pulse beat, we must revitalize, we must rebuild our faltering society.

*Living:* Housing types are determined by several factors—family size, family income, land available and population density necessary for adequate tax returns. We charted our data to serve as a basis in solving the housing problem for a definite group for a particular area.

*Learning:* Present secondary schools taking care of the people in this area are the Phillips Junior High School and South Senior High School. Both of these schools are located just outside of the area in question and both are within the walking distance limit from our site (one mile for junior high schools and one-and-onequarter miles from high schools).

Recommendations by the Minneapolis Board of Education indicate that it would not be practicable to locate a new high school in the area proposed for redevelopment. It feels confident that the two secondary schools already serving the area would be entirely adequate to handle the redeveloped area and therefore only elementary schools need be considered in our design.

Present elementary schools serving this area are Washington and Adams, Washington being located just outside our site on the downtown side and Adams being located on the corner of 16th Street and Franklin Avenue, which is also on the very fringe of the site. Recommendations from the Board of Education indicate that Washington School is relatively small and that Adams School is very poorly located, this poor location being partially due to the recent street developments which made necessary the razing of much residential area. Information received from the Board of Education indicates it would be entirely feasible to abandon the Washington School and to relocate the Adams School to a more favorable position as we see fit in the redevelopment of the area.

Presently there are 630 students attending elementary schools from this area. This figure is based on the September 1, 1950, census of schools as supplied by the Minneapolis Board of Education. There are 2,200 dwelling units in this area with an elementary school child index of .29 children per family unit. Future numbers of elementary school age children would be dependent upon the different types of housing used in the redevelopment of the area. Recent studies made by Board of Education indicate that certain types of family units will yield a consistent number of students per family.

Design data for elementary schools indicates the present size of class is 35 students and the ideal size of class is 30 students; the ideal number of students per school is 500 to 600; maximum walking distance to school should be 1/2 to 5/8 of a mile; approximate area required for the school plant is 5 acres.

Although nursery schools are not supported by public funds, it is usually desirable to establish them by private means. The size recommended by authorities is 25 children for each school. They should be located within a radius not to exceed 1/4-mile from the most distant home to the school. The average number of nursery school age children per family is .1 child per family

Playing: Play areas are necessary components of all planned, redeveloped areas, existing to fulfill the recreational needs of all individuals. They should not exist as one large area but as several intermediate areas, depending upon the size of the community. The size of these areas is determined by the number of children and the number of adults in the community.

Buying: Sufficient shopping facilities should be furnished in a neighborhood to provide for the population needs. These facilities should be centrally located in a group within easy walking distance of all families. The number and size of the shops is dependent upon the population, nearby competition and the financial status of the population. Adjacent to the shopping center offstreet parking should be provided to care for shoppers' cars. The area for parking should be from one to three times the area of the stores, depending upon the number of walk-in and driving patrons. It is felt that an index of 11/2 to 2 would be sufficient in this case. Buffers between the shopping center and residential areas should be provided. Parks, churches and buildings such as clinics would be adequate for this use.

Miscellaneous: Miscellaneous facilities include those for which no rule of thumb for locating them has been developed. . . . There is a fire house located at Fifteenth Avenue South and Fourth Street which will be sufficient to meet the needs of the area. . . . Police requirements will be met from outside the area. . . . At present



### WOOD:

Wood sections shall have stiles and rails of vertical grain Douglas Fir, hardwood dowelled and steel pinned, waterproofed glued. Rails to extend full width of door. Panels to be of three (3) ply laminated fir 1/4" exterior plywood manufactured by the hot plate process with phenolic resin glue.

### HARDWARE:

Hardware shall include safety torsion springs on a continuous shaft across full width of door, rustproofed

HARDWARE

steel (use of roller shaft as inner race will not be permitted), bottom corner brackets mortised under bottom of door and of sufficient height to be se-cured across both rail and stile. Doors over 12'6" wide shall be additionally reinforced with suitable horizontal trusses to prevent sagging when open. Doors over 16'0" wide shall have suitable support to prevent sagging when closed.

### **GUARANTEE:**

Doors shall be guaranteed against faulty or defective material or workmanship under normal operation for a period of one (1) year.

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no city maintenance departments are located in the area; probably none will be needed in the future. . . The city hospital group is within the redevelopment area and no additional facilities will be needed. . . . There is no rule of thumb as to the number of churches needed in a community. Probably five will be sufficient. However, it depends upon the size of the community and the number of sects. Church locations are desirable adjacent to the shopping centers where they can serve as



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buffers and where there would be sufficient parking space.... Space can be provided for in the schools for all civic needs in a community of this nature.

### **Hotel Design**

(Continued from Page 12)

coral. In the guest rooms the blocks are plastered with vermiculite plaster for greater warmth. In the corridor, vermiculite acoustical plastic and full carpeting cut noise to a minimum.

Necessary fireproofing of steel joists in the second floor was obtained by a thickness of vermiculite plaster on the first floor ceiling. This plus the incombustible masonry construction, steel door frames and fire resistant resin-paper-laminate finishes on woodwork means a highly fire-safe structure.

A basement is under only the one-story service section, which consists of the lobby, registration office, cocktail lounge, kitchen and dining room. Both floors are concrete slabs. The ground floor construction is a  $2\frac{1}{2}$ -inch sub-slab of vermiculite insulating concrete, on which radiant heat pipes were laid. Over this went a  $2\frac{1}{2}$ -inch topping of sand concrete. Radiant heat pipes were installed in the ceiling of the second floor and were also laid under the driveway to keep it clear of snow.

Three fully automatic oil burners heat water for the radiant heating system. Air circulates into the building through two blower units on each floor, passes through louvres in the guest room doors and is exhausted from the hotel through guest room windows. The service section has a similar ventilating system but with a compressor air conditioning unit in the basement that sends out warm or cool air.

Room design is simple and functional. The Hollywood beds have a built-in blanket drawer at the foot. A unique combination desk, vanity and luggage rack, a small modern bed table and two modern chairs are the other pieces of furniture. An unframed mirror hangs over the vanity. Bullet shade flexible stem wall lamps are built in over each bed, over the reading chair and over the desk-vanity. The designers built open closets in the belief that they were more sanitary. Each room has a radio. The rooms follow two basic color schemes and are fully carpeted in a variety of patterns. Architectural projecting aluminum windows are covered by Venetian blinds and hand-painted drapes.

Every bathroom has a tub-shower with an automatic mixing valve. There are lights over both the mirror and the tub, and a handy electric razor outlet over the



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basin. There is a wide shelf for toilet articles. Each bath also has a glass-paneled, 1,000-watt quick heater sunk in the wall and a ventilator to the roof.

The 60 by 104 foot service section of the building follows the theme the management intends for the entire hotel—"unobtrusiveness." The lobby and wining and dining areas are simple and serviceably modern.

For interest, the designers used a bold contrast in materials in this section—floor-to-ceiling glass for the lobby's two outside walls and entrance way opposite, a tan



One of Hotel Mead's guest rooms invite occupancy with its up-to-the-minute styling and comforts.

wall with a massive polished granite block jutting from it, a mellow gold resin-laminate surface on the registration desk and the walls of the alcove in back of it; bright hand painted drapes of an original "donkey-inthe-clouds" Chinese theme.

Near the lobby entrance is a granite topped planting box, complementing similar boxes continuing on the outside of the building. Above this is an abstract clock of spokes and spheres. A squat pillar to the right of the desk holds a cork bulletin board inset, engraved with the Mead family coat of arms. Embedded in one wall is a magazine rack of bleached birch. Modern furniture is arranged into cozy groupings. What architect Haugen calls a "free-form" cove laps under part of the ceiling, housing white neon lights. Built-in direct lights and circular vents are set flush with the upper ceiling.

Just off the lobby is the strikingly designed cocktail lounge. Each wall is different in color and surface texture from the others. Framing the large window is a brown plaster wall. A wall of Mankato cut stone separates the lounge from the lobby. Mirrors behind the bar form a third wall. A brown, metallic patterned wallpaper covers the fourth. Hand painted drapes in the bar picture gears and wheels of the paper industry. The free-form cove in the bar ceiling is golden, with an aquamarine ceiling above. The mahogany surfaced bar follows a jagged abstract line. Adjustable tables are arranged on the window side with yellow upholstered chairs. The floor tile pattern is a continuation of that in the lobby.

The dining room is somewhat like the bar but follows

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a quieter decor. It has a seating capacity of 150. This L-shaped room is walled almost completely with glass and overlooks a rock pool just outside, which has underwater lighting at night. The dining room, too, has a cove ceiling. Carpeting and acoustical treatment of both the cove and the upper ceiling make the dining room unusually quiet. Switches on the tracks of folding doors allow the dining room to be split into a large public space and a small party room, or a large party area with a small space left for public use.

Behind the scenes on the main floor is an all electric, "automatic" kitchen. Almost everything is glistening stainless steel, including a large refrigerator, broiler and two large ranges. Walls here and in the basement bakery are glazed tile. An employes' dining room adjoins the kitchen.

The basement includes a complete bake shop, where all but loaf bread is baked for the cafe. It houses a butcher shop, with two walk-in coolers, one for aging and one for sharp freezing of meats. There is also a vegetable cooler. Other storage area is designed for liquor, silver and linens. Wastepaper and dirty linen chutes in each corridor empty into a special room in the basement. A freight elevator moves materials from the basement to the main floor rear door.

All rooms and strategic spots in the service end are piped for future installation of television, not yet in the Wisconsin Rapids area.

### TILE FIREPROOFING

(Continued from Page 20)

partition, wall or building tile shapes to fill the reentrant space, allowing for at least  $\frac{1}{2}$  in. of mortar against the steel. If the reentrant spaces are filled with concrete or cement mortar, no formwork is required since the tile covering is utilized in this capacity.

Typical rectangular units in the 12 x 12-in, face size in 2-, 3-, or 4-in. nominal thicknesses, as required, are generally used where plastered finishes are specified. These units are economical and are universally available. A double covering of 2-in. tile is generally recommended where the fire hazard is great and for important columns that carry heavy truss, wall or girder loads. When the columns are covered with glazed or unglazed facing tile, rounded or bullnose corner units (1-in. radius), are generally specified.

All column covering should start directly on the structural floor and extend to the fireproof floor above. It should be designed to properly fit the column, with at least 1/2-in. clearance between the steel and the tile. This space is generally filled by cement parging on the steel or by back-mortaring the units or slushing as the tile are laid.

Recommended Mortars-for ordinary installations, structural clay tile used for beams, girder and column covering may be laid in cement-lime mortar conforming to the requirements of Type "B" (1 part portland cement, 1 part lime and 6 parts sand by volume). Where tile fireproofing or column covering is used in a load-bearing capacity, it should be laid in cement mortar conforming to Type "A" (1 part port-

315 Jackson St.



### CIRCULAR OF INFORMATION

Continued from Page 10)

the preliminary plans shall be sufficient to permit obtaining a reasonably accurate preliminary estimate of cost.

f. Preparation of a preliminary estimate of cost based on the preliminary drawings and specifications. The Architect does not guarantee the accuracy of this estimate since the basic elements which establish actual costs such as changes by Owner, cost of labor, etc., at time of bidding, conditions of the building market, etc., are beyond the Architect's control, but his estimate is made in good faith and based on his experience and knowledge of costs as they exist when the estimate is made.

### Section 2 Working Drawings and Specifications

a. Working Drawings: The purpose of working drawings and specifications is to provide clear and complete documents on which to base a contract. In consideration of the trust

![](_page_33_Picture_6.jpeg)

should be shown.

(3) Exterior Elevations of the structure showing floor to floor heights, materials, types of windows, doors, trim,

(4) Sections through the structure and stairway sections sufficient to illustrate clearly the intent.

(5) Interior Elevations for special or ornamental rooms. (6) Detail Drawings usually consisting of part plans, elevations and sections of important parts of the structure at larger scale than the other plans and elevations in sufficient number and clarity to permit proper estimating and bidding by contractors.

![](_page_33_Picture_11.jpeg)

placed in him by an Owner, the Architect is in duty bound to exercise the utmost skill and care in the preparation of these drawings and specifications.

During the preparation of final plans and specifications, the Architect shall advise the Owner of any changes from the approved preliminary plans which, in his opinion, will affect the cost of construction, whether these changes are at the request of the Owner or are necessitated by plan development.

The amount of detail work to be included in the drawings and specifications will vary with the type and size of building for which they are prepared.

The drawings should be accurate, clear and complete. They should be at a scale large enough to definitely illustrate the construction and to indicate the materials so that the work can be executed therefrom without additional drawings except detail and large scale drawings which are furnished later to establish exact profiles and proportions. These may not exceed the requirements of the original drawings.

The drawings may be classified as Architectural, Structural and Mechanical. Drawings of each classification should be on separate sheets for clarity especially on large projects or as later described.

Under this heading architectural service includes assistance in the preparation of complete contract documents, together with all conferences with Owner, utility companies, and Federal, State and Municipal authorities having jurisdiction over the proposed construction.

The Architect should furnish as part of the Working Drawings sufficient information including scale details to clearly set forth all requirements including the following detailed information:

(1) Site Plan showing the property, location of utilities, sewers and other pertinent data obtained from the survey furnished by the Owner, together with the location of the building or buildings upon the site, walks, drives, etc., existing and new grades, elevations, etc., affecting the project or included in the work; all sub-surface conditions available from information furnished to the Architect by the Owner.

(2) Architectural Floor Plans of all floors (unless typical floors repeat as in multi-story buildings) at a scale sufficient to give a complete understanding of the intended construction. All parts should be located by dimensions and materials to be used in walls and partitions indicated graphically. All items such as door sizes and swings, window locations and sizes, stairs, elevators and other features

(7) Structural Framing Plans and Details. For most buildings the structural drawings are framing plans showing all structural members and other information to illustrate clearly the structural requirements and including all beam, slab, column and lintel details and schedules as well as foundation or footing information. For simple structures these may be indicated on the architectural drawings.

(8) Mechanical Drawings to adequately show plumbing, heating, electrical and other mechanical equipment should be separate drawings, and should clearly indicate the extent and locations of such systems and equipment together with their relation to the structural and architectural work. They include all piping and conduit layouts, diagrams, schedules, sections, plans, etc., as necessary to permit proper estimating and installation of the equipment. For simple structures some of this might be shown on the architectural drawings.

b. Specifications: The specifications should be written briefly, but in sufficient detail to describe adequately the materials, methods and workmanship. The specifications should not be ambiguous or arbitrary but logical, correct, concise, complete and clearly understandable to the mechanics on the work. Correct punctuation is most important.

The specifications shall permit open competition by the manufacturers or sellers of a product. No "closed" specifications shall be used without the full knowledge and consent of the Owner.

The specifications shall include appropriate and separate divisions for the general, structural and mechanical work involved, and such subdivisions as are applicable to the specific structure such as:

(1) General Conditions and Special Conditions as required.

(2) Detailed description for each division or sub-division of the work describing all materials and the exact manner of assembling them. These should include all items to be included in the construction contract. It is recommended that the specifications outline the various divisions in the exact order set forth in the "Standard Check List for Specification Titles" as developed by the Joint Cooperative Committee of the Minnesota Society of Architects of the A.I.A. and the Associated General Contractors of Minnesota in cooperation with the Minnesota Association of Consulting Engineers.

This Check List includes a list of Bid Documents, as well as the various divisions of the work and can be used for any project large or small to meet the requirements of the structure.

### Section 3

### Taking of Bids, Supervision, etc.

The Architect shall either assist the Owner in the advertising for and taking of bids or shall do so in his behalf and in the case of private work shall recommend to the Owner such bidders as he considers competent to perform the work and who are relatively equal in record of performance. He shall prepare proper forms for the tabulation of bids and shall assist the Owner or shall act for him in the opening of bids and in their tabulation and subsequent consideration and analysis. Any addenda required prior to the opening of bids shall be promptly prepared and forwarded to the bidders by the Architect and shall be included by him in the contract documents. Whether opening of bids is public or private is the prerogative of the Owner.

The Architect then assists in the preparation and execution of all contract forms, verifies certified check or surety bonds when submitted and sees that the contractural procedure between Owner and Contractor is properly completed.

Supervisory Services include the following: a. *Details:* The Architect furnishes as the work progresses, all necessary large scale and full size details required to illustrate fully all special features of the work. The amount of this detailing will necessarily vary with the character of the building.

b. Shop Drawings: Shop drawings are prepared by the

![](_page_34_Picture_16.jpeg)

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![](_page_35_Picture_5.jpeg)

contractors or manufactures to illustrate how their particular portion of the work is to be fitted together. The Architect checks the shop drawings to establish their conformity to the general building requirements.

c. Supervision: The Architect does not guarantee the work of the contractors or that of their subcontractors or servants, agents and employees, nor the performance of their contracts, nor the materials and equipment used.

Services incident to supervision are limited to:

(1) So much of the Architect's own personal services as are necessary in making periodical inspection of the work under construction and reporting and making recommendations relative to its progress and endeavoring to guard the Owner against defects and deficiencies in the performance and execution of the work by the contractors (without in any way guaranteeing such work or assuming any responsibility for failure by the contractors to provide proper and adequate superintendence and coordination therefore, or for the actual performance of the work itself).

(2) Recommending approvals of materials and equipment.

(3) Checking and reporting on contractor's proposals in connection with changes in the contract and issuance of change orders and certificates of payment due the contractor. Such change orders shall bear the signatures of the Owner, Contractor and Architect and shall become a part of the contract affected thereby.

The Architect, upon completion of the work of the Contractor, shall obtain required written guarantees and bonds and deliver same to the Owner. He shall issue over his signature, a final certificate of payment for each contract, stating the amount of the original contract and the final amount of same as amended by any change orders issued during the course of construction, the total amount paid to the contractor and the final balance due.

If full time field superintendence is desired by the Owner, a Clerk-of-the-Works acceptable to both Owner and Architect is engaged by the Architect at a salary satisfactory to the Owner and paid by the Owner upon presentation of the Architect's monthly statements.

### DIVISION IV ARCHITECTURAL FEES AND CHARGES

### Section 1 Methods of Computing Fees

There are five principle methods of computing fees, viz.: a. By a Percentage Fee: Under this method the fee is based on total construction costs. When work is held in abeyance or abandoned, the fee is computed on the lowest bona fide bid or bids or on the architect's estimate of cost if no bids have been taken.

b. By a Fixed Fee: Under this method a fee is charged for personal services of not less than  $33\frac{1}{3}\%$  of the applicable rate plus reinbursement of all direct expenses plus proportionate amount of overhead.

c. By Lump Sum Fee: Under this method the lump sum fee is determined from the "Schedule of Minimum Fees" as applied to the *estimated cost* of the work when the fee shall be set at a lump sum and shall *not* be subject to change regardless of any difference between actual cost of construction and the estimated cost.

d. By Per Diem Rate: When an Architect is not otherwise retained, charges for consultation, studies, opinions, reports and other professional advice should be in proportion to the importance of the matters involved and the standing of the Architect; the rate should approximate \$7.00 per hour or portion thereof.

A proper fee for expert testimony in court or as an arbitrator should be \$100.00 per day or \$50.00 for one-half or a lesser fraction of a day.

e. By "Cost Plus" Basis: Under this method the fee, in general, is arrived at by taking all drafting and other constructive time chargeable to the project and adding a percentage for overhead plus a sum or percentage for a fee.

Methods "a" and "e" are the most commonly used in this area for computing architectural fees. Further explanation of these two methods will follow.

### Section 2

### Factors Determining Fees

The Architect's compensation should be adequate to recompense him properly for rendering his best services. In determining the fee there are many factors which must be taken into consideration, some of which are:

a. Local prices affecting the Architect's living expenses and the costs of performing his services.

b. The site of the project, its contours, and its distance from Architect's office.

c. The nature of the project, its type, size and finish, whether new construction, repairs, remodeling, furniture, fixtures, decoration, etc.

d. The occupancy of the building, the extent of its subdivisions and equipment.

e. The nature and manner of the construction; whether wood, concrete, masonry, or steel, and whether constructed by day labor or under a single contract.

f. The period over which the construction work is to extend,

g. Unusual conditions under which the Architect must perform his services.

h. The competence and experience of the Architect.

Because all of the foregoing factors must be considered in determining the amount of each fee, it is evident that an appropriate fee in any given case could not be universally applied, and that it is not possible to set up amounts in any schedule that could be proper or mandatory compensation for performing architectural services under all circumstances.

However, for the general guidance of the profession, the Minnesota Society of Architects feels it is desirable to set up recommended *basic* fees which study and experience of the various members have proven to be the minimum amounts that Architects practicing within the State of Minnesota have found adequate for performing their services properly under the stated circumstances. These basic fees are recommended only as a guide for determining the amount of a proper fee in any particular case.

### Section 3

### **Basic Conditions for Minimum Fees**

A proper basic minimum fee that an Architect should charge and be paid for performing *normal* architectural services is shown in the following schedules. This basic minimum fee includes proper engineering services for the heating, ventilation, plumbing and electric engineering services required but assumes:

- a. That the project is not distant from the Architect's office.
- b. That the site is level and has no unusual conditions.

c. That the structure has no unusual features of construction.

d. That it is a new structure and constructed of new materials.

e. That it is constructed under a single contract or the customary major contracts each for a fixed sum.

f. That it has no unusual conditions which may prolong the period of construction beyond a normal period.

Basic fees are expressed as percentages of the total cost-

of the completed project and should be computed that way, for that is the only practical way of generalizing compensations that depend on so many conditions.

If Architects perform services under conditions differing from those described above or if they perform additional or special services, then it is proper that they should charge and be paid a fee greater than one based on the stated basic conditions for a minimum fee.

If the entire project is to be constructed under separate contracts (such as excavating, masonry, plastering, etc.) rather than under a single contract, then Architects are required to perform the services necessary to co-ordinate the various trades and works at the project. Such services are additional to normal architectural services and they should be paid additional for such added services. Under such circumstances the additional compensation should not be less than 4% of the total cost of the completed project.

The amount of a basic minimum fee should not be reduced

![](_page_36_Picture_27.jpeg)

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- HASTINGS—Hastings State Hospital, Hastings, Minn.—Long & Thorshov, Inc., Minneapolis, Minn., architects.

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As has been stated, architectural compensation properly varies with the aptitude and experience of the Architect and with the complexity and difficulties of the project. These considerations imply that each case can be determined only on its own merits. As previously stated, this document is calculated only to assist in the determination of minimum fees adequate for proper treatment of the problem.

### Section 4

### Schedules of Recommended Minimum Fees

a. Method "a"—Percentage of Cost (See Division IV— Section 1-a).

The following schedules of recommended minimum fees are intended to cover the majority of building types normally encountered in architectural practice and are based upon complete architectural services *including* related engineering services (structural, heating, plumbing, ventilating and electricalbut not air-conditioning, refrigeration, acoustical or other special engineering) and are scheduled at the *minimum* for which such services can be satisfactorily rendered and then only when the basic conditions for minimum fees exist as heretofore outlined.

Fees higher than the recommended minimums are in nowise prohibited and are proper where the building program is of greater complexity than the average of its kind and would result in an increase in the Architect's costs or where special services are required or where the reputation and ability of the Architect command a larger professional fee or where the building project scope is relatively small.

Where buildings of the types listed in the schedules require more than the usual or stated considerations and study in their design, an appropriate increase in the indicated fee should be made.

### SCHEDULE A

Comprises structures of simple utilitarian character which are without complication of design or detail; also structures of conventional character but where units or a considerable percentage of the whole is repetitive. In general, this schedule applies to: industrial buildings, factories, garages, warehouses, food markets, shopping centers, motels, loft buildings, public housing with duplicated housing units, armories.

$T_{i}$	otal Cost of Ba	uilding	Basic Fee
If from	\$ Zero to	\$ 25,000.00	6 %
If from	25,000.00 to	50,000.00	6 %
If from	50,000.00 to	100,000.00	6 %
If from	100,000.00 to	200,000.00	51/2%
If from	200,000.00 to	400,000.00	5 %
If from	400,000.00 to	600,000.00	· 41/2%
If from	600,000.00 to	800,000.00	41/4%
If from	800,000.00 to	1,000,000.00	4 %
If from	1,000,000.00	up	negotiated

### SCHEDULE B

Comprises structures of conventional character requiring usual care in their design and detail. In general, this schedule applies to : hotels, apartments, apartment houses five stories and less in height, office buildings, schools, colleges, dormitories, clinics, asylums, infirmaries, Y.M.C.A. gymnasia, town halls, fire stations, newspaper and printing plants, public buildings, club houses, auditoria, recreational buildings, mercantile buildings, churches of conventional character (excluding furniture, chancel fittings, etc.), buildings in Schedule "A" requiring special consideration in design and detail.

	Te	otal Cost of	Bi	uil	ding	Basic Fee	
If	from	\$ Zero	to	\$	25,000.00	7 %	
If	from	25,000.00	to		50,000.00	7 %	
If	from	50,000.00	to		100,000.00	63/4%	
If	from	100,000.00	to		200,000.00	63/4%	
If	from	200,000.00	to		400,000.00	61/2%	
If	from	400,000.00	to		600,000.00	61/2%	
If	from	600,000.00	to		800,000.00	6 %	
If	from	800,000.00	to		1,000,000.00	6 %	
If	from	1,000,000.00	1		up	negotiated	

NORTHWEST

### SCHEDULE C

Comprises structures of individual and artistic character requiring special skill, study and care in their design and detail; also building types described under Schedule "B," but where more than conventional treatment and design is required. In general, this schedule applies to private residential buildings, monumental buildings, bank buildings, elaborate churches, hospitals, museums, libraries, court houses, swimming pools, medical centers, high class office and insurance buildings, theatres, fine shops, civic and fraternal clubhouses of the more artistic and individual types.

	Te	otal Cost of	Bı	uilding	Basic Fee
ſf	from	\$ Zero	to	\$ 25,000.00	8 %
f	from	25,000.00	to	50,000.00	8 %
f	from	50,000.00	to	100,000.00	73/4%
If	from	100,000.00	to	200,000.00	71/2%
If	from	200,000.00	to	400,000.00	71/4%
f	from	400,000.00	to	600,000.00	7 %
f	from	600,000.00	to	800,000.00	63/4%
f	from	800,000.00	to	1,000,000.00	61/2%
If	from	1,000,000.00		up	negotiated

### SCHEDULE D

Comprises structures of exceptional character and unusual artistic importance, requiring the greatest skill in design and the most prolonged study in development such as memorials where architecture and sculpture and/or murals and decoration are combined. This, in general, applies also to private mausoleums, monuments, memorial chapels and such.

	T	otal Cost of	Bui	lding	Basic Fee	
If	from	\$ Zero	to \$	25,000.00	10 %	
ſf	from	25,000.00	to	50,000.00	10 %	
ſf	from	50,000.00	to	100,000.00	10 %	
lf	from	100,000.00	to	200,000.00	91/2%	
If	from	200,000.00	to	400,000.00	91/2%	

If	from	400,000.00	to	600,000.00	91/2%
If	from	600,000.00	to	800,000.00	91/4%
If	from	800,000.00	to	1,000,000.00	91/4%
If	from	1 000 000 00		11D	negotiated

For alterations, interior and remodeling work the minimum basic fee should be commensurate with the work involved, or on a cost-plus basis.

### METHOD "E"-COST PLUS BASIS

(Method "e"—Division IV—Section 1-e) It is sometimes better to render services on small projects on a "cost plus" basis.

Based on the experience and practice throughout Minnesota it is recommended where work is done on a "cost plus" basis that "cost plus" shall mean the sum of cost, plus overhead, plus fee, computed as follows:

(a) "Cost" is drafting and other constructive time (principal's time and rate included) directly chargeable to the project using the standard hourly rate for each member of the Architect's organization working on the project (this includes salary, Federal and State taxes).

(b) "Overhead" shall be computed on the basis of 75% of the total "cost" charges.

(c) The "Fee" necessary for rendering proper architectural services and for insuring adequate compensation shall be computed on the basis of  $33\frac{1}{3}\%$  of "cost plus overhead."

The matter of proper compensation for a principal's time shall be by agreement, but each principal shall have a standard rate which shall be treated as any other member of the organizations chargeable time.

### DIVISION V PAYMENT OF FEES

Upon engaging an Architect, it is proper that a retainer be paid for the services to be rendered in connection with the initial conferences and consequent preparation of preliminary studies.

Payments to the architects shall be made on a monthly basis as his work progresses. Such payments shall be based on esti-

### TOTA TO SPECIFY Shortages Hampered Most Types Of Building in October, Says U.S. NON-CRITICAL TOM THE WALL STREET JOURNAL Washington Bureau WASHINGTON-Almost all types of con-Scarcity of structural steel was report BRICK AND by the Government as the chief block to c ruction felt the pinch of material shortages struction during October, and it is likel October, the departments of Labor and mmerce reported. continue as the major factor through the of this year. The report predicted, howe that it will not be long before copper will it CLAY TILE Most construction activities showed morehan-seasonal declines for the month. Even ex-nansion of basic steel and electric power caplace steel as the determining factor. pacity was hindered, the Government said. One exception to the general trend was home huilding, which increased about 6% from September to a value of \$530 million. Minuary During the first 10 months of this yea new construction with a total value of mo than \$25 billion was put in place. This w \$2 billion more than the total for the like Beat the shortage of critical \$2 billion od in 19: WALL STREET JOURNAL and defense plant building increased "moverbuilding materials. Use ately are new more the Tuesday, November 6, 1951 The total value of new construction put in plentiful, non-critical strucplace during October was estimated by the lovernment at \$2,700 million, down 5% from september and 3% below the total for the like less than \$28 billion during 1950. It said t increase was accounted for mainly by larg public expenditures, particularly for housing tural clay products. Utles. ts and itary nth at In the interest of saving critical structural and reinforcing steel, a government conservation study has recommended that masonry be used in the following cases: 5. Clay tile furring and plastered 3. Masonry piers and pilasters. 1. Loadbearing brick and clay direct tile partitions, eliminat-ing metal lath and steel furtile walls. 2. Reinforced masonry or brick 4. Precast and tile filler floors ring channels. arch lintels. and roofs.

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S. Russ Minter, Architect

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This New Bulletin . . . Can Save Hundreds of Build-ing Dollars!

SMOOTH CEILINGS SYSTEM Metropolitan Life Bldg., Dept. F Minneapolis, Minn

![](_page_39_Picture_10.jpeg)

mates furnished by the architect to the owner but at no time shall the total payments exceed that portion of the total estimated fee due according to the following:

When the preliminary designs are completed and approved such an amount is due as will bring payments up to 25% of the total estimated fee.

When the working drawings and detailed specifications are completed and ready for bidding an additional 50% or a total of 75% of the total estimated fee shall have been paid or is payable. If bona fide bids are taken the fee shall be established by either the lowest responsible bids or the accepted bids as the case may be.

During the construction of the work additional payments are due as the work progresses until the total reaches the full amount of the fee which is due and payable upon substantial completion of the building.

The fee should not be reduced because of cost deductions due to use of old materials, of materials furnished below market cost or penalties, liquidated damages or other sums withheld temporarily or otherwise from payments to contractors.

### DIVISION VI SPECIAL SERVICES AND CHARGES

### Section 1

### Extra Drafting, etc.

If the Architect is caused extra drafting or other expense due to changes ordered by the Owner, or due to the delinquency or insolvency of the Owner or Contractor, or as a result of damage by fire or other hazard, he shall be equitably paid for such extra expense and the services involved.

Construction work let on any cost-plus basis shall be subject to a special charge in accordance with the special service required.

If any work designed or specified by the Architect is abandoned or suspended, the Architect is to be paid for the service rendered on account of it. Special charges to be arranged by agreement for the construction of models and preparation of perspective drawings.

### Section 2

### **Association of Architects**

If, for any reason, it is desired to secure the associated services of two or more Architects it should be recognized that such associations develop increased expenses. The Owner should, therefore, pay the Associated Architects a greater commission than he would a single Architect.

### Section 3 **Re-Use of Drawings**

An Owner shall not have the right to the re-use of drawings and/or specifications for a duplicate structure not contemplated under original contract without compensating the architect for such re-use of drawings and/or specifications. The additional fee shall be calculated by adding the cost of the duplicate building or buildings to the original construction cost and re-calculating the total fee upon such total cost.

### Section 4

### Succession of Service

No Architect shall knowingly enter into a contract for services with an Owner who has terminated the work of a previous Architect without satisfactorily completing his obligation toward the first Architect.

### Section 5

### Special Technical or Consulting Service

In order to provide any special technical or consulting service such as for air-conditioning or acoustical engineering as may be necessary, but not specifically covered under the Schedule of Recommended Minimum Fees set forth herein, the Architect shall together with the Owner make a mutual selection thereof which shall be paid for by the Owner under a separate written agreement or authorization therefor, in addition to the Schedule of Recommended Minimum Fees.

### Section 6

### Transportation & Living Costs

The Architect is entitled, in addition to his basic fee, to all costs of transportation and living incurred by him and his assistants while traveling in discharge of duties connected with the work; for the cost of pertinent telegraph and long distance telephone messages, and for the cost of blueprinting and mimeographing of the working drawings and specifications beyond ten sets of each. This is the number agreed upon by the Joint Committee of the A. G. C. and A. I. A. as fair and adequate.

### Section 7

### **Program of Building Requirements**

If the Architect's assistance is required by the Owner to prepare an analysis of program requirements for the project, the Architect shall be compensated for such additional service.

### Section 8

### Changes in Architect's Work

The Architect shall be entitled to just and equitable *additional* compensation:

a. If the Owner shall require the Architect to make any substantial change in the size or scope of the work or at any time after completion of the preliminary design require any change in plan, design or specification which shall, in any case, necessitate the preparation by the Architect of any additional sketches, working drawings or other documents, or the making of any substantial changes in any documents upon which substantial work shall have been done pursuant to instructions to proceed therewith.

b. If, by reason of increases in the cost of labor or materials since the date of the execution of the Architect's contract, or completion of the preliminary drawings, the construction cost of the work has been markedly increased above the "estimated cost" or appropriation, and the Architect is required by the Owner to prepare any new or additional documents or make any changes as are referred to above in order to reduce such construction costs.

### Section 9

### Equipment, Furnishing and Decoration

Where equipment and furnishings are purchased under the direction of the Architect, but are not designed by him, fees under Schedule "D" shall apply in accordance with the separate cost of each contract for such equipment or furnishings.

Where the equipment, furnishings and decoration are designed by the Architect, the Architect shall make a special charge in proportion to the cost and value of the services rendered.

### Section 10

### **Record Drawings**

When the Architect is required to prepare "as-built" drawings, the Owner shall reimburse the Architect on a cost-plus basis for all expenses pertinent thereto that will be incurred on the job and in the office including drafting, traveling, site surveys and engineering services in connection therewith and printing of the final drawings.

### **DIVISION VII**

MISCELLANEOUS PROVISIONS

### Section 1

### Information by Owner

The Owner shall furnish at his own expense, for the information of the Architect, a complete and accurate survey of the building site, giving the grades and lines of streets, pavements, curbs and adjoining properties, the rights, restrictions, easements, boundaries and contours of the building site; full information as to sewer, water, gas and electrical and other public utility services; test borings or pits and chemical, mechanical and other tests as required.

### Section 2

### **Termination of Contract**

Should either party to the contract violate any of the covenants or stipulations thereof, the Architect or the Owner as the case may be shall thereupon have the right to terminate said contract by giving ten days' notice to the party committing the breach in writing of the fact and time of such termination. In such event the Architect shall be entitled to receive just and equitable compensation for services already performed in accordance with the contract.

### Section 3

### Abandonment of the Work

The Owner may at any time after the execution of Architect's contract abandon, either entirely or for an indefinite

ARCHITECT

time, the construction of the work and terminate any part of the Architect's services now already performed, including drawings or other documents. The Owner shall notify the Architect, in writing, of any partial or complete abandonment of the construction work as the case may be. In which event the Architect shall, in addition to any installment of fee payable prior to such abandonment, be entitled to just and equitable compensation for any uncompensated work performed prior thereto.

### Section 4

### **Ownership of Documents**

The drawings, specifications and other data as instruments of service, are the property of the Architect whether the work for which they are prepared be executed or not. The Archi-

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tect will furnish the Owner with reproducible tracings at the Owner's expense if desired.

### Section 5

### Contract Between Owner & Architect

It is strongly recommended that the Owner and Architect, immediately upon effecting an oral agreement for services, enter into a written agreement stating clearly the services to be rendered by the Architect and the fee to be paid to him by the Owner for such services. Oral agreements may lead to misunderstandings resulting in a loss of, time and the incurring of unnecessary expense to one or both parties.

Simple, understandable printed forms of agreement published by the American Institute of Architects are available and their use is urged upon both the Owner and the Architect. The duties and obligations of both parties, the services to be rendered, and the time and amount of payments are clearly set forth. While some Owners and Architects in certain cases are accustomed to the use of a "Confirming Letter" signed by both parties, such letters often fail to be sufficiently explicit. If, however, the "Confirming Letter" is used, the Standard Form of Agreement and/or this Circular of Information should be included by reference. If both the above are referred to state which shall govern in any conflicting conditions.

It is further recommended that the Owner provide and the Architect obtain a written statement of essential features and requirements of the building prior to the start of work on preliminary plans. This will clarify the problem for both Owner and Architect and help to avoid the need for undue revision of preliminary studies.

### Section 6

### Arbitration

Any controversy under the Owner-Architect contract which may by common law or statute be the subject of arbitration shall be submitted to arbitration at the choice of either party to the dispute. No one shall be nominated or act as an arbitrator who is in any way financially interested in said contract or in the business affairs of either party.

Unless otherwise provided by controling statutes nearest to the location of the construction work, the parties may agree upon one arbitrator, otherwise there shall be three, when a decision of any two shall be binding. An award shall be a condition precedent to any right of legal action, and whenever permitted by law it may be filed in Court to carry it into effect.

### NOTE

This Circular of Information and Code is to be reprinted as a self-contained booklet and will be available through the Society early in 1952.

### U.S. PLYWOOD BUYS UNIQUE WALNUT VENEER

United States Plywood Corp. recently purchased the veneer from one 101/2-foot American walnut log for roughly \$8,500. Chester B. Stem, owner and veneer cutter of the prize walnut, said the tree was grown on a farm in Kentucky's Blue Grass region. More than 10 floors in height, it was said to be the finest American walnut ever grown. The trunk weighed approximately 11,000 pounds and measured 36 inches in diameter. Seventeen thousand square feet of clear, figured walnut veneer, costing almost one dollar per pound, was cut from the single log.

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