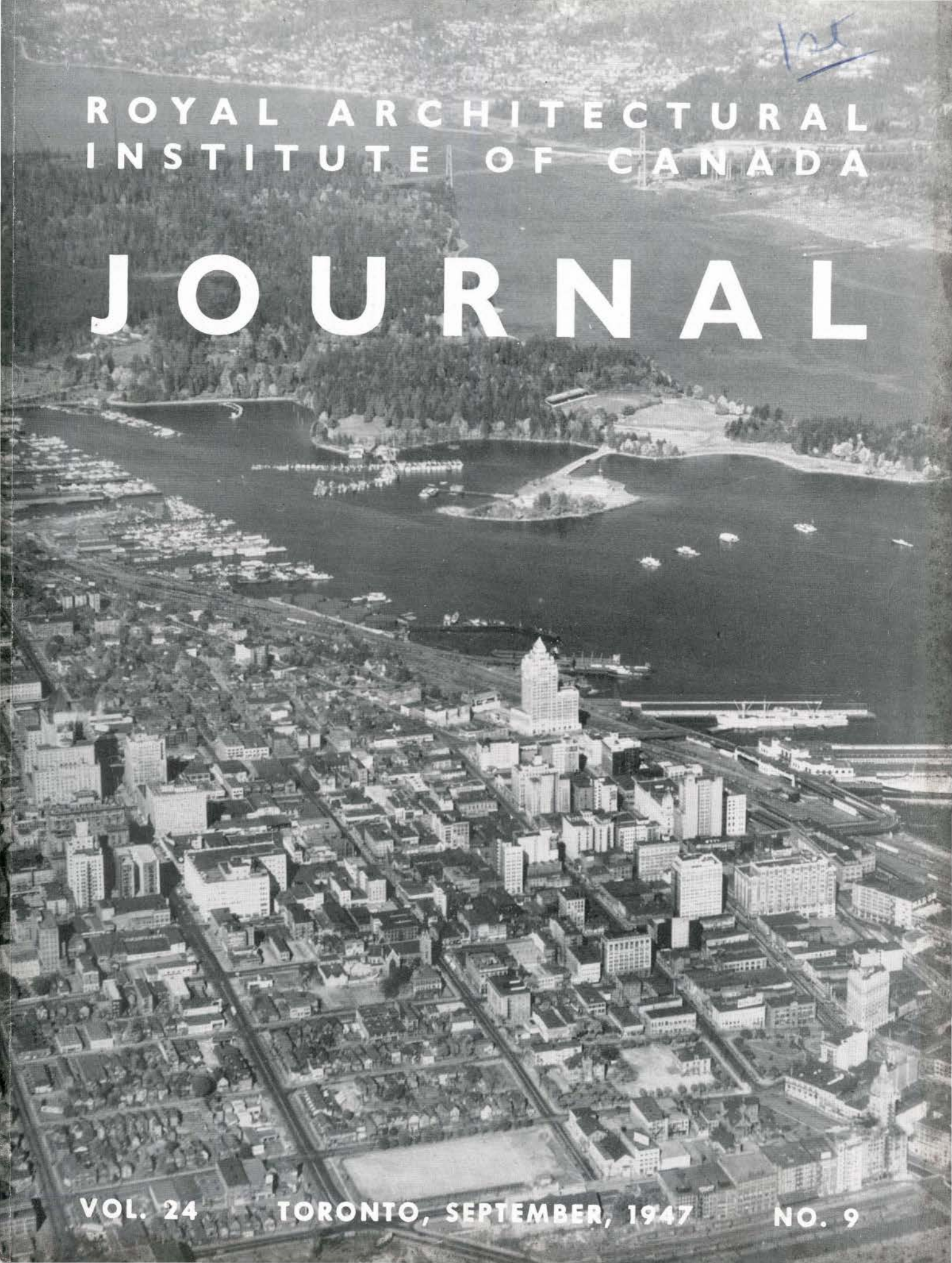


125

ROYAL ARCHITECTURAL
INSTITUTE OF CANADA

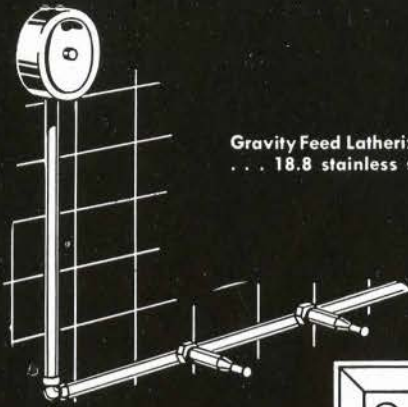
JOURNAL



VOL. 24

TORONTO, SEPTEMBER, 1947

NO. 9



Gravity Feed Lathering Soap Systems
... 18.8 stainless steel valves.



Chrome-plated Lathern Liquid Soap Dispenser with 18.8 stainless steel valves provides a rich creamy lather.



No. 91 Liquid Soap Dispenser. Leak-proof; equipped with stainless steel valves.



No. 94 Liquid Soap Dispenser. Leak-proof; pump action; delivers a measured quantity of soap as required.



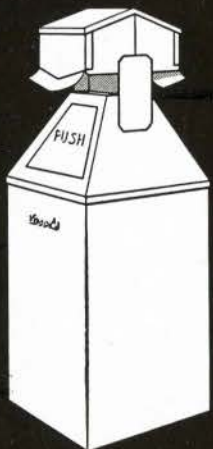
Mop Trucks and Floor Maintenance Equipment. This Mop Truck is entirely self-contained; two 22½ gallon tanks.

Specify

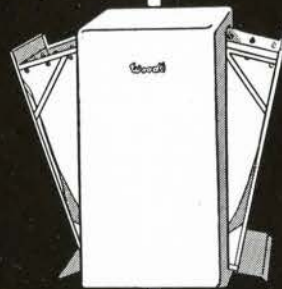
GH
Wood's
SANITATION
EQUIPMENT

- The best equipment for maintaining buildings in the most modern, sanitary manner.
- Wood's has 24 branches from coast to coast and 135 sanitation salesmen.
- May we submit specifications and quotations?

Floor Scrubbing and Polishing Machines. Equipped with full 15" brushes. C.S.A. approved.



Self-closing, Fire-proof Waste Receptacles (with or without paper towel dispensers.) Various types and sizes.



Foot-operated Waste Receptacle. Operates from two sides; self-closing. 20" x 20" x 36".

Wood's Electric Water Cooler. Automatic thermostatic control assures constant supply of cool water.



G. H. WOOD & COMPANY LIMITED

MONTREAL

TORONTO

VANCOUVER

Branches throughout Canada

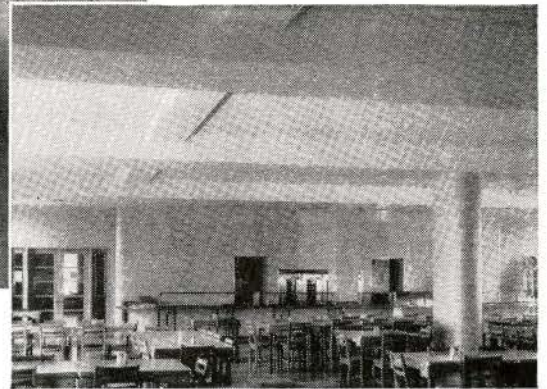
CANADA'S LARGEST MILITARY HOSPITAL

relies on Johns-Manville for Sound Control



SUNNYBROOK HOSPITAL, Toronto, is a typical example of a 100% Johns-Manville Sound Control job. This up-to-date military institution relies on J-M Perforated Transite Panels to keep all corridors comfortably quiet. Sound-absorbing J-M Fibretone assures restful silence in wards, dining rooms, canteens and recreation rooms.

In addition to noise elimination there are many other advantages to J-M Acoustical Materials. For example some are fireproof for added safety . . . others have removable sections to provide easy access to the enclosed ceiling space and there are specially treated types that are easy to clean — may even be washed or painted repeatedly without impairing their high sound-absorbing efficiency.



YOUR NOISE PROBLEM, TOO, should have the benefit of Johns-Manville experience!

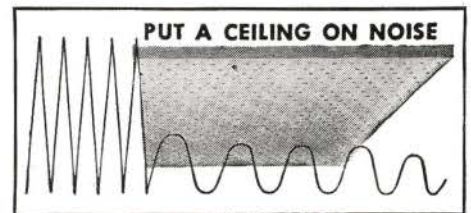
Whatever your problem in sound control — Johns-Manville can provide a solution that is scientifically correct. Our experience in controlling sound dates back 35 years — today, when you choose J-M Acoustical Materials *for any type of job* you get full benefit from this backlog of knowledge.

Johns-Manville not only recommends the *right* acoustical material for each specific condition — J-M follows through with the *correct* installation. Trained J-M construction crews see that these sound-

absorbing materials are installed to assure maximum performance in the proper manner. That's the all-inclusive service . . . the undivided responsibility you receive from Johns-Manville!

For complete information on Johns-Manville Acoustical Materials send for our brochure, "Sound Control". This interesting booklet is yours for the asking, just write Canadian Johns-Manville, Toronto, Montreal, Winnipeg or Vancouver.

- RADIO STUDIOS
- SCHOOLS
- HOSPITALS
- RESTAURANTS
- OFFICES
- CHURCHES



Johns-Manville

Pioneers in

Sound Control



A525



UNI-K FLUSHWOOD DOORS

"UniK" Flushwood doors are the superior in every way to other type doors for your home.

Dignified, inviting and exceptionally beautiful, they possess the power to transform an otherwise ordinary room or entrance to one of lasting charm.

Their superior materials and construction makes them Canada's leading value and the logical choice of economy-minded home owners.

Write for catalogue.



CANADA FLUSHWOOD DOOR LIMITED
TERREBONNE · P.Q.

STYLED TO INFLUENCE THE FUTURE

Emco For Beauty and Comfort

THE new line of EMCO bathroom fixtures and fittings has been developed to suit EVERY requirement of today's home owner. EMCO engineering and design assures maximum efficiency . . . greater convenience. Typical of EMCO quality are the gleaming fittings, constructed of finest materials by skilled craftsmen to give years of trouble-free service.

Our FREE booklet, "EMCO MODERN BATHROOMS and KITCHENS," is yours for the asking. You will find it most helpful. In remodeling or building your new home seek the advice of your architect or plumbing contractor . . . you depend on his professional advice.

EMPIRE BRASS MFG. CO. LIMITED
LONDON - HAMILTON - TORONTO - SUDBURY - WINNIPEG - VANCOUVER

QUALITY EMCO BRASS GOODS

STYLED TO INFLUENCE THE FUTURE

Emco For Beauty and UTILITY

TODAY'S kitchen is modern in design . . . engineers to save countless steps . . . give adequate storage space . . . furnish convenient working surfaces . . . lighten daily tasks.

And the heart of this beautiful kitchen is the gleaming EMCO Fixtures and Fittings . . . it is built to last.

EMPIRE BRASS MFG. CO. LIMITED
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QUALITY EMCO BRASS GOODS

STYLED TO INFLUENCE THE FUTURE

Emco Modern Designed Pictures and Fittings

THAT'S just what they are . . . modern . . . new beauty for your home. The gleaming, easy to keep clean EMCO Fixtures and Fittings will assure you life-long charm and usefulness.

Consult your architect or plumbing contractor before building or remodeling.

Write for our FREE booklet, "EMCO MODERN BATHROOMS and KITCHENS," today.

EMPIRE BRASS MFG. CO. LIMITED
LONDON - HAMILTON - TORONTO - SUDBURY - WINNIPEG - VANCOUVER

QUALITY EMCO BRASS GOODS

Our FREE booklet, "EMCO MODERN BATHROOMS and KITCHENS," is yours for the asking. You will find it most helpful. In remodeling or building your new home seek the advice of your architect or plumbing contractor . . . you depend on his professional advice.

EMPIRE BRASS MFG. CO. LIMITED
LONDON - HAMILTON - TORONTO - SUDBURY - WINNIPEG - VANCOUVER

QUALITY EMCO BRASS GOODS

A DURO fills Every FARM NEED

RUNNING water is a necessity in the farm home today. And in stables, barns, poultry houses, green-houses and truck gardens it adds production and profit enough to soon pay for a DURO Pump installation. The new DURO is the Farmer's Pump - built to give a lifetime of satisfactory service. See us for complete information.

EMCO Fixtures & Fittings

Styled for Beauty and for EMCO Kitchen, Bathroom, Laundry . . . protect the comfort of your family . . . how easily and economically you can modernize your home today.

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LONDON - HAMILTON - TORONTO - SUDBURY - WINNIPEG - VANCOUVER

QUALITY EMCO BRASS GOODS

A Thrilling EMCO Kitchen

For Enduring Beauty and Utility Insist on EMCO

WITHIN YOUR BUDGET!

A beautiful kitchen like this is easy with EMCO . . . plenty of storage space . . . convenient working surfaces . . . making every kitchen task simple.

And the gleaming EMCO Fixtures and Fittings are the very nerve centre of that kitchen . . . designed for style and utility, they are built in the EMCO tradition of quality and craftsmanship to give

building or remodeling consult direct or plumbing contractor. showrooms or write today for FREE booklet, "EMCO MODERN BATHROOMS and KITCHENS".

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QUALITY EMCO BRASS GOODS

IN HOUSE.. and BARN..

A DURO Pump

Meets every farm need . . . pumping fresh, clean, running water instantly wherever it is needed. Modern farmers realize that savings in time and labour alone pay for a DURO Pump in a few months.

EMCO Fixtures and Fittings

Designed for style and utility are ideal for installations to modernize your kitchen or bathroom . . . protect the health of your family . . . add comfort to your daily living.

SEE YOUR LOCAL PLUMBING CONTRACTOR OR F.O.B. London, Can. WRITE DIRECT FOR FULL INFORMATION

EMPIRE BRASS MFG. CO., LIMITED
LONDON HAMILTON TORONTO SUDBURY WINNIPEG VANCOUVER

QUALITY EMCO BRASS GOODS

STYLED TO INFLUENCE THE FUTURE

EMCO Fixtures & Fittings

Styled for Beauty and for EMCO Kitchen, Bathroom, Laundry . . . protect the comfort of your family . . . how easily and economically you can modernize your home today.

EMPIRE BRASS MFG. CO. LIMITED
LONDON - HAMILTON - TORONTO - SUDBURY - WINNIPEG - VANCOUVER

QUALITY EMCO BRASS GOODS

EMCO leads for better living..

Promoting better building . . . better living . . . for Canadian homemakers . . . EMCO is using influential newspapers and class publications in a great national campaign . . . telling the EMCO plan for improving our Canadian way of life.

An essential part of the EMCO message in all these advertisements is the recommendation that home-builders consult their architect. For we of EMCO realize that for truly better building . . . truly better living . . . the professional skills of the architect are of prime importance.

For this reason also, we are proud of the number of architects who unhesitatingly specify EMCO in all their commissions.

Let us know your problem . . . we will gladly help you anytime.

light.

WHEN AND WHERE YOU WANT IT



WITH THE DAZOR FLOATING LAMP

DAZOR LAMPS give you the benefit of a floating light source. As easily as you move your arm, a Dazor Floating Lamp is swung into the required position . . . there it will stay put without locking. This exclusive feature results from a patented enclosed balancing mechanism.

Increased efficiency, workability, and energy have followed the installation of Dazor Floating Lamps. They make seeing easier on all jobs, for all eyes, young and old, sound or defective. Dazor Floating Lamps are available in incandescent models or for 60 cycle fluorescent. And you can choose the type of base best suited to your needs . . . desk . . . bracket . . . pedestal . . . universal.

Ask your electrical wholesaler to tell you more about Dazor Floating Lamps . . . light that's right and right where you want it.



FLOATS efficient localized lighting to any position at a touch of the hand.



MOVES with the flexibility and ease of a flashlight.



STAYS PUT as firmly as a built-in light without locking.



A M A L G A M A T E D
ELECTRIC CORPORATION LTD., TORONTO AND MONTREAL



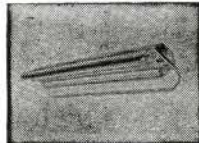
PANELBOARDS



WIRING SUPPLIES



SAFETY SWITCHES



LIGHTING EQUIPMENT



MOTOR CONTROL

SOLD BY RECOGNIZED WHOLESALERS FROM COAST TO COAST

"Sanitas" ALUMINUM LAUNDRY CHUTES

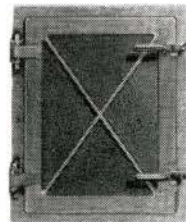


● "Sanitas" Laundry Chutes provide rapid, sanitary transmission of soiled linen from all floors to basement. Entire construction is aluminum, except for hardware. Glass Panel in doors optional. Require no painting. Can be flushed down with water from flushing ring at top. "Sanitas" Chutes can be installed in already completed buildings, Hospitals, Hotels, Institutions. Write for "Laundry Chute folder."

Let us look at your drawings, suggest a layout and quote a price.



Solid Aluminum Panel Door



Basement Outlet Door

Write Today
for **FREE**
Catalogue



WESTEEL PRODUCTS LIMITED

MONTREAL • TORONTO • WINNIPEG • REGINA • SASKATOON • CALGARY • EDMONTON • VANCOUVER

formerly

GEO. W. REED & CO. LTD.

MONTREAL

METALLIC ROOFING CO. LTD.

TORONTO

WESTERN STEEL PRODUCTS

WINNIPEG
AND WESTERN BRANCHES

Why a Barrett SPECIFICATION* Roof?



This is one of a series of advertisements illustrating the links in the Barrett chain of roof satisfaction.

Because the Bond Provides Two-Way Assurance

“YES! A Barrett Specification* roof Bond is, to the owner, more than a piece of paper—more than a promise to pay.

True, it is your legal guarantee against any repair or maintenance expense resulting from ordinary wear and tear over a period of 15 or 20 years.

But it is much more than that . . . the bond is also your proof and assurance that the roof it covers is truly a Barrett Specification roof . . .

applied by a Barrett Approved Roofer using Barrett Specification pitch and felt strictly according to rigid specifications

and under the supervision of a Barrett Inspector.

This is the built-up roof that holds an unequalled record of performance years *beyond* its promise. Proof of that performance is contained in actual records from coast to coast . . . beginning with the very first bonded built-up roof applied in Canada . . . 29 years without maintenance or repair.

Those are the plus factors that make the Barrett Bond a two-way assurance against roof troubles . . . a promise based on experience and backed by proof.

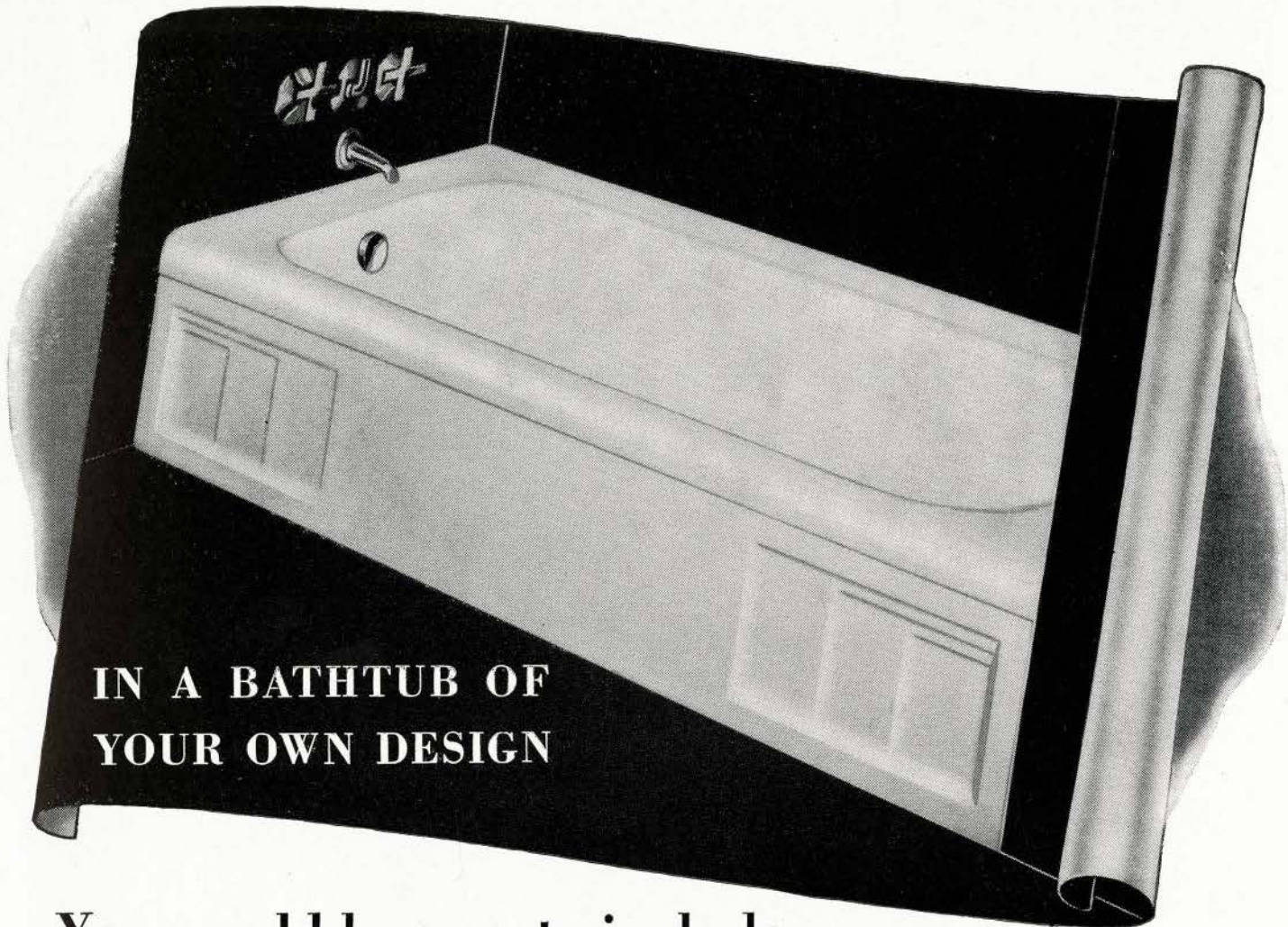
For lasting roof satisfaction, INSIST on a Barrett Specification roof, a Barrett Approved Roofer and a Barrett Bond.



THE BARRETT COMPANY, LIMITED
Montreal • Toronto • Winnipeg • Vancouver

“Since 1854 — The Greatest Name in Roofing”

**Reg'd trade mark*



**IN A BATHTUB OF
YOUR OWN DESIGN**

**You would be sure to include
*these features . . .***

FIRST, you would insist on a pleasing modern appearance.

You have it in AllianceWare

Second, you would want a lustrous, acid-resisting surface that is readily cleaned.

You have it in AllianceWare

Then, you would want a tub easy to handle and easy to install.

You have it in AllianceWare

Too, the tub you design should not shift or settle after installing.

You have it in AllianceWare

Last, but not least, you would design your tub so that you could profit from its sale and installation.

You have it in AllianceWare

So—now you have a tub—just the way you might design it in all of its profitable features. That's why you can plan your program around *Alliance Ware*—for an enviable reputation and greater profits.

ALLIANCEWARE LTD.
1590 Powell Street, Vancouver, B. C.

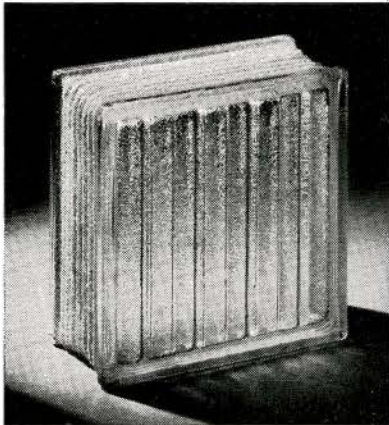
Flat-rim kitchen sinks now available in colours at no extra charge.

AllianceWare
VANCOUVER, B. C.

Designed by Architects Holabird and Root, this 11-story unit of Illinois Bell Telephone Co.'s long distance switching center (already the world's largest) will house intricate, costly equipment. Insulux will provide daylight, the insulation necessary for economical air conditioning, and help block out dust and dirt in this structure planned to be built at Clark and Congress Streets, Chicago, Illinois.



OWENS - ILLINOIS
INSULUX
GLASS BLOCK



Insulux Glass Block is a functional building material, designed to do many things other materials cannot do. Investigate!

Glass block daylights unique building

WITH an ease approaching magic, myriad calls from all parts of the world will pass through this unit of Illinois Bell Telephone Co.'s long distance switching center.

The building and its equipment—representing ten million dollars—have been carefully designed for smooth operation and economical maintenance. One note-worthy bit of planning by Architects Holabird and Root was the selection of Insulux Glass Block.

Insulux panels will not only bring in light, but provide good insulation. The result is lower cost air conditioning and heating operations.

Maintenance, too, is less costly with Insulux. The panels are not subject to rust, rot or corrosion. Infrequent washing keeps them sparkling. No painting is required.

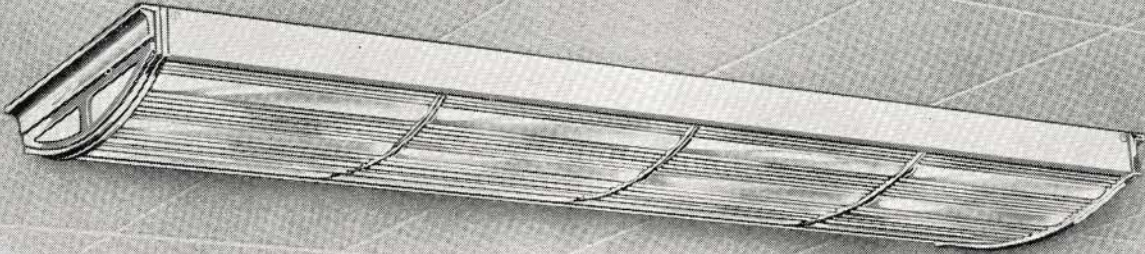
Frequently Insulux Glass Block can make important contributions to efficiency while protecting processes and equipment in industrial and commercial buildings. For complete information write Insulux Products Division, Owens-Illinois Glass Company, Dept. D-87, Toledo 1, Ohio.

Canadian Representatives: The Consolidated Plate Glass Company of Canada, Ltd. • Pilkington Glass, Ltd.

A SMARTLY STYLED

New Fluorescent Fixture

FOR SEMI-RECESSED MOUNTING



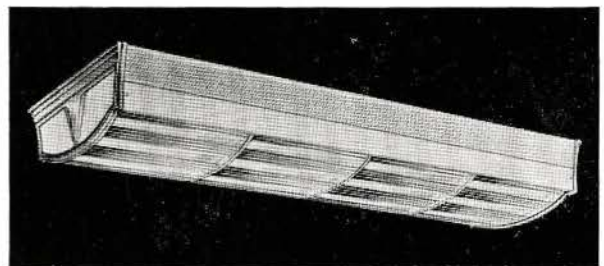
GENERAL  **ELECTRIC**

Ambassador Luminaire

THIS is an exceptionally beautiful luminaire for fluorescent installations where appearance is of prime importance. The rich, unobtrusive design is matched by the high efficiency of the fixture. Fresnel lenses with crystal satin finish provide excellent diffusion with a maximum of efficiency.

This fixture is easily relamped or cleaned by simply removing the glass lenses. A large wiring housing makes possible quick and easy installation.

There are two styles . . . the semi-recessed, shown above and the ceiling type (below). Designed for use with four 40 watt fluorescent lamps, individual or continuous row mounting.



For full information write or call your nearest CGE office.

47-FJ-2

CANADIAN GENERAL ELECTRIC CO LTD

HEAD OFFICE — TORONTO



Built on

PRESTIGE

Technical advances in the manufacture of Glass have been closely allied with every phase of modern architectural development. It is a well known fact, also, that the extensive and commonly accepted use of glass affects the health and psychology of a whole nation.

Consolidated Plate Glass has advanced in step with these new thoughts and far-reaching developments. Through years of progressive thinking and planning in every stage of marketing and glass manufacture, Consolidated has succeeded in passing on to the Canadian public the results of these years of research.

In the future when you require Plate Glass, Insulux Glass Blocks for building, Mirrors, Structural Glass and Metal Store Fronts, consult Consolidated. We will be very pleased to help you.

113

**THE
CONSOLIDATED
PLATE GLASS COMPANY
OF CANADA, LIMITED**

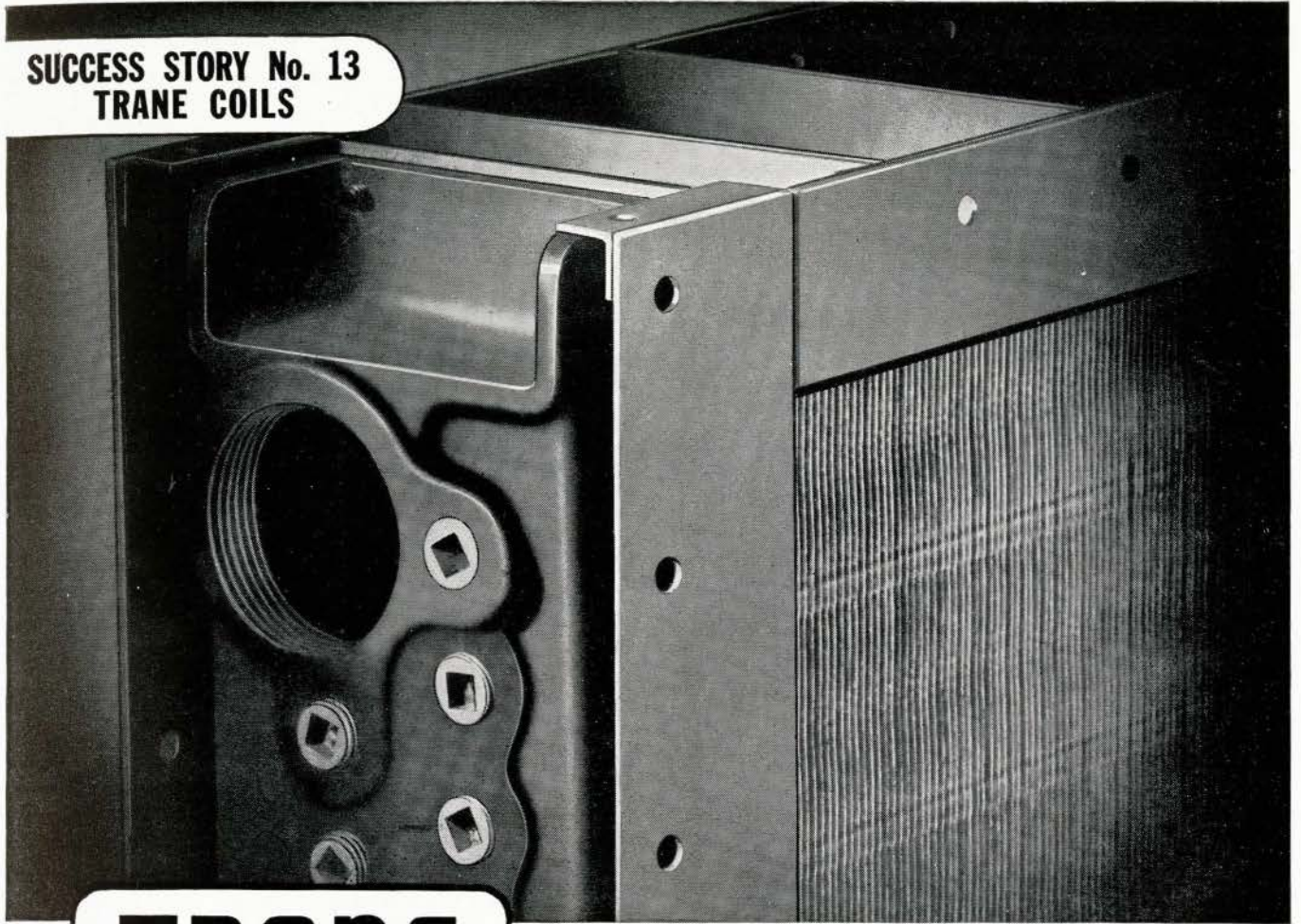
J. W. HOBBS
PRES.

TORONTO
OTTAWA
MONTREAL

F. S. HOBBS
VICE-PRES.

BENNETT GLASS CO. LTD., WINDSOR

**SUCCESS STORY No. 13
TRANE COILS**



TRANE
IS THE NAME

for **COILS . . .**

Known to you, and others in the field of heating, cooling and air-conditioning, the name Trane stands for quality, trouble-free service and dependable efficiency. This reputation is gained from the Trane Extended Surface Coil which is the heart of famous Trane Convector-radiators, Unit Heaters, Projection Heaters and many air-conditioning, cooling and refrigeration applications throughout Canada.

Backed by more than 60 years' experience in the business of extended surface heat exchange and proved by actual performance in numerous, varied installations, Trane Coils offer many advantages.

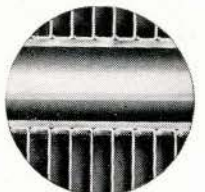
Flat plate type fins are easy to clean and offer maximum heat transfer. Mechanically bonded to tubes, each fin is a permanent integral part of the tube providing positive heat transfer and protection from corrosion.

Most important to you is the fact that Trane published capacities are based on actual tests and performances.

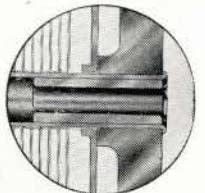
Trane coils are available in a wide variety of styles and sizes for steam, hot water, cold water, direct expansion and other applications.

Sound design, material specifications and rigid inspections insure maximum efficiency and long life.

In Coils, Trane is the name. For additional information and new bulletin write to Dept. R8.



Dual surface contact of fin and tube forms perfect union for top performance and long service.



Mechanical tube-to-header joint reinforced and permanently sealed by tapered brass bushing.

TRANE

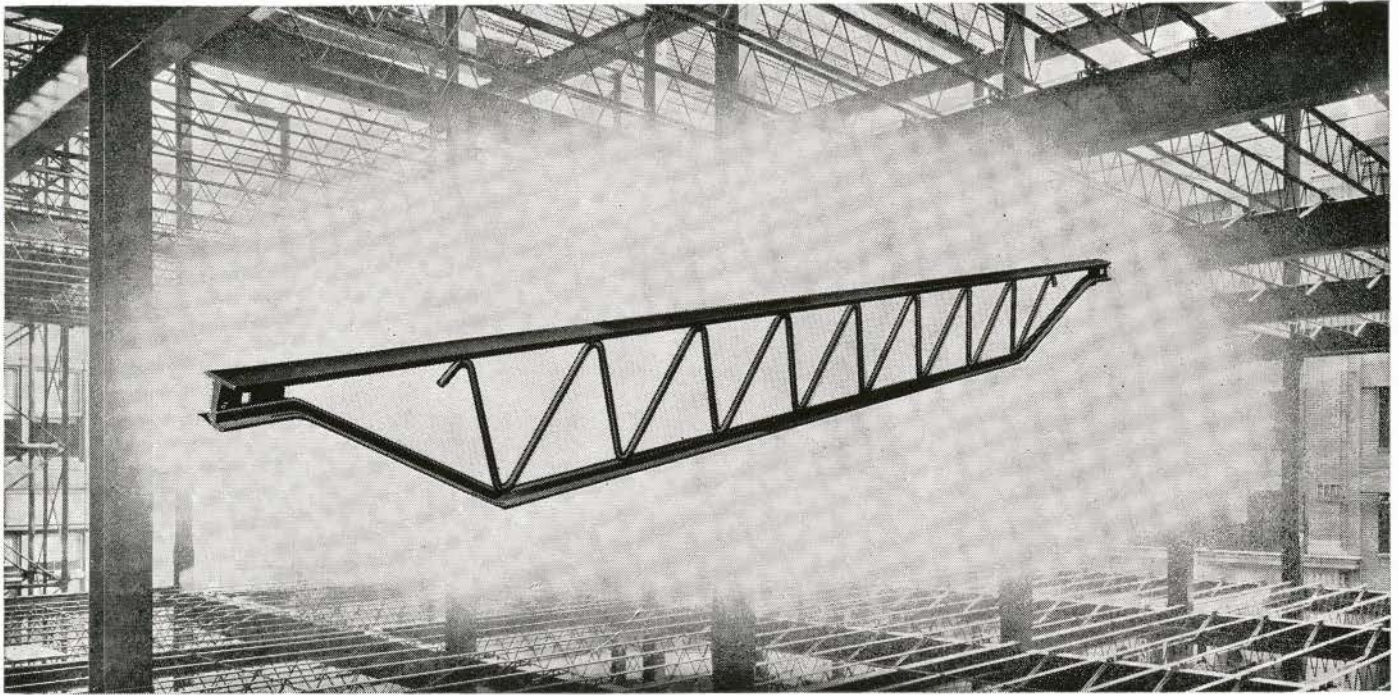
COMPANY OF CANADA LTD

. . . IN HEATING, COOLING AND AIR-CONDITIONING . . .

. . . TRANE IS THE NAME . . .



4 MOWAT AVENUE . . . TORONTO ONT.



FOR MORE ECONOMICAL STEEL CONSTRUCTION . . .

TRUSCON OPEN TRUSS **STEEL JOISTS**



Easily and quickly erected—to give you permanent, soundproof and fire-resistant floors. Brings to every type of job the double advantage of faster erection and a more satisfactory result in the finished building. Adequately proven strength—lightness of weight—and adaptability to a wide variety of requirements, including sound. Permits full flexibility of wiring, pipes and conduits, which can be run in any direction through the open trusses—providing extra convenience in location of outlets.

Complete Information on Request

DOUBLE HUNG
STEEL WINDOWS
STEEL BASEMENT WINDOWS

TRUSCON
STEEL COMPANY
of CANADA
LIMITED

FACTORY SASH
OF ALL KINDS
STEEL SASH OPERATORS

WALKERVILLE • TORONTO • MONTREAL • HALIFAX • WINNIPEG • REGINA • CALGARY



Before *Tile-Text* Asphalt Tile Gets This OK...

... it must first pass the most exacting inspection and testing of our own technical staff throughout every phase of its production.

The uniform quality of Tile-Text Asphalt Tile does not just happen—it is the result of continuous product control, starting with the raw materials that are used and finishing with a thorough check-up of the completed product.

Raw materials are checked to meet the precise requirements of Tile-Text formulation before any manufacturing commences. During the manufacturing process, periodic tests are carried on to make sure that dimensional accuracy, indentation resistance, impact resistance, and flexure conform to Tile-Text standards. Before the product is packed for shipment, it must withstand close scrutiny for surface texture, sharpness and trueness of edges, and uniformity of color.

Additional tests on samples taken from each manufacturing batch are made to assure maximum resistance to "curling" and "shrinking" in the presence

of excessive moisture—to prevent deterioration of the product in service from attack by capillary alkalinity on grade installations—and to inhibit Tile-Text Asphalt Tile against harmful action of strong soaps and cleaning materials.

Nothing is left to chance in maintaining and improving the uniform quality of Tile-Text Asphalt Tile. This important principle of Tile-Text manufacturing practice protects your clients and assures them of maximum performance when you specify Tile-Text Asphalt Tile.

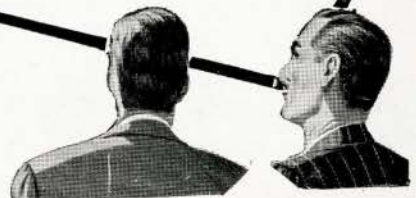
Ask us to have an experienced Tile-Text field man call on you with the approved Tile-Text Contractor in your city. They will be glad to help you with any of your floor problems.



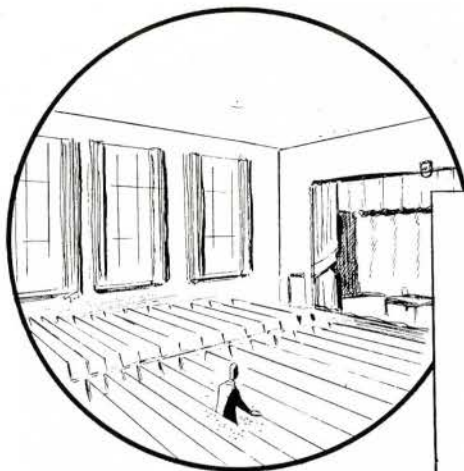
Tile-Text

"The best in flooring"

A FLINTKOTE PRODUCT... MADE IN CANADA

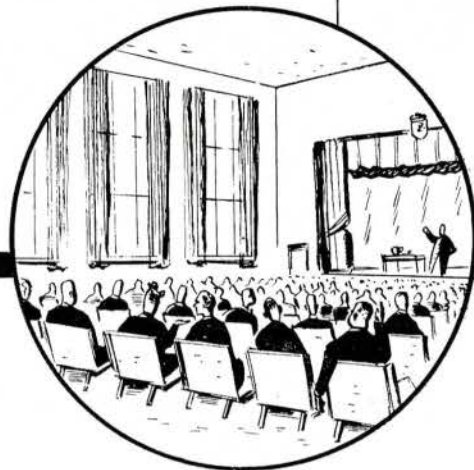


Tile-Text is made in Canada... one of many quality products manufactured by The Flintkote Company of Canada Limited, 30th Street, Long Branch, Toronto 14, Ontario.



HEAT COMFORT

for 1 or 1000



DUNHAM Differential Heating is especially beneficial in installation where heat comfort must be maintained under even extreme variables in occupancy.

Utilizing sub-atmospheric or flexible steam it provides continuous flow to meet the changing conditions unobtrusively – without underheating or overheating. The supply can be automatically or manually controlled and comfort levels are maintained regardless of outside temperatures.

In theatres, hospitals, school auditoriums, churches and similar installations from coast to coast Dunham Differential Heating has been proven to be the only system to provide this service efficiently.

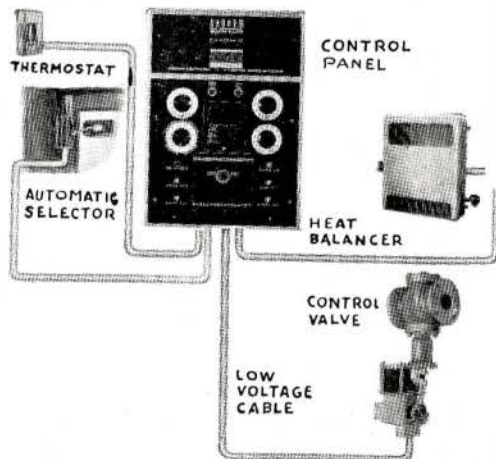
Dunham engineers will be glad to furnish you, your consulting engineer or architect with complete case histories. C. A. Dunham Co. Ltd., 1523 Davenport Road, Toronto 4, Ontario. Offices from coast to coast.

UNDIVIDED RESPONSIBILITY

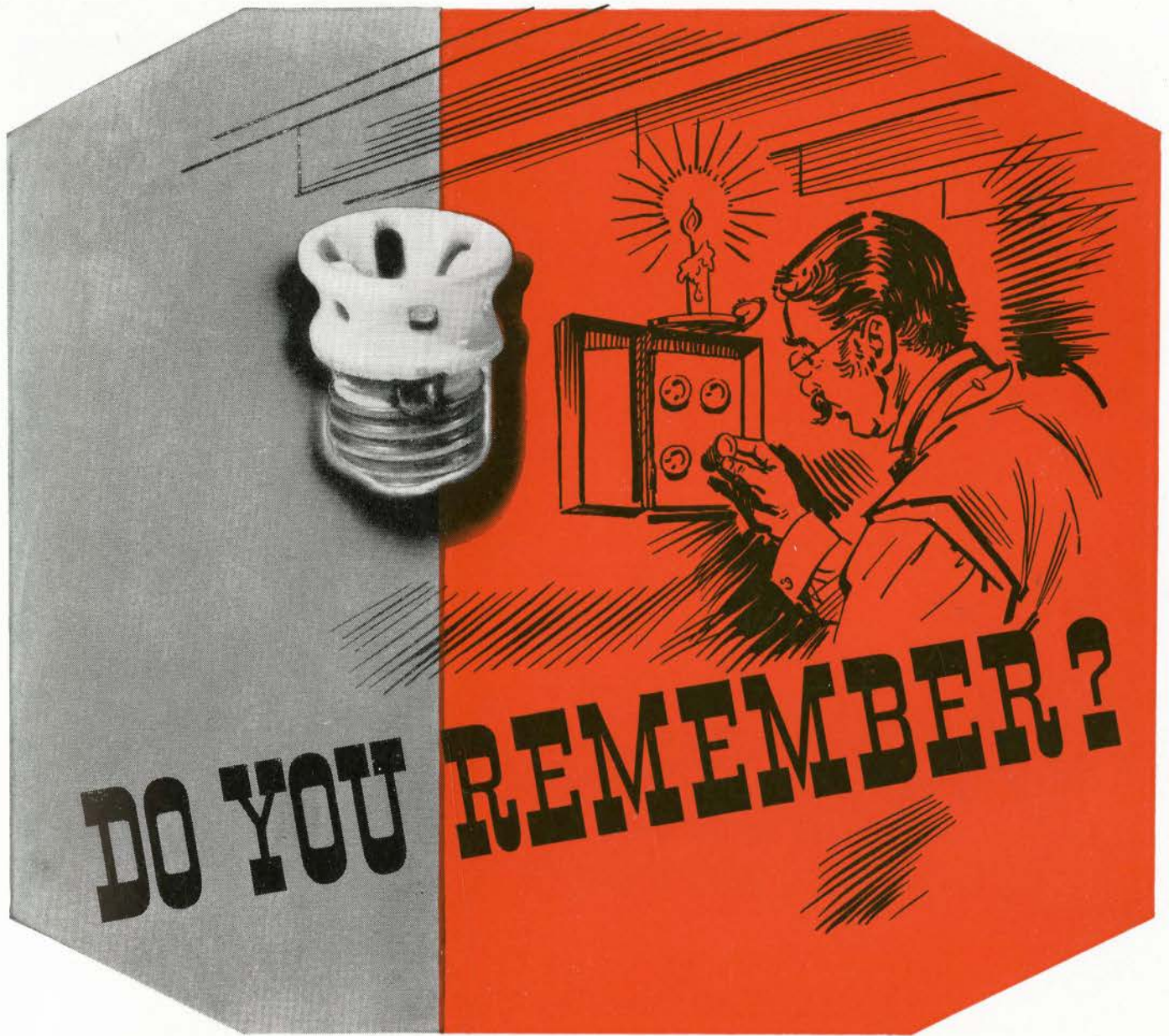
The owner of a Dunham System is protected against the annoyances and expense caused by the divided responsibility in an "assembled" system of devices built by different manufacturers.

TRUE HEATING COMFORT

Heat-comfort requires a constant balance of the steam supply against the requirements for warmth. The requirements are variable, the steam supply should likewise be variable, but not intermittent. Only Dunham Differential Heating has the necessary flexibility to fully meet this variable requirement because no other system is capable of a continuous flow, giving a feeling of "warmth" through automatic control of both steam temperatures and steam volume.



The DUNHAM
HEATING SERVICE



Do you remember the old porcelain fuse illustrated above? It served well in its day, but time and research have brought improvements.

In the modern Smith & Stone fuse, glass has replaced the porcelain, making the fuse visible. It is neat and compact and has colored markers to indicate the amperage—brown markers for 3 and 6 amp., yellow for 10 amp., blue for 15 amp., pink for 20 amp., red for 25 amp., and green for 30 amp. Replacing with the correct color means replacing with the correct amperage—and that means safety.

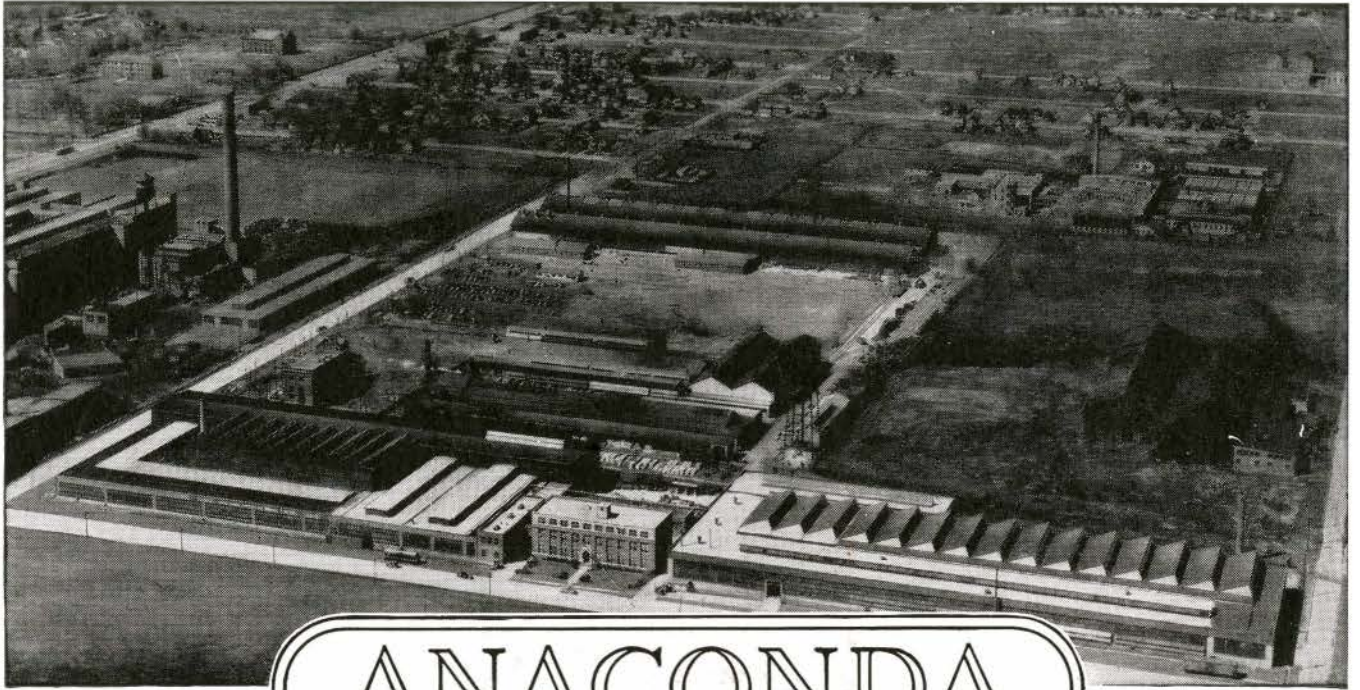
This is just one example of the way our designers study every detail of Smith & Stone devices, to find ways to improve them.

SMITH & STONE

LIMITED

FACTORY AND HEAD. OFFICE: GEORGETOWN, ONTARIO
 Sales Offices: Montreal, Toronto, Winnipeg, Calgary, Vancouver





ANACONDA

Since 1922

Headquarters in Canada for Copper and Brass

—as well as for bronze, nickel silver and other copper alloys—in sheets, rods, tubes and special shapes in a wide range of sizes—made from Canadian copper, zinc, nickel and lead under the watchful eye of a modern, completely equipped physical and chemical testing laboratory.

Anaconda's plant at New Toronto covers over twenty-two acres, eleven and a half of which are under roof. It employs some 1300 Canadians and uses the most modern production methods. With recent expansion in facilities, output of rods and tubes has now been greatly increased. This means still better service for you.

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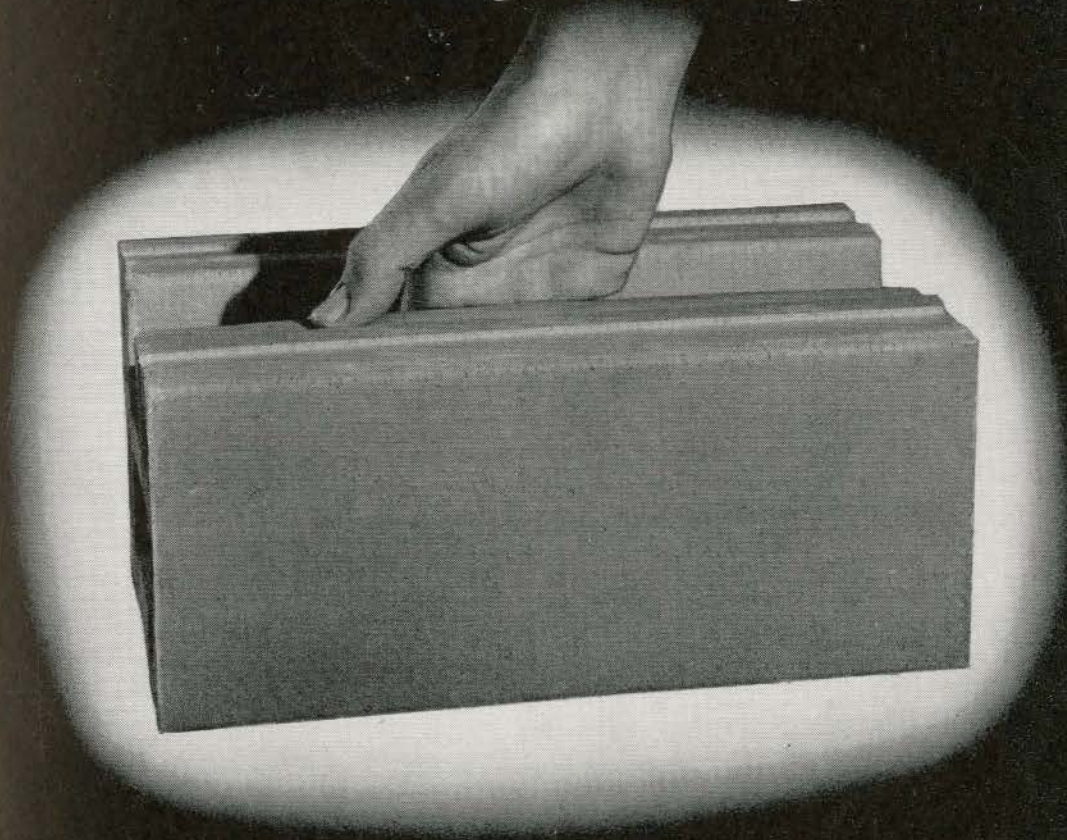
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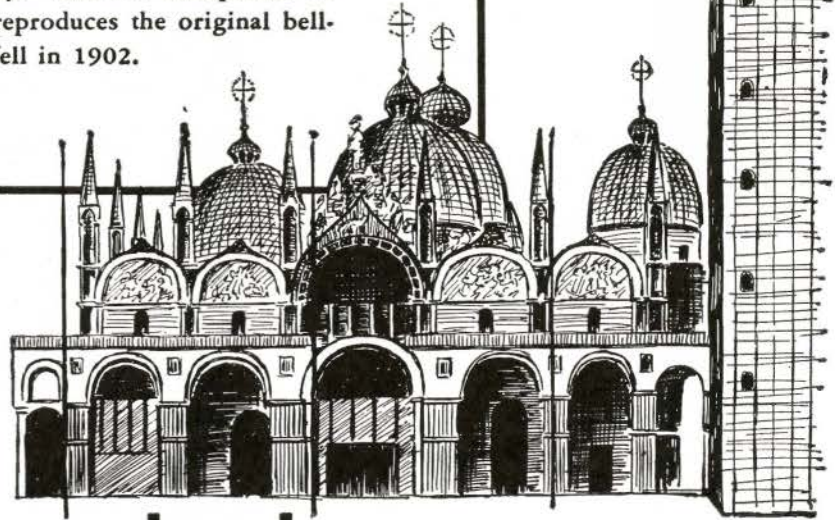
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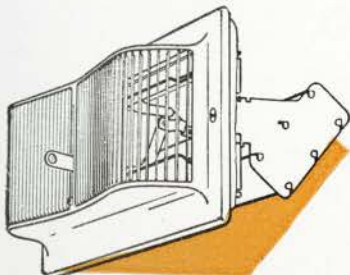
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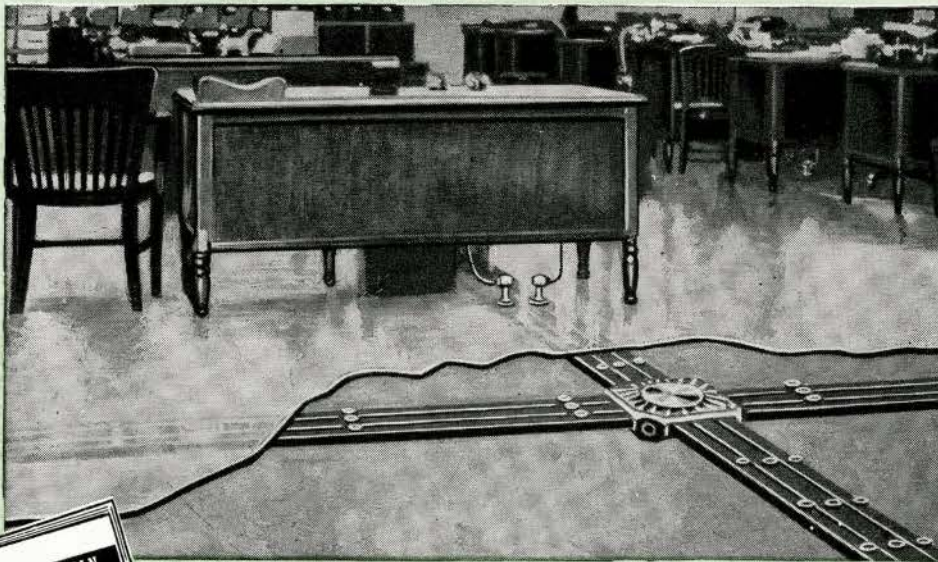
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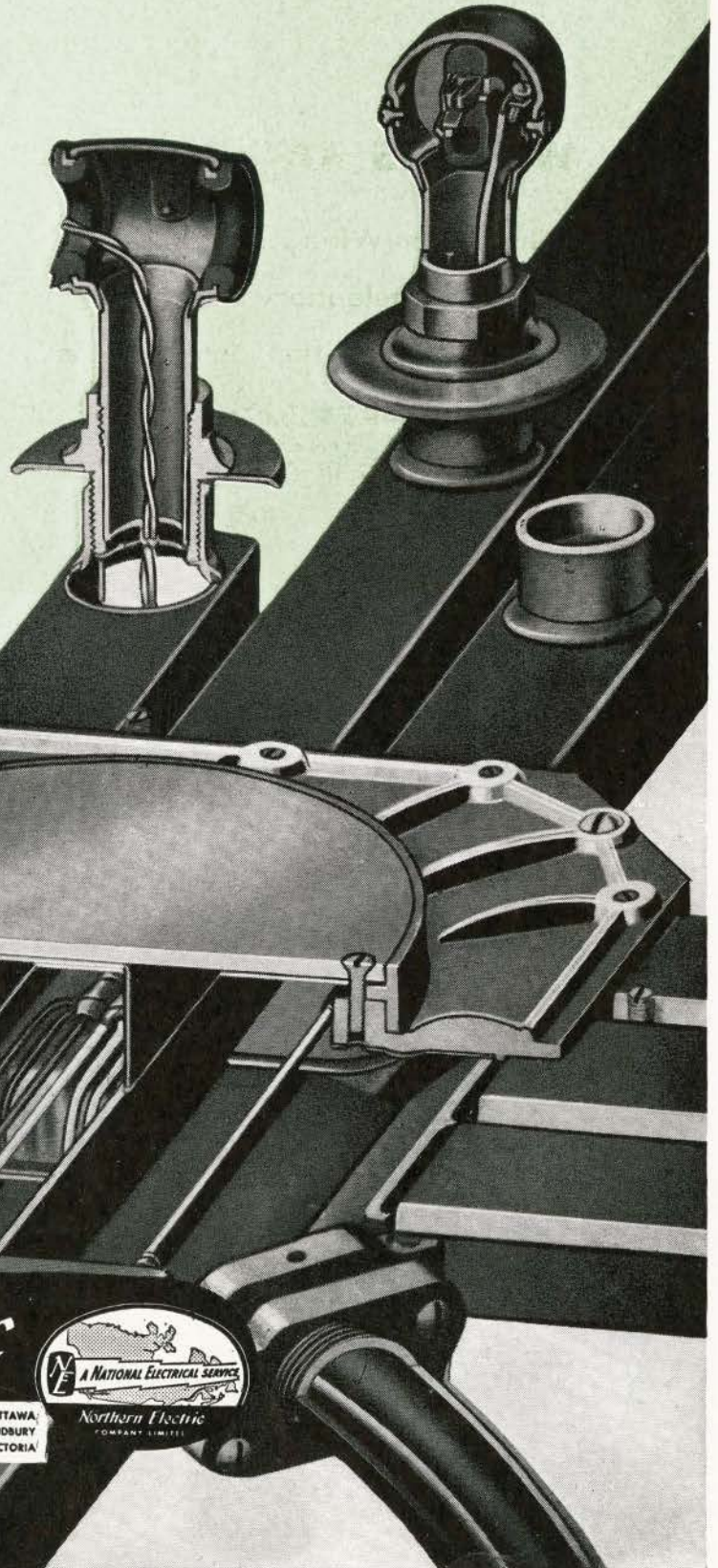
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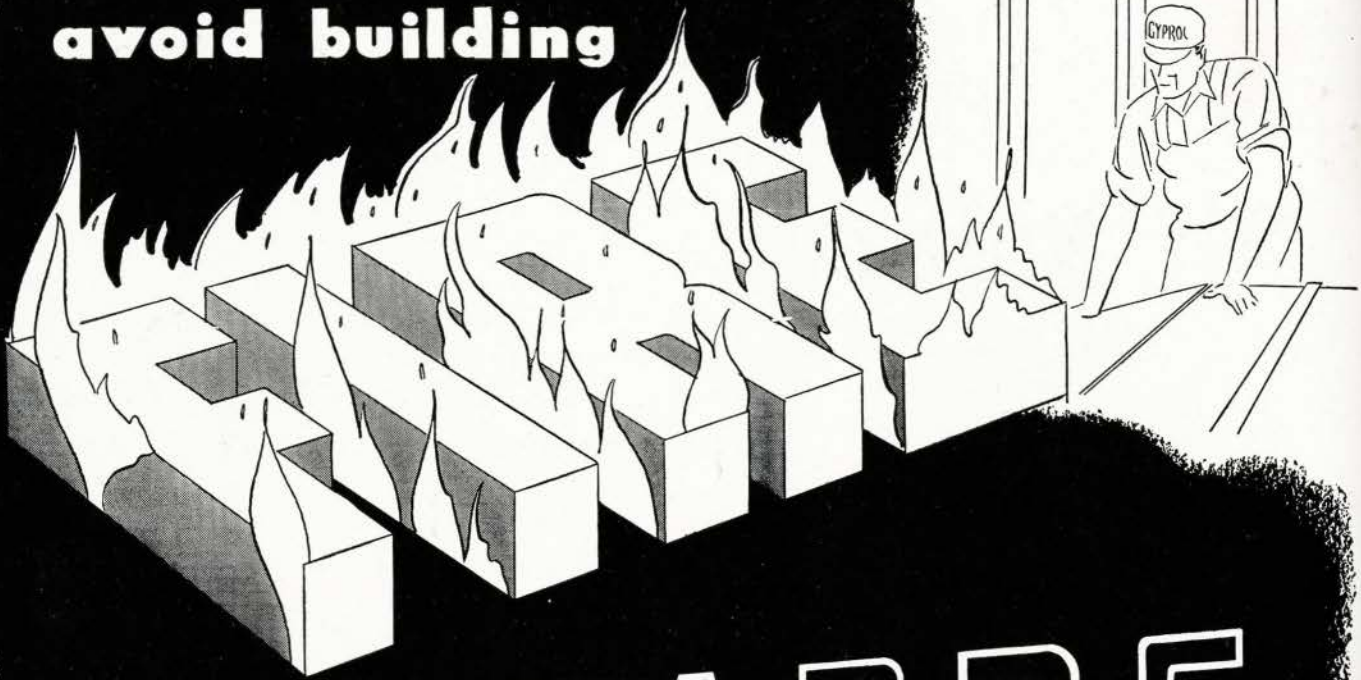
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3-G-47A

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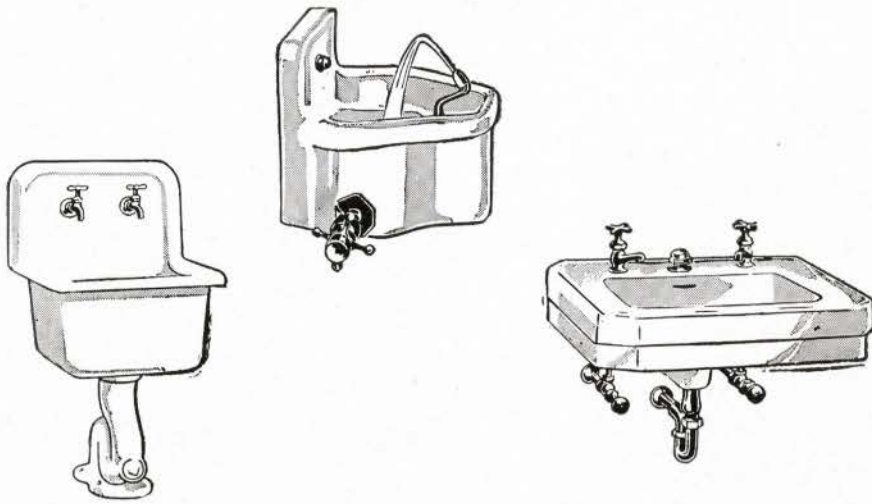
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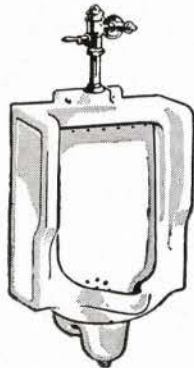
School Plumbing



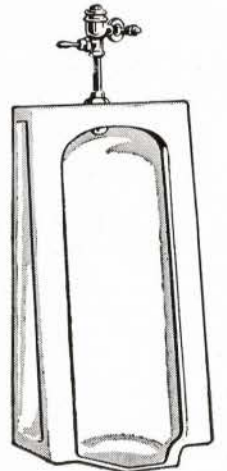
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INSULATION

Alfol reflects 95% of all radiant heat. It's an aluminum foil insulation blanket with air spaces between.

Alfol has introduced and demonstrated an entirely new principle in insulation engineering. Instead of storing up heat slowly, like other insulations, it reflects radiant heat. Consequently, in addition to reducing heat transmission through a structure to an unexcelled extent, Alfol reflects large quantities of heat back toward its source. This results in very rapid pre-heating or pre-cooling of Alfol insulated structures.

Throughout the world, Alfol has won widespread recognition and acceptance in its field. In the opinion of well-known authorities, it is destined to outmode many existing forms of insulation. Alfol has made an enviable record. It has established new and higher standards of commercial practice and performance during more than sixteen years of service in practically every industry.

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INSULATING VALUE—the astonishing insulating value of Alfol is obtained through a revolutionary insulating principle.

EXTREMELY LOW EMISSIVITY—gives only 5% of the radiant heat that would be emitted from an ordinary surface.

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ODORLESS AND CLEAN—ALFOL has no odor. It will not harbour vermin of any kind.

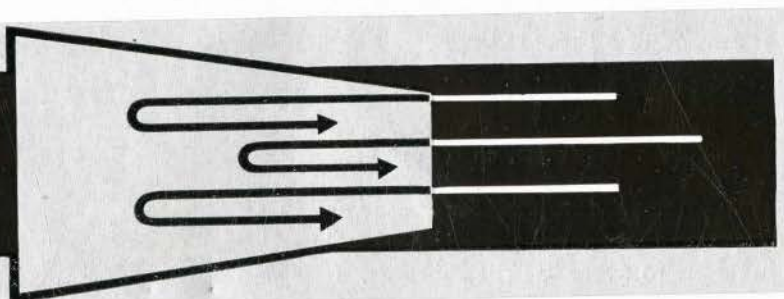
LOW COST—due to ease and economy of installation Alfol provides the maximum insulating effect at a minimum installed cost.

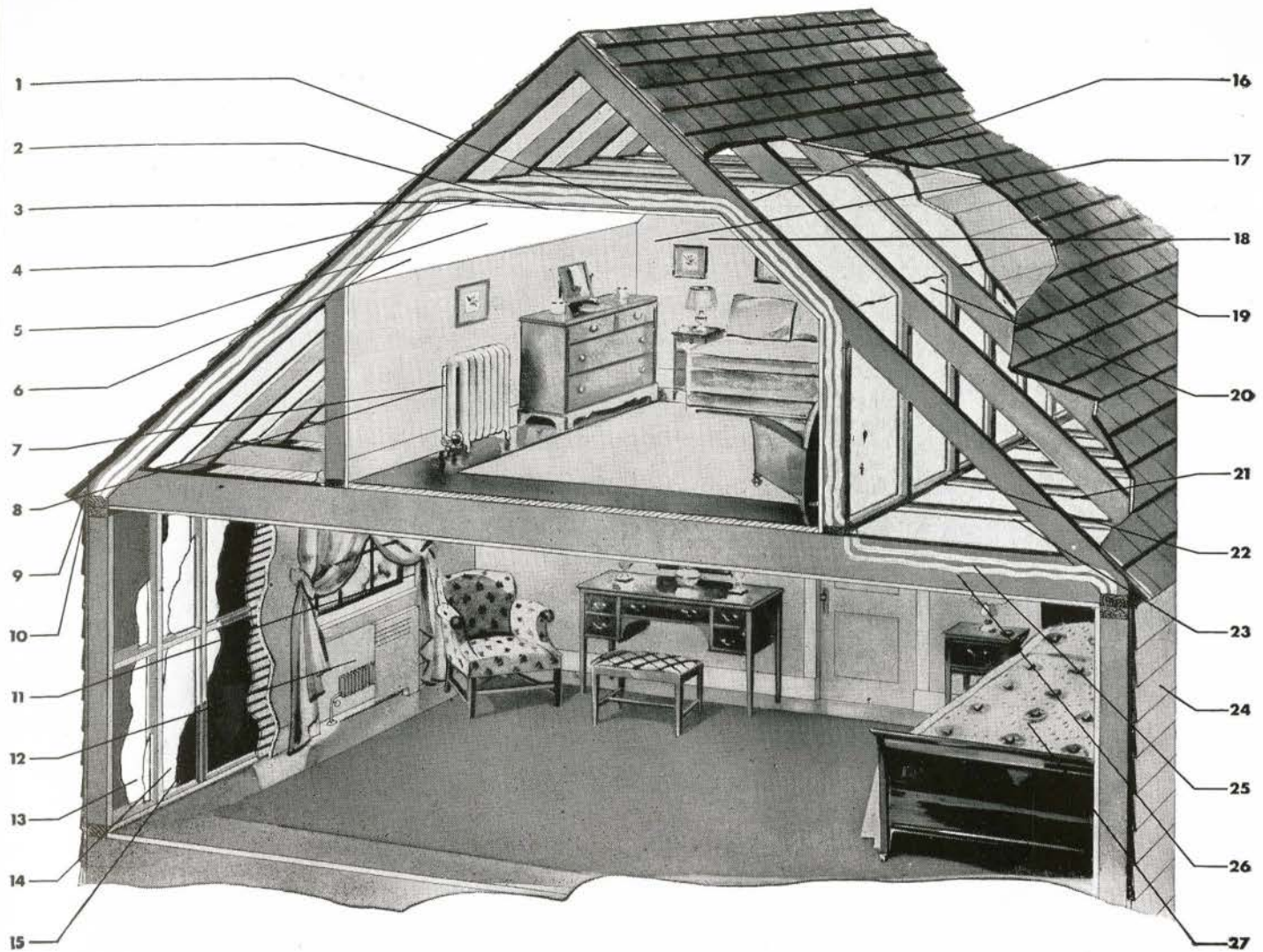
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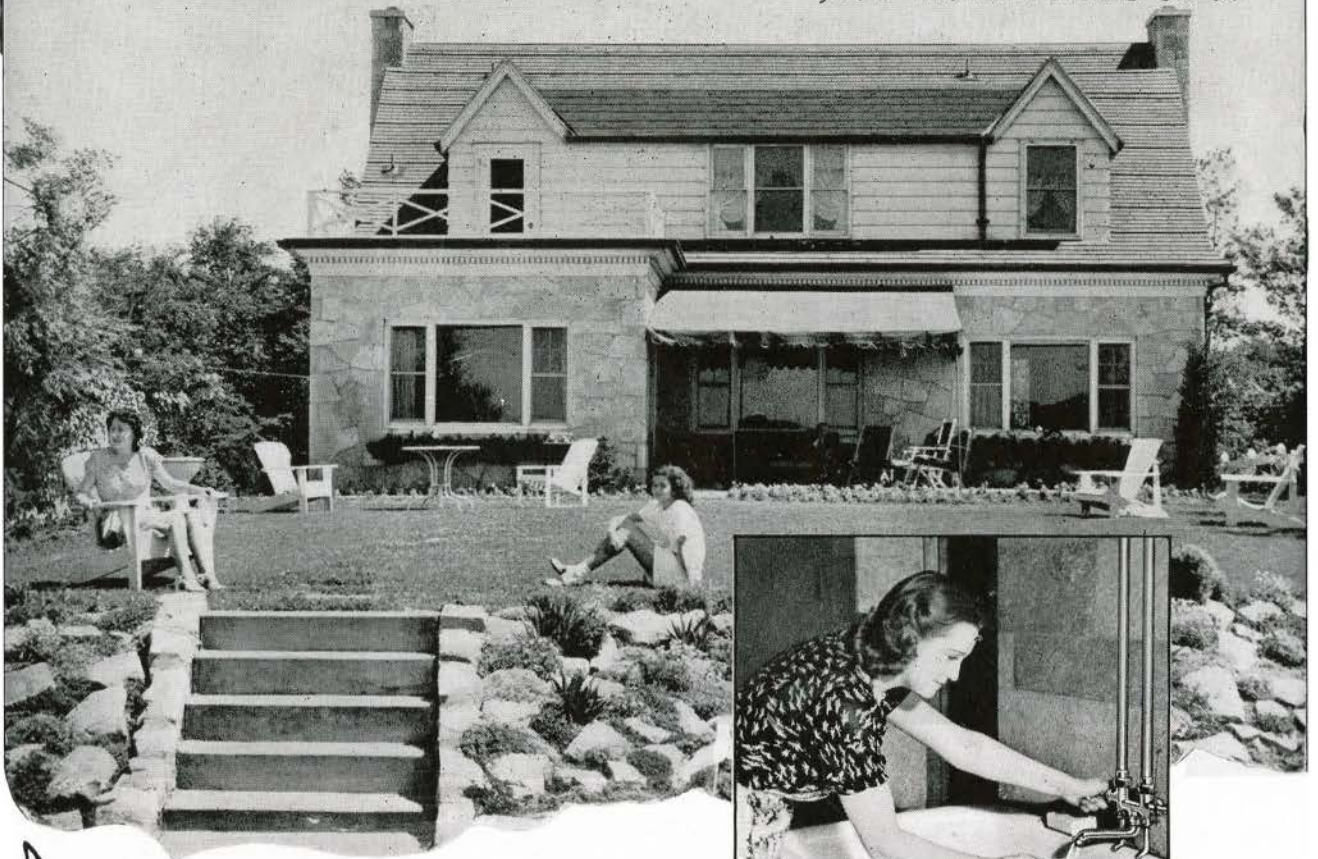
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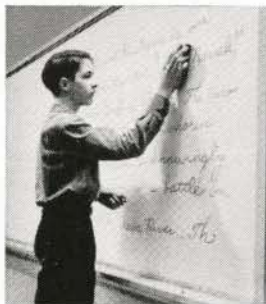
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Modern glass research is dedicated to finding new ways to make glass more useful to you. Hobbs is proud of its role in this never-ending quest. In Canada . . . it's HOBBS for glass!



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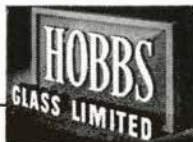
Nucite glass chalkboard is a far cry from the old-style blackboard! Nucite minimizes glare, in fact *never* becomes shiny! . . . lessens eye-strain, promotes better lighting. Besides Black, Nucite comes in Ivory and Green (to be used with suitable coloured chalks).

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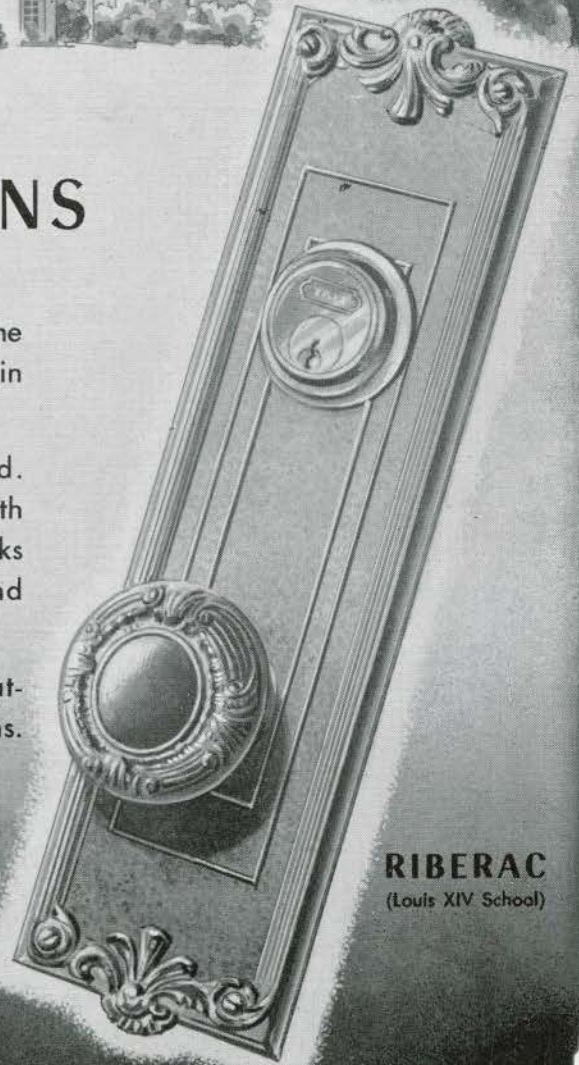


WITH YOUR PLANS

● Builders' hardware for the modern home must have an esthetic treatment to be in harmony with the architect's plans.

Each Yale creation is individually styled. Made by skilled craftsmen, familiar with modern trends in house design, Yale locks and hardware put the seal of security and beauty on the doors of a home.

Specify one of the many distinctive Yale patterns, designed to harmonize with your plans.



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(Louis XIV School)

BUILDERS' HARDWARE

JOURNAL

ROYAL ARCHITECTURAL INSTITUTE OF CANADA

SERIAL No. 265

TORONTO, SEPTEMBER, 1947

VOL. 26, No. 9

PRESIDENT CHARLES DAVID (F)

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R. A. I. C. JOURNAL

SEPTEMBER 1947

AS this *Journal* goes off the Press, students of architecture in the five Schools in Canada will be starting work in their respective Colleges. We remember, with a certain nostalgia, the days, not so far off, when we took part in the education of some forty students. We knew them all, their strong points and their weaknesses—we were a family in which we could call everyone by his first name and he, on graduation, frequently called us, to our great delight, by ours. To-day an average year consists of approximately one hundred students. Far from knowing the first names of students, we do not know their last names—and have even had the humiliation of meeting a man whom we did not recognize, even by his appearance, as a student in our own School. This is a situation long recognized as inevitable in other faculties like Arts. It is nevertheless one to be deplored, and one that cannot but eventually be detrimental to the profession which, as a corporate body, showed a common bond between members and university staff that must be rare in other professions.

WE have hesitated writing on this subject for two years because, like all our colleagues, we would do nothing to discourage and everything to encourage the veterans who wished to enter a university, and had the necessary high qualifications. This, however, is the third year and, to our surprise, numbers are no lower and indeed are higher. Speeded matriculation, cramming and superficial reading over a period of months or weeks are a lamentably inadequate preparation for a five year university course. Where is it all to end? It seems to us the clear duty of the R.A.I.C. to make a study of the whole situation as the medical profession did before the problem became acute. If, in two years' time, the five Schools in Canada have a student enrollment of 1200, the mere economics of the situation should give cause for alarm. There are fewer than a thousand architects in Canada, and only three conditions will provide employment for a substantial number of graduates. They are, it seems to us, a vast building programme which will include low rental subsidized housing; an immigration policy which will bring a million people and capital to Canada—or the grim possibility of emigration by our graduates to the U.S., where they will be in demand. We have to bear in mind that, while most architects are, to-day, busy, only a fraction have reached the elastic limit in their capacity to do the work demanded of them by their clients. In other words, the building programme of 1947 is being borne without strain by the architects of Canada, and their general health would not justify any prophecy of decimation by disease or other causes by 1950.

THE really good student, and not necessarily the brilliant one, will, of course, make a success of his profession. We would warn him of a pitfall that is all too common. There is a tendency to make design the be-all and end-all of architectural training. It is noticeable mostly in a long-haired group of pale aesthetes who talk vaguely about an aesthetic invented only for, and by, architects. At the drop of a hat, they will talk obscurely about interpenetrating volumes or, in lighter mood, of gracious living. They study enough mathematics to "get by", and consider a knowledge and appreciation of history sure signs of a rather hopeless decadence. In a small school such nonsense is quickly exposed by free discussion coupled with a sense of humour, but in a large one the froth blowers are sure to find an audience. We are sure that every architect will support us in saying that the graduate need not be that all round person that Vitruvius describes, but something not far short of it. He can become that only if the time spent in wide reading is at least equal to the time he spends on his board. Nor should his reading be limited to prescribed reading if he is to take his place as the equal of educated people in other professions. It was not without reason that the medical faculty introduced a two year period for a study of the humanities as a basis for the course in medicine.

Editor

INTRODUCTION

TOWN Planning in Vancouver has just "come of age": After more than 21 years of planning progress under its first Town Plan, a revision, which will serve as a Master Plan for the guidance and direction of the city's growth during the next 20 to 25 years, is now about completed.

The original "Plan for the City of Vancouver", a volume of almost 400 pages, was published in 1930. The revised plan, which will be completely up to date, is being issued in separate reports upon the various elements or components of the Plan. When the revision is completed, it is anticipated that all the reports will be bound in a single volume.

The 1930 Report has been Vancouver's Plan since its publication. In many cities wherein a Plan has been prepared, it has been officially adopted by the City Council but has been only partially carried out, and in some instances "pigeon-holed" entirely. Vancouver is somewhat unique in that its Plan has not been officially adopted but it has been faithfully followed, with but few exception, in the new projects and improvements that have been undertaken.

The period since it was published has provided an opportunity for critical review of the position the city has attained. Furthermore, in the light of changing conditions through intervening years and of improvement in planning technique, and in view of Vancouver's growth and expansion, the civic authorities decided upon its revision. It was felt that the time was propitious for this review as the many conflicting opinions and contentious ideas upon various problems would be clarified. It was deemed advisable that Vancouver should put its house in order so that it would be in an advantageous position to take its rightful place in the post-war world.

The new Plan deals with all the major problems with respect to the physical improvements now facing the city or which may confront the metropolitan area during the next two or three decades. It contains a co-ordinated general scheme for dealing with these problems in the manner that now appears most desirable. It is neither expected nor intended that the Plan shall be adhered to rigidly — it is designed to be somewhat flexible and for that reason certain minor adjustments and revisions in the Plan may be necessary from time to time as conditions warrant, but the framework will be basic and enduring.

The elements of the newly revised plan are: Economic Background and Population Growth—Major Street Plan—Transit (Mass Transportation)—The Downtown Business District—The Grouping of Public Buildings (Civic Centre)—Parks and Recreation, including Schools—Transportation: Harbours and Railways—A Metropolitan Airport Plan—Zoning—Decentralization and Regional Planning—The Appearance of the City—Administration of the Plan.



VANCOUVER

BRITISH COLUMBIA

**PLANNING COMES OF AGE—
AFTER TWENTY-ONE YEARS
OF SUCCESSFUL PIONEERING
VANCOUVER REVISES ITS TOWN
PLAN FOR FUTURE GROWTH**

By

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Vancouver Town Planning Commission

HISTORY OF PLANNING IN VANCOUVER

AS long as 35 years ago, at the peak of the West Coast real estate boom, a few far-sighted citizens, realizing the fallacy of the prevalent methods of urban and suburban development, began to draw public attention to the serious consequences of unbridled and uncontrolled land subdivision. There were sporadic outbursts of oratory, newspaper editorials and correspondence, all urging the municipal and provincial authorities to enact legislation that would make the adoption of town planning principles compulsory on the part of British Columbia municipalities. The Canadian Pacific Railway Company's Shaughnessy Heights development, being undertaken at that time, aided the advocates of town planning in their endeavour to arouse the public and provincial and municipal governments to the dire necessity of obtaining the necessary and suitable legislation.

The collapse of the boom and outbreak of World War I shelved further efforts. After a comparatively brief period of readjustment to peace time activities, the challenge for the betterment of conditions was again taken up by enthusiastic citizens. However, it remained for a small group of half a dozen members of the Town Planning Institute of Canada, residing in Vancouver, to organize a concerted effort which would not be abortive as were the former attempts. This small group quietly set out to evolve a plan of action which, if soundness, perseverance and energy were to count, could not fail. During the next three years this group, augmented in numbers to a score or more, consistently strove, in spite of many set-backs and delays, to induce the Provincial Government to enact a Town Planning Act.

Late in the 1925 Session, with the persistent and wholehearted co-operation of the Vancouver City Council, the British Columbia Town Planning Act was passed. However, under its provisions, the carrying out of planning was made optional with the municipalities and not obligatory as the Bill was originally conceived. The city had then reached a stage in that post-war era which was so disorderly that many fine residential districts were being invaded by improper uses such as stores, apartments, hand laundries and factories. The City Council was called upon to give so much of its time in pacifying home owners that it realized that steps had to be taken forthwith to correct these prevailing conditions. It was so impressed by the necessity of proper planning that it appointed, and provided funds for a Town Planning and Zoning Committee which included Council members and representative citizens. This Committee assisted in the preparation of the Town Planning Bill and also prepared and compiled data against the time when a Com-

mission, regularly appointed to operate under the provisions of the Act when passed, could be created.

Three days after the Act had received Royal Assent, a member gave notice of motion with respect to a Town Planning By-law for the city. This By-law came into effect on 1st February, 1926, and exactly a month later the personnel of the first Town Planning Commission was announced.

At its first meeting the Commission realized the vast proportions of the task with which it was confronted and came to the conclusion it would be futile to proceed without competent consulting services. To this end, it approached the City Council, and to the everlasting credit of the then Chief Magistrate, it was informed that "the City did not propose to pay for experiments—the best available consulting services must be obtained." Accordingly, the Commission, after making exhaustive enquiry, presented its recommendation and in August the City Council retained the services of Messrs. Harland Bartholomew and Associates of Saint Louis, Missouri, as consultants. The preparation of a comprehensive town plan was immediately got under way.¹

Vancouver was the first city in the Dominion of Canada to undertake the preparation of a comprehensive town plan. Like all other communities, Vancouver has its difficulties and its problems, especially those induced by too rapid growth, but it has been fortunate in having a scientific diagnosis made of its basic ailments. It was also fortunate in possessing a Planning Commission, the members of which gave unstintingly of their time, talents, energy and experience.

It should be mentioned at this juncture that the District of Point Grey was the first in Canada to pass a Zoning By-law. This was done in 1922 under the provisions of an amendment to the Municipal Act.

THE BRITISH COLUMBIA TOWN PLANNING ACT

The Town Planning Act of British Columbia (1925) is more or less of a compromise. It has many unique features. Its preamble, considered to be one of the best explanations of Town Planning, is as follows:

"Whereas it has been realized that large municipal expenditures have become necessary owing to the fortuitous development of urban centres, and that it is advisable to make provision whereby the natural growth of cities and towns may be planned in a systematic and orderly way, so that adequate means of communication for an increasing population may be provided and congestion avoided, and that

¹ The neighbouring District of Point Grey also retained the same consultants and later, upon the amalgamation of Vancouver, Point Grey and South Vancouver on 1st January, 1929, the Town Plan was extended to cover South Vancouver.

economies may be effected in the industrial and business activities of communities, and so that the serviceableness of business property and the amenity of residential districts may be preserved and adequate areas may be provided for protecting the health of and providing recreation of the public." and the Act empowers the City Council to:

- a. Prepare a town plan
- b. To make alterations in the town plan from time to time
- c. Prepare specific plans for construction of particular improvements, in accordance with the plan
- d. Prepare plans for harbour, railway, and transit facilities and to recommend such plans to Railway Boards, individual companies, etc.
- e. Prepare maps showing boundaries of zoning districts
- f. Consider any other measures dealing with the physical development of the municipality.

The Council may approve the Town Plan by resolution, making it the "Official Town Plan". However, establishment of an "Official Town Plan" does not commit the Council to undertake the improvements shown on the plan but does prevent the Council from authorizing any improvement not shown on the plan without a two-thirds vote and unless the project is previously submitted to the Town Planning Commission. This includes only those public improvements under the authority of the City Council.

It also empowers the Council to enact zoning regulations and specifies the procedures and considerations that enter into the formation of such regulations. It empowers the Council to purchase or expropriate the lands required to carry out any project. The Council must request the Town Planning Commission to prepare the original regulations and must refer requests and proposals for changes in the regulations to it. The law prescribes the organization of the Commission, and also provides that two commissions in adjacent municipalities may jointly consider projects and problems of common interest.

THE VANCOUVER TOWN PLANNING BY-LAW

In passing the Town Planning By-law, the Vancouver Council:

1. Created the Town Planning Commission
2. Authorized it to assist the Council in an advisory capacity on all matters specified in the enabling Act
3. Required the Commission to make an annual report
4. Required the Commission to make recommendations on any matters referred to it by Council.

The Act also provided for the establishment of a Zoning By-law Board of Appeal. Of its three members, one is appointed by the City Council, one by the Lie-

tenant-Governor in Council, and the third by the other two and acts as Chairman. No person who is a member of a Town Planning Commission is eligible to sit on this Board.

Part II of the Act deals with "Replotting". It is a most unusual piece of legislation and, while extremely fair, it has been of great assistance in rectifying subdivisions of the past wherein little or no regard was given to the topography of the terrain. It was designed for the purpose of facilitating the physical development of any part of a municipality, or making it more suitable and convenient for public or private use.

The legislation may seem somewhat complicated, but it covers all contingencies, which has been proven by the fact that several replotting projects have been carried out to good advantage.²

CONSTITUTION OF THE VANCOUVER TOWN PLANNING COMMISSION

The Town Planning Act provides for the appointment of planning commissions in the various municipalities, the number on the Commission to be in proportion to the population. For Vancouver the Town Planning Commission was specifically designated. It consists of 14 members—9 appointed and 5 ex-officio. Of the nine, three are appointed each year by the City Council for a 3-year term. The five ex-officio members are representatives appointed by the City Council, the Board of School Trustees, the Board of Park Commissioners, the National Harbours Board (Vancouver Port Authority), and the Chairman of the Vancouver and Districts Joint Sewerage and Drainage Board. The ex-officio members have equal rights and privileges in every respect to the appointed members with the sole exception that no ex-officio member may hold the office of Chairman. The Commission is purely an advisory body.

ACCOMPLISHMENTS UNDER THE PLAN 1926 - 1944

Although practically all of the time since the publication of Vancouver's Town Plan in 1930 has been taken up by the greatest and most sustained depression and the most savage and devastating, if not the longest war recorded, it has been gratifying to the Planning Commission to realize that so many of its recommendations have been successfully consummated. (See accompanying plate). The stabilization of property values alone, through the medium of zoning, has amply repaid its cost. Furthermore, collaboration among various civic authorities and boards is in evidence as never before.

INFLUENCE OF THE PLAN

The Plan for Vancouver has been a dominant factor in the development of the city ever since it was pub-

² A 1946 Amendment to the Act, known as Part III, gives the Lieutenant-Governor in Council the power to regulate land subdivisions and prescribe zoning regulations in unorganized territory. Provincial Government officials may now regulate and curb the hitherto indiscriminate growth and development of "shack-towns" immediately contiguous to the boundaries of incorporated municipalities.

lished. Naturally, much more remains to be done, but with the old and the revised Plan to work with, future civic improvements can be carried out with the assurance that they will be co-ordinated.

Copies of the 1930 Report were presented to Canadian Embassies and Trade Commissioners throughout the world, and tributes have been received from people living in every quarter of the globe. It has received the acclaim of many prominent foreign planning consultants, and has been on exhibition at several international planning conferences and conventions in Europe and America. What is even more satisfactory to the Commission is the reception it has received by the civic authorities, the press, and the citizens of Vancouver in general. This leads the Commission to believe that its new Report will continue to be regarded as an even more vital and practical factor in the city's development for many years.

ECONOMIC AND SOCIAL BACKGROUND

Vancouver has had a very rapid evolution during its 60 years of growth from a small hamlet on the waterfront to a city with a complex organism of metropolitan proportions. In its transition many forces, historic, economic and social, have acted to mould the character of the present day community. In order to guide intelligent planning, some understanding of these forces are necessary—their place in the past development, and their probable influence on future growth.

Any sound improvement programme proposed for the city must take cognizance not only of the requirements of the citizens for a satisfactory standard of life, but also of the financial ability of the community to meet past obligations and to assume new debts for essential public improvements and services. The community's ability to finance the programme is measured ultimately by the aggregate income of its inhabitants.

Vancouver has grown mainly by virtue of being the first seaport on Canada's Pacific coast having rail connection with the rest of the continent. The diversity of the natural resources of British Columbia has been of great benefit. The city has afforded many opportunities for gainful employment. With respect to industry as a whole, two factors are outstanding; firstly, the mild climate which makes for cheaper building construction, and secondly, cheap power, originally from low cost fuel—coal and wood—and latterly from hydro-electric sources.

The initial industry was sawmilling, but gradually other industries, involving the processing of the province's various natural resources, were established until now there is a great diversification of industry. In primary manufacturing, construction and transportation especially, the percentage of people gainfully employed in these industries has increased considerably during the past score years. Vancouver is an important wholesale and retail market for British

Columbia and also the distributing centre of commodities of practically all types destined for Yukon and Alberta, and even as far as Saskatchewan. The tourist business—at one time ranked as "big business"—was greatly curtailed by the depression and war. However, during the past season it has surpassed all its former records. This business not only enhances retail and wholesale trade and the revenues of the hotel, apartment and tourist resort operators, but it has proved to be the medium of obtaining many permanent settlers.

Municipal finances are considered in the Report with respect to the role they play in assuring that all new projects will be constructed in accordance with the Plan, i.e. that all new improvements will be properly integrated. These finances include the assessed valuation of all property, the tax rate and the city's bonded indebtedness.

The social welfare of the community must also be considered in the preparation of a Plan so that an appropriate and convincing interpretation may be given to its needs. In this connection the extent of the various public improvements; parks and recreational facilities; general housing conditions; the characteristics of the population, including the number of families; the racial groups and age groups, its economic status and the educational status, were all given consideration.

The population of a community has too often been used as a gauge of general prosperity but in many instances this is not necessarily true. It is quite possible for a city to be very prosperous and have a stable population. A too rapid growth usually makes difficult the adequate provision of essential facilities and services. A steady growth would be better in all respects.

As each family in a community requires a living unit which in turn requires certain public services, therefore, in planning, knowing the number of families is even more important than the amount of population. A knowledge of the racial characteristics is also advisable.

The age grouping is important also as it must be known to adequately provide recreational and school facilities. The 1941 census disclosed that, in Vancouver:

17% of the population was under 14 years of age.

8% of the population was between 15 and 19 years of age.

40% of the population was between 20 and 44 years of age.

35% of the population was over 45 years of age.

Relative to the annual family income, there is a relationship between it and the value of the family home, and a similar relationship between the rental paid and the income.

Also from the 1941 census, it is disclosed that one-third of the wage earners get less than \$1,000 per

ACCOMPLISHMENTS VANCOUVER BRITISH COLUMBIA

VANCOUVER
TOWN PLANNING COMMISSION
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SCALE IN FEET



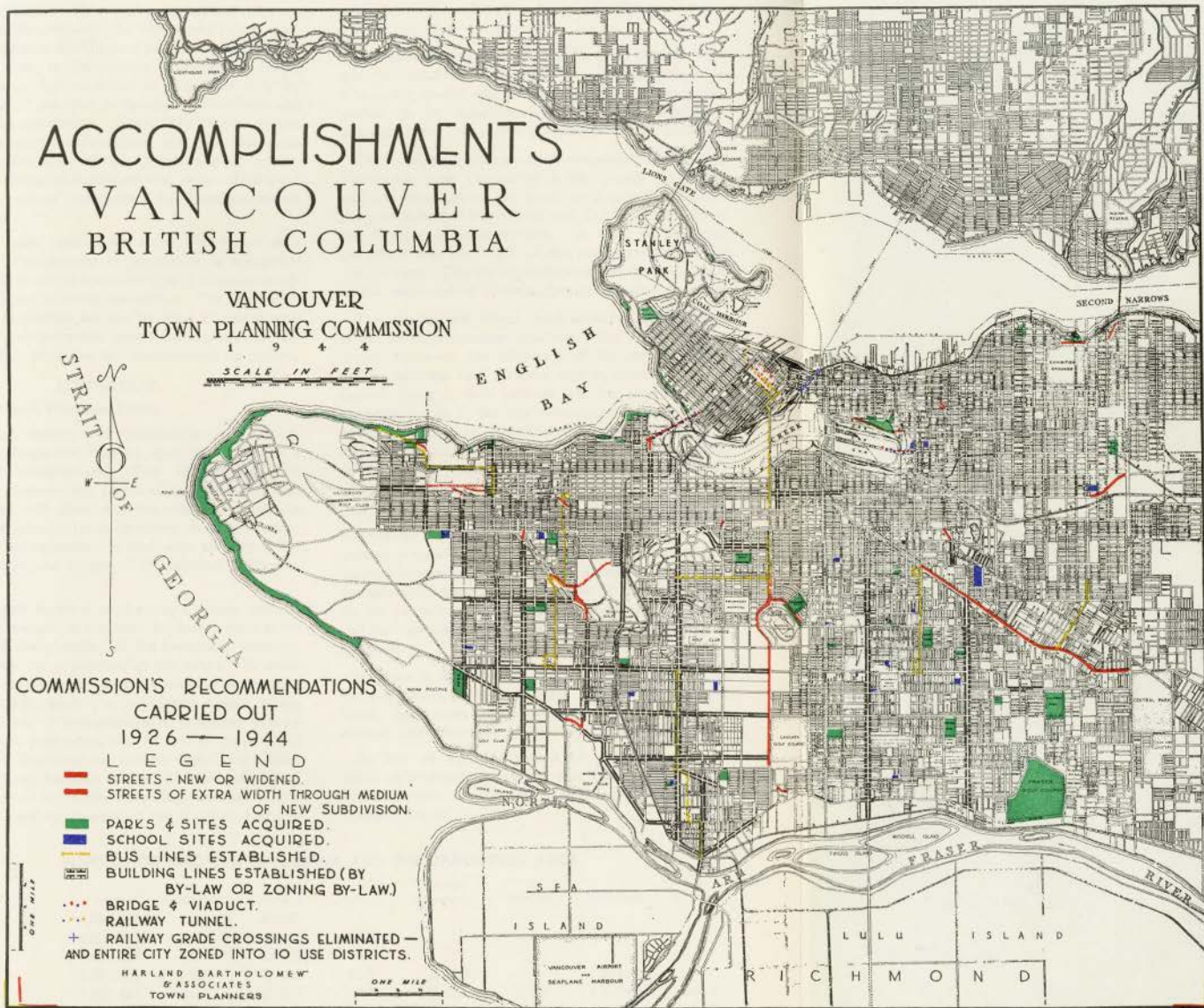
COMMISSION'S RECOMMENDATIONS
CARRIED OUT
1926 — 1944

LEGEND

- STREETS - NEW OR WIDENED.
- STREETS OF EXTRA WIDTH THROUGH MEDIUM OF NEW SUBDIVISION.
- PARKS & SITES ACQUIRED.
- SCHOOL SITES ACQUIRED.
- BUS LINES ESTABLISHED.
- BUILDING LINES ESTABLISHED (BY BY-LAW OR ZONING BY-LAW)
- BRIDGE & VIADUCT.
- RAILWAY TUNNEL.
- + RAILWAY GRADE CROSSINGS ELIMINATED — AND ENTIRE CITY ZONED INTO 10 USE DISTRICTS.

HARLAND BARTHOLOMEW
& ASSOCIATES
TOWN PLANNERS

ONE MILE



annum. One of the basic economic and planning problems is that of providing housing of minimum desirable standards. Housing characteristics play an important part in planning. In Vancouver 75 per cent. live in single-family dwellings, 6 per cent. in two-family and 19 per cent. in apartments. Among the larger Canadian cities, this condition is surpassed only by Hamilton with 11 per cent. in two-family dwellings and 14 per cent. in apartments. Since 1931 Vancouver has led all the large Canadian cities, and also American cities of similar size, in the percentage of owner-occupied dwellings as compared with rented dwellings. Fifty-one per cent. of Vancouver's dwellings are owner-occupied.

Compared with other large cities, Vancouver is a young city. The density of population is somewhat low which makes for the soundest type of urban development with respect to living conditions. The Town Plan is expected to provide for the physical improvements essential for a sound urban area at an expenditure that will not result in an undue and unwarranted tax burden.

POPULATION

Past, Present and Probable Future

The amount, density and distribution of the population has an important bearing upon all phases of a community's development. The relationship that should exist between the physical improvements and the population will determine the areas in which the improvements should be undertaken, and the amount or density of the population in each area will determine largely the size and extent of the needed utility improvements.

An intelligent forecast of the city's future growth, and the rate thereof, is essential so that it may serve as a basis for the planning of the necessary improvements to serve the population of the future. In order that a reasonably accurate estimate may be determined it is necessary to study the population trends of the past and present. It is impossible to prophesy exactly what the future population and its rate of growth will be in any city. Due to the fact that the West Coast is comparatively young; because of the unlimited amount of natural resources in British Columbia; because of the mild climate, and on account of the somewhat erratic

rates of growth in the past—probably largely accountable for by depressions and wars—population trends are much more difficult to forecast in Vancouver than almost any other community.

The growth of Vancouver has been so closely allied with that of British Columbia for so many years that it is anticipated it will continue for some considerable period to be approximately the same proportion, namely, about $\frac{1}{3}$ of the population of the province.

Of the dozen political units comprising the Greater Vancouver area, Vancouver is very much the largest and has experienced the most rapid growth. In 1901 the population of Vancouver was 81.1% of the total of the Greater Vancouver area. In spite of its rapid growth, it was but 73.6% of the total according to the 1941 census. This clearly indicates that the population in the surrounding communities is likewise growing.

The local growth within these suburban communities is not an objectionable condition. The trend does indicate, however, the necessity of the city providing public facilities and services and to protect the residential areas so that persons will be encouraged to continue to live in the city rather than to move to the suburbs. Likewise, it indicates the necessity for the suburban municipalities to make plans to accommodate properly their future citizens, and to co-ordinate their plans with those of the central city.

There are many physical factors which influence the location of population in urban areas. The more important of these are the configuration of the terrain and general topography, large public areas, industrial and commercial sections, the location of streets, transit routes, parks and schools, sewer and water facilities, and the location and character of the new homesite subdivisions.

In order to arrive at the amount and distribution of the population in the year this report was prepared (1944), the number and location of the new living units, erected since the 1941 census, were ascertained.

So that an accurate record of population growth could be determined, the city was divided into "Social Areas" which are the equivalent of the American "Census Tracts".

POPULATION GROWTH IN CANADA AND THE VANCOUVER AREA

Year	Canada	% Increase	British Columbia	% Increase	Greater Vancouver	% Increase	Vancouver	% Increase
1871	3,689,257		36,247					
1881	4,324,810	17.2	49,459	36.5				
1891	4,833,239	11.7	98,173	9.5				
1901	5,371,315	9.0	178,657	81.9	36,296		29,432	
1911	7,206,643	34.2	392,480	119.7	152,242	319.0	130,847	344.4
1921	8,787,949	22.0	524,582	33.6	213,641	40.3	163,220	24.7
1931	10,376,786	18.1	694,263	32.4	324,581	51.9	246,588	51.1
1941	11,467,452	10.5	817,861	17.8	373,413	15.0	275,353	11.6

G R E A T E R V A N C O U V E R B R I T I S H C O L U M B I A








VANCOUVER
TOWN PLANNING COMMISSION

SCALE IN FEET

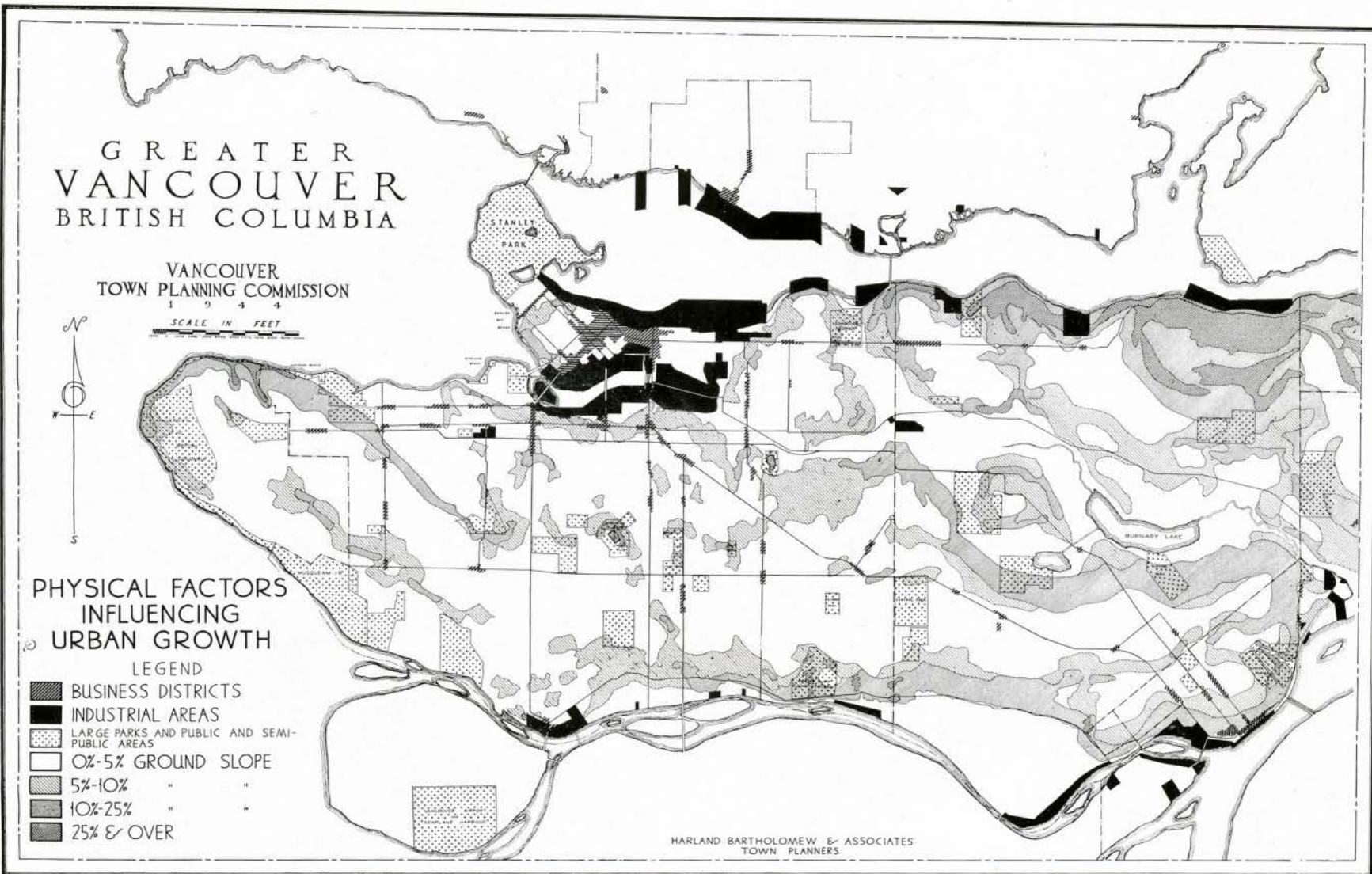


PHYSICAL FACTORS INFLUENCING URBAN GROWTH

LEGEND

-  BUSINESS DISTRICTS
-  INDUSTRIAL AREAS
-  LARGE PARKS AND PUBLIC AND SEMI-PUBLIC AREAS
-  0%-5% GROUND SLOPE
-  5%-10% " "
-  10%-25% " "
-  25% & OVER

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GREATER VANCOUVER BRITISH COLUMBIA

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SCALE IN FEET



GROWTH OF VANCOUVER & SURROUNDING AREA

LEGEND

- POPULATION IN 1901
- POPULATION GROWTH 1901-11
- " " " 1911-21
- " " " 1921-31
- " " " 1931-41
- " " " 1941-43
- MUNICIPAL BOUNDARIES
- GRAPHIC PERCENTAGE OF VANCOUVER POPULATION FOR DESIGNATED CENSUS YEAR
- GREATER VANCOUVER POPULATION FOR DESIGNATED CENSUS YEAR

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NORTH VANCOUVER
(CITY & DISTRICT)



VANCOUVER

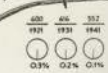


BURNABY

COQUITLAM



FRASER
MILLS



SEA ISLAND

R I C H M O N D

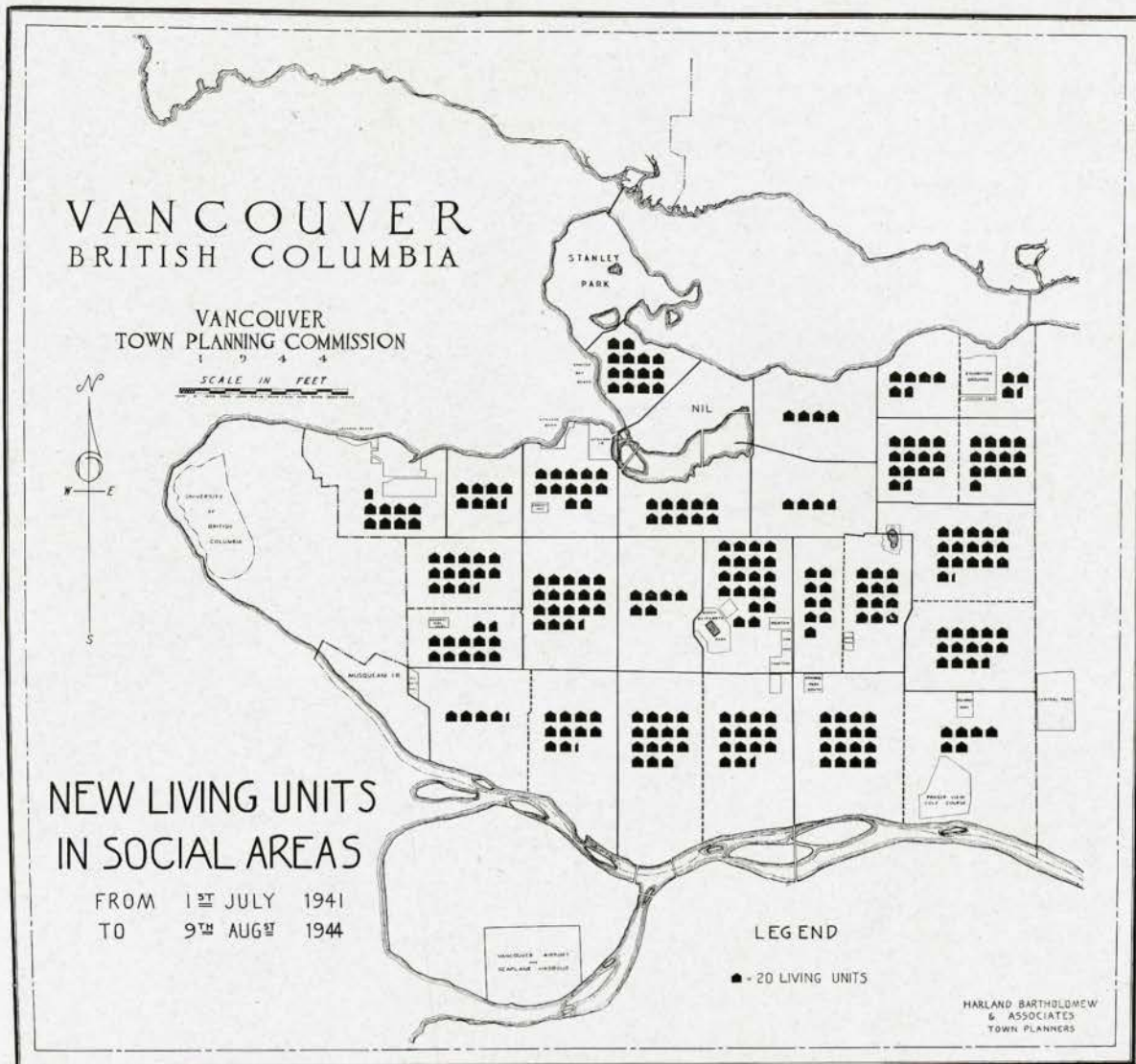
L U L U I S L A N D



"GREATER VANCOUVER" INCLUDES --
 VANCOUVER
 NEW WESTMINSTER
 PORT MOODY
 NORTH VANCOUVER (CITY & DISTRICT)
 BURNABY
 COQUITLAM
 FRASER MILLS
 RICHMOND
 WEST VANCOUVER
 UNIVERSITY ENDOWMENT LANDS
 DL 712

NOTE - AUTHORITY FOR 1943 - RATION BOOK DISTRIBUTION

S U R R E Y



The continuing collection of data by social areas, and comparison on the basis of social areas, will increase our understanding of the modern city, and will provide a sound basis for guiding its future development.

An analysis of these areas in Vancouver reveals that all sections of the city increased in population between 1931 and 1941, except two—the downtown business district and the area immediately to the east which has been developing industrially.

From all the studies and analyses that have been made, it is estimated that in the next 25 years, British Columbia will have a population of one and a half millions, Greater Vancouver about three-quarters, and the city itself about one-half million. Even though the Vancouver estimate may appear low, considering the rapid growth of the past, it represents a continued increase of about 20% each decade which is a rapid rate for any city having a population of 300,000 or more.

Considerable pains should be taken to assure, by adequate guidance, that there will be a desirable distri-

bution pattern of this future population. The desired density of population can readily be procured by reasonable zoning regulations. It is anticipated that in the area immediately west of the main business district in which six-storey apartments are permitted, there will be a density of about 80 persons per gross acre; in the other areas near the business section about 30; in the belt beyond that from 15 to 25, and in the outlying residential districts, from 8 to 14 persons per gross acre.

The report concludes by enumerating the methods to be employed to secure the desired population pattern. It states that there is no simple method but there are so many advantages which can and will accrue from this pattern, that every effort should be made to achieve it.

Among the more important present methods of achievement are:

Adherence to the recommendations outlined in the Town Plan relative to the physical improvements. As an incentive to home builders, there should be the gradual provision in all sections of the city of

adequate streets, sewers and water, transit facilities, parks, and the usual community amenities.

Rigid control of subdivision. This is not intended to curb individual enterprise but rather to insure that new developments will conform to reasonable and minimum desirable standards.

Protection of existing developments by zoning regulations and building codes so that the residents will not wish to move outwards to new areas.

Rehabilitation of the older and blighted portions of the city.

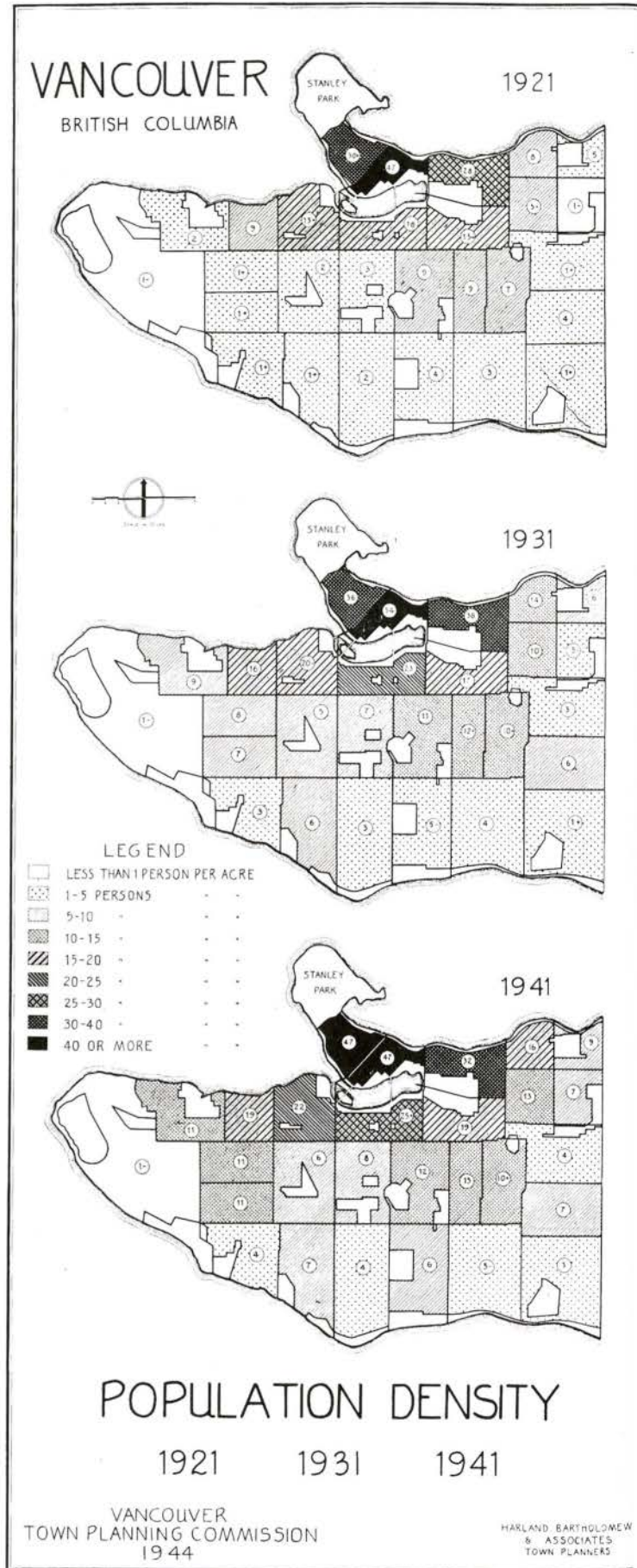
Citizen interest and support. Ultimately the success of any planning programme depends upon the public's understanding and support. Only by being conversant with the over-all plan and the measures necessary to solve the problems will support be given to the civic authorities initiating the necessary steps.

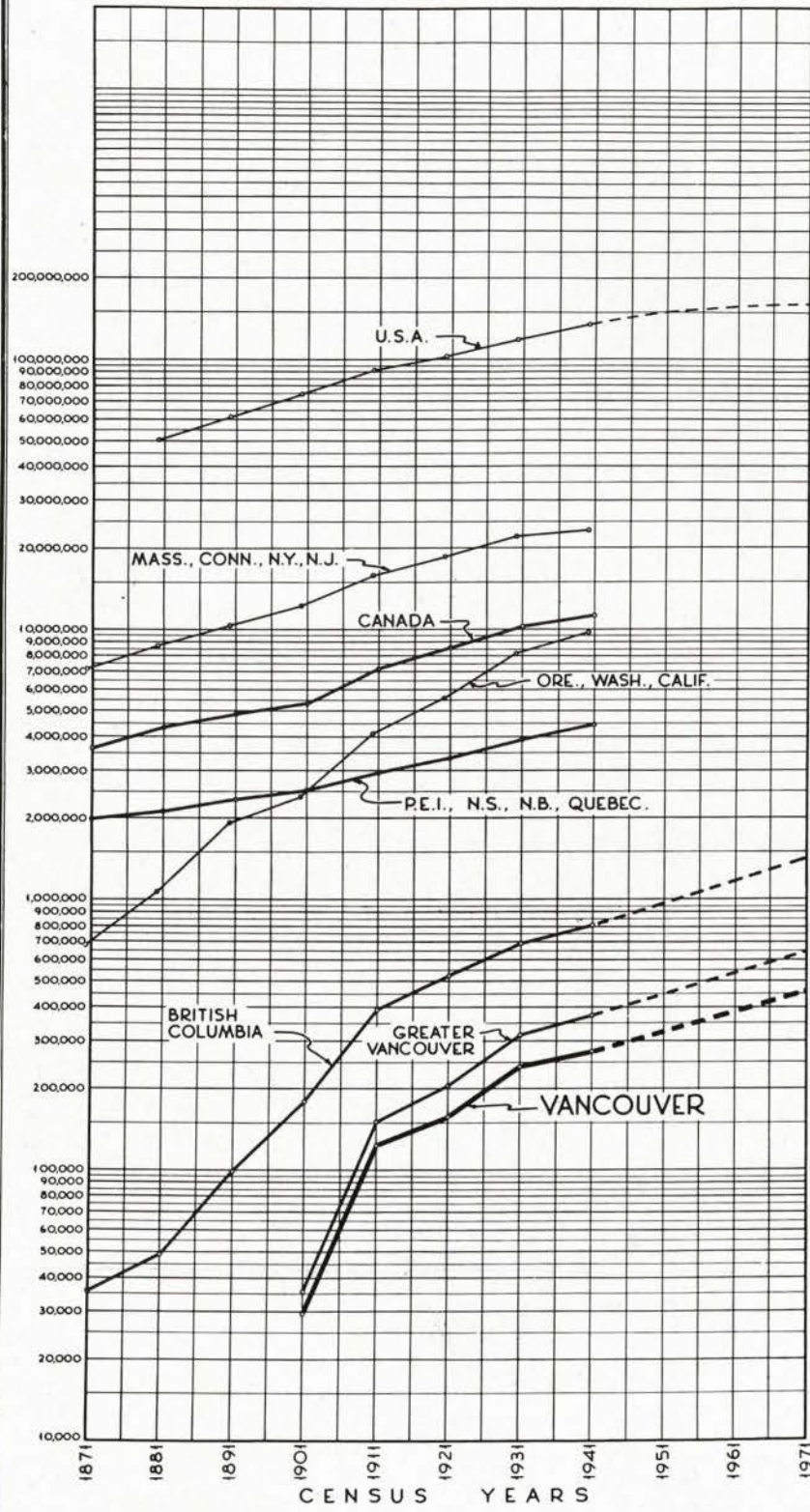
MAJOR STREETS

A street system is the most important physical public facility of any community. It is the framework of the entire city structure around which the other component parts are built. The most important function of streets is to provide a channel for the movement of persons and goods, and provision of access to all abutting property. They also afford light and air to buildings, and locations for essential services such as water and gas mains, sewers, and electric and telephone lines.

The streets of most communities were established before the advent of the automobile and truck, and at that time they were able to serve satisfactorily all the above functions. The universal use of motor cars, however, places upon the streets an unusually heavy burden far in excess of that for which they were designed and the average street is inadequate to accommodate properly this type of vehicular movement. The principal defect is that practically all streets are of uniform width, approximately 66 feet. This was adequate for the pedestrian and horse-and-buggy days but quite inadequate for the large volume of automotive vehicles which concentrate today on the routes leading between populated centres and principal traffic objectives, such as the central business district.

It has been found essential, therefore, that there be a major street system showing what improvements are needed on certain strategically located routes so that such streets can be improved gradually and thus be fitted to accommodate large volumes of traffic. Fortunately, these major routes represent only a comparatively small portion of the total street system. The more costly improvements can be concentrated upon a relatively few streets and the remainder of the system can be retained in its present condition and requires only a comparatively narrow and inexpensive type of pavement.





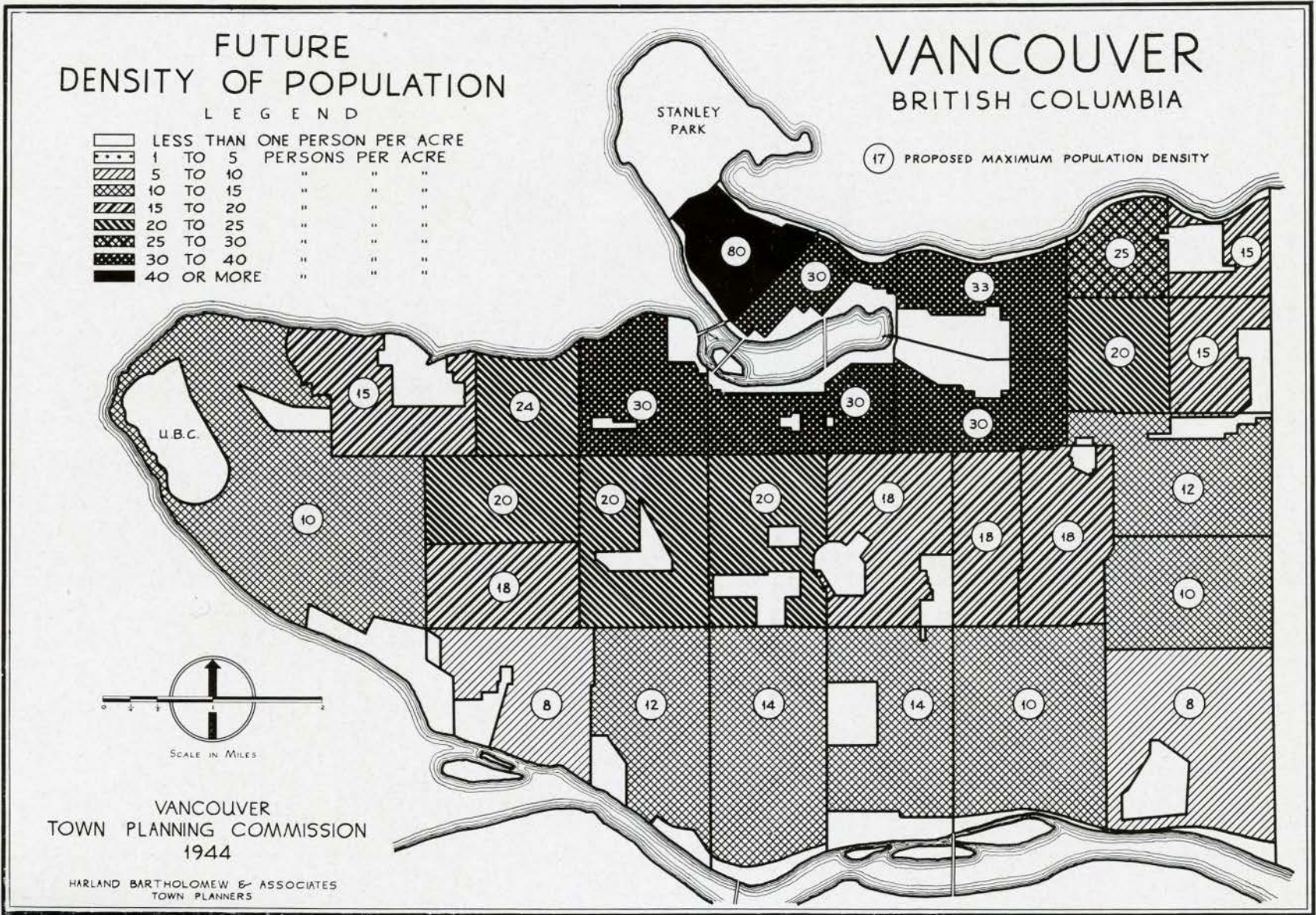
P O P U L A T I O N

POPULATION GROWTH

VANCOUVER
TOWN PLANNING
COMMISSION

1944

HARLAND BARTHOLOMEW
& ASSOCIATES
TOWN PLANNERS



An adequate system of major streets has a very important bearing upon the character and type of development within large urban areas. Several wide and direct streets are needed to make the main commercial and industrial districts readily accessible from the residential districts.

Theoretically, all radial streets should be improved as major streets. In a general pattern the very wide streets should be spaced about three miles apart, and the wide streets about one-half mile. Thus a motorist would have no further than one-quarter or one-third of a mile to drive through the narrower residential streets to his destination. As every city has its own peculiarities with respect to its street system, this theoretical pattern cannot always be superimposed in the same manner in different cities.

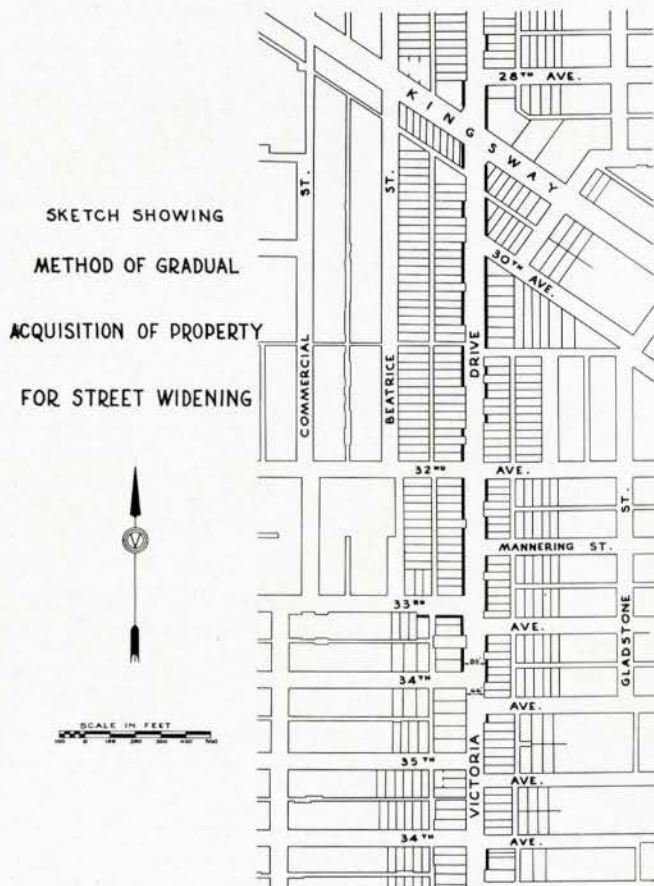
The number of motor vehicles—passenger automobiles, motorcycles, trucks and busses—has increased rapidly in British Columbia during the past three decades. Between 1907 and 1946, registration increased from 175 to 147,196. It is estimated that approximately 48% of all the automotive vehicles registered in British Columbia are in the Vancouver metropolitan area, thus the number in this area has increased from about 83 in 1907 to 70,655 in 1946. In recent years there has been a higher proportion than formerly of motor busses and trucks and commercial vehicles. This fact is important as these heavier vehicles are larger in all dimensions than the private automobile. It is estimated that in 25 years there will be more than 120,000 motor vehicles in the Vancouver area. Furthermore, because of the tourist trade and of motorists living beyond the urban area who visit the city from time to time, there will be a substantial increase in the amount of vehicular traffic in the city.

The annual number of motor accidents has increased steadily. This number will depend upon regulatory measures, educational campaigns and safe condition of the vehicles, yet one of the basic causes of accidents is dangerous streets, by reason of poor intersections and inadequate widths. Thus it is essential that the major street programme reduce the primary cause of accidents to an absolute minimum by imposing these basic facilities.

The City of Vancouver has taken city-wide traffic counts at regular five-year intervals. These are particularly valuable data. They show not only the increase in the volume of traffic but also the trends in the use of various streets by vehicular traffic. The increase in traffic movement and volume between 1927 and 1947 is graphically indicated, particularly the volume entering and leaving the central business district.

The 1930 Major Street Report presented, for the first time, concrete recommendations for a major street system. In general, a few 66-foot streets were recommended to be widened to 100 feet by taking 17 feet

from each side and several to 80 feet by taking 7 feet from each side. While the street widening programme has not been carried out to any great extent, due to many unforeseen circumstances, some widening has been done by the acquisition of the necessary property; one main arterial highway (Kingsway) was widened and paved. A number of building lines have been established under the provisions of the Zoning By-law, and in the sale of city owned property abutting on streets recommended for widening, the city has retained the 7-foot or 17-foot strips, as required. In addition, in the case of new subdivisions abutting proposed major streets, the ultimate width has been obtained. Several jogs have been improved and dead ends rectified.



The one new highway of major importance discussed in the revised report is the proposed Vancouver-New Westminster Express Highway. This is a proposed provincial public works post-war project which will probably be subsidized by a certain amount of federal funds, as it will be the last section of the Trans-Canada Highway. It will also form a part of the Pacific Highway. It is unique in that it will probably be one of the first express highways or "freeways" to be constructed in this country. No residential or commercial development will abut this highway—there will be no grade crossings, and local streets will parallel the right-of-way connecting the underpasses or overhead crossings. Traffic interchanges by means of some type of "cloverleaf" will be provided. Two concrete-paved

33-foot roadbeds with a medial strip and two 8-foot shoulders for disabled cars, will form the cross-section. There will also be provision for accelerating and decelerating lanes. The centre strip and side boulevards will be attractively landscaped with lawns, shrubs and trees. All the details of construction and other features, including the latest system of highway lighting, will be in accordance with the most modern highway practice.

A major street system has been and is very important to Vancouver because its establishment, even on paper, has been of great assistance to the City Engineering Department in practically all its public works, to civic authorities and the transit company in planning routes, to the School and Park Boards in locating their sites, and in many other civic developments.

TRANSIT (Mass Transportation)

The advent of the automobile produced a serious competitor of transit systems, and prior to the recent war the systems showed more loss than gain in this competition. For example, the number of persons using the Vancouver system had decreased from approximately 57½ million in 1929 to slightly over 53½ million in 1939. However, the automobile has by no means supplanted the transit systems except in very small communities. On the contrary, the war years revealed their indispensable value: in 1946 the Vancouver system carried over 119 million passengers.

Even prior to the war there was a growing appreciation of the value of transit facilities, especially in large cities. Due to the congestion of automobile traffic, particularly in the downtown business districts, and the lack of sufficient parking space, there has been a trend toward decentralization. Many discouraged motorists left their cars at home. It is financially and physically impossible to widen and improve high-value business streets to accommodate all the automobiles; therefore, the solution is to improve the transit facilities which require less street space in transporting large numbers of passengers. It has been recognized for some time that the provision of fast comfortable vehicles, leading directly from the residential districts to the places of employment, shopping and recreation, are imperative.

Objectives of the Transit Plan and Report

The Vancouver Plan is divided into two parts—the Intermediate Plan to be undertaken within the next five to ten years, and the Ultimate Plan within the period covered by the revised Town Plan, namely 25 years. The Plan is primarily concerned with the location and extent of the routes, which must serve the central business district and other major objectives and must be properly related to the desirable future pattern of the population. It is also imperative that wherever possible the routes should be located on the major streets since wide, direct and well-paved streets are

fundamental to an efficient transit system. The type of transit facilities and operating details are the primary concern of the operating company rather than the Town Plan. (The Report takes for granted that there should be but one operating company). The chief problem is that the routes be properly located and that the operating company provide the most modern, convenient and efficient vehicle of its type.

Principles and Standards of a Modern Transit System

In Vancouver, because of its low density of population, compared with very large cities, no subways or elevated lines are contemplated within the period mentioned. It is emphasized that surface lines will suffice.

Type of Service

With respect to the type of vehicle, it will depend largely upon the riding habits along each route as to which type will be the most satisfactory. In general, street cars are recommended on very heavily travelled routes because of the many passengers they can accommodate. On lines having an intermediate density of traffic, trolley coaches will give excellent service and on the lighter travelled routes (feeder lines), motor busses will prove most efficient and economical.

Area of Service

The generally accepted standard of the maximum walking distance from a transit route is one-quarter mile in completely or almost completely built-up residential districts. In general terms, transit service should be limited in residential sections to areas already having or ultimately likely to have a population density of ten or more persons per acre. In sparsely settled areas a half-mile walking distance is justified.

Alignment of Routes

The ideal transit routes should radiate from the central business district to all residential sections, with crosstown routes at essential intervals.

Speed

A fast schedule is economical for both passengers and the operating company. Fewer vehicles are required if the system is on a fast schedule and there is the obvious advantage of time saving for the patrons. Quick service can be maintained by using direct, straight, wide streets; by eliminating unessential turning movements and by introducing the skip-stop system, and by other minor details.

Headways

Fifteen-minute intervals between vehicles on the same route are generally regarded as the maximum desirable spacing for satisfactory service. Twenty-minute headways during non-rush hours and on Sundays and holidays on outlying routes usually suffice. Longer periods are considered inadequate. Much more frequent service must be provided on heavily travelled lines. This type of service encourages riding habits.





VANCOUVER BRITISH COLUMBIA

VANCOUVER
TOWN PLANNING COMMISSION
1 9 4 5



INTERMEDIATE TRANSIT PLAN

LEGEND

-  INTERURBAN LINES
-  STREET CAR ROUTES
-  TROLLEY COACH ROUTES
-  MOTOR BUS ROUTES

SCALE IN FEET

HARLAND BARTHOLOMEW
& ASSOCIATES
TOWN PLANNERS

ONE MILE





Existing Transit Facilities

The existing transit routes were plotted on a map of the city showing the distribution of the present (1944) population and all areas beyond the quarter mile from any route were shown hatched. It was computed that 22% of the city's area was unserved and but 7¼% of the population were located beyond one quarter mile. This was considered surprisingly low, especially when it was clearly demonstrated that there were a large number of areas that were thinly populated.

Transit Data

An analysis of the number of seats provided and the number of passengers carried on an average day in 1939 and in 1944 discloses that street cars perform a much more important function than busses—they carried 83% of all the passengers in 1939 and 88% in 1944. It also reveals a substantial increase in public riding habits between these years. During the latter, practically all lines carried nearly twice as many as in the former years. Only one route, a short shuttle line, showed a loss and this was accounted for by the fact that it now serves as a feeder whereas it formerly entered the business district.

The most heavily patronized route carried 65,206 passengers during the average day, and the next carried 40,132, both lines being in well populated sec-

tions. In contrast with the heavily utilized street cars, the greatest number carried by a bus route was 5,000 passengers. One bus line carried less than 1,000.

Although the above mentioned well patronized street car routes carried the largest number of passengers, they were not the most economical from the company's standpoint. They travelled longer distances and there were only 6.8 and 5.8 revenue passengers per mile of operation, respectively. Three other shorter lines which traversed the most heavily populated sections of the city had 10.5, 9.9 and 8.6 revenue passengers per mile. It is obvious therefore, that the soundest and most important means of determining the economical efficiency of any route is by ascertaining the number of passengers carried per mile. This in turn determines the total cost, gross income and the amount that would be available to improve and modernize the service. It shows that the compact sections of the city are the most economical in which to operate transit facilities. It, therefore, conclusively proves that if the city is to have a satisfactory transit system in the future, every effort must be made to maintain a compact and economical population pattern rather than to permit it to scatter thinly over large areas. It would be manifestly financially impossible to furnish modern transit service in the future for convenient access to all if the population is widely scattered.

The Intermediate Transit System recommended is intended to take from 5 to 10 years to complete. The individual re-routings and changes will depend upon a number of factors such as the location of new residential and industrial developments, upon the opening and improving of major streets and the availability of new rolling stock and other equipment. No attempt, therefore, has been made to determine the sequence nor the time in which each change will be made. The Report emphasizes that each change should be made in accordance with the ultimate transit system and that routes should not be continually shifted from street to street. Programmes for street improvements would be most difficult to plan under such circumstances and constant changing would not encourage stabilized residential districts. One of the main objectives of this Plan is to provide the most direct service between residential areas and the downtown business district, thus eliminating considerable transferring and delay. It is recognized, nevertheless, that the outlying sections where the population is sparse, can be served only by feeder busses.

After many conferences between the City Council and its technical officials and advisers, and the operating company, this Plan has been approved, with but few minor changes. The approved scheme will take up to 3 or 4 years. Each year the Plan will be reviewed for a further year or two so that both the city and the company will be in a position to plan ahead. The city will be required to undertake a considerable amount of street improvements, pavement, curb, traffic marking, etc., and the company will have to order new equipment well in advance. The Ultimate Transit Plan is designed to serve about half a million people. It has been carefully co-ordinated with the Intermediate Plan. This Plan also shows the desired population distribution (dot map) as of that time.

THE DOWNTOWN BUSINESS DISTRICT

The Downtown or Central Business District is the greatest centre of employment, the focus of the greatest volume of traffic of all types, the greatest concentration of property values and hence of taxable wealth. The revenues derived from this district far surpass all the rest of the city and thus help to lessen the tax burden upon home owners. It is, therefore, apparent that it is imperative to encourage and promote the greatest possible vitality in this most important portion of the city.

With the advent of the almost universal use of the automobile, cities have experienced a transformation in form and character. In the far-reaching expansion of cities there has been a shifting of land uses and property values. Suburban commercial developments have become far more widespread than is necessary to fulfil their originally intended role, that of being convenient neighbourhood shopping centres. While a certain amount of decentralization is logical and

desirable, a completely decentralized city is neither practical nor possible—in fact it would be disastrous to the economic framework of the city. Decentralization has given new significance to the function of the downtown area as the most vital part of the whole city structure.

The report recommends that Vancouver's business district needs modernization—not complete or extensive rebuilding—but new and improved facilities. New traffic arteries, new bridges, re-routing and improvement of mass transportation facilities are in prospect, and plans have been completed for many of these. However, this is not sufficient and new traffic control and regulation, and more parking facilities must be provided. Greater civic interest and leadership is needed to see that these improvements are made to the best advantage, and also other forms of improvement such as better building design; smoke regulation, and the elimination of unsightly signs and billboards, poles and wires. The report also emphasizes the important part the construction of the buildings of the proposed Civic Centre would play in stabilizing and enhancing the business district.

Vancouver's business district is unique in that it has natural barriers (waterways) on two sides. Within its confines it is estimated that there is more than sufficient land to serve the needs of a metropolitan area containing in excess of a million people.

The report opposes the suggestion frequently made, that False Creek should be filled in allowing the business district to shift to the area south of the Creek. The financial outlay involved in such a movement and the enormous losses resulting from the abandonment of existing properties and land values "would be beyond the realm of reason". Instead of this, the improvements proposed in the report include:

The opening of a distributor street, for motor traffic only, along the southerly and easterly sides of the district to match the wide through street (Burrard Street) forming the westerly boundary.

An elevated marginal way along the northern boundary extending the present most northerly street, Cordova Street, to Burrard Street.

Widening two carline streets from 66 to 80 feet.

Widening roadways by narrowing sidewalks which are too wide.

Improved arterial entrances to the district by new bridge construction, the new elevated marginal way along the northern waterfront, new transit routings within the district, many improvements relative to vehicular traffic control such as traffic signals and markings and parking meters and establishment of loading zones and traffic islands.

Last but not least in importance is the recommendation and provision for off-street automobile parking.



VANCOUVER BRITISH COLUMBIA

DOWNTOWN BUSINESS DISTRICT

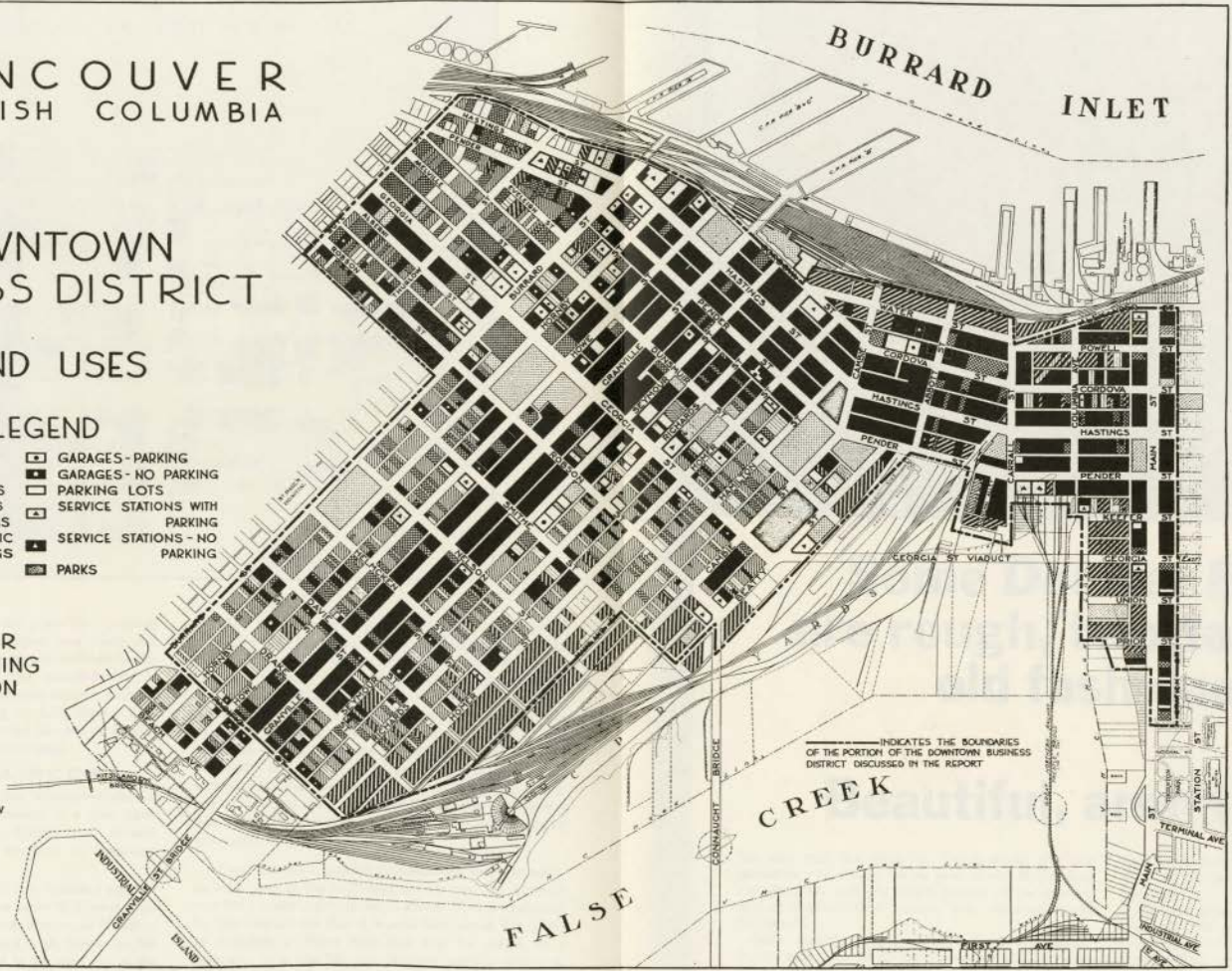
LAND USES

LEGEND

- | | | | |
|--|--|--|----------------------------------|
| | COMMERCIAL | | GARAGES - PARKING |
| | INDUSTRIAL | | GARAGES - NO PARKING |
| | HOTELS, APARTMENTS
& ROOMING HOUSES | | PARKING LOTS |
| | 1 & 2 FAMILY DWELLINGS | | SERVICE STATIONS WITH
PARKING |
| | PUBLIC & SEMI-PUBLIC
BUILDINGS | | SERVICE STATIONS - NO
PARKING |
| | | | PARKS |

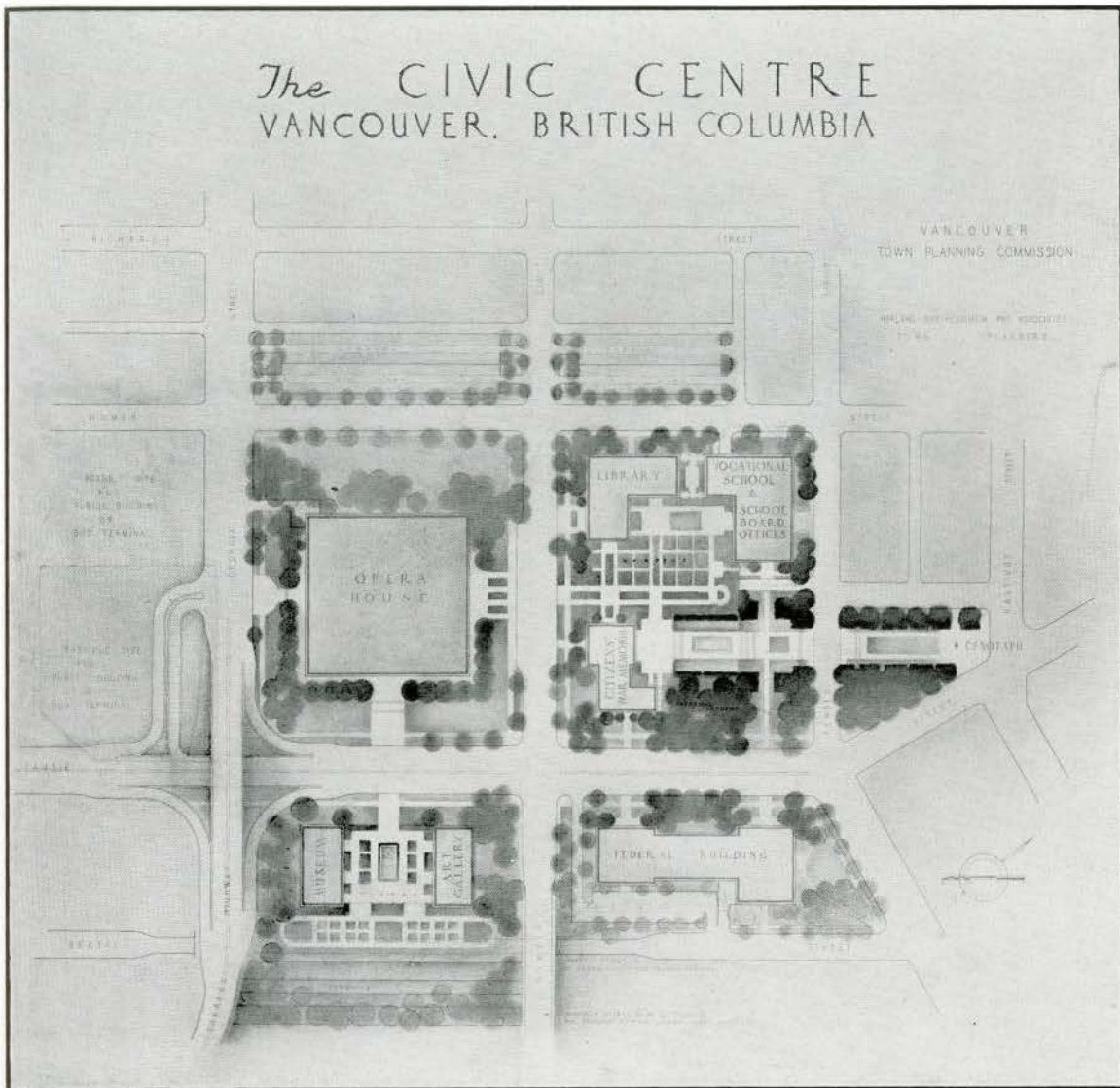
VANCOUVER
TOWN PLANNING
COMMISSION
1945

HARLAND BARTHOLOMEW
& ASSOCIATES
TOWN PLANNERS



INDICATES THE BOUNDARIES
OF THE PORTION OF THE DOWNTOWN BUSINESS
DISTRICT DISCUSSED IN THE REPORT

The CIVIC CENTRE VANCOUVER. BRITISH COLUMBIA



On the basis of a study of the prevailing parking facilities a specific recommendation was made that the city should join with the business interests in the acquisition of properties for the establishment of public parking areas with minimum service charges to provide additional parking of 4,000 cars. Five areas, consisting of full or partial blocks, or similar nearby tracts have been recommended.

PUBLIC BUILDINGS AND A CIVIC CENTRE

The problem of whether or not Vancouver should have a Civic Centre, and the choice of a site, have occupied the minds of the citizens on several occasions, and with varying degrees of intensity, for at least the past 35 years.

The first City Hall was located in a building erected as a public market building in the early 90's, near what was then the heart of the business district, at Hastings and Main Streets. In a very short time, however, the main business activities migrated to the west and south so that it was left in the backwash for a considerable period of time. About 1911 several prominent citizens

decided the time was propitious when not only a new city hall but other public buildings which were required, should be erected and that it would be advantageous to group them. By popular general consent, if not by actual vote, the area known as the Central School site, which is about midway between the site of the old hall and what is generally accepted as the business corner with the highest land values, was selected. In 1913 a competition was held and prizes awarded for the best designs of buildings and grouping. Owing to the outbreak of World War I no action was taken, but in the immediate post-war years interest was again revived.

When the town planning consultants were selected in 1926, one of the first requests by the City Council was for a report upon a Civic Centre. It was explained by the consultants that it would take about 2½ years to complete a Town Plan and that the matter of a selection of a site for this purpose usually was considered toward the end of the programme. However, in about a year's time they presented their report.

It recommended a site on the waterfront where English Bay and False Creek meet at the south end of Burrard Street which is the westerly boundary of the business district. The site, which is on a commanding slope, is about a third of a mile from the southerly limits of the business section. The land values here were lower than in other sites. From the population studies and conditions prevailing at that time, it was deemed that within 25 years the city's population would be nearing the million mark and that the business section would expand to very close proximity to the site. The site previously selected, known as the Central School site, was recommended only as second choice.

This report was approved by the Commission and much discussion, constructive and otherwise, ensued. However, the great depression set in and the matter was shelved. In the interim the old City Hall became completely inadequate and uninhabitable and a downtown office building was leased. About five years later the Mayor and Council came to the conclusion that a new City Hall was imperative and accordingly took steps to construct one. All precedent relative to a location for a city hall was broken and a site in a city park on the hill south of False Creek was chosen—about two miles from the business centre. Here a million dollar structure was erected and occupied in 1936.

On account of the fact that several public buildings were due for construction and no sites for them had been chosen, the need for a rational grouping of these buildings again became manifest. When the Town Plan was revised in 1944, the consultants were again requested to study the problem of a Civic Centre. Their Report upon this element of the revised Plan recommended the Central School site which had been their second choice twenty years ago. Among the reasons for the new recommendation was the fact that the City Hall, which structure is usually—almost universally—the dominant feature of a Civic Centre, was now located elsewhere, and could not form part of the group. The Library Board insisted that its new proposed main library building had to be located as near the heart of the business district as possible. Perhaps, most important of all, in the interim of 20 years, the population increase and expansion of business blocks which had been anticipated, did not actually materialize.

The public buildings contemplated in the present proposal are a Library, a Museum, an Art Gallery, an Auditorium, a Vocational School and Administration Building, and one, probably two, Federal Buildings. There was at one time the possibility of a War Memorial Building but this may now be incorporated in one of the other buildings. The report draws attention to an unusual condition in that there is such an accumulated need for new public buildings at one time. The provision of some of these structures is immediate

notably the Library, and one or two of the School and Federal Buildings.

In choosing a site for a Civic Centre the report emphasizes that the following factors should be given full consideration:

- Proximity to the central business district
- Focal position
- Character of site and surroundings
- Character of the buildings
- Cost of land and existing improvements
- Availability of the property.

In a plebiscite taken at the annual civic elections in December, 1946, the Central School site was approved by a two to one vote. However, when a by-law for \$2,500,000. for the purchase of the property was placed before the electorate in March, 1947, it was defeated by the narrow margin of a few votes. As it was felt that not only was the vote very small, but there had been insufficient time to fully apprise the electorate of the full details of what the expenditure of the amount involved, the Planning Commission has suggested to Council that a by-law be again submitted at the next annual elections.

PARKS AND RECREATION, INCLUDING SCHOOLS

Since its very beginning the citizens of Vancouver have evidenced a lively interest in securing and using parks and recreational areas. Shortly after the city's incorporation in April, 1886, the enterprising City Council managed to secure, nominally upon a long term lease, but virtually for all time, a 1000-acre tract practically adjoining the business district, for park purposes. Two city blocks were also dedicated at that time as parks, and so remain to the present.

Parks are needed not only because of their recreational opportunities, but also to provide open spaces that would otherwise be a continuous development of dwellings, stores, factories, and other urban uses. Thus parks not only assist in providing desirable living conditions, but they also tend to improve and stabilize property values. Vancouver would be a much less desirable place in which to live to-day if the bathing beaches and park and recreational areas had been absorbed by other types of urban development. Throughout the years the civic authorities have always been of the belief that there is adequate room for all land uses in this city, and that ample park areas must be provided.

Public educational facilities are also an essential part of the city's structure. The school playground is becoming an equally important part of the educational system and ample play area should adjoin each school. It is only logical—and it is good economics—that this playground should be used throughout the calendar year, thus making it unnecessary for another public agency, such as the Park Board, to duplicate the school playground facilities for use during the sum-



STANLEY PARK FROM THE AIR

mer months. Many economies and advantages can also be obtained if an additional area be acquired around or adjoining the school playground to provide recreational opportunities for the adults. This would provide a recreational centre that is properly related and of interest to all persons in the surrounding residential district. These neighbourhood recreational areas are fundamental in providing desirable living conditions, maintaining property values and in assuring an efficient, economical and desirable future city. Because of the close relationship between school and park facilities, they should be studied as a unit, and in relation to the populations they are designed to serve.

The Vancouver report contains a brief analysis of modern recreational standards serving as a guide in the development of an adequate school and park system; an appraisal of existing school and park facilities to determine their adequacy and defects, and a proposed system for schools and parks, together with recommendations as to the proper and logical treatment and development.

Schools

The school system in Vancouver has grown from one 4-room school in 1887 to 71 schools in 1944. The present school system has an approximate current valuation of \$14,000,000.—land \$2,000,000., buildings \$11,000,000. and equipment \$1,000,000.

In addition to their recreational use, schools have an important influence in obtaining a desirable population pattern. Families are naturally interested in securing proper school facilities for their children and in selecting the location of their homes they always consider the proximity to schools. Thus the school system, because of its existing investment, its opportunities for recreation, and its influence upon the future location of population, is an integral part of a Town Plan.

The accompanying plate on page 316 shows the trends in the city's population since 1925 and the enrolment at the elementary and junior and senior high schools from 1929 to 1940, and for each year thereafter to 1945. The school enrolment since the middle 30's is similar to that in all large cities on the continent. The decrease in the birth rate prior to 1934 is having a pronounced effect upon school enrolment. The city's population is gradually getting older, and the proportion of the population represented by school children is becoming smaller. The pronounced increase in birthrate during the war will affect the school enrolment when these children become of elementary school age. The school authorities will be required to look forward to increasing the accommodation. Students of population problems, however, agree that the long-range trend of births will be lower than it was prior to 1940. On this basis,



CAUSEWAY, ENTRANCE TO STANLEY PARK



BROCKTON POINT AND VANCOUVER SKY-LINE



VISTA OF ENGLISH BAY AND NORTH SHORE MOUNTAINS FROM KITSILANO POOL

probably less than 7 per cent. of the total population, or not more than 38,000 children, will be attending elementary schools by 1971 in Vancouver.

One of the principal defects brought to light in the report is that most of the schools, both elementary and high, are situated on too small a site. Only 10 of the 55 elementary schools conform to the minimum desirable standard of five acres. Twenty-three sites are of three acres or less. Several of the smaller sites seriously need additional recreational facilities, and co-operation between the School and Park Boards is necessary to provide the needed space. A similar situation was noted in regard to high school sites but to a much less degree. None of these contain ten acres—the minimum desirable standard—and seven contain less than five acres. The improvement proposed in the park system will be of much benefit in providing adequate playfields for high school students.

It was also noted that some of the elementary schools have only a small enrolment—200 pupils or less. The standards for the sizes of schools, in order that they be economically operated, have been determined by experience to be, for elementary schools, an enrolment of between 350 and 500 since, as the enrolment drops below 350, the cost per pupil rises sharply.

In order that the individual child be not lost in too complex an organization, the elementary schools should not have an enrolment greater than 750. Similar standards for junior high schools indicate that between 750 and 1,000; and for senior high schools between 1,000 to 1,500, have been found satisfactory.

In the long-range view, some schools are recommended for eventual abandonment on account of age and poor location but they will serve for many years. Sites for two new technical high schools are recommended in areas not now served and it is proposed to erect a vocational school in the downtown district—probably forming a part of the Civic Centre group.

Parks

Desirable standards for a co-ordinated recreational system, as recommended by the Vancouver Plan, are as follows:

Small children, 5 years and under, should be looked after by the parents.

Elementary school age children have their dominant interest in the school playground.

Youths, of junior, senior and technical high school age, must have their play and recreation provided in school grounds, large playfields and neighbourhood parks.

Adults, those desiring active sports will use the playfields and neighbourhood parks. Others will seek more passive recreation in automobile driving, horseback riding, golf, picnicking and hiking, for which scenic drives, bridle paths and golf courses should be provided.

The Report also specifies the various types of recreational facilities needed to serve the city's population, and the commonly accepted standards, regarding the location and size of each area. Briefly, these are:

Small ornamental parks of an acre or less. These are usually expensive to maintain but present a very pleasing effect. However, their numbers should be kept to a minimum.

Supervised school playgrounds. These should have an area of at least five acres and should serve the area within one-half mile of the school, i.e. they should be approximately one mile apart.

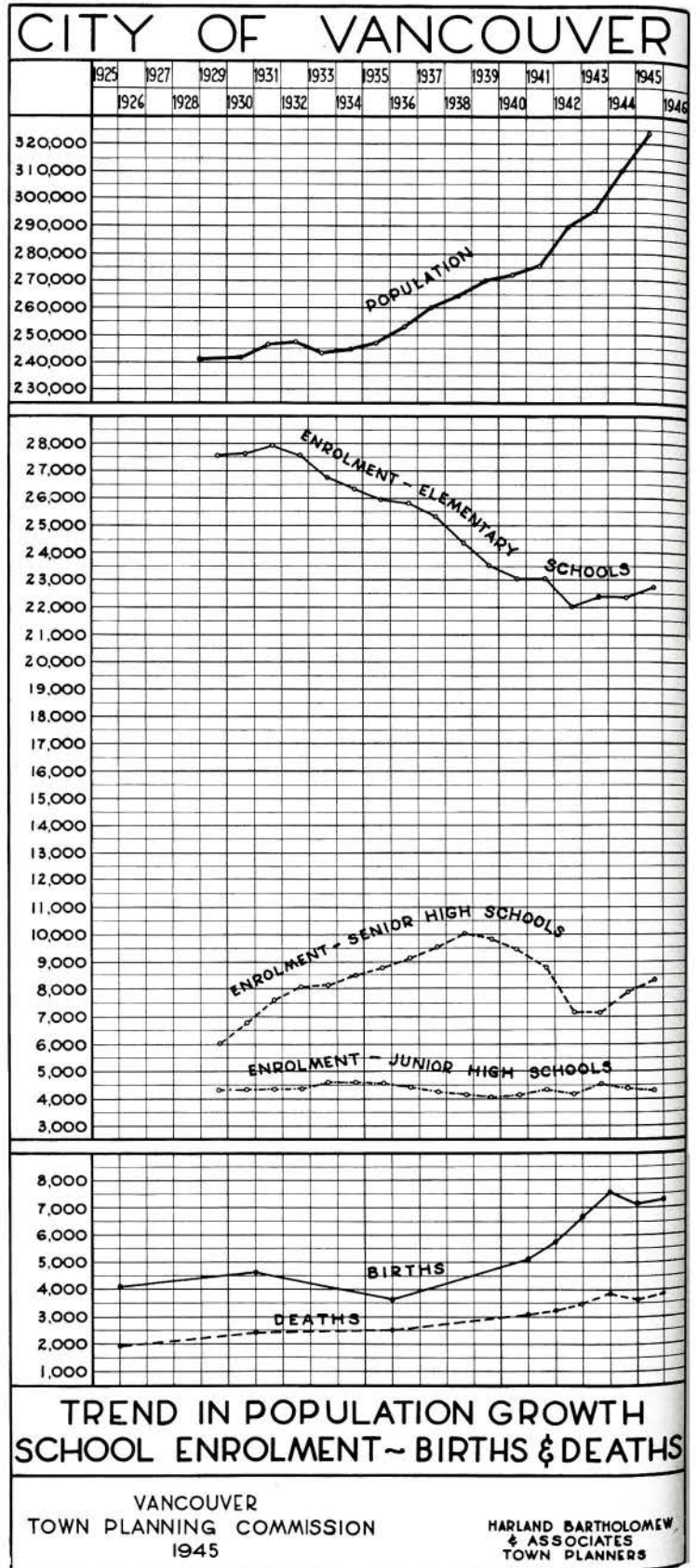
Playfields should be attached to or near the high schools and contain at least ten acres. They should be situated about two or three miles apart and each should be improved with a softball diamond, football field, running track, tennis courts and similar facilities.

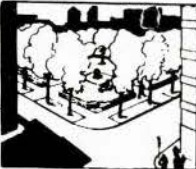
Neighbourhood Parks. As these parks should be more intensively used than any other type they should be more numerous, and therefore, they should be located about a mile apart. They would vary in size, according to the availability of land, and contain from five to twenty acres. In this type of park there should be play apparatus for children, open lawn for unorganized games, softball diamond, tennis courts, recreational facilities for adults—lawn bowling, horseshoe pitching, checkers—and an attractively wooded or landscaped area for passive recreation and for picnicking.

Community centres are primarily for indoor recreation and are of particular interest to adults. There would be a definite economy obtained if school buildings were designed so that a portion could be used as a community centre. An auditorium, gymnasium and hobby room are essential. If these facilities cannot be furnished in school buildings they should be made available in neighbourhood parks as a part of a fieldhouse or as a separate structure.

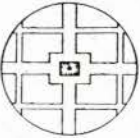
Parkways, Scenic Drives and Boulevards are very important links in a park system. Vancouver has many miles of scenic drives but they must be improved and extended. They should be attractively planted and landscaped, and be as free as possible from commercial and truck traffic.

Large Parks include areas of 100 acres or more and should be selected, usually in the outlying districts, for their outstanding topographical features. They





SMALL ORNAMENTAL PARKS PROVIDE OPEN SPACE AND AREA FOR REST AND PASSIVE RECREATION WITHIN THE MORE INTENSIVELY DEVELOPED PORTIONS OF THE CITY AREA.




SMALL ORNAMENTAL PARKS



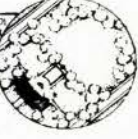
COMMUNITY CENTERS ARE NEIGHBORHOOD MEETING PLACES - SCHOOLS - SHELTER HOUSES IN PARKS - & OTHER BUILDINGS WHICH MAY BE USED FOR INDOOR RECREATION MAY SERVE.





COMMUNITY CENTERS



PLAYGROUNDS FOR SCHOOL CHILDREN WITH SUPERVISION SHOULD CONSTITUTE THE PLAYGROUND SYSTEM.




SCHOOL PLAYGROUNDS SHOULD CONTAIN AT LEAST 5 ACRES. PLAYGROUNDS SHOULD BE 10000 FT PER CHILD ENROLLED.

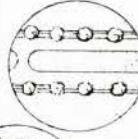


PLAYGROUNDS WITH SUPERVISION HAVE AN EDUCATIONAL AS WELL AS RECREATIONAL SIGNIFICANCE. DISTRICTS OF 70 MILE RADIUS SHOULD BE SERVED.


SUPERVISED SCHOOL PLAYGROUNDS



CERTAIN SECTIONS OF THE PLEASURE DRIVE SYSTEM SHOULD BE OF THE FORMAL BOULEVARD TYPE.

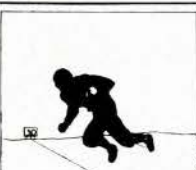


THE PLEASURE DRIVE SYSTEM SHOULD HAVE ITS ORIGIN IN THE HEART OF THE CITY.

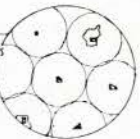


OTHER SECTIONS OF THE PLEASURE DRIVE SYSTEM SHOULD BE OF THE INFORMAL NATURALISTIC TYPE.


PLEASURE DRIVES



PLAYFIELDS GENERALLY SHOULD SERVE DISTRICTS OF FROM 4 - 6 MILE RADIUS & SHOULD BE FROM 10 - 20 ACRES IN AREA.




ONE SET OF PLAYFIELDS SHOULD BE LOCATED AT THE HIGH SCHOOLS. THESE SHOULD BE SUPPLEMENTED BY PLAYFIELDS OF THE NEAR BY OTHER IN LARGER PARK AREAS OR AS SEPARATE ATHLETIC FIELDS.




SWIMMING POOLS, TENNIS COURTS, FOOTBALL, BASEBALL, SOCCER, LACROSS & CRICKET FIELDS ARE NEEDED IN CONNECTION WITH PLAYFIELDS.

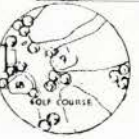
PLAYFIELDS



WATERFRONT AREAS WITH FACTORY & PICKING FACILITIES AND DRIVES ARE PARTICULARLY VALUABLE.




THESE AREAS SHOULD CONTAIN 100 ACRES OR MORE AND BE SELECTED BECAUSE OF NATURAL, TOPOGRAPHIC AND SCENIC ADVANTAGES.

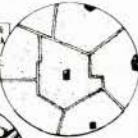


NATURAL BEAUTY SHOULD BE PRESERVED IN THE LARGE PARKS BUT THEY CAN CONTAIN DRIVES, GOLF COURSES, PICNIC AREAS AND OTHER FACILITIES.

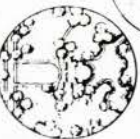
LARGE PARKS



EVERY SQUARE MILE OF RESIDENTIAL AREA SHOULD HAVE ITS NEIGHBORHOOD PARK.



A NEIGHBORHOOD PARK TO BE ABLE TO RENDER FIRST CLASS SERVICE SHOULD HAVE AT LEAST 20 ACRES & SHOULD BE COMBINED WITH AN ELEMENTARY SCHOOL.



A PARK OF THIS TYPE SHOULD COMBINE FACILITIES FOR ACTIVE PLAY, LAWNS FOR ADULTS AND LAWNS AND PLANTING.

NEIGHBORHOOD PARKS

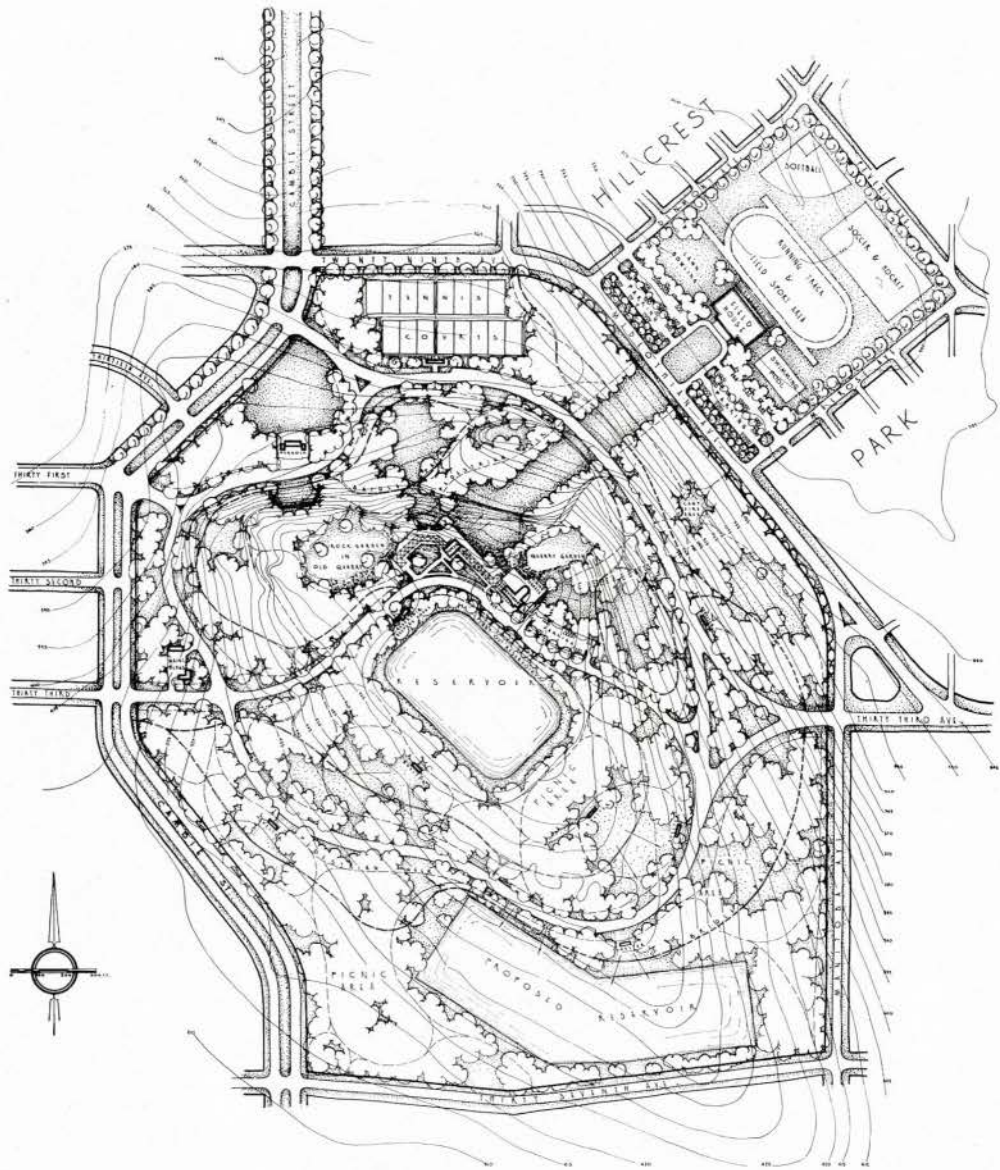
**SWIMMING POOLS
ZOOS
OUTDOOR THEATRES
TENNIS COURTS
GARDENS**

SPECIAL FACILITIES

TYPES OF RECREATIONAL FACILITIES

HARLAND BARTHOLOMEW & ASSOCIATES
CITY PLANNING ENGINEERS

VANCOUVER TOWN PLANNING COMMISSION
1945



A GENERAL PLAN
 FOR DEVELOPMENT OF
QUEEN ELIZABETH PARK
 VANCOUVER, B. C.

HARLAND BARTHOLOMEW & ASSOCIATES
 TOWN PLANNERS











TOWN PLANNING COMMISSION
 PARK BOARD

PROPOSED PARK FACILITIES VANCOUVER BRITISH COLUMBIA

VANCOUVER
TOWN PLANNING COMMISSION
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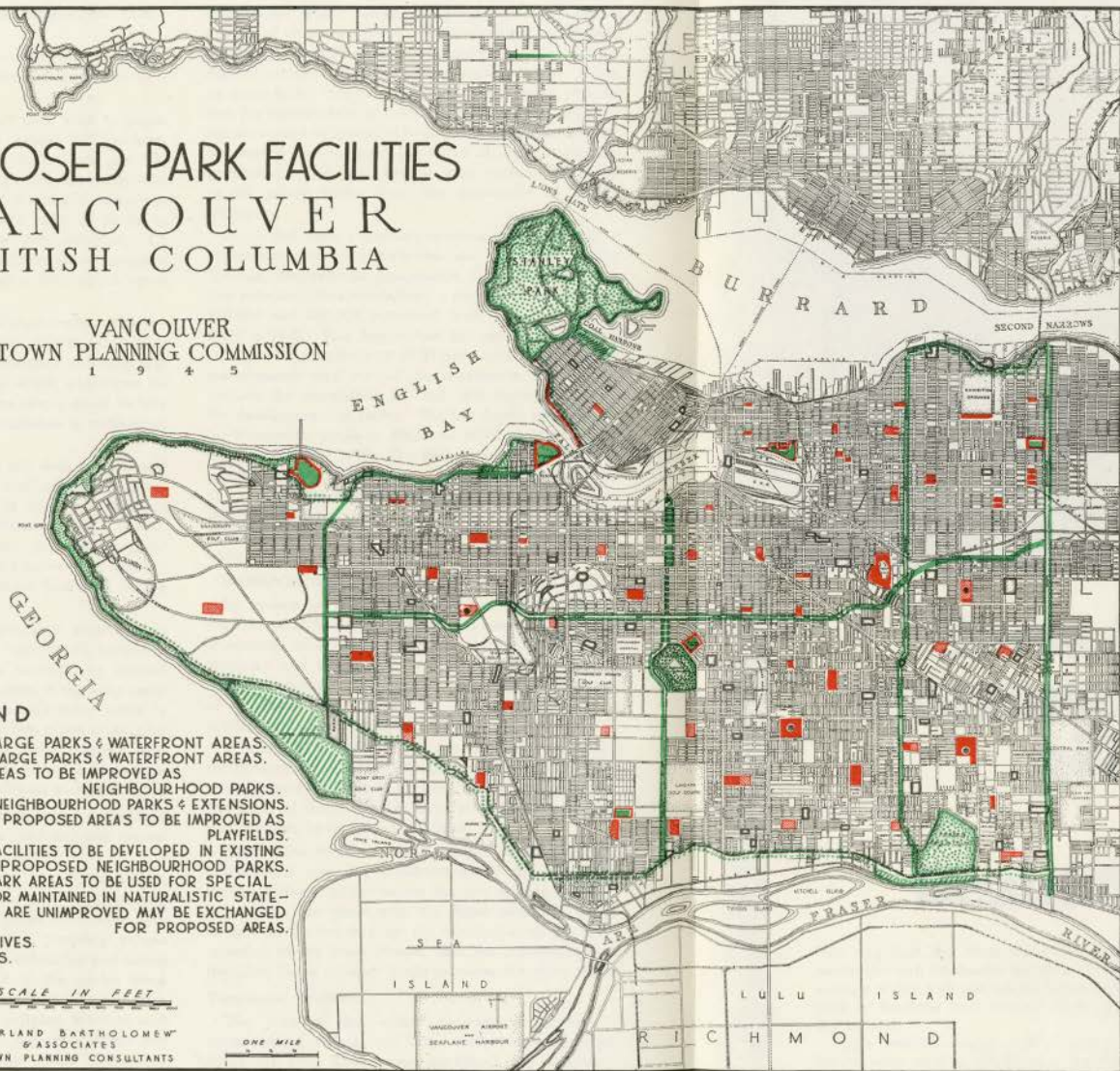
LEGEND

-  EXISTING LARGE PARKS & WATERFRONT AREAS.
-  PROPOSED LARGE PARKS & WATERFRONT AREAS.
-  EXISTING AREAS TO BE IMPROVED AS NEIGHBOURHOOD PARKS.
-  PROPOSED NEIGHBOURHOOD PARKS & EXTENSIONS.
-  EXISTING OR PROPOSED AREAS TO BE IMPROVED AS PLAYFIELDS.
-  PLAYFIELD FACILITIES TO BE DEVELOPED IN EXISTING OR PROPOSED NEIGHBOURHOOD PARKS.
-  EXISTING PARK AREAS TO BE USED FOR SPECIAL PURPOSES OR MAINTAINED IN NATURALISTIC STATE - SOME THAT ARE UNIMPROVED MAY BE EXCHANGED FOR PROPOSED AREAS.
-  SCENIC DRIVES.
-  BOULEVARDS.
-  PARKWAYS.

SCALE IN FEET

HARLAND BARTHOLOMEW
& ASSOCIATES
TOWN PLANNING CONSULTANTS

ONE MILE



should be preserved in their natural wooded condition but should contain some driveways to make them accessible. Some of them may be utilized for golf courses, swimming pools, arboretums, picnic grounds, and the like.

Special facilities such as waterfront areas, bathing beaches, outdoor theatres, etc., are also provided in a comprehensive park system.

A desirable overall standard of park area to population is one acre of park for every 100 persons. Vancouver is close to this with 0.97 acres per 100 persons. However, if Stanley Park of 1,000 acres, one of the most outstanding parks of the world, were not a part of the system, Vancouver's ratio of parks to population would be far below this standard. Of the large Canadian cities, Hamilton alone exceeds Vancouver in this respect, having a ratio of 1.5 acres of park to 100 persons.

Because of the mild climate, Vancouver's parks are used a larger proportion of the year than in most other cities. Moreover, within a short distance of Vancouver there are many other recreational areas which can be enjoyed by its citizens. There are also a great variety of sports, from skiing on the mountains to swimming at the beaches.

In general, Vancouver's parks are well located and occupy land which is reasonably well adapted for such use. A substantial portion of its total park area is represented in three parks—Stanley Park, Queen Elizabeth Park on Little Mountain, the highest point in the city, and Fraser View Golf Course—and account for approximately 1,350 acres, more than half of the present system.

A considerable part of the Vancouver waterfront is under public control. It is very regrettable, however, that a few choice areas that are strategically located were allowed to fall into private hands in the very early days. Under the Parks Board there are today some 14 miles of waterfront which include two miles of bathing beaches. In addition, there are three outdoor salt-water swimming pools, one of which is the largest on the continent, and one, covered, all-year salt-water pool.

The Park Board also owns and operates a standard 18-hole golf course and an 18-hole pitch-and-putt course (one-fifth standard size).

Unfortunately, three of the most heavily populated older districts of the city lack any park facilities and will have to be furnished with parks at considerable cost. On the other hand, however, property values near these areas would be greatly enhanced and living conditions made more desirable if the parks were provided. There are several undeveloped park sites that have been acquired in the outlying sections and recommendations are made as to the programme that should be followed with respect to them. Some are too small and others are not properly related to the future population pattern.

Besides a great many detailed proposals, recommendations are presented with respect to the location and extent of a system of parkways, scenic drives and boulevards which, when completed, would form a system of elongated parks. Vancouver has an unusual variety of sea and mountain scenery yet there are no special parkway features of outstanding merit. It has an opportunity that very few other cities could provide and the construction of these parkways would not only enhance the city's natural beauty and scenic resources, but would also increase the value of the surrounding properties. The cost, over a long period, would be repaid many times from the viewpoint of tourist attraction.

There has been a gradual increase in the per capita expenditure for park purposes and according to the National Recreational Association, the expenditures in five selected cities, containing a population of between 250,000 and 500,000 increased from \$1.54 in 1935 to \$1.92 in 1940. This Association has recommended that an annual expenditure of \$3.00 per capita for operation, maintenance and normal improvements, but not to include the acquisition of land and capital outlay in the development of parks. The per capita expenditure for Vancouver parks in 1941 was \$0.70 compared with Seattle's \$1.39 in 1940. The Park Board should be in a position to prepare a long-range programme consisting of projects which would be initiated each year, but this is impossible under the present system by which Park Board funds are appropriated upon an annual basis.

TRANSPORTATION—HARBOURS AND RAILWAYS

By reason of its strategic and unrivalled location, the Port of Vancouver is a national asset. It is at the crossroads of oceanic, coastwise and transcontinental shipping and travel, and is the great Pacific port of half a continent. Vancouver is the western terminus of Canadian railways, and its year-round harbour is ideally sheltered and commodious.

In the 1930 Town Plan several very important recommendations relative to the harbour and railways were presented. Several have been consummated but some of those that are most vital, both to the city and the port, have not materialized.

Among the more important projects that have been carried out are the construction of the Canadian Pacific Railway tunnel under the city streets, connecting the service yards with the depot terminus, which in turn paved the way for the elimination of the level crossing of six busy streets, and the construction of the Glen Drive railway yards to serve the grain trade.

Vancouver Harbour

The area of the entire harbour is almost 49 square miles, with a total shore line of over 98 miles. Since the 1930 Report was published, the control of Vancouver's harbour has passed to the National Harbours Board. The even tenor of foreign trade and

passenger traffic through the port was disrupted greatly by World War II, but apart from the Oriental trade and passenger traffic, the port's general commodity and grain business is rapidly reaching pre-war proportions.

There are 28 wharves and piers (a total of 56 deep-sea berths), having an average low-water depth of 31 feet, at which ships berth under their own steam. There are 7 grain elevators having a capacity of over 18,700,000 bushels, and storage facilities for over 470,000 gallons of fish and vegetable oils. The Board operates a fish dock, with berthing space for 130 fishing craft and with equipment for the daily production of 35 tons of ice.

The Report looks to the complete development of the entire shore line of inner Burrard Inlet for harbour purposes.

False Creek

The reclamation of False Creek, Vancouver's secondary harbour, has been recommended in both the 1930 and Revised Reports. It is proposed to reclaim much of the water area along both shores for industrial purposes, maintaining a depth of 20 feet at low water. Owing to the magnitude of the project and the many conflicting interests involved, no progress has been made. However, as prophesied in the 1930 Report, two large sawmills have been removed from this area within the past few years.

Railways

The most important recommendation made in the original Report was confirmed and strongly emphasized in the Revision. This deals with the antiquated method of interchanging freight cars among the several railroads and the unsystematic switching arrangements and excessive intra-terminal switching charges. It is pointed out that industrialists and wholesalers have been for years at a distinct disadvantage in that they have no efficient railway service on equal terms at reasonable cost regardless of their location in the city. The only satisfactory solution to this problem, which is long overdue, is the formation of a single terminal company or agency to handle all the switching within the city. Rail access to the harbour front should be on equal terms and with the maximum facility. The Report also suggests that investigation be made to ascertain the possibility of unifying the railway passenger terminals.

The Report emphasizes that only by the wholehearted co-operation of the railways and the city can these recommendations be consummated. It would be to the distinct advantage of all concerned, especially the transportation companies, if the spirit of co-operation prevailed.

A METROPOLITAN AIRPORT PLAN

Air transport had a rapid growth before the war and the many war-inspired improvements advanced this

form of transportation much more quickly than would otherwise have been the case. Not only have the airplanes improved on account of the war, but there are a very large number of persons highly trained in their construction, servicing and operation. As in the past, there will be many changes and improvements in the techniques of aircraft construction and operation. These changes are difficult to predict, in turn making difficult the planning of air terminal facilities and the adjustment of this form of transport to the urban communities.

In the future as in the past, the principal uses of the airplane can be the movement of relatively small numbers of persons and small volumes of mail and perishable and lightweight commodities over long distances at high rates of speed. The ownership and use of aircraft can be expected to have a diversification similar to the automobile. There will be scheduled movements of passengers, mail, express, and freight carried on by large air lines generally similar to that of large bus and truck companies. There will be many non-schedule operations carried on by companies or individuals. Many farmers will own airplanes as they now own trucks. There will be numerous airplanes owned and used for recreation and business as are automobiles at the present time.

The airplane requires terminal facilities only and needs no expensive right-of-way improvements as do railways and the automobile. The volume of aircraft movement in any urban area, however, will be limited by the terminal facilities provided on the ground—the airport.

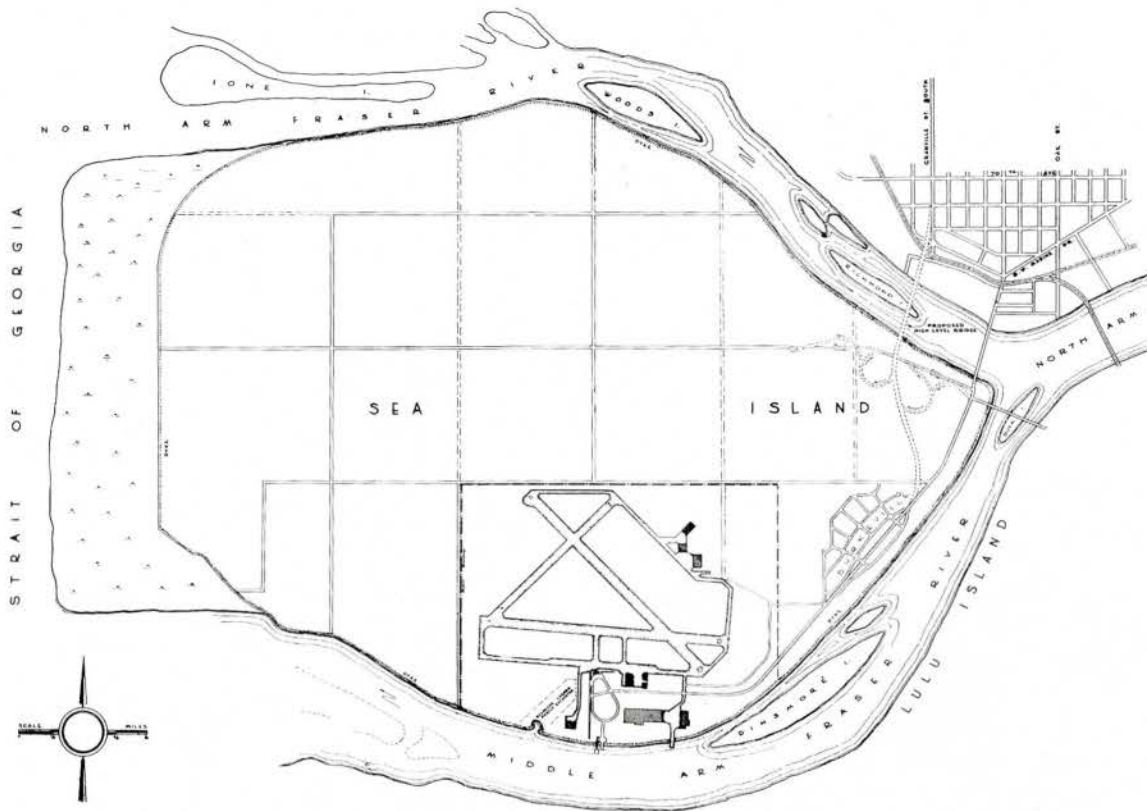
Past experience has indicated the difficulty of adapting existing urban areas to new forms of transport. Development of the vehicle has always been ahead of the development of the facilities over which the vehicle operates. There are trains which operate at much higher speeds than the design of the existing tracks can withstand safely, and automobiles are designed for higher speeds than are safe for the city street and highway systems. It is only natural to expect, therefore, that airport development will lag behind the development of aircraft. However, if air transportation is to be of a maximum usefulness this lag must be kept to the minimum. It is considered, most essential, therefore, that a plan be prepared and definite steps taken to secure airport sites for future development. It is not a problem for the city alone or any other neighbouring municipality. It is a metropolitan problem which has Provincial, Dominion and International ramifications and it can be solved only if all the interests involved agree to contribute the utmost possible to attain a satisfactory system of air terminals.

Scheduled air service to Vancouver has had a phenomenal growth. At the present time the Trans-Canada, the Canadian Pacific and the United Air Lines operate from the Vancouver Airport. There are

VANCOUVER AIRPORT & SEAPLANE HARBOUR

VANCOUVER TOWN PLANNING COMMISSION

HARLAND BARTHOLOMEW & ASSOCIATES
TOWN PLANNERS



40 plane movements per day (landings and take offs) of scheduled aircraft. The number of passengers on scheduled flights has increased from 800 in 1934 to 25,100 in 1940 and to 103,845 in 1945. The volume of air mail increased from 4,776 pounds in 1935 to almost 348,000 in 1940, exceeded 1,000,000 pounds in 1943 and 1944, and was 920,523 pounds in 1945. The increase in air express has not been so spectacular as that of air mail. However, it increased from 1,169 pounds in 1934 to 80,700 in 1940 and then to 272,477 pounds in 1945. The number of scheduled and non-scheduled landings at the Vancouver Airport has also increased greatly. In 1931, there were 2,861 landings and in 1945, there were 39,901. During 1941, when the Airport was used for military training, the total number of landings including military operational flights, was 135,516, for a while averaging 700 per day. The capability of the administrative staff and the Airport's capacity for future commercial operations were clearly demonstrated by this performance. In 1945, about four-fifths of the use of the field consisted of non-scheduled operations.

The report presents an analysis of the possibilities of future growth. With a large number of persons qualified to fly and with the large production capacity of all types of aircraft, large increases in private flying, as well as in commercial flying can be expected.

It is agreed, however, that it is most difficult to forecast, with any degree of accuracy, owing to many indetermined factors, what the rate of future expansion will be.

The Report cites five major classifications of air transportation:

Scheduled operations for passengers, mail, and express

Non-scheduled commercial operations.

Military operations

Pilot training

Private flying.

These are discussed at considerable length and also their general application to Vancouver. Relative to scheduled operation, it is anticipated there will be a ten-fold increase in the next twenty years. Although it is most difficult to anticipate the volume of non-scheduled commercial traffic, it is believed it will be between two and three times as large as the scheduled traffic. Military training and flying will probably continue and there will be sufficient number of persons interested in learning to fly to require one or two small airports devoted to this purpose. From analyses that were made in American cities as to the number of private planes that might be in operation by 1960

in metropolitan areas, the consultants have estimated that in the Vancouver-New Westminster metropolitan area, there would be at least 650, and perhaps double this number, private planes by 1965. It was deemed, therefore, that there should be at least two, preferably more, minor airports to accommodate private flying, in any airport plan for the metropolitan area,

Proposed Airport Plan

The Report points out that the number of planes that can be accommodated at an airport is dependent upon the regulations for safety that are imposed and that these regulations must be very strict even to the point of being rigorous. It also draws attention to the fact that small, slow planes interfere seriously with large, fast aircraft when both operate from the same airport. Therefore, as the traffic increases, it will be essential to separate the traffic to meet the needs of the small planes and minor airports will have to be provided.

The various types of airports and their minimum requirements, which were considered imperative for Vancouver are:

A Major Airport would be used for scheduled operations of trans-continental and overseas air transport, handling passengers, mail, express and freight. One major airport must be developed in Vancouver for the accommodation of the very largest planes. It is, therefore, essential that sufficient land be acquired to permit runways of 10,000 feet, although for trans-continental aircraft runways of 7,500 feet would be satisfactory. Areas between 2,000 and 3,300 acres will be required and there should be 1,000 feet between the ends of the runways and the property lines. The maximum permissible grade should not exceed 1½% and there should be an unobstructed glide angle from the runway ends of at least 50 to 1. Such a field would be lighted for night flying and be furnished with all the latest communication facilities. Furthermore, it would have an operating range of at least 4, and preferably 6, miles within which no other airport would be located. A Secondary Airport would be used for non-scheduled commercial planes and for larger private planes and probably to a certain extent, for regional air transportation of freight and express. Runways would be 7,500 feet with 750 feet between their ends and the property lines. The site would require between 600 and 700 acres. Night lights and communication and hangar facilities and, of course, an administration building would also be required. It should not be located closer than 6 miles to a major airport nor should there be any other airport within from 4 to 5 miles.

A Minor Airport or Flying Field would be used for private flying and instruction purposes. Runways would be 2,000 feet long, with 250 feet between their ends and the property lines. These fields would

have an area between 80 and 200 acres. There would require to be a large number of hangars for the storage of the planes and an administration building, but runway drainage, lighting and other improvements would be held to a minimum as flying would be done in daylight and under favourable weather conditions. This type of field should not be located closer than from 4 to 5 miles from a secondary and 6 miles from a major airport,

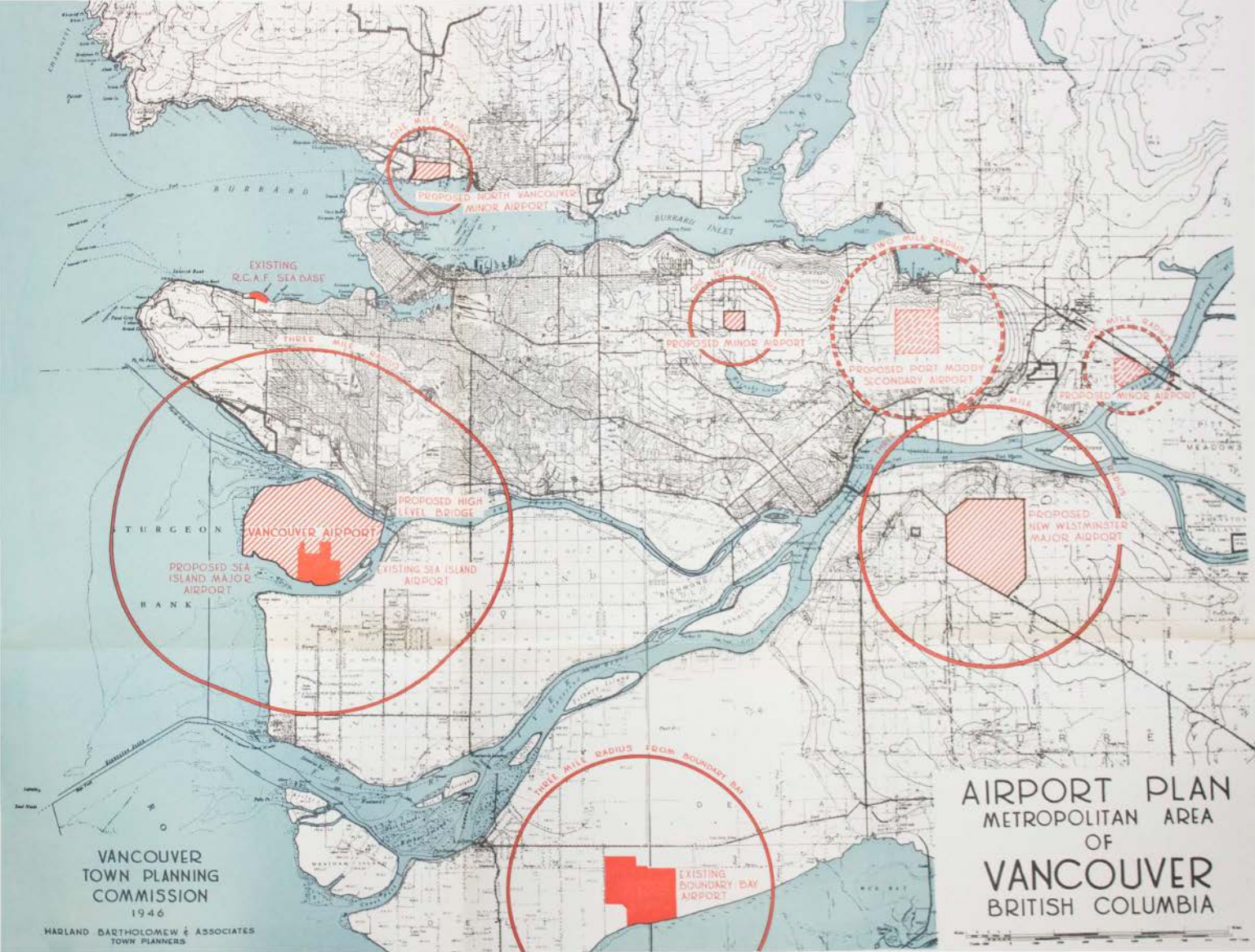
Helicopter Landing Field. During the period covered by this Airport Plan, it may be necessary to provide for a fourth type of landing field—a terminal for the helicopter. While this craft can land in a very small space, a large home-yard, or on a flat roof, the use of existing buildings is questionable. In any case, storage and servicing facilities would be necessary and landing fields containing 20 or more acres having hangars, repair shops and a half dozen landing areas have been designed

The Report discusses capacities of airports and states that 240 plane movements per day (40 plane movements per hour) with single runways, and 720 with dual runways, are satisfactory for Major or Secondary Airports. Admittedly these figures are theoretical and that the most modern airport equipment would have to be provided. A former head of the United States Civil Aeronautics Administration is quoted as stating that with improved equipment there is some prospect of reaching a movement of 30 in, and 30 out per hour within a few years.

The major principles controlling the location of the various types of airports and their application to the Metropolitan area, are recited at some length. These include proximity to city centre and ease of access, topography of site and surrounding terrain, prevailing wind directions, visibility, provision of public utilities—water and electric supply and sewers and the like.

The consultants estimate that, on the basis of a metropolitan population of 650,000 by 1971, and with a ratio of one airport for each 50,000 persons (Dominion Ministry of Transport standard) 13 airports would be required. However, after a very careful study of many potential sites, and having considered them in the light of the principles enumerated above, they recommend only 5 sites for immediate consideration and 2 others for consideration in the near future.

The Report concludes by stressing that early action should be taken by civic authorities in the metropolitan area, together with the Department of Transport, to acquire the sites before they are used for other purposes. It is pointed out that airport sites are extremely limited and that there are virtually no alternate sites available. If they are not acquired at an early date, the growth of air transportation in the Vancouver Metropolitan Area will be very seriously handicapped and retarded.



PROPOSED NORTH VANCOUVER
MINOR AIRPORT

EXISTING
R.C.A.F. SEA BASE

PROPOSED MINOR AIRPORT

PROPOSED PORT MOODY
SECONDARY AIRPORT

PROPOSED MINOR AIRPORT

PROPOSED SEA ISLAND MAJOR AIRPORT

EXISTING SEA ISLAND AIRPORT

PROPOSED HIGH LEVEL BRIDGE

VANCOUVER AIRPORT

PROPOSED NEW WESTMINSTER MAJOR AIRPORT

EXISTING BOUNDARY BAY AIRPORT

VANCOUVER
TOWN PLANNING
COMMISSION
1946

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TOWN PLANNERS

AIRPORT PLAN
METROPOLITAN AREA
OF
VANCOUVER
BRITISH COLUMBIA

ZONING

Many cities on this continent are now engaged in revising their zoning regulations of earlier days. Years of experience in administering them and the lessons which have been learned, clearly indicate that zoning is still the only logical method of protecting the character of residential districts and the value of the home. This is evidenced by the fact that over 2,000 communities in the United States—in which more than 70% of the urban population live—have adopted zoning regulations.

Some of the reasons for these revisions are:

The early zoning contained far too much area for commerce and industry. Cities have not grown as rapidly as anticipated and the areas set aside for industrial and business uses have not been absorbed. Many cities are now preparing comprehensive Town Plans and it has been determined that the location and types of zones will require some readjusting to major streets, transit facilities, schools, parks, and other urban uses.

Since comprehensive zoning was initiated in the United States in 1916, much recent advancement has been made in technical aspects of zoning. Court decisions have clarified many early problems and the experiences gained in administering the regulations have assisted in clarifying definitions and procedures. In some cities, the boundaries of the zoning districts and the regulations therein, have been changed so frequently that the by-law and district map must be replaced completely.

With respect to Vancouver, many administrative and enforcement problems have arisen during the past 15 years which require rectification. The new population estimates that were prepared will furnish a sound basis for determining the area that will be needed for the various districts.

The British Columbia Town Planning Act authorizing zoning recites the principal factors that must be considered in preparing and adopting zoning regulations, as follows:

"In determining the regulations to be made under this section, the Council shall have due regard to the following considerations:

- (a) The promotion of public health, safety, convenience and welfare:
- (b) The prevention of the overcrowding of land and the preservation of the amenity of residential districts:
- (c) The securing of adequate provisions for light, air, and reasonable access:
- (d) The value of the land and the nature of its use and occupancy:
- (e) The character of each district, the character of the buildings already erected, and the peculiar suitability of the district for particular uses:

(f) The conservation of property values and the direction of building development."

It is especially noted that the considerations refer to the general public welfare of a community and not to individual advantages. In other instances they refer to the protection of property value, especially to the protection of residential amenities. They emphasize that primary consideration must be given to the existing development and to the adaptability of an area to its proposed use. Nothing, whatever is said about zoning being responsible for the increase of property value—on the contrary, it is for the protection and stabilization of values. It is the community as a whole, and not the individual, that must be given primary consideration in zoning.

The Report cites the practice of the Planning Commission in a comparatively large American city in considering any change in their zoning regulations. This Commission will not permit any applicant for a change to discuss his personal gain therefrom; instead, the discussion must be confined as to how the change would be of advantage to the surrounding property and to the entire city. Under this type of procedure, it is obvious that many applications for changes could not be supported very strongly.

The Act stresses the important part that zoning should play in protecting residential districts. The changing conditions in urban development make this protection especially important and needed. Large sections of the older cities are either slums or blighted districts which are an economic liability. In a newer city, such as Vancouver, which has practically no slums and only a comparatively small number of blighted districts as compared to older cities, a careful adherence to sound zoning principles will afford maximum results.

The following is quoted from the report:

"If a residential district is soundly located there is no reason why it cannot continue to be used for residential purposes throughout the life of the city. Even though some of the homes may be old and obsolete it is much sounder to remove them and replace them with modern structures than it is to permit scattered objectionable uses that would adversely affect the entire residential section. There is no reason why buildings, particularly residential buildings, should not be amortized the same as any normal investment. After becoming obsolete they should be removed and the sites utilized by types of residences that meet modern requirements."

The Report also recommends the commonly accepted principle that the older, closer-in areas surrounding the central business district are the logical locations for apartment development. Land values, transit facilities, public utilities, proximity to employment, and other factors all favour such locations. If apartments are allowed to scatter throughout all residential

sections, they not only adversely affect the residential values but the possibilities of developing the closer-in areas with the more intensive residential use are greatly nullified.

The respective powers and duties of the four agencies that are responsible for the administration of the zoning regulations are:

The Administration Officials—the Building Inspector, License Inspector and the Secretary of Zoning Matters—all have responsibilities for administering the Zoning By-law. Their primary duty is to check all applications to ascertain if the proposed use conforms to the regulations. They are also responsible for discovering violations of zoning.

The City Council has complete and final authority in adopting or amending the zoning regulations and district map. In addition, it has the responsibility of deciding whether certain uses outlined in the By-law, should be permitted. It also has certain responsibilities relative to the officials charged with the enforcement of zoning regulations and with the prosecution of any violators thereof.

The Town Planning Commission is primarily a fact-finding and recommendatory body. It is charged with the making of studies regarding trends of growth and future needs and the preparation of a Town Plan which will best serve such needs. It is charged with the preparation of the Zoning By-law and District Map for presentation to the City Council for adoption. It is also the logical agency to investigate and report upon applications for changes or amendments to the Zoning By-law. The Commission merely makes findings and recommendations and has no final jurisdiction in the amendment or change.

The Zoning By-law Board of Appeal is very important in the successful operation of the Zoning By-law and it is considered as the "safety-valve" of zoning. Its duties are to receive, hear and pass judgment on appeals for such relaxations as are provided for in the Act. It can exercise discretion where very unusual conditions are encountered and make such adjustments as will permit a reasonable use and prevent the confiscation of private property. Unless such confiscation is prevented zoning eventually would become ineffective.

The Act specifies that an appeal shall lie by any person claiming that owing to special conditions the literal enforcement would result in unnecessary hardship. It certainly was never intended by "unnecessary hardship" that an inconvenience to a property would outweigh the protection of surrounding property or the city-wide benefits of zoning. The Act clearly defines the objectives of zoning as being for the protection of property values rather than the enhancement thereof and the improvement of the general, rather than the individual, welfare.

Experiences in many cities have revealed that some Boards of Appeal have gradually absorbed more authority than was originally intended in the Act. In certain instances their variations have been so extensive that they actually constitute changes. If Boards of Appeal operated within the strict intent of the provisions of the Act, their work would be greatly simplified.

Since zoning necessarily prohibits certain property uses there is a tendency to consider it as a restrictive regulation which tends to unpopularity. In reality zoning is one of the most constructive of all municipal regulations. It is the only fair and logical way to provide a sound scheme for the long range development of the community whereby it may be shown where the various improvements can be located to the maximum advantage both to the community and the undertaking itself.

Neither the city nor the property owners benefit by the zoning of all the frontage on major or carline streets for commercial purposes. Experience in Vancouver has definitely proven this fact. Only sporadic commercial development takes place and a large amount of property usually remains vacant because persons are reluctant to erect homes in an unprotected district. Compact commercial development at strategic and logical locations offer greater convenience to the shopper and higher value to the owners.

There is now a considerable demand for industrial sites but the trend is toward horizontal rather than vertical development of factories. This is more prevalent, of course, in the outlying industrial districts. There is also a pronounced desire to acquire vacant land rather than built-up, but usually blighted, residential areas. The topography of the terrain makes it difficult to adopt zoning to these modern industrial trends. There are still some excellent industrial sites, some served by trackage, especially in the outlying sections.

The off-street parking of automobiles is definitely related to zoning because of its relation to safety, convenience and public welfare. Off-street parking also helps to protect established commercial values, and thus it is an important means of counteracting the current trend of decentralization and the moving of stores to outlying districts. Modern zoning regulations require the furnishing of off-street parking in connection with suburban commercial developments. While such regulations cannot be expected in the central business district, off-lane or off-street loading space could properly be enforced.

There is a growing practice to authorize the location of certain uses in districts in which they are normally prohibited, subject to certain conditions. Examples of these, are hospitals, institutions and certain public buildings which are essential and are actually needed

in residential districts. These types of public building will benefit rather than adversely affect residential development if they are located on large tracts, with attractively landscaped grounds, and are accessible to major thoroughfares.

Under the Town Planning Act, any use that does not conform to the regulations of the district in which it is located, must be permitted to continue even after the adoption of the Zoning By-law. Experience has proven that non-conforming uses possess many advantages and the usual life of the building is indefinitely continued which is often very detrimental to the neighbourhood. Modern zoning regulations provide for the eventual elimination of non-conforming buildings by stipulating that such buildings must be removed or razed—allowing the reasonable period of forty years after its construction. To carry out this provision an amendment to the enabling Act would be required.

A considerable number of changes mostly of a minor nature are recommended for the Vancouver Zoning By-law so that the provisions will be more equitable and will be more readily enforceable. One of the most notable is the development of large housing projects. These community unit plans provide a considerable amount of open park-like space for the people living in the development. They frequently comprise two-family dwellings, row houses or even apartments, and because they are located on large tracts and have much open space, they are not undesirable, even in single-family districts. It is recommended that they be permitted provided they conform to the density, or site standards, of the district in which they are proposed to be located.

It is also recommended that amendments to the Act and Zoning By-law be made in order to give more specific instruction and direction to the Board of Appeal.

Several recommendations are also presented relative to altering the boundaries of the various districts although very few if any are of a particularly drastic nature.

Vancouver has at present 10 zoning districts:

- Single-Family
- Two-Family
- Local Commercial
- Three-storey Multiple Dwelling
- Three-storey Commercial
- Six-storey Multiple Dwelling
- Six-storey Commercial
- Six-storey Industrial
- General Business
- Heavy Industrial.

The report recommends the addition of another district—a Limited Industrial District—which would have a height limitation of three storeys. It is designed to allow for unlimited ground area expansion

of very light industries. They will be allocated to districts where they will not prevent logical and desirable retail store development. The Six-storey Commercial District is also recommended for deletion. As an alternative, no limit would be placed upon the height of commercial, industrial or apartment buildings provided the site area were sufficiently large to allow for certain prescribed set-backs to the end that the prescribed density of population will not be increased.

DECENTRALIZATION AND REGIONAL PLANNING

Decentralization

Improved methods of transportation have typically dispersed the population of the larger North American cities from a distance of two miles to approximately five miles, by street car, and a generally accepted maximum of fifteen miles by rapid transit service and by automobile. The latter radius would represent a very large area but in the case of the Vancouver metropolitan area much of it is water area, or so mountainous as to be useless for urban purposes. The total area of the municipalities within fifteen miles of the centre of Vancouver comprising the University Endowment Lands, West Vancouver, North Vancouver (City and District), Burnaby, New Westminster and Richmond, is approximately 245 square miles.

It also points out the rapid growth of Vancouver and most of the other surrounding municipalities. Attention is also drawn to the fact that when economic conditions improve, the number of automobiles will materially increase thus enhancing the possibilities for still more wide-spread dispersal of the population. These phenomena surely tend toward decentralization of retail commerce and industry of all types.

None the less, decentralization is a very marked characteristic of Greater Vancouver; and measures to control decentralization, which can bring many benefits or result in substantial harm, during the next 25 years, are recommended:

Good living conditions must be maintained in the older areas. This will require the formation of local neighbourhood organizations throughout the city; strict and impartial enforcement of the Zoning By-law; a forthright programme for the planting and care of street trees; a continued efficient collection of garbage and refuse; planning and good maintenance of streets and lanes, and continued development and maintenance of good park and school areas.

Strict control over all new subdivision. A far greater area has been subdivided in the Vancouver metropolitan district than is needed for residential purposes. Most of them consist of poorly designed plats unrelated to the topography of the terrain and are frequently unimproved except for rough street grading. These are examples of the harm that results from uncontrolled decentralization.

Wherever possible these poor subdivisions should be replotted.

Industrial development should be studied and promoted on a metropolitan basis. Much of the future growth of the metropolitan area will be dependent upon industrial development and there should be no undue competition. Encouragement should be given to the use of sites that are best related to highway, transit and transportation facilities, to existing utilities and existing residential areas.

The Central Business District must be accessible, convenient, attractive and inviting. It should not be permitted to disintegrate into a large number of sub-centres.

The entire metropolitan area should have a planned development.

Regional Planning

Urban growth in Vancouver has gone far beyond the corporate limits of the city. The comparative unity of its development is in decided contrast to the complexity of local government and the natural area has been split up by the arbitrary boundaries of many individual cities, districts, and villages. Each of these municipalities, however, must live in the community of the region in which they are located. It is obvious that in order to do good planning individually, such planning must be related to the entire region and further, only as the entire unified metropolitan region is covered can planning be completely effective.

A region is generally considered to be an area that is inherently unified in one or more certain important aspects but it is, of course, difficult in most instances, to define the exact boundaries for a metropolitan region. The boundaries should conform wherever possible, with natural topographical features. In the case of the Vancouver metropolitan area, the boundaries are related to the valley of the Lower Fraser River as far east as the village of Hope. Most of these boundaries are the natural watersheds along the mountain sides. The main exception, of course, is the International Boundary. The area covers about 1800 square miles, over one-third of which is mountainous.

It contains 23 separate municipalities and about one-half of the province's population. Probably most of the urban development of this region lies within 20 to 25 miles from Vancouver. This great fertile river basin should have a unified, sound and planned development.

The Report analyses what a planning agency or organization could do. Its activities should be concentrated largely on the following studies:

Factual: These would cover the economic conditions, population growth, commercial and industrial enterprises, and the natural resources that might attract new capital.

Transportation: Plans for improvement of all forms of transportation—railways, harbours and airports—should be studied and prepared on a regional basis.

Highways: Trunk and the more important roads should also be planned and located on a regional basis.

Parks: A complete system of regional parks should be planned, not only for the region's inhabitants but to serve tourists.

Navigation, Flood Protection and Power: A regional planning agency would also be of great assistance in correlating plans for navigation, dyking on a more comprehensive basis than at present, and power generation and distribution.

Public Services and Utilities: A regional planning organization would be invaluable in making region-wide studies of police and fire protection, water supply, sewage disposal, and schools. Such studies would no doubt indicate the possibilities of co-operative effort in regard to these. The Greater Vancouver Water District is already engaged in a scheme for the delivery of water to some of the Fraser Valley communities.

Zoning: A regional planning agency should be given the power to make zoning regulations which would be mainly rural in character. One of the most important tasks of a regional planning board would be to encourage zoning and planning in the various municipalities.

Subdivision Control: Unified regulations governing subdivisions would be a boon to the Valley. Probably much could be done to rectify past errors of subdivision.

All the different parts of this region are so closely inter-related that all the inhabitants and all the municipalities should be interested in a plan for the region. Both the Provincial and Dominion Governments should also be interested in the formation of such a planning agency for this region. Alternative methods of organizing such a regional planning board are discussed and suggestions made as to how the board could be financed to carry out its operations. It is strongly recommended that the planning of this region should be a continuing process even after the initial plan has been completed.

THE CITY'S APPEARANCE

If a Town Plan is to be properly balanced it must be pleasing to the eye. It is not enough that the city be a smooth-functioning organism; it must be a pleasant, healthful, attractive place in which each citizen may live fully. The appearance of the city is very important as it affects the daily life of every citizen. Beauty in a city, therefore, is not a luxury. In the overall planning of a city not only should careful attention and consideration be given to the character and arrangement of the urban area but to the design of the various individual components such

LOWER FRASER RIVER VALLEY

LEGEND

CITIES
INCORPORATED VILLAGES
SMALL COMMUNITIES

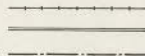


REGION

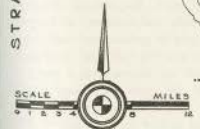
PROPOSED BOUNDARY
OF REGION

LEGEND

RAILWAY
HIGHWAY
MUNICIPAL DISTRICT BOUNDARY



STRAIT OF GEORGIA



U. S. A.

HARLAND BARTHOLOMEW & ASSOCIATES
TOWN PLANNERS

as streets, boulevards, drives, parks, and private and public structures also. The city's appearance not only has a pronounced influence on the morale of its citizens but it is the measure by which casual visitors and tourists are most likely to judge the entire character of the community and its people.

Vancouver's magnificent setting with its wonderful vistas of mountains, forested foothills and marine views is well known. Nature's handiwork, however, makes the defective parts of the man-made city appear even more unprepossessing by reason of the contrast with this setting. Many of the old pioneer buildings, mostly of timber construction, are drab, undistinguished and dilapidated and are long overdue for demolition.

While the architectural control of private buildings is admittedly difficult to administer, a spirit of co-operation between private builders and public agencies should prevail in an endeavour to create a high standard of building aesthetics. The city should acquire the power to order the demolition of unsightly, unfinished, or partly destroyed buildings.

Zoning regulations assure that the use of land in each part of the city shall be controlled according to its most appropriate function. Residential, commercial and industrial uses, if enforced in their proper place, can avoid a haphazard and hodge-podge pattern and thus increased efficiency and orderliness will be induced.

But since the city's appearance is affected by the design and condition of each individual property, only a co-operative effort on the part of public officials and agencies, and each and every private citizen, in the exercise of careful planning and wise forethought will achieve the desirable result.

The appearance of public property as reflected in the design of streets, especially major streets, is vital. In Vancouver, many important thoroughfares still traverse the most dingy industrial parts of the city. Many of the old factories should be renovated and the grounds landscaped. The Report recommends, with respect to the unsightly electric power and telephone lines, that the placing of any more lines on streets be prohibited and that the city and the companies jointly prepare a programme for the progressive removal of all present lines from the streets and placing them either in the lanes or rear of property or underground, and further that all wiring in the downtown business district be placed underground.

Another recommendation is that a Street Tree By-law be prepared and vigorously enforced. The by-law should provide for a tree inspector to supervise all planting and care of trees under a public agency which would probably be the Park Board. The planting of species which would be suitable only for city streets in this climate would be permitted. Emphasis was placed upon the use of flowering ornamental trees which do not grow to large dimensions.

School and park buildings should be particularly well designed to harmonize architecturally with the residential areas they serve.

In the downtown areas the appearance of open automobile parking lots should be improved by a better standard of construction, surfacing and enclosure by plantings or attractive walls.

Where the owners of vacant lots allow them to become unkempt, overgrown with weeds, or used for the dumping of refuse, the city should maintain them in a proper condition, charging the cost to the owner.

Billboards and unsightly signs should be prohibited in all but the more intensive commercial and industrial districts.

Special attention was paid to the most disagreeable feature of Vancouver which is that of smoke. The civic authorities had made a sincere and sustained effort to reduce smoke to a practical minimum but during the depression years rigid enforcement was impossible and there was a considerable amount of leniency in dealing with the operators of mills and factories, stores, apartments and hotels. During the war all attempts at enforcement were abandoned due to lack of oil fuel and the fact that only inferior grades of soft coal were obtainable.

It is recommended that the city Smoke By-law be amended so that smoke may be entirely eliminated and that it be determinedly enforced. This is especially applicable to the area contiguous to the Vancouver Airport as the riddance of smoke nuisance would assure safer operation of aircraft.

ADMINISTRATION OF THE PLAN

The Vancouver Report recognizes that administration of the Plan is the most difficult of all its features. A city is built by countless individuals and groups who are represented by various types of governing agencies such as the civic government and the School and Park Boards. These agencies with their many separate actions operating over a period of many decades produce that arrangement of buildings, streets, utilities, and other facilities that make up a city. Unless there is a directing and unifying force, a physical community is produced that is inefficient, uneconomical, and undesirable—a poor and expensive place in which to live and work. It is to avoid this that a city plan on paper—a Town Plan—must be established. All the individual actions must be co-ordinated with the Plan. Only by such an arrangement can each of these many individual actions over a period of years consistently contribute to the community welfare. Town Planning is meaningless if it does not guide and direct each and every one of the daily activities into the best possible city pattern.

To make the Town Plan a truly effective instrument that will direct the growth of the community into the most beneficial pattern the report postulates (1)

a widespread public understanding of the Plan and a continuous public demand that the city be built according to the Plan; and (2) adequate legal powers and procedures to the full implementation of the Plan, and adequate enforcement of them.

The final chapter of the Revised Report makes a number of recommendations for the improvement of the Town Planning By-law and the work of the Town Planning Commission. In particular it recommends certain amendments to the Town Planning Act which should follow along the lines of the "Standard City Planning Enabling Act" which was prepared by the United States Department of Commerce. This Act is cited in full and details the benefits which would accrue if the British Columbia Act were amended in certain respects by the adoption and provisions of the American legislation.

To the Commission, the Report recommends the organization and provision for constant research and factual studies for the use of officials and private organizations and individuals; "most important of all, the Commission should keep the Plan up-to-date by making provision for continuous revision." Co-operation between the Commission and other civic departments and agencies is also emphasized. Stress is laid on the fact that public understanding and support of the Town Plan is paramount in the prosecution of a planning programme. It is strongly recommended that there should be an organization of representative citizens formed for the purpose of promoting wide general understanding of the Town Plan and to develop public support for the proposals of the plan: the building of a city "is too great a task for the Planning Commission and civic officials alone". It is emphasized that it is a civic responsibility of all

citizens and community leaders to devote considerable time and effort to this end. "A city will be no better and no stronger than the will of the community and only by intelligent understanding and wise leadership can a truly great city be built."



J. Alexander Walker is a native of Guelph, Ontario, but has resided in British Columbia for the past 40 years. He graduated in Civil Engineering from the University of Toronto. He is a member of the Association of Professional Engineers of British Columbia and the Corporation of British Columbia Land Surveyors. He is also a member of the Engineering Institute of Canada and the American Institute of Planners.

He was recently re-elected Chairman of the British Columbia Division of the Community Planning Association of Canada.

Since 1926 he has been associated with the Vancouver Town Planning Commission, first as Secretary and Engineer, and since 1944, as Executive Engineer. He has been also in private practice as a Civil, Town Planning, and Landscape Engineer in Vancouver since 1919.

From 1917 to 1919, and 1940 to 1944, he was Engineer in the Master General of Ordnance Branch at Army Headquarters, in Ottawa, on war work.

He has represented Harland Bartholomew and Associates, Town Planning Consultants of Saint Louis, Missouri, on Town Plans for Vancouver, New Westminster, West Vancouver, and projects in Kelowna and Kamloops. He is now engaged in the preparation of a Town Plan for the City and District of North Vancouver.



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1947

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NEWS FROM THE INSTITUTE

ALBERTA

The group known as Architectural Draftsmen of Alberta is preparing for its second winter session of studies. About a year ago this group was organized on the initiative of a number of draughtsmen with the purpose of instituting a regular programme of studies. It consists largely of draughtsmen who owing to their social requirements have not the opportunity to follow a university course.

The Alberta Association was approached with the request that they establish and conduct two grades of examinations,—the first to admit candidates to a Junior and the second to a Senior Student Membership of the Association. The A.A.A. willingly accepted this proposal and, in June of the current year they held the first examination for Junior Studentship. This examination was successfully passed by one of the candidates.

The purpose of the scheme is to institute a regular method of study and to familiarize draughtsmen who may have good office but little academic experience, with the writing of examinations under regular conditions. The final aim is, of course, preparation for the examination for registration in the A.A.A. The examinations for studentship do not officially count at all towards registration.

In the city of Edmonton the group consisted during the past session of between twenty and thirty members. These included, besides draughtsmen working in architects' offices, a number of draughtsmen otherwise employed, some of whom had no intention to sit for examinations. Between November, 1946, and April, 1947, thirty-two meetings of the group were held with an average attendance of over twenty. Lectures and talks were given at these meetings by architects and by representatives of various related branches of engineering,—electrical, heating, ventilating, plumbing, etc. The purpose in each case was to advise students as to the best methods of studying the subjects for themselves and as to the best books for reference.

The examinations as set by the A.A.A. include, at both grades, a set of testimonies of study in design and in knowledge of existing architecture. These must be submitted to and passed by the A.A.A. before candidates are permitted to sit for written examination. After examination in writing an oral examination is held and the examiners discuss the answers given by each candidate whether he has passed or not. The testimonies of study are also discussed individually. The programmes laid out by the A.A.A. are themselves some guide to a course and to methods of study.

The operation of the past session of the group has been remarkably successful, especially considering the

various handicaps encountered. The use of a room in the Public Library was obtained. The University of Alberta gave the use of a room in which the examinations were held but takes no responsibility and gives no credit for the examinations themselves. That is purely the affair of the A.A.A. Sufficient fees were collected by the group to provide a small balance for use in the next session.

The draughtsmen are to be congratulated on their interest and initiative in the matter and have the good wishes of the Association for still further success in a new session. It may be hoped that draughtsmen in other cities may reinforce the effort.

Cecil S. Burgess

BRITISH COLUMBIA

Planning in Vancouver

Elsewhere in this issue of the *Journal* the work of the Town Planning Commission has been outlined. The Commission has worked against many obstacles which were placed in its path, but it has continued successfully to plan and to maintain zoning regulations. A number of Vancouver citizens, who have travelled and have taken an interest in planning are, however, disappointed with the scope of the plan and with its apparent lack of imagination.

The most important shortcomings are: first, no regard for housing and neighbourhood development; second, no consideration for the advantages which might be taken of the natural features of the city to beautify it and to have it gain in maturity.

To offset the first has been the main concern of the Vancouver Housing Association. Its reports are masterly in their comprehensiveness. The Association's most noteworthy achievement has been to obtain a grant this summer from the Federal Government and from the City, (\$5,000 and \$1,000), to carry out a Demonstration Housing Survey leading to an Urban-Rehabilitation Scheme. The Survey is being carried out and the Scheme is being prepared by the University of B.C. The Departments of Social Work and of Architecture are the principal participants, with the Department of Economics assisting.

Dr. Leonard Marsh, well known for his Social Security Report to the Government and for his work on the Housing and Community Planning Report of the Government's Reconstruction Committee was made director of the Survey and the undersigned was made chairman of the Survey Committee.

The Survey, which is now almost complete, covers a 136 acre blighted area bordering the centre of the city. It is at present bounded by traffic streets and railway tracks making it an ideal neighbourhood in size and outline.

The survey will attempt to demonstrate: (a) the need for slum clearance based on social costs of the area, (b) the loss to the city of an inefficient, wasteful and run-down central area, (c) the type of re-housing required, (d) the methods of obtaining this re-housing, (e) standards for housing and neighbourhood development, (f) values, economic and social, of planning.

The economic, social, family and environmental facts of every one of the slightly under 7,500 inhabitants of the area have been obtained. From an analysis of these facts the re-habilitation proposals are being completed. It is becoming obvious that a low-rental housing scheme is required in the Area and that this scheme should be developed, in stages, on a neighbourhood scale. The standards for this development will in many cases run foul of the Town Plan. For example it will be demonstrated that neighbourhood units must be kept clear of all traffic streets, that schools, playgrounds, parks and community centres should form a unified group in the centre of the unit—and certainly must be away from all cross streets, that streets in the area should not be continuous so that every opportunity is given to the development of a park-like residential area, and lastly, that zoning for industry must include the removal of residences.

The Vancouver plan does not pay adequate attention to these standards and it is a noteworthy feature of Vancouver that major traffic streets are placed without respect to neighbourhood or topographical formations, or to location of schools and community facilities. Very large areas have been zoned for industry which has resulted in a sordid condition of multiple land use covering a large area of the city and surrounding its centre with shocking squalor.

A conscious effort towards making Vancouver worthy of its setting is receiving the special attention of the local branch of the Community Planning Association of Canada. The Branch is very active and has plans for the coming season which include an Industrial Development Survey, support for a Civic Centre Area as recommended by the Town Planning Commission, laying the ground work for the creation of a Regional Planning Authority for the Greater Vancouver Area and lower mainland, supporting the findings of the Housing Survey and applying the standards established to the remainder of the city and to new residential areas being developed, and also to work towards the reclaiming of Vancouver's spoilt and ignored beauty spots and the advanced design of civic planning features for a city which is fast growing into a large metropolis.

The Branch has an active membership of nearly sixty and many architects are showing a keen interest in it. It has influential connections and it is expected that it will do a good job of education and of bringing new life to planning in this city.

The Town Planning Commission and particularly its executive engineer, Mr. Walker, has given both the Survey and the Association all the support and

information at their disposal. They have shown sympathetic and active interest in the work undertaken by both.

At all times the Vancouver Town Planning Commission has welcomed criticism as it feels that planning is not a static quality, that new needs arise and new standards are established. There is a healthy feeling in the Commission that the Demonstration Housing Survey and the Community Planning Association will stimulate interest in the planning of Vancouver, and that ideas in and standards of planning will be enunciated and defined which will support the further work of the Commission and will help in revising the plan to keep it up to date. This co-operative attitude of the official body side by side with active layman participation in planning bodes well for the future sane and attractive development of Vancouver.

Fred Lasserre

MANITOBA

The two planning bodies in Greater Winnipeg, the Metropolitan Planning Committee and the Winnipeg Town Planning Commission are now in their third year of joint planning.

The form of the organization remains the same as was outlined in the discussion of the Metropolitan Plan for Greater Winnipeg in the November, 1946, issue of the *Journal*. Mr. C. B. Johnston, former reeve of Fort Garry is chairman of the Joint Executive Committee, Alderman J. B. T. Hebert of the City of St. Boniface is chairman of the Metropolitan Planning Committee and Mr. C. E. Joslyn, Manager of the Land Department, Hudson's Bay Company continues as chairman of the Winnipeg Town Planning Commission.

Up to the present time, recommendations on several phases of the physical development of the Metropolitan Community have been formulated and preliminary reports published. Reports dealing with the Background for Planning, Major Thorofares, Transit and Transportation have been issued while reports dealing with Neighbourhood Development, including Schools, Recreation and Parks, Zoning, and Housing are nearing completion ready for publication. Currently studies are being carried on dealing with the Central Business District, Civic Improvements, and Public Works Programming.

As a result of the work on zoning a Zoning By-law and Map were prepared applicable to the whole of Greater Winnipeg. This has been under study for many months by a citizen Committee, the planning bodies and municipal councils. It will require passage as an individual by-law in each political unit but it is anticipated that the regulation in each will be similar and the zones in the various areas will fit together into a co-ordinated whole.

As well as carrying on the necessary studies and formulating the proposals for the comprehensive Metropolitan Plan the planning office has provided

advisory services to the municipalities of Greater Winnipeg on current problems of subdivision, street alignments and widenings and the like.

The Joint Executive Committee have been continuously concerned with the problem of keeping the public informed and getting the help of the citizens in formulating the plans, by means of Citizen Advisory Committees. This is admittedly a most difficult job for without paid public relations services and through committee work only the information is confined to a comparatively small group, and while they may be thoroughly representative, their opportunities for disseminating that information and discussing it in their own organizations are usually quite limited.

It is therefore hoped that the formation of the Community Planning Association of Canada and its division in Manitoba will aid in this respect as no other body could. Because the organization was fostered largely by such technical groups as the architects and engineers through their professional societies this is the time when the efforts of these bodies and of their individual members can be most effective in assisting sound planning in this country.

The Provincial Associations can obtain sustaining memberships and encourage their individual members to support it through membership. From that point on the professional society is likely to be one of the most important bodies to whom the new Association will look for guidance and assistance in moulding its programme so that it performs its function most effectively in helping communities throughout Canada to establish themselves on a sound planning basis. We should get in now and see from the inside that the organization does its job.

E. W. Thrift

ONTARIO

We were talking over a late evening cup of coffee last week end and one of the group, a teacher by profession who had been boning up on the history of economics, asked what we thought would happen to the standard of living of an isolated country such as Australia if that country was cut off absolutely from trade with the rest of the world. The question started a long flow of discussion and at times quite heated argument. One opinion, a most idealistic one, was that the ultimate result would be a working day for all, of one or two hours, everyone the possessor of a house, car, refrigerator, etc., etc., and of course food in quantity and quality to suit every desire. The basis for this ideal state (if it really is an ideal) was of course natural resources of every description in the country being discussed.

This talk could not help but remind me of similar discussions on architecture where realism was forgotten and fanciful dreams of perfect architectural design for the perfect client roamed through every mind even though we all knew the brutal realism that awaited us in the bright light of to-morrow.

We have here in Peterborough however, a group of younger people who are translating their idealistic dreams into concrete reality. The members of the Peterborough Community Homes Association know it isn't all beer and skittles but being fed up with the idea of having to build on a 50 by 50 lot in the city (for economic reasons) they have organized a group of approximately forty and are at present planning a small community on the outskirts of the city to give themselves the delights of the "country gentleman" plus the advantages of community services.

To date they have obtained a tract of land within two and a half miles of the "city proper", close to a main highway, within easy walking distance of a regular bus route, on a promontory overlooking the city and the Otonabee River and suitable in contour and location for easy development of all the necessary services. They are slowly but surely solving the problems attending any project of this kind and are confident that when the costs of construction find their level, they will be ready to start actual construction of homes in their community. They believe after much fact finding that the cost of their land, including sewers, water power, roads, etc., will be not more than much less land in the city and that they will also have many advantages including: 1. Choice lots with desirable trees and views ranging from 100' x 200' to 150' x 300' in size (not too large for proper maintenance). 2. Community parks and playgrounds in close relation to every home. 3. The advantages of controlled planning. 4. A green belt between the community and future development.

When the proper time comes for construction to start, methods will have been worked out whereby materials can be purchased in large quantities and labour arranged for in such a way as to reduce overhead and travelling costs. Other savings in equipment, etc., are also hoped to be made.

We shall be most interested to see the result of so much hard work and planning by this enthusiastic and progressive group and now should encourage and provide help to all of these too few groups of community planners.

Aside from the above there is little to report from this part of the province. We have our new schools being planned and built as elsewhere and we hope our new Civic Hospital will be completed on schedule. New housing is coming slowly and the shortage is still very acute. The people generally object (bitterly at times) to the construction of new theatres at this time yet are waiting expectantly for their grand opening. Everyone feels the end to the small boom will arrive at any moment, yet gaily plan new homes, new cars, new enterprises and even believe the taxes will shortly be reduced to a mere trifle. The morale seems high and the future bright, notwithstanding all our minor worries and troubles.

James S. Craig

QUEBEC

Pour une architecture canadienne

L'architecture est un art vivant dont les règles évoluent selon le progrès des techniques de la construction et des modes de vie.

L'art architectural peut exprimer le caractère d'une population, d'une région et d'une époque. C'est signifier déjà qu'il doit être aussi souple et dynamique que la vie, dont il incarne l'un des aspects les plus évidents.

L'architecture de nos demeures sera canadienne dans la mesure où elle reflètera fidèlement les besoins des familles canadiennes. Car, l'habitation a pour objet primordial de fournir aux familles un abri qui leur convient. Elle est faite pour la famille, et non la famille pour l'habitation. Avant tout, ce sont les besoins humains qu'il faut servir. Le caractère de l'habitation, ou son architecture est en dépendance directe de cette réalité fondamentale.

Or, les besoins familiaux sont faits des habitudes des membres de la famille, des traditions qu'ils conservent, du degré de culture qui conditionne leurs tendances, et de leur souci d'adaptation aux changements de leur temps. Ce sont ces divers facteurs qui donnent aux familles leur caractère. Et c'est le caractère familial qui commande le plan (ou l'agencement des pièces) de l'habitation. Si nos besoins familiaux sont fidèlement respectés par le plan, ils se reflèteront sur la façade, expression naturelle du plan, et l'architecture de la demeure sera CANADIENNE.

Dans certains milieux, on tend à prolonger jusqu'à nos jours les formes d'habitation du passé. Certes, les anciennes habitations qui reproduisent fidèlement le caractère d'une époque disparue, sont vénérables et méritent d'être conservés dans leur intégrité. Mais l'habitation nouvelle, celle qui doit abriter la génération d'aujourd'hui et de demain, n'a pas pour mission d'incarner l'histoire. Elle n'est ni une relique, ni un témoignage du passé. Au contraire, elle doit être conforme aux us et coutumes du jour, et non pas aux us et coutumes qui n'existent plus, si belles fussent-elles à leur époque. Ce qui importe, avant tout, pour faire oeuvre de beauté actuelle, c'est de faire oeuvre de vérité en respectant les réalités actuelles, tant dans leur dynamisme que dans leur cadre historique.

Toutefois, l'architecture n'est pas assujettie au seul facteur des besoins familiaux à satisfaire. Elle doit aussi tenir compte de la réalité du climat, de la nature des matériaux disponibles comme aussi du progrès des techniques de la construction.

C'est le facteur climat qui assure aux formes d'habitation son aspect d'uniformité durable; car si les habitudes sont parfois rapides à se modifier, le climat persiste au-dessus des caprices humains. Le climat est l'un des plus puissants agents qui contribuent à caractériser les habitudes d'une population, à leur donner une stabilité rythmée avec les saisons. De

sorte que le climat, tant par ses exigences physiques que par ses influences morales, pèse lourdement sur les expressions de l'art architectural. Notre architecture sera donc canadienne dans la mesure où elle se conformera fidèlement aux exigences du climat canadien.

L'abondance ou la rareté des matériaux, leurs propriétés favorables ou réfractaires à certains traitements, sont une autre réalité dont l'art architectural est invité à tenir compte. Là, encore, la réalité en conditionne les règles. Depuis le développement des traitements imposés aux matériaux, depuis la facilité des transports, l'inconvénient limitatif est réduit. Mais, ce progrès contribue davantage à la standardisation des formes d'habitations qu'à leur particularisation sur le plan régional.

Pour s'en tenir aux facteurs dominants, inévitables, notre architecture sera canadienne si elle reflète le caractère de la population canadienne, si elle se soumet aux conditions climatiques du pays, à la nature des matériaux disponibles et favorables qui s'y trouvent et aux techniques de construction qui s'y exercent.

Mais, jamais elle ne devra prendre un caractère figé, encore moins régressif, parce que la vie est mouvement, force dynamique, et que l'habitation doit suivre la vie.

Lucien Mainguy

OBITUARY

EDWIN A. H. MENGES

Edwin A. H. Menges, M.R.A.I.C., passed away at his home, 40 Strathearn Blvd., Toronto, on August 5th, 1947.

Mr. Menges was born at Baden, Ontario, and came to Toronto at an early age where he attended public school, and later, the University of Toronto.

Toronto Architectural firms with which Mr. Menges was associated many years ago, included Gordon & Helliwell, and Gregg & Gregg. He was also with the City Architect's Department, City Hall, for a number of years. For many years prior to his death, Mr. Menges was on the staff of the Disher Steel Construction Company, Limited, Toronto, as Chief Engineer.

JAY ISADORE ENGLISH

The tragic death of Jay I. English, M.R.A.I.C., of Toronto, occurred by drowning at Gull Lake, Gravenhurst, Ontario, on August 18th, 1947, when his canoe capsized. Mr. English was holidaying at this Muskoka district summer resort with his family at the time of the accident.

Native of Poland, Mr. English came to Canada at an early age and received his education at Toronto public and technical schools, and later studied Architecture at Columbia University, New York. For many years he was associated with a number of architectural firms in the United States, and returned to Canada in 1931.

In 1941 he joined the staff of Odeon Theatres Limited, Toronto, and was with that firm until the time of his death. At that time he had nineteen theatres in the course of construction throughout the Dominion. In 1945 Mr. English went to Europe as a consultant on theatre architecture there.

NOTICE

Enquiries to this office make it necessary to clarify the status of persons writing to the Institute Page. They do so at the request of the Editorial Board, and write as individuals resident in one Province or another. The writer chooses his own subject, which may be of professional, philosophical, civic, rural, provincial, parochial or global interest.

Editor

BOOK REVIEW

THE OLD ARCHITECTURE OF QUEBEC

A study of the buildings erected in New France from the earliest explorers to the middle of the 19th century.

By Ramsay Traquair

Published by MacMillan Co. of Canada Limited, 70 Bond Street, Toronto. Price \$10.00.

This year of grace 1947 has been marked by two important events in Canada. First, we all became Canadians legally and second we have been presented with the first important book on Canadian Architecture ever published. This is "The Old Architecture of Quebec" by Prof. Ramsay Traquair. There have of course been other publications on Canadian Architecture such as the two paper-backed publications of the Historic Monuments Commission of Quebec on the Old Manor Houses and the Island of Orleans and the pamphlets on Old Ontario Houses published by the University Press of Toronto.

Prof. Traquair's book however is in an entirely different category being printed on fine paper, handsomely bound and obviously intended to become a permanent addition to public and private libraries.

No one living knows the buildings of Quebec as does Prof. Traquair and few are as familiar with the historical, social and economic conditions which produced the distinctive style in which they are built.

The book is profusely illustrated with photographs and measured drawings which have been carefully chosen to clearly show the reader the form and details of the buildings. The text which they accompany is written in that easy and simple style of English prose which is seldom encountered to-day but which delights the reader who appreciates the art of composing simple English words in an orderly and harmonical design.

Prof. Traquair has treated his subject both chronologically and typically, devoting separate chapters to different types of buildings and three chapters to wood-work and carving. He has paid great attention to those small details such as door locks and hinges which lift even the simplest building out of the ordinary. Four pages of beautiful drawings of wrought iron fittings and hardware attest to this interest.

The book is a fitting monument to Prof. Traquair's life-long interest in the old architecture of his province and to his indefatigable labours in recording it before it is too late. As Prof. Traquair has shown by his book there exists in Quebec a tradition of architecture which is as beautiful as any to be found elsewhere in the New World. Most travellers in Quebec retain a memory of white walled and steep roofed cottages and tall silver spires in the flat countryside, perhaps a little dingy, quaint and foreign to their eyes. Few have inquired beyond this first impression and so have missed the glories of Renaissance pulpits and altars in the churches or the charming panelled rooms and graceful furnishings in the houses. Prof. Traquair has drawn the curtain aside and has revealed New France, as it was in the days when from Quebec culture and civilization was spread from Gaspe to New Orleans.

A. S. Mathers



W. G. HAMES

Adjudication for the Pilkington Glass annual travelling scholarship in architecture. The Jury examines the work submitted by candidates from Manitoba, McGill and Toronto Schools of Architecture. Mr. W. G. Hames, a graduate of the University of Manitoba, was unanimously awarded the Scholarship tenable for one year at either the University of Liverpool or the Architectural Association

School at London. It has a value of \$1,500.00 plus travelling expenses to and from England. This was the first award of the Pilkington Scholarship which, will be given annually.



J. B. PARKIN

J. CRESSWELL PARKIN

R. E. MOORE

Facts by Pilkington about Glass

FOR ARCHITECTURAL STUDENTS

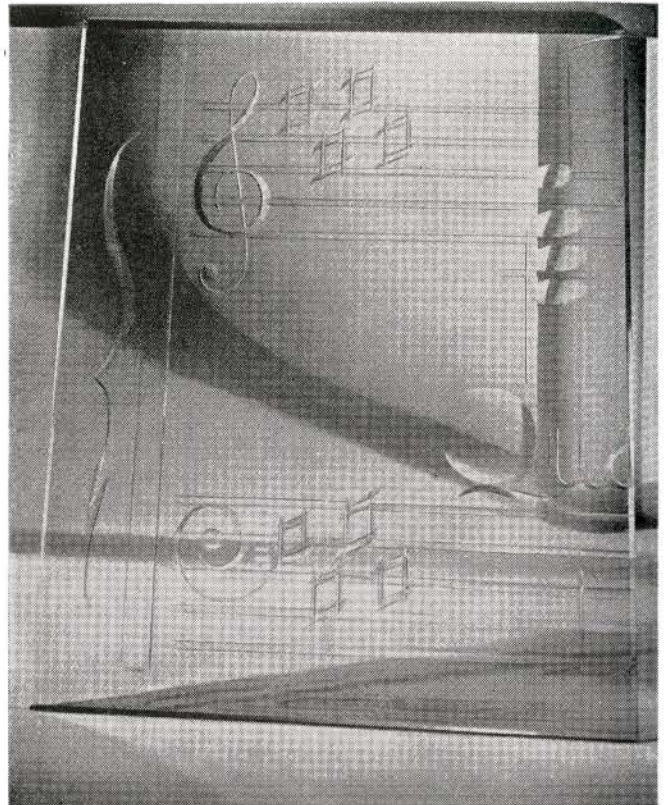
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**AUXILIARY
PROCESSES—**
(BRILLIANT CUTTING)

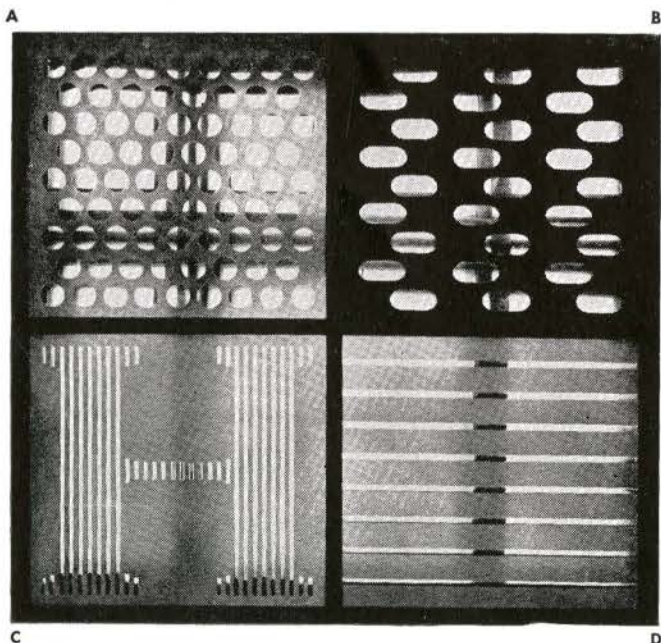
This is one of the oldest methods employed in the decoration of glass, as will be readily recognized by examples of cut crystal glass. Designs are cut into the glass surface by bringing the surface to bear on a cutting stone of the required section.

Designs are marked on the glass, and the operator uses these as a guide to effect the cutting. It is skilled work, more particularly in the larger sizes, where the glass is usually supported whilst the operator brings the work to bear against the revolving stone of the required section. Stones are previously prepared by the same skilled workers for making cuts of various width, generally from 1/16 inch width to 1 inch. Different sizes and shapes of stones are used for different types of work e.g. Panel Stones, Edge Stones, Hollow Stones, Punt Stones and Mitre Stones. When the line has been cut by the stone it is polished by means of a revolving wood wheel fed with liquid pumice and finished off with a rouge brush wheel. Sometimes the smoothed line is left unpolished, say on a mirror to get greater contrast, or again polished cuts are made on an obscured plate surface.

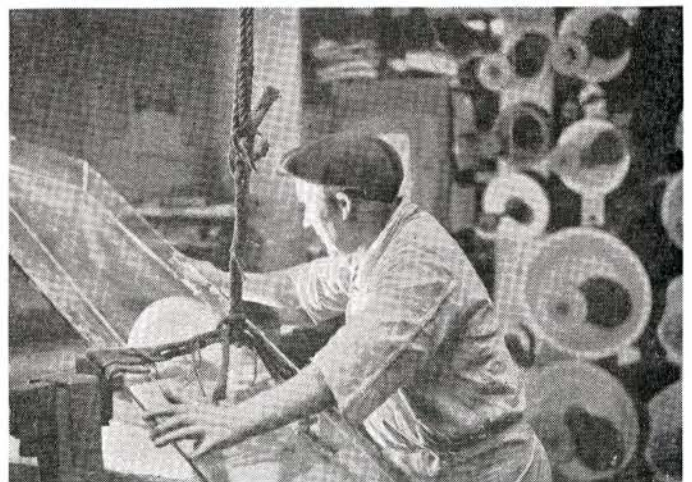
Iron wheels are used with powdered emery or carborundum for making notches, which may be finished in a smoothed or polished condition as desired.



This panel illustrates the use of the various types of brilliant-cuts. The staves are "panel"-cuts, the treble and bass clefs a mixture of "v" and "edge"-cutting. The notes are oval "punts".



These panels illustrate various experiments in brilliant cutting. A—Circular punts on an acid-embossed plate; B—elongated punts on an opaque ground; C— and D—panel-cuts on an acid-embossed ground. Designer Marcel Breuer.



The cutting wheels range in diameter from 1 1/2 in. to 36 in. and are 3/4 in. to 1 in. in thickness. When the plate is being worked it may if small, be held in the hands, but large plates are suspended and counterbalanced so that the brilliant-cutter may be sure of a delicate touch regardless of the weight of the glass.

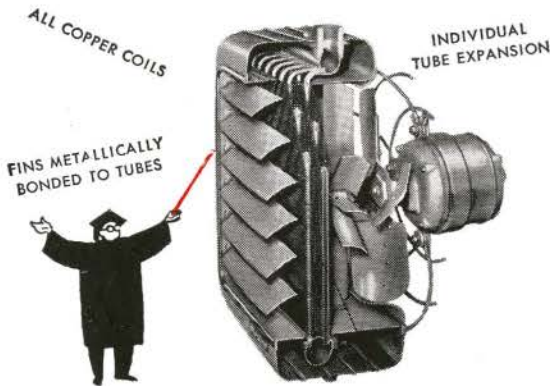
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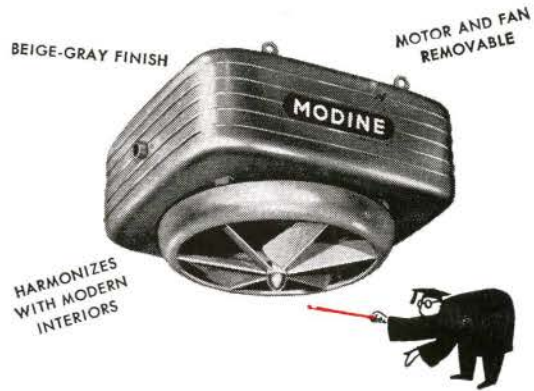
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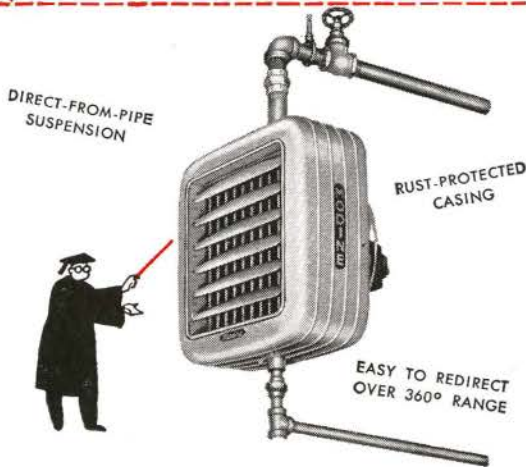
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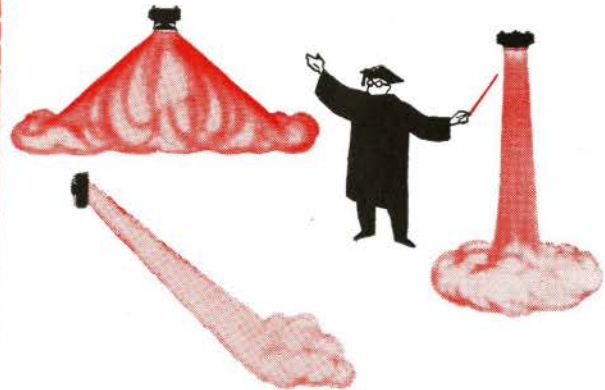
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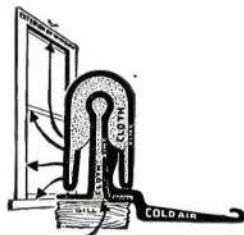
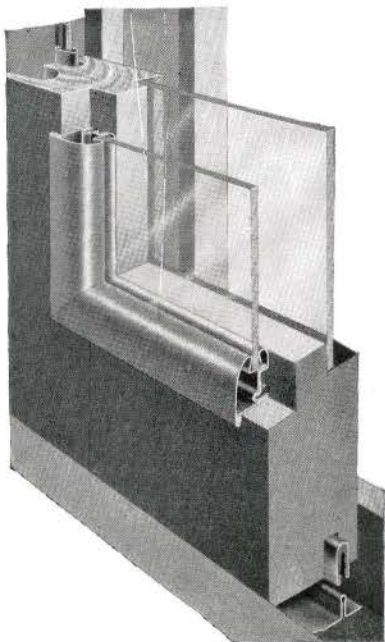
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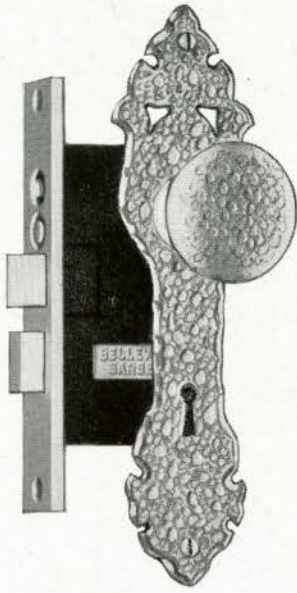
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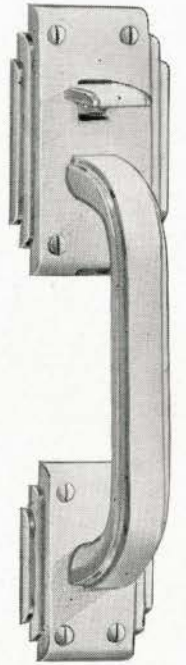
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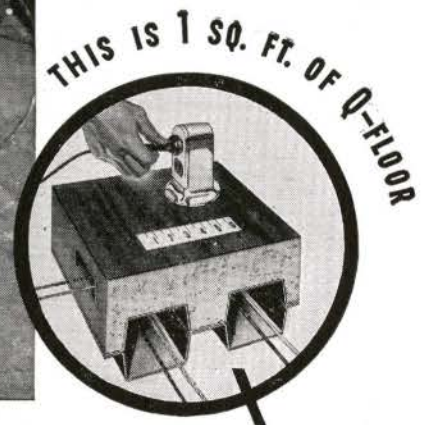
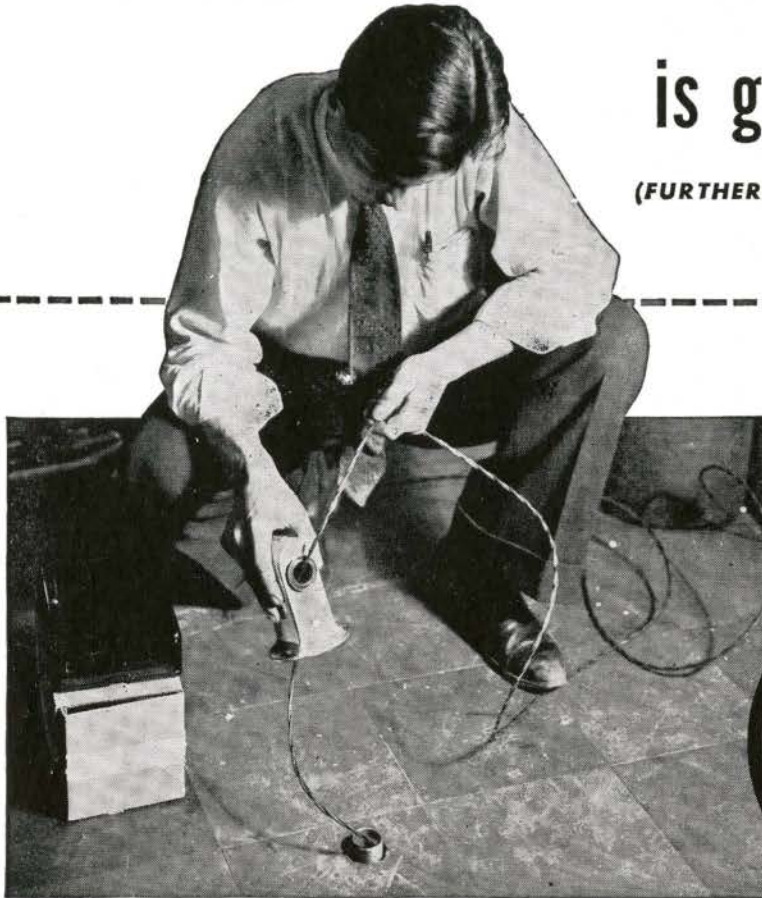
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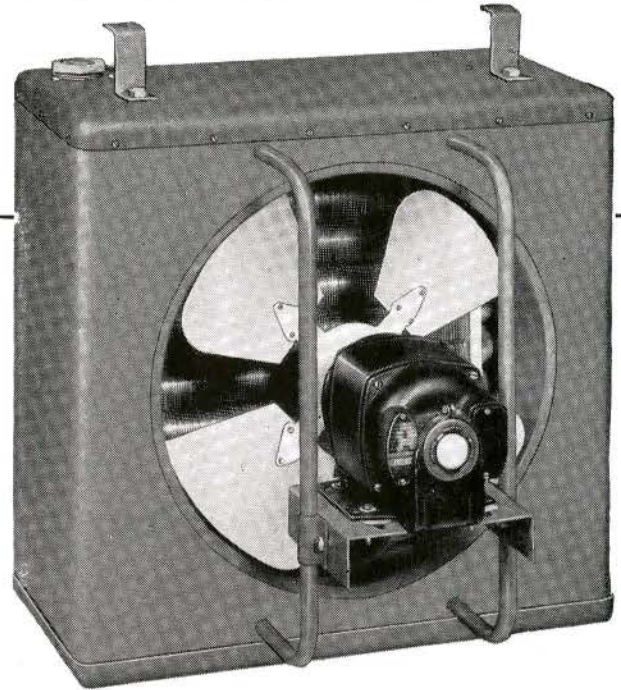
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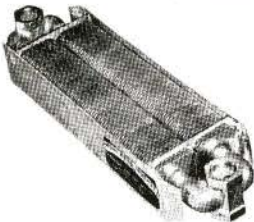
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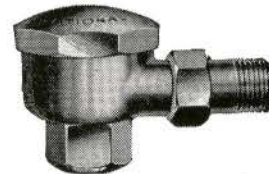


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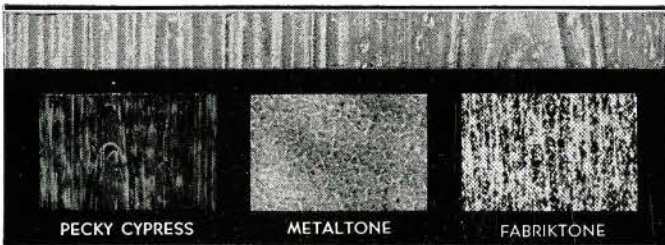
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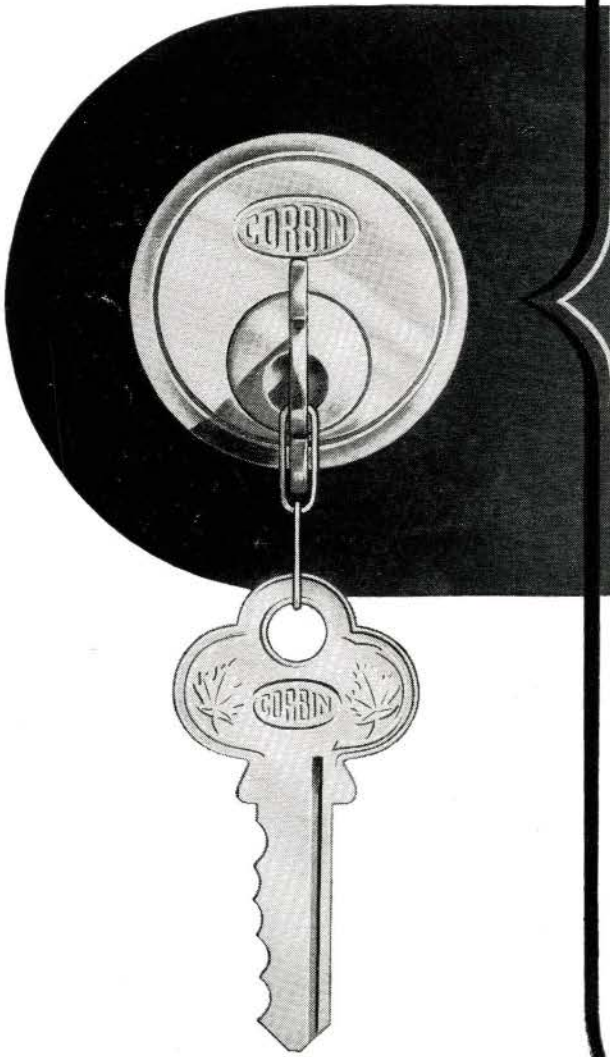
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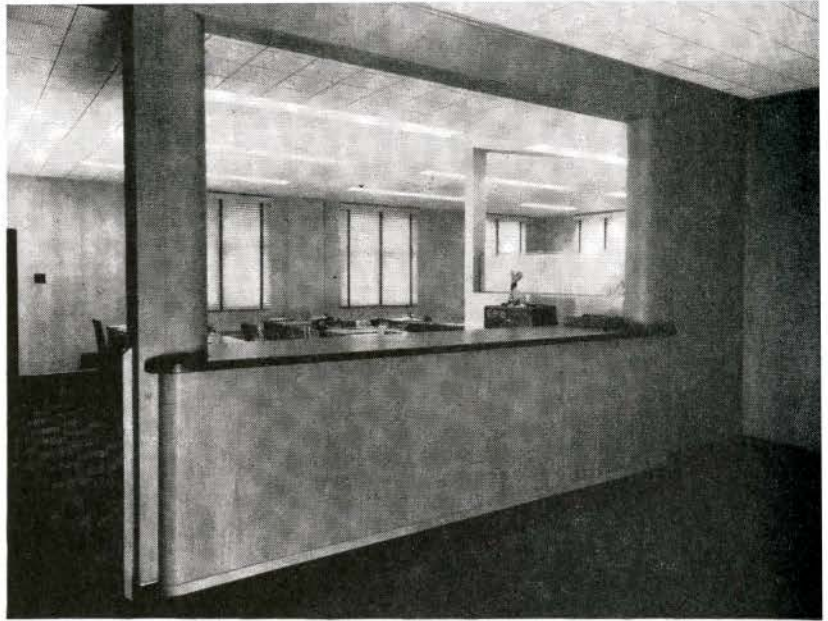
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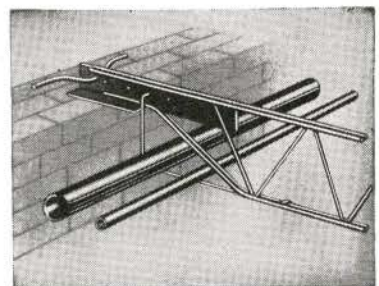
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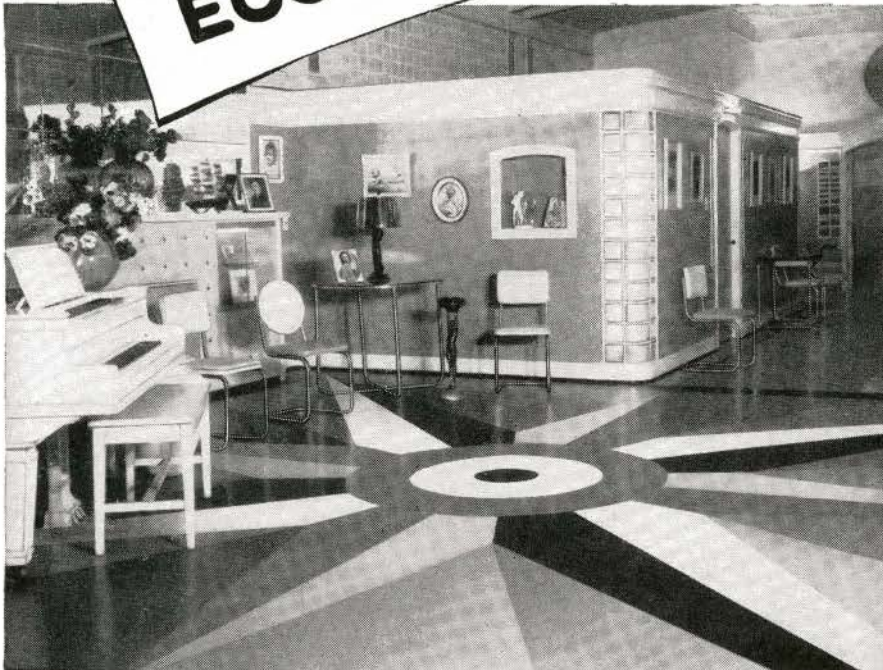
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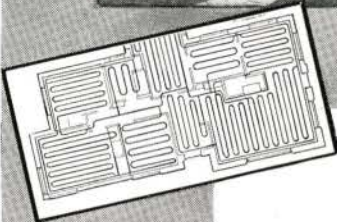
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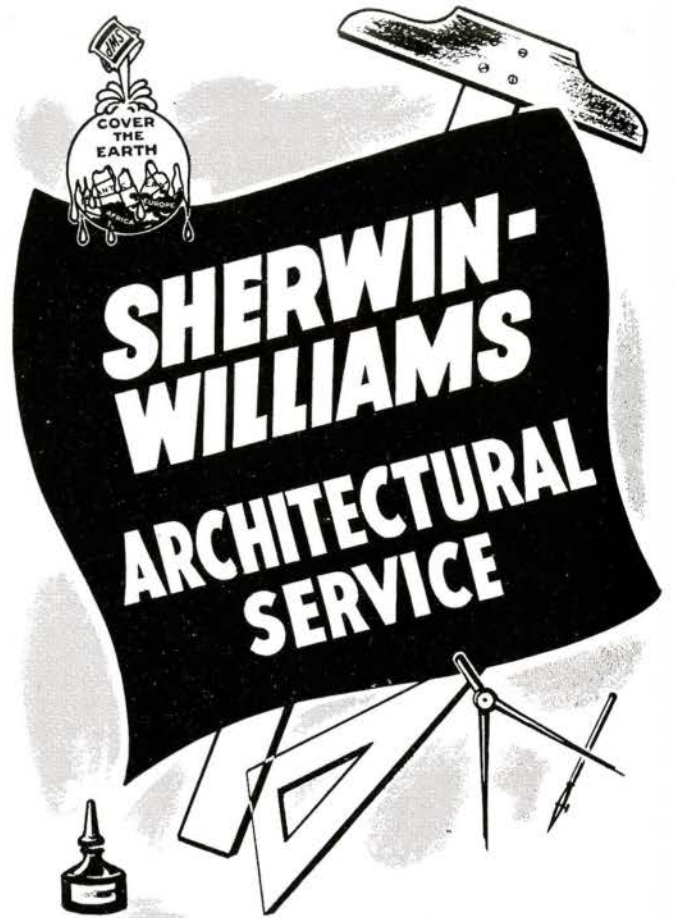
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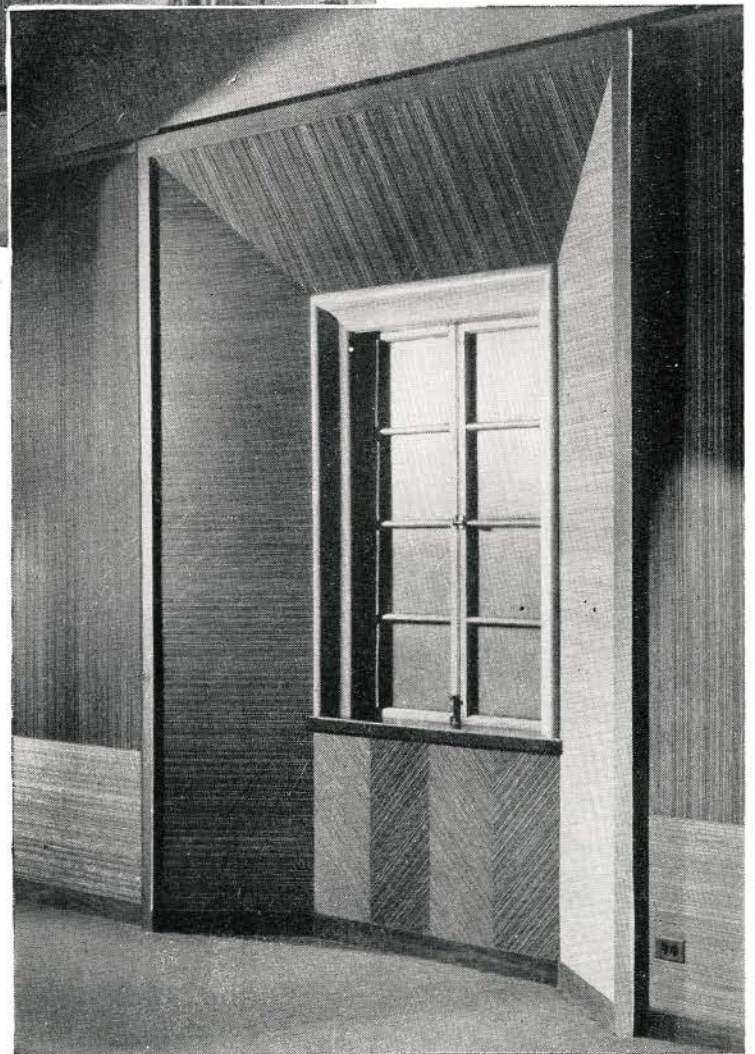
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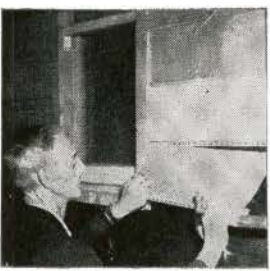
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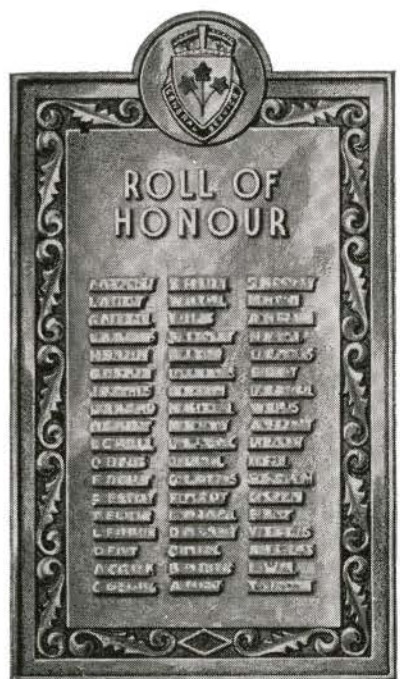
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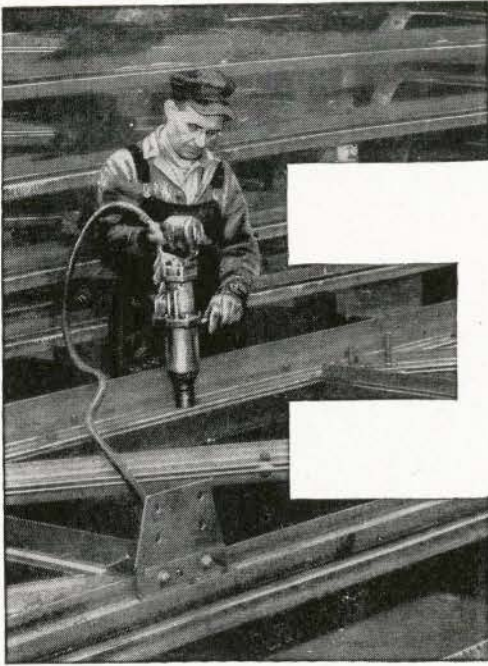
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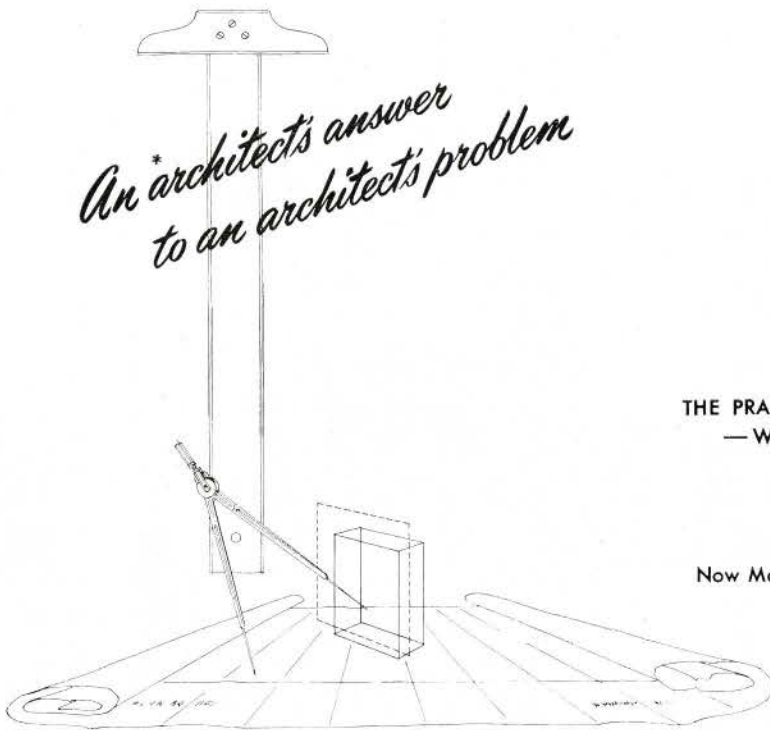
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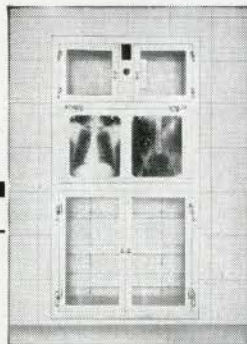
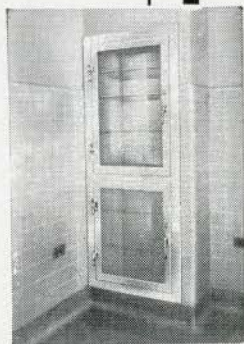


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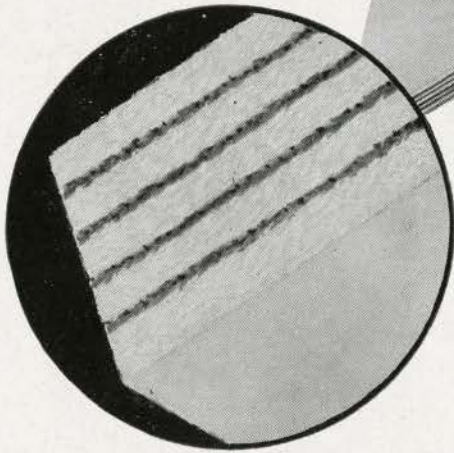
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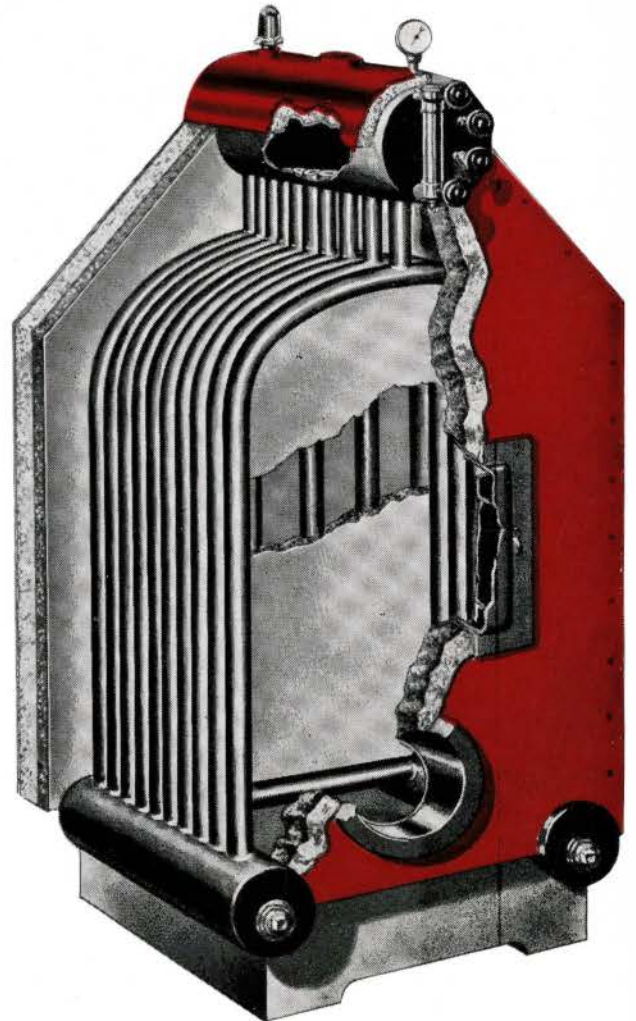
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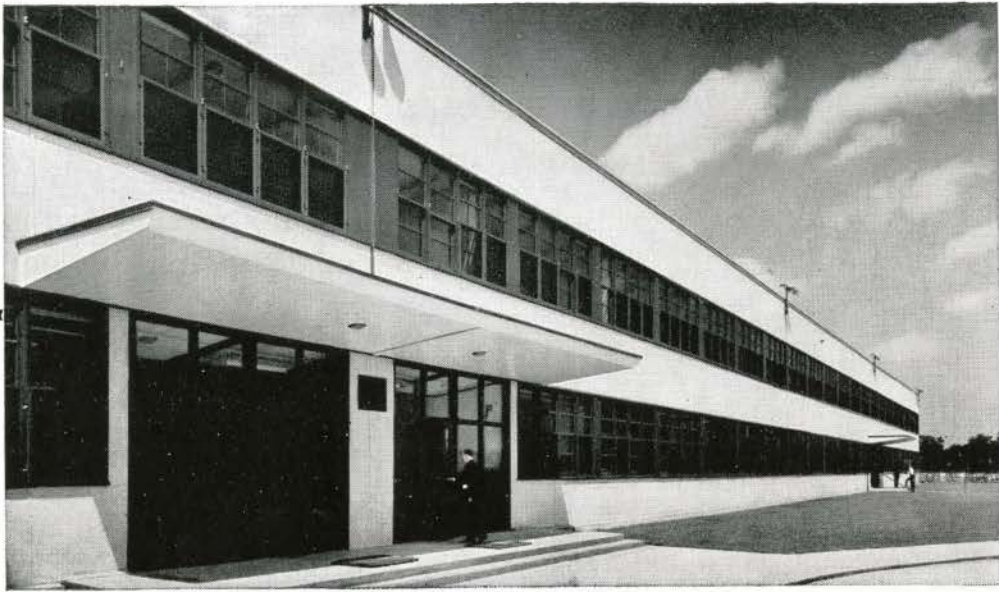
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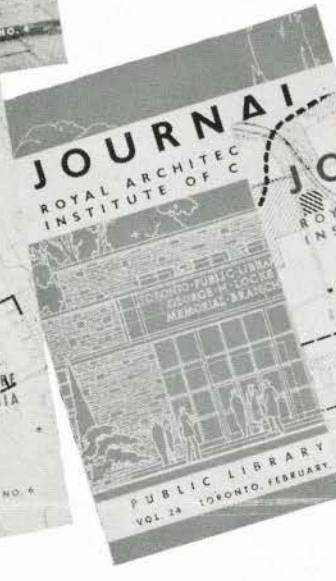
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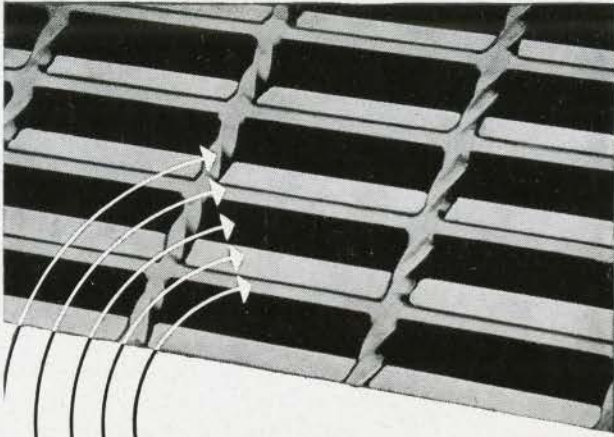


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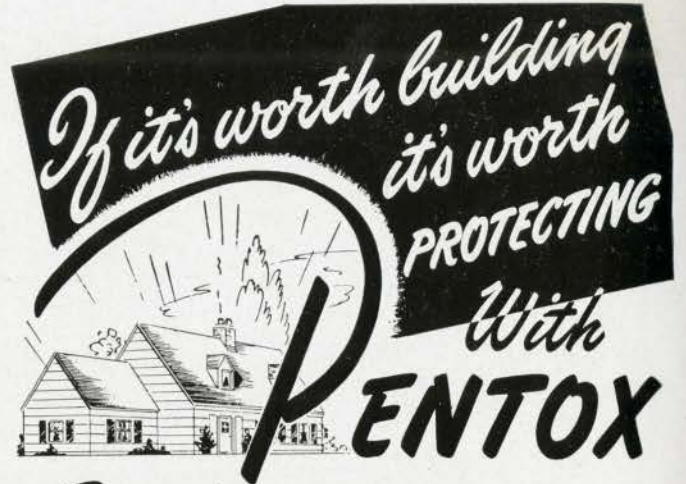
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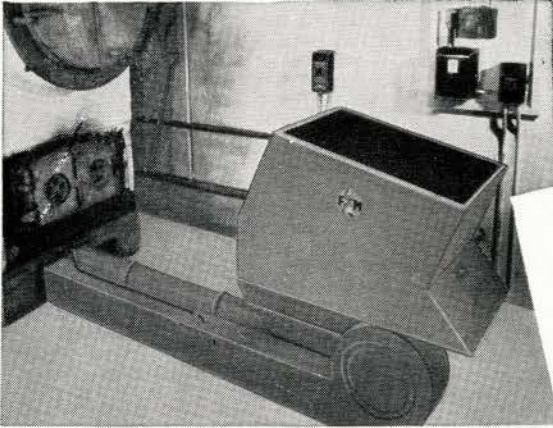
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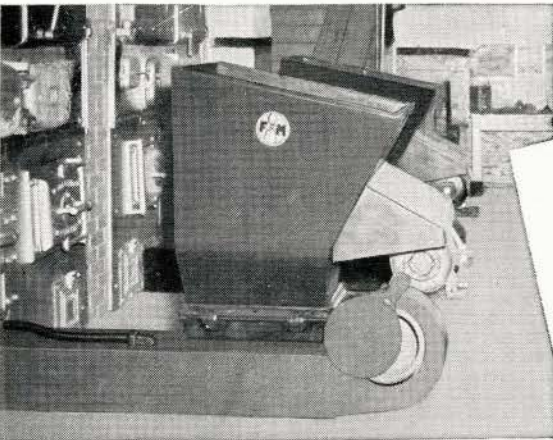
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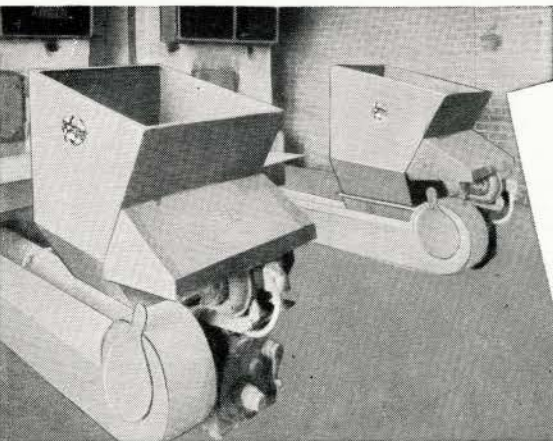
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- 7. STEEL can be SALVAGED**
Fabricated steel can be reclaimed.
- 8. STEEL is ECONOMICAL**
Steel weighs less per strength unit than other structural material.
- 9. STEEL is RESPONSIBLE**
The integrity of steel mills and fabricators guarantees the quality of structural steel.



THE FUTURE RESTS
ON STEEL



Use

STEEL CONSTRUCTION

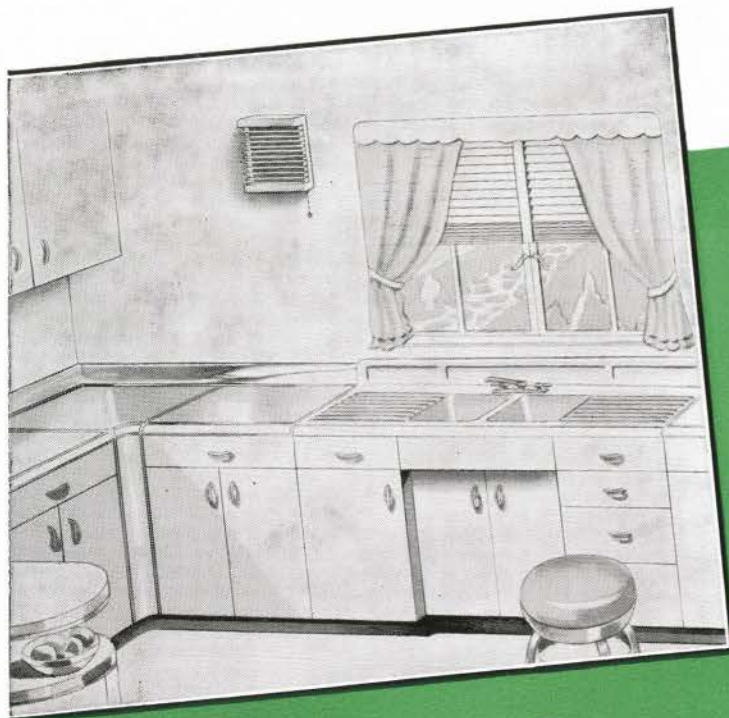


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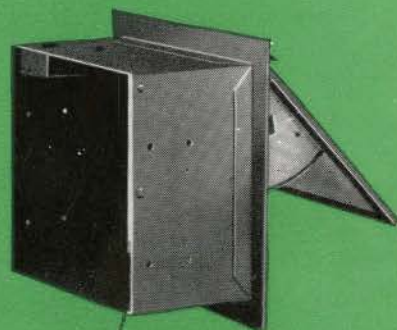
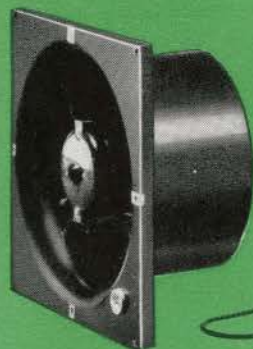
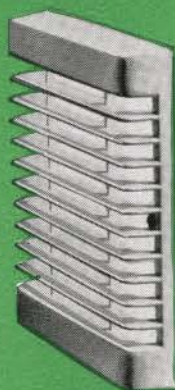
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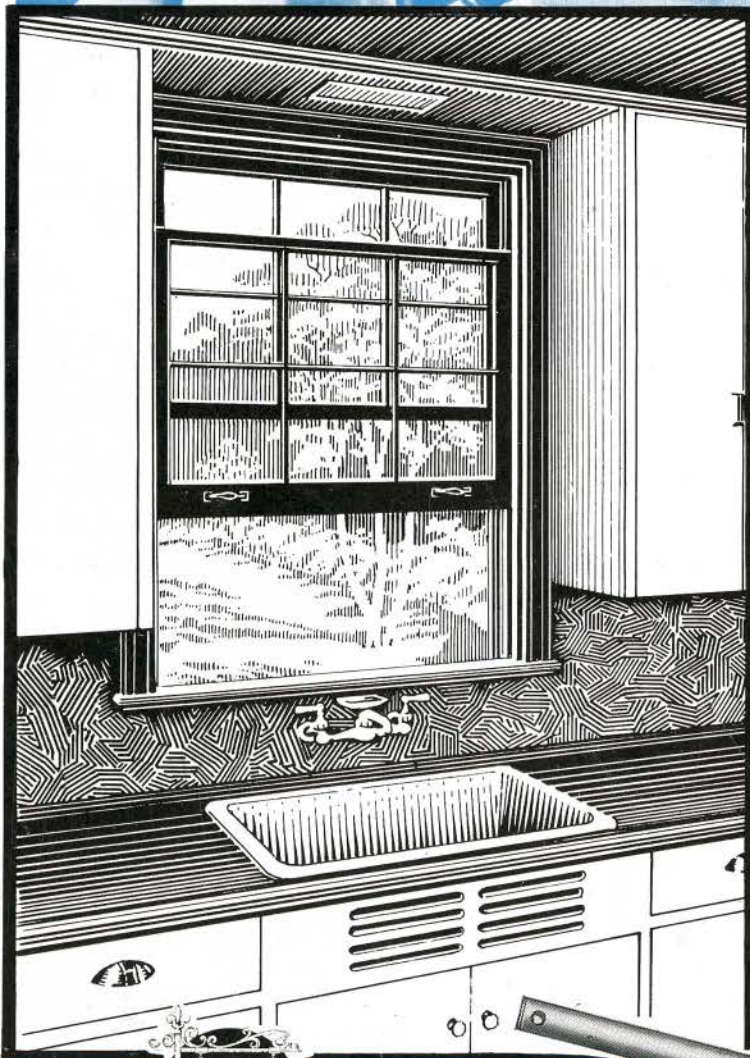
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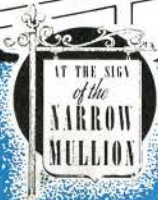
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