

a classification of



prepared by

CENTRAL MORTGAGE AND HOUSING CORPORATION

a classification of

APARTMENT HOUSE PLANS

prepared by

CENTRAL MORTGAGE AND HOUSING CORPORATION

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INTRODUCTION

This is a reference book of apartment-house plans. It is based on a system of classification by which plans of similar types are grouped together in succeeding order of complexity. It begins with the simplest form of multiple housing in which there are two dwelling units on each floor of a rectangular building and then describes the various elaborations of plan forms. The examples presented in the book may be regarded as prototypes of each type of plan; in each case the example has been selected because it appeared to be a well-designed version of that particular type.

There are, of course, infinite varieties of apartmenthouse plans that may be devised. For the most part, however, it will be found that these are variants upon a few basic types. For there are a limited number of ways in which a group of dwelling units can be fitted together to form an economical and convenient building. For those who are concerned in the financing, designing or constructing of such buildings, this index of prototypes may therefore be of some interest. It provides a basis of comparison and reference in considering the type of plan that may be suitable under any particular circumstances of site and location. It is not the purpose of this book to recommend the merits of any particular type of plan, but rather to illustrate the range and variety of basic plan forms that are available to the designer. It must always remain the task of the architect to devise dwelling unit plans and compose these into buildings and groups of buildings which meet the special requirements of the site, the tenants and the owner.

The first part of the book classifies plans into the principal classes. The second part demonstrates the ways in which these building forms can be combined to form a variety of compositions on the site. This is followed by an index of sources. A few illustrations have been included in the book to suggest the three-dimensional forms that may be derived from the basic plans.

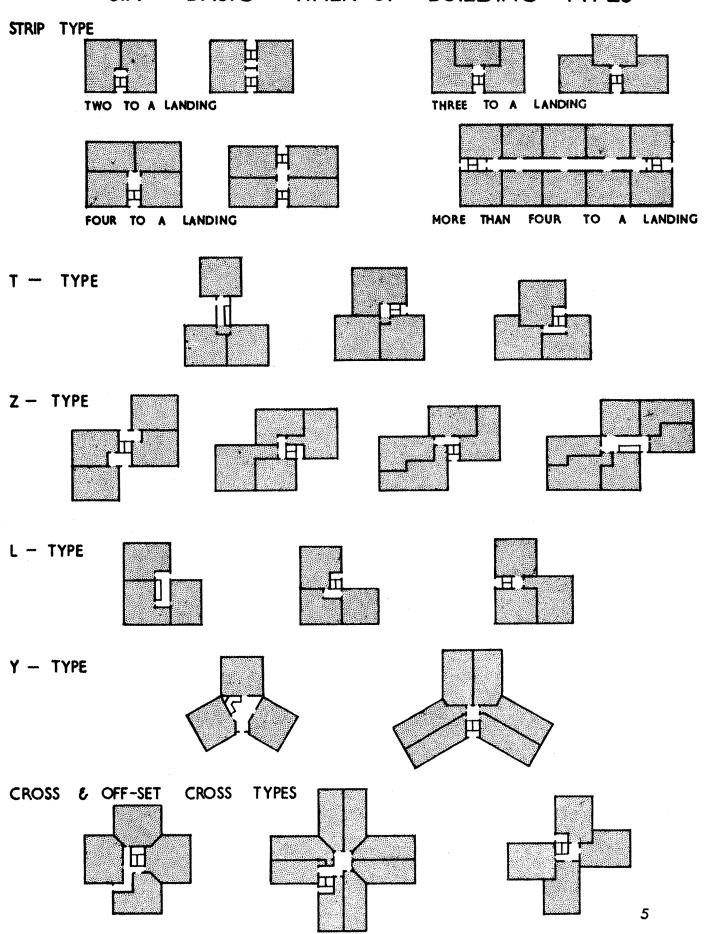
The largest class of plans is described as the STRIP type. This is a class of buildings of rectangular form which may have two, three, four or more units served from a single landing and central stairs. The first of these, ac cess-in-pairs, lends itself to a lineal development by ad joining any number of buildings in a row; this is possible because light is only required on the front and back of the units. The access-in-fours type of plan can be developed in length by elongating the central landing to serve more units on each floor. Other types of plans are described as T, Z, L, Y, CROSS, OFF-SET CROSS, PENTAGON, etc. These are exemplified here in order of complexity, so that those suitable as 'walk-ups' are shown first. This index does not include the more elaborate forms of apartment-house such as those with split-level units and skip stop elevators. The majority of plans are drawn to the scale of 1/20th inch to 1 foot.

The second part of the book shows examples of building groups. This demonstrates the great variety of building forms available through the combination of standard types. Just as the dwelling unit is a component part of a building block, so each block may form one piece in a whole architectural composition on the site.

The illustrations which have been included are intended primarily to show that an extremely simple form of architectural design may be most effective if attention is given to the general proportions of buildings, to the proper use of materials and to the details of windows, eaves and balconies. The effectiveness of an apartment-house lay-out depends upon the general composition of building masses and their relationship with open spaces. A well-composed group of buildings is not improved by the addition of superficial ornaments such as shutters and 'period' decorations. The most satisfactory contrasts to bare wall-surfaces are the branches of trees and the light and shade of foliage.

The research and drawings for this classification index were done by Mrs. Jean D. Strange.

SIX BASIC WALK-UP BUILDING TYPES



STRIP TYPE PLAN 2 Units/Landing 1 Bedroom



PROJECT

PLOT AREA

BUILDING COVERAGE NO. OF BUILDINGS DENSITY DWELLING TYPES CONSTRUCTION AMENITIES KILLINGSWORTH PARK,
Portland, Oregon, U.S.A.
3.6 acres containing play area and parking facilities.
22% of net area.
11.
29.3 dwelling units/net acre.
Three and four room dwelling units.
Frame.
Enclosed play areas and drying yards, parking facilities.

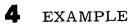
2 PROJECT

Washington D.C., U.S.A.PLOT AREA13 acre steep and rugged site.BUILDING COVERAGE14% of net area.NO. OF BUILDINGS38 buildings grouped into 8 blocks.DENSITY25 dwelling units/net acre.DWELLING TYPES228 three and four room dwelling units.AMENITIESParking areas provided.

ORDWAY GARDENS,

3 EXAMPLE

From 'PLANNING RENTAL HOUSING PROJECTS' U.S. Federal Housing Administration.



From 'PLANNING RENTAL HOUSING PROJECTS' U.S. Federal Housing Administration.

STRIP TYPE PLAN 2 Units/Landing 1 Bedroom

KILLINGSWORTH PARK, Portland, Oregon, U.S.A.

ORDWAY GARDENS, Washington, D.C., U.S.A.

2

3

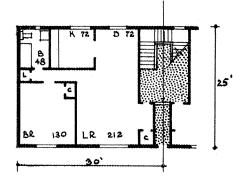
4

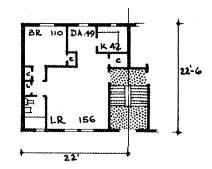
1

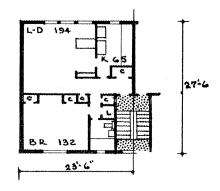
Example from F.H.A.

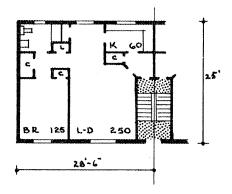
Example from F.H.A.

10 5 0 10 20 30 feet SCALE - 1/20" TO I"-O"











5 PROJECT

ARCHITECTS COMPLETION DATE PLOT AREA

NO. OF BUILDINGS

DWELLING TYPES

CONSTRUCTION AMENITIES HEATING CALLAWAY APARTMENTS, Georgia Tech, Atlanta,Georgia, U.S.A. Stevens & Wilkinson, Inc. November, 1947. Approximately 4.3 acres of gently sloping ground. 17 two and three storey buildings grouped into 3 blocks. 156 two, three and four room dwelling units. Fire-resistant construction. Children's play and parking areas. Commercial gas system.

6 EXAMPLE

From 'PLANNING RENTAL HOUSING PROJECTS' U.S. Federal Housing Administration.

7 EXAMPLE

From 'PRACTICAL BUILDER', August, 1947.

STRIP TYPE PLAN 2 Units/Landing 1 Bedroom Service Stairs

CALLAWAY APARTMENTS, Georgia Tech, Atlanta, Georgia, U.S.A.

5

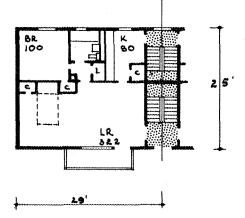
6

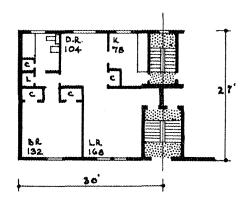
7

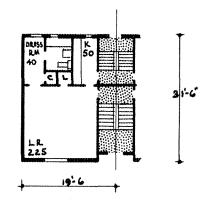
Example from F.H.A.

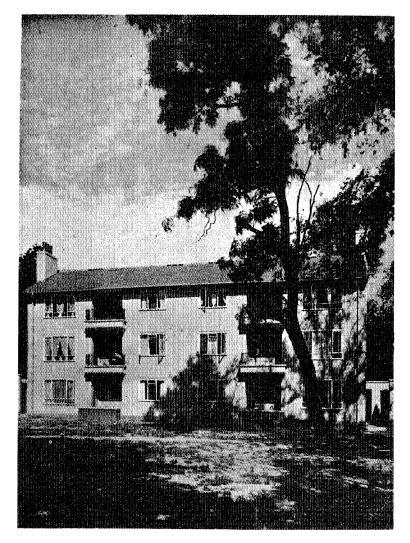
Example from 'Practical Builder'

10 5 0 10 20 30 feet SCALE --- 1/20" TO 1'-O"









APARTMENTS FOR THE BOROUGH OF LAMBETH, Elder Road, London, England. Architects, Booth & Ledeboer.

Credit, Architectural Design, November, 1948, page 239.

STRIP TYPE PLAN 2Units/Landing 2 Bedrooms



8 EXAMPLE

From 'PLANNING RENTAL HOUSING PROJECTS' U.S. Federal Housing Administration.

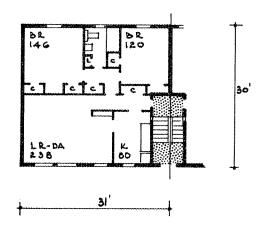


PROJECT In Seattle, Washington, U.S.A. ARCHITECTS Miller & Ahlson. COMPLETION DATE 1947. PLOT AREA 54 acres. NO. OF BUILDINGS 44 two storey (plus basement) buildings. DWELLING TYPES 544 three, four and five room dwelling units. CONSTRUCTION Frame, with plywood exteriors & composition roofing. AMENITIES Children's play areas, tenant parking service and rear service yard. COST \$5 million. HEATING Tenant controlled.

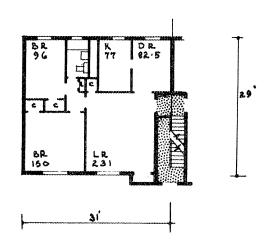
STRIP TYPE PLAN 2 Units/Landing 2 Bedrooms

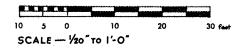
Example from F.H.A.

8



Seattle, Washington, U.S.A.





STRIP TYPE PLAN 2 Units/Landing 1&2 Bedrooms **Exterior Service Stairs**





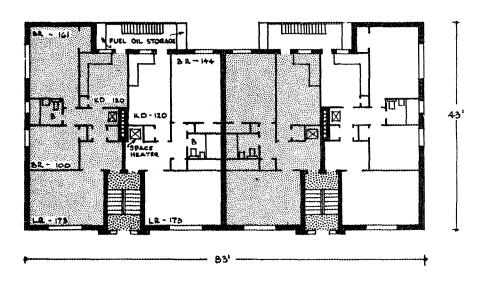
10 EXAMPLE OF

Four storey apartments, commonly known as 'cold flats' & typical of the Montreal area.

STRIP TYPE PLAN 2 Units/Landing 1 & 2 Bedrooms Exterior Service Stairs

Typical Montreal apartments.

10



10 5 0 10 20 30 40 feet

SCALE - 1/20" TO 1'-0"



11 PROJECT

ARCHITECTS COMPLETION DATE PLOT AREA

NO. OF BUILDINGS

DWELLING TYPES

CONSTRUCTION AMENITIES HEATING CALLAWAY APARTMENTS,
Georgia Tech, Atlanta, Georgia, U.S.A.
Stevens & Wilkinson, Inc.
1947.
Approximately 4.3 acres of gently sloping ground.
17 two and three storey buildings grouped into 9 blocks.
156 two, three and four room dwelling units.
Fire-resistant construction.
Children's play areas and parking areas.
Commercial gas system.

12 PROJECT ARCHITECT COMPLETION DATE NO. OF BUILDINGS

> DWELLING TYPES CONSTRUCTION

Clayton, Missouri, U.S.A. Bernard McMahon. Late '40s. 86 two storey, four family buildings on lots 80' X 130' facing on to a new city park. Four room dwelling units. Fire-resistant construction.

13 PROJECT

ARCHITECTS COMPLETION DATE PLOT AREA

NO. OF BUILDINGS

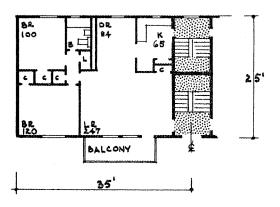
DENSITY DWELLING TYPES CONSTRUCTION AMENITIES

COST HEATING MANN AVENUE APARTMENTS, Ottawa, Ontario.
Central Mortgage and Housing Corporation. 1949.
26.3 acres including 12.5 acres of park area.
64 two and three storey (plus basement) buildings, grouped into 24 blocks.
67 persons/acre.
418 four and five room dwelling units.
Frame construction, with brick veneer.
Parks and playgrounds with sandboxes, wading pool.
\$3.372 million.
Central heating plant.

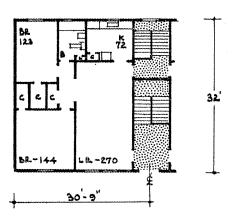
STRIP TYPE PLAN 2 Units/Landing 2 Bedrooms Service Stairs

CALLAWAY APARTMENTS, Atlanta Georgia, U.S.A.

11

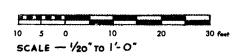


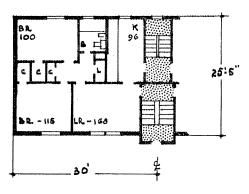
Clayton, Missouri, U.S.A.



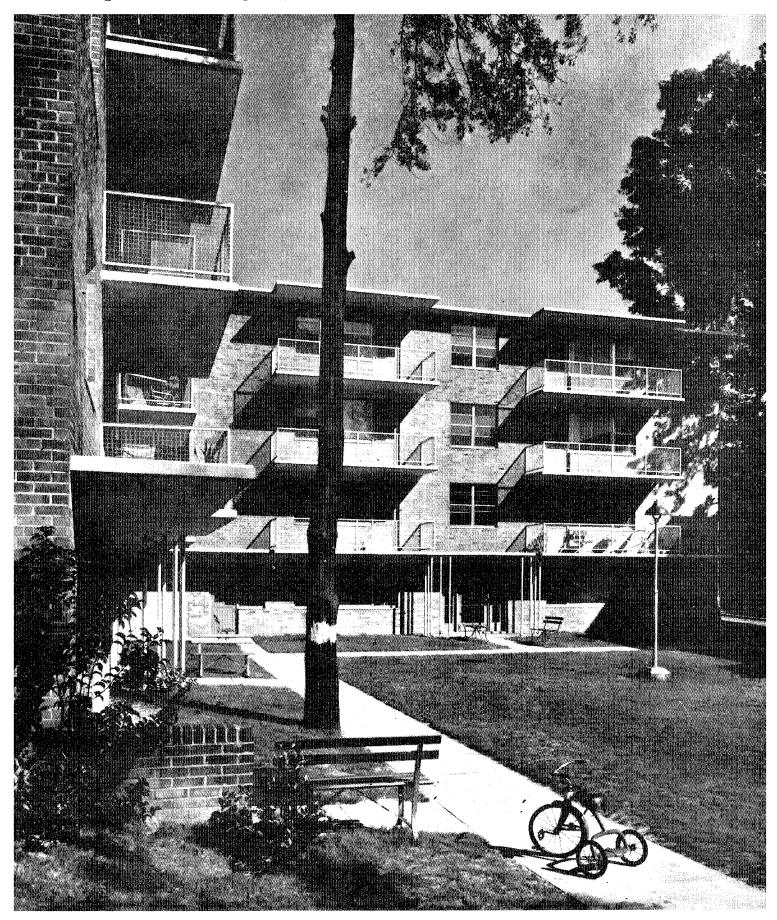
12

MANN AVENUE APARTMENTS, Ottawa, Ontario.





Credit, Magazine of Building, September, 1948, page 131.



CALLAWAY APARTMENTS, Atlanta, Georgia, U.S.A. Architects, Stevens & Wilkinson, Inc.

STRIP TYPE PLAN 2 Units/Landing 2 Bedrooms Service Stairs



14 PROJECT

ARCHITECTS

COMPLETION DATE SITE

NO. OF BUILDINGS

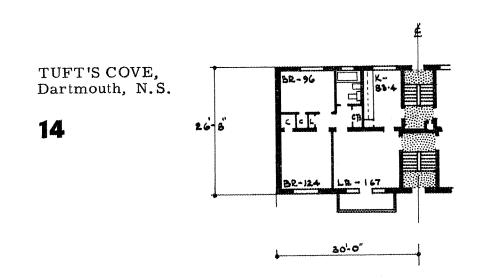
DWELLING TYPES

CONSTRUCTION AMENITIES HEATING TUFT'S COVE, Dartmouth, Nova Scotia. Central Mortgage and Housing Corporation

1951.

Rocky promontory opposite Halifax and commanding magnificent view of the Narrows and the harbour. 81 two and three storey (plus basement) buildings grouped into 33 blocks. 521 four and five room dwellings (with balconies). Poured concrete. School, parks and playgrounds. Central heating plant.

STRIP TYPE PLAN 2 Units/Landing 2 Bedrooms Service Stairs



10 5 0 10 20 30 40 feet SCALE — 1/20" to 1'-O"

STRIP TYPE PLAN 2 Units/Landing 3 Bedrooms



MELLISH STREET APARTMENTS,

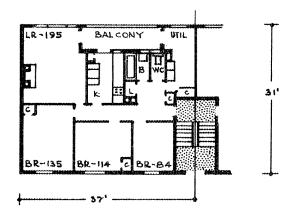
15 PROJECT

	Poplar, London, England.
ARCHITECTS	Ministry of Works, Architects' De-
	partment.
COMPLETION DATE	1948.
SITE	A bomb damaged site formerly occupied by cottages.
NO. OF BUILDINGS	2 three storey buildings combined into one block.
DWELLING TYPES	Five room dwelling units (with balconies).
CONSTRUCTION	Precast concrete stanchions and beams with external walls of precast concrete slabs.

STRIP TYPE PLAN 2 Units/Landing 3 Bedrooms

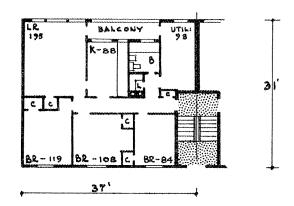
MELLISH STREET APARTMENTS, Poplar, London, England.





Adaptation of above plan to fit Canadian requirements.





STRIP TYPE PLAN 2 Units/Landing 3 Bedrooms Exterior Service Stairs





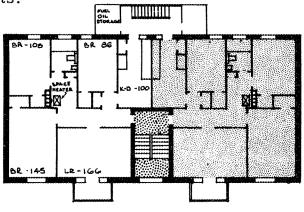
EXAMPLE OF

Four storey apartments, commonly known as 'cold flats' & typical of the Montreal area.

STRIP TYPE PLAN 2 Units/Landing 3 Bedrooms Exterior Service Stairs

Typical Montreal Apartments.





^{10 5 0 10 20 30 40} feet

SCALE - 1/20" TO 1'-0"

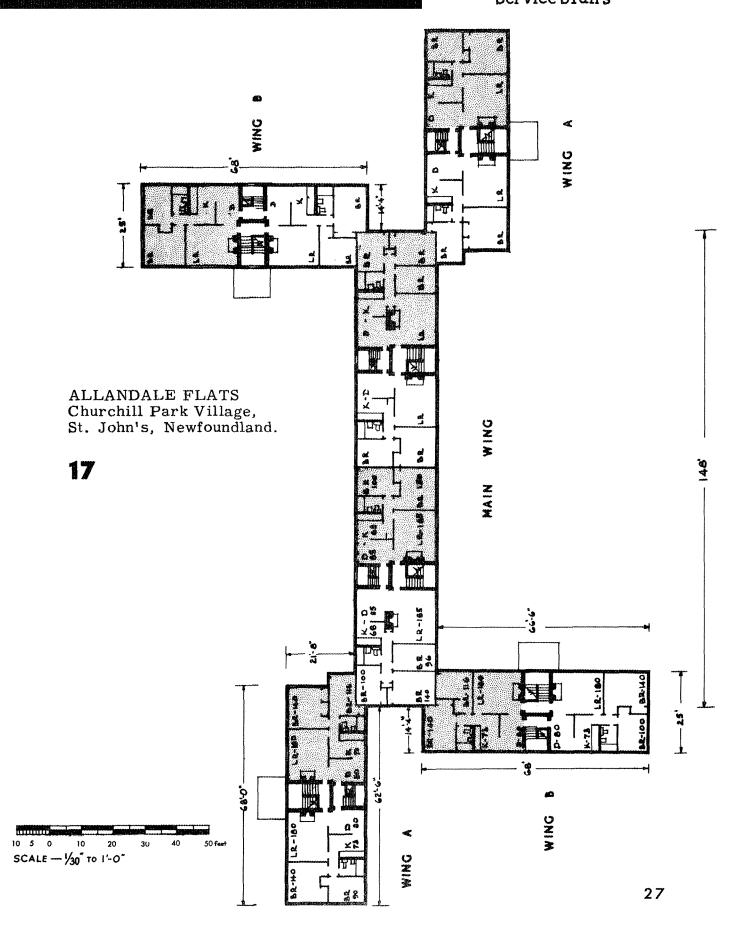
STRIP TYPE PLAN 2 Units/Landing 2 & 3 Bedrooms Service Stairs

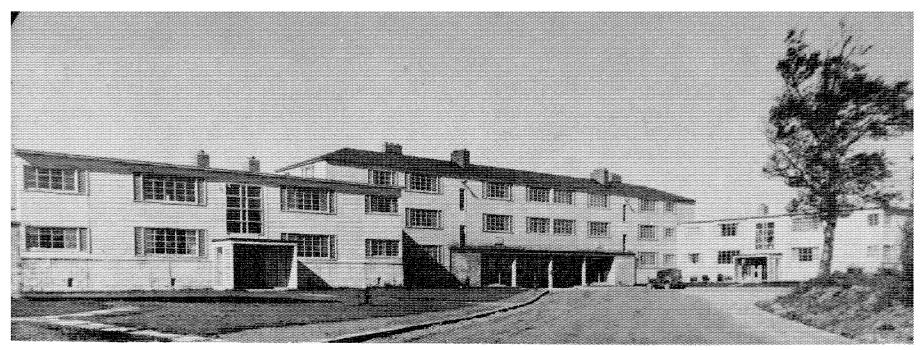


17 PROJECT

PROJECT	ALLANDALE FLATS, Churchill Park Village, St. John's, Newfoundland.
ARCHITECTS COMPLETION DATE SITE	A.E. Searles and Paul Meschino. Late '40s. 800 acre valley located behind St. John's for development into a community of
NO. OF BUILDINGS	mixed housing to be known as Churchill Park Village. 6 "walkup" buildings grouped into one superblock. Height varies between 2 and 3 stories (plus basement). There are two of these superblocks.
DWELLING TYPES	26 five and six room dwelling units/ superblock.
CONSTRUCTION	Concrete block basements, frame walls and flat roofs.

STRIP TYPE PLAN 2 Units/Landing 2 & 3 Bedrooms Service Stairs





ALLANDALE APARTMENTS, Churchill Park Village, St. John's, Newfoundland. Architects, Searles & Meschino.

Credit, Marshall Studios Limited, St John's, Nfld.

STRIP TYPE PLAN 2 Units/Landing 3 Bedrooms Service Stairs



18

PROJEC T

ARCHITECTS COMPLETION DATE SITE

NO. OF BUILDINGS

DWELLING TYPES

CONSTRUCTION AMENITIES HEATING TUFT'S COVE,
Dartmouth, Nova Scotia.
Central Mortgage and Housing Corporation.
1951.
Rocky promontory opposite Halifax and commanding magnificent view of the Narrows and the harbour.
81 two and three storey (plus basement) buildings grouped into 33 blocks.
521 four and five room dwellings (with balconies)
Poured concrete.
School, parks and playgrounds.
Central heating plant.

19 PROJECT

ARCHITECTS COMPLETION DATE PLOT AREA

NO. OF BUILDINGS

DENSITY DWELLING TYPES CONSTRUCTION AMENITIES

COST HEATING MANN AVENUE APARTMENTS, Ottawa, Ontario.
Central Mortgage and Housing Corporation. 1949.
26.3 acres including 12.5 acres of park area.
64 two and three storey (plus basement) buildings grouped into 24 blocks.
67 persons/acre.
418 four and five room dwelling units.
Frame construction, with brick veneer.
Parks and playgrounds with sandboxes, wading pool.

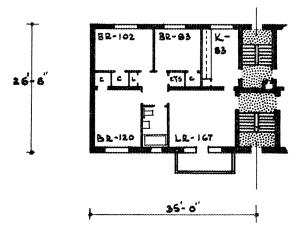
\$3.372 million.

Central heating plant.

STRIP TYPE PLAN 2 Units/Landing 3 Bedrooms Service Stairs

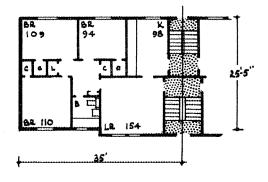
TUFT'S COVE, Dartmouth, N.S.

18

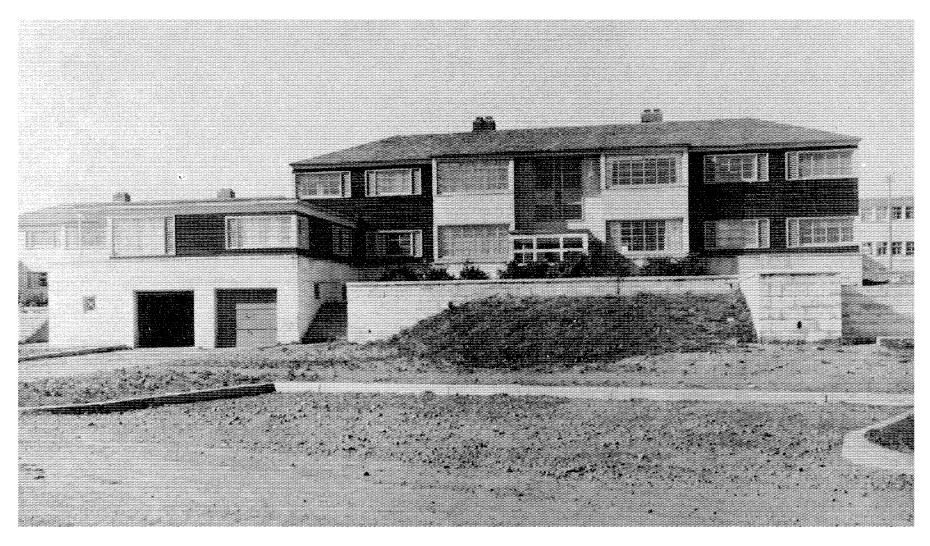


MANN AVENUE APARTMENTS, Ottawa, Ontario.

19



 Internet for the second seco



PINEBUD APARTMENTS, Churchill Park Village, St. John's, Newfoundland

Architects, Searles & Meschino.

Credit, Marshall Studios Limited, St John's, Nfld.

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STRIP TYPE PLAN 2 Units/Landing 3 Bedrooms Service Stairs

A CLASSIFICATION OF

20

ARCHITECTS COMPLETION DATE

BUILDINGS

PROJECT

DWELLING TYPES

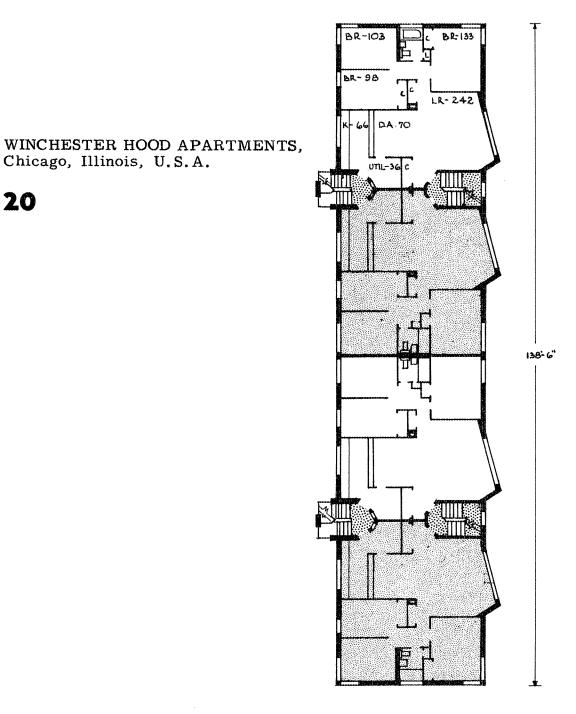
CONSTRUCTION

HEATING COST WINCHESTER HOOD APARTMENTS, Chicago, Ill., U.S.A. Holsman, Holsman, Klekamp & Taylor. 1949. 4 storey walkups & 5 storey elevator buildings. Approximately 800 four to six room apartments in four storey walkups & five storey elevator buildings. Reinforced rowlock brick masonry walls, concrete block partitions. Flat roofs. Prefabricated floor slabs set in prefabricated steel forms. Radiant heating in the ceiling joist boxes. These apartments are noteworthy for their construction which has resulted in a net cost per month to the tenants of from 1/3 to 1/2 less than comparable typical F.H.A. garden apartment type dwelling units.

20

STRIP TYPE PLAN 2 Units/Landing 3 Bedrooms Service Stairs

-



40 50 feet 10 10 20 30 5 0 SCALE - 1/20" TO 1'-0"

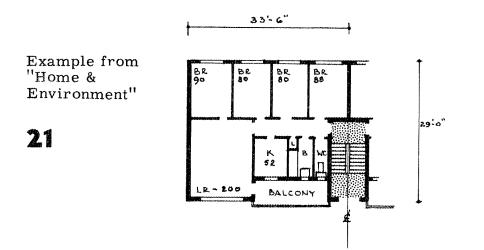
STRIP TYPE PLAN 2 Units/Landing 4 Bedrooms



21 EXAMPLE

From "HOME & ENVIRONMENT" by Walter Segal.

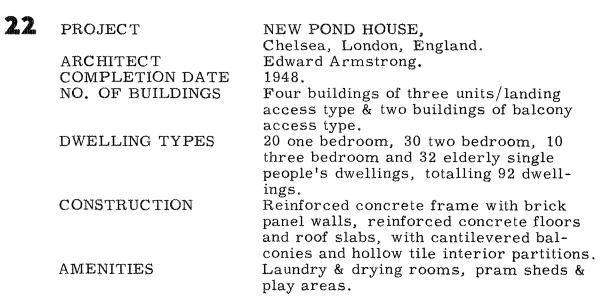
STRIP TYPE PLAN 2 Units/Landing 4 Bedrooms



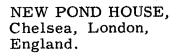


STRIP TYPE PLAN 3 Units/Landing 1 & 2 Bedrooms

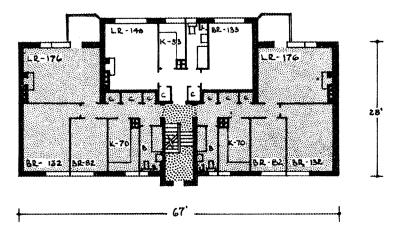
A CLASSIFICATION OF



STRIP TYPE PLAN 3 Units/Landing 1 & 2 Bedrooms



22



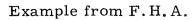
STRIP TYPE PLAN 4 Units/Landing Bed-Sitting & 1 Bedroom



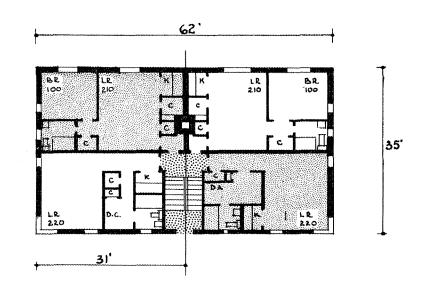
23 EXAMPLE

From "PLANNING RENTAL HOUSING PROJECTS" U.S. Federal Housing Authority.

STRIP TYPE PLAN 4 Units/Landing Bed-Sitting and 1 Bedroom









STRIP TYPE PLAN 4 Units/Landing 1 & 2 Bedrooms



24 PROJECT

ARCHITECTS

PLOT AREA BUILDING COVERAGE NO. OF BUILDINGS

DENSITY DWELLING TYPES CONSTRUCTION AMENITIES

COST

SOUTH JAMAICA HOUSES,
New York City, N.Y., U.S.A.
Dan P. Higgins, Carl A. Vollmer, and
Fred G. Frost.
9.12 net acres.
21%.
33 three & four storey buildings grouped into 6 three storey & 5 four storey blocks.
128 persons/net acre.
448 three & four room dwelling units.
Fire-resistant.
Playground, parks, allotment gardens and a day nursery.

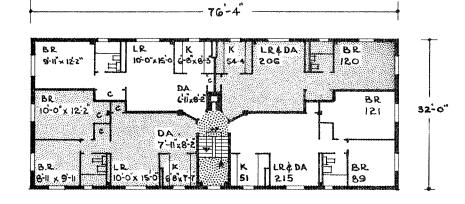
\$2.081 million total development cost; \$4,688/dwelling unit.

25 PROJECT ACME CO. PROJECT. Aberdeen, S.D., U.S.A. COMPLETION DATE 1949. NO. OF BUILDINGS 18 three storey (including basement) buildings. DWELLING TYPES 11 three and four room dwelling units/ building. CONSTRUCTION Reinforced concrete foundations, concrete block exterior walls. COST Estimated building cost \$1 million.

STRIP TYPE PLAN 4 Units/Landing 1 & 2 Bedrooms

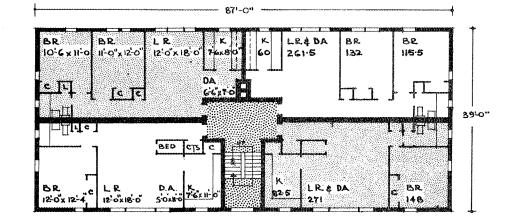
SOUTH JAMAICA HOUSES, Queens, New York City, N.Y., U.S.A.

24



ACME CO. PROJECT, Aberdeen, S. Dakota, U.S.A.

25



10 5 0 10 20 30 40 50 feet SCALE -- ¹/20^{*} το 1^{*-}Ο^{*} STRIP TYPE PLAN 4 Units/Landing 1 Bedroom Service Stairs



26 PROJECT

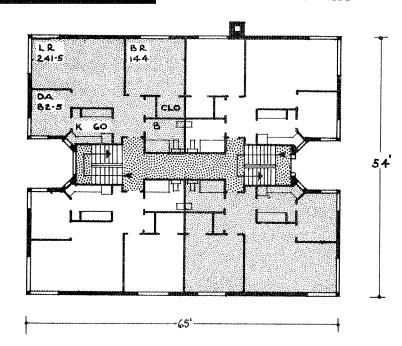
ARCHITECT COMPLETION DATE NO. OF BUILDINGS DWELLING TYPES CATHERINE PLACE, Vancouver, British Columbia. W.M. Dodd. August, 1948. One three storey building (plus penthouse). Four room dwelling units.

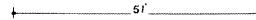
27 This design has been built in the following places: Hamilton, Kitchener, London, Brantford and Sudbury, all in Ontario, Canada.

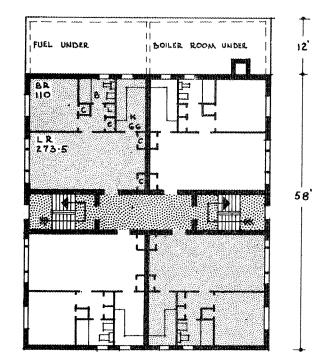
STRIP TYPE PLAN 4 Units/Landing 1 Bedroom Service Stairs

CATHERINE PLACE, Vancouver, B.C.

26







Canadian Example

27



STRIP TYPE PLAN 4 Units/Landing 2 Bedrooms Service Stairs

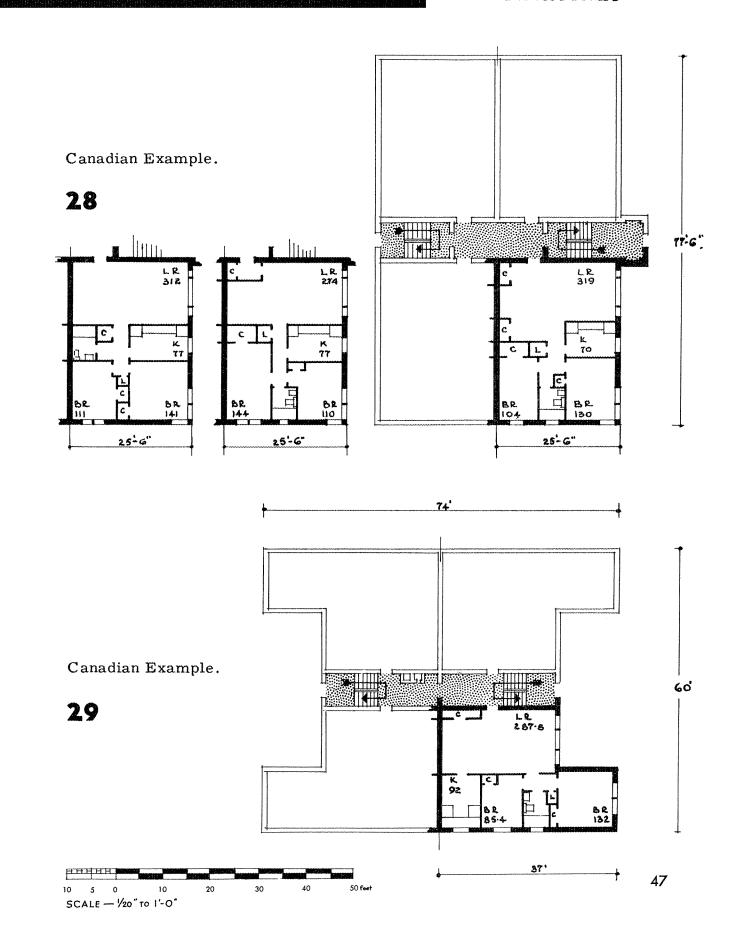


28 This design has been built in the following places - Toronto and Stamford Center, both in Ontario.

29

This design has been built in the following places -Niagara Falls, Kitchener, St. Catherines, Oakville and Burlington, all in Ontario.

STRIP TYPE PLAN 4 Units/Landing 2 Bedrooms Service Stairs



STRIP TYPE PLAN 4 Units/Landing 2 Bedrooms Service Stairs & Elevator



30 PROJECT

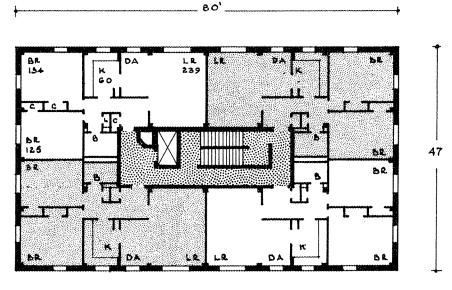
PROJECT	PARKSIDE HOUSES,
	New York City, N.Y., U.S.A.
ARCHITECTS	Walker & Poor.
COMPLETION DATE	Early '50s.
BUILDING COVERAGE	19.8%.
NO. OF BUILDINGS	3 fourteen storey blocks, 3 six storey
	blocks, together with 14 seven storey
	buildings grouped into 8 blocks, total-
	ling 14 blocks.
DENSITY	257 persons/acre.
DWELLING TYPES	879 three & four room dwelling units.
CONSTRUCTION	Fire-resistant.

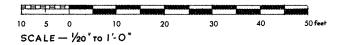
PARKSIDE HOUSES,

STRIP TYPE PLAN 4 Units/Landing 2 Bedrooms Service Stairs & Elevator

PARKSIDE HOUSES, New York City, N.Y., U.S.A.

30





STRIP TYPE PLAN 8 Units/Landing 2 Bedrooms Elevators & Service Stairs

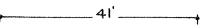
A CLASSIFICATION OF

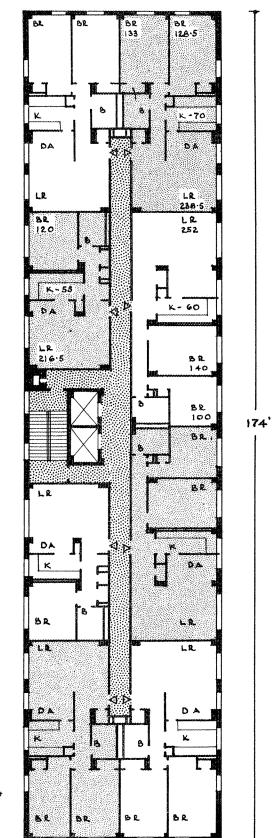
31 PROJECT

ARCHITECTSNew York City, N.Y., U.S.A.COMPLETION DATESkidmore, Owings and Merrill.BUILDING COVERAGE18.7%.NO. OF BUILDINGS7 fourteen storey buildings.DENSITY346.9 persons/acre.DWELLING TYPES786 three and four room dwelling units.CONSTRUCTIONFire-resistant.

SEDGEWICK HOUSES,

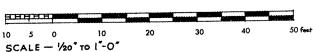
STRIP TYPE PLAN 8 Units/Landing 2 Bedrooms Elevators & Service Stairs





SEDGEWICK HOUSES, New York City, N.Y., U.S.A.

31



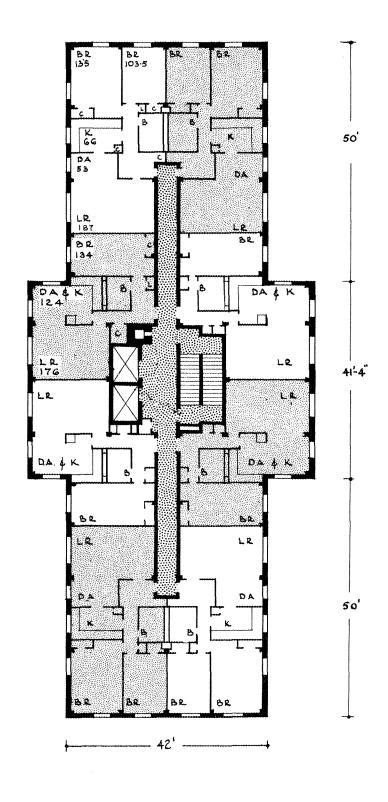
STRIP TYPE PLAN 8 Units/Landing 1 & 2 Bedrooms Elevators & Service Stairs



32 PROJECT

PROJECT	PARKSIDE HOUSES,
	New York City, N.Y., U.S.A.
ARCHITECTS	Walker & Poor.
COMPLETION DATE	Early '50s.
BUILDING COVERAGE	19.8%.
NO. OF BUILDINGS	3 fourteen storey blocks, 3 six storey
	blocks together with 14 seven storey
	buildings grouped into 8 blocks, totall-
	ing 14 blocks.
DENSITY	257 persons/acre.
DWELLING TYPES	879 three & four room dwelling units.
CONSTRUCTION	Fire-resistant.

STRIP TYPE PLAN 8 Units/Landing 1 & 2 Bedrooms Elevators & Service Stairs



PARKSIDE HOUSES, New York City, N.Y., U.S.A.

32



STRIP TYPE PLAN 12Units/Landing 1,2 & 3 Bedrooms Elevators & Service Stairs



33 PROJECT

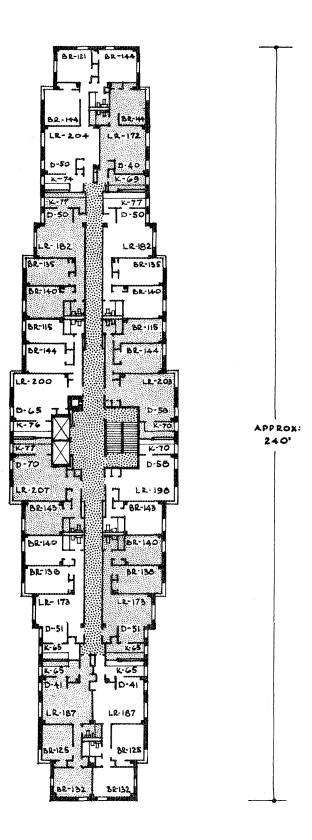
Manhattan, New York City, N.Y., U.S.A. William F.R. Ballard. ARCHITECTS Early '50s. COMPLETION DATE 13.09 net acres, excluding 1 acre park. PLOT AREA 14.12% (net), 13.1% (gross). BUILDING COVERAGE 7 fourteen storey buildings. NO. OF BUILDINGS DENSITY 320 persons/acre (net), 290 persons/acre (gross). 1167 one, three, four & five room dwel-DWELLING TYPES ling units. CONSTRUCTION Fire-resistant. AMENITIES Social rooms, laundries, children's center, child health center, playgrounds and parks. Central heating plant. HEATING

DYCKMAN HOUSES,

STRIP TYPE PLAN 12 Units/Landing 1, 2 & 3 Bedrooms Elevators & Service Stairs

DYCKMAN HOUSES, New York City, N.Y., U.S.A.

33



10 0 10 20 20 40 50 feet SCALE - 1/32" = 1-0! T TYPE PLAN 3Units/Landing 2 & 3 Bedrooms



34 PROJECT

ARCHITECTS PLOT AREA

BUILDING COVERAGE NO. OF BUILDINGS

DENSITY DWELLING TYPES CONSTRUCTION AMENITIES COST GOWANUS HOUSES, New York City, N.Y., U.S.A. Candela, Kahn, Jacobs & McCarthy. 11.53 net acreage, excluding 1.04 acres of parks and playgrounds. 21% (net). 24 four, eight & fourteen storey buildings grouped into 16 blocks. 387 persons/acre (net). 1141 five room dwelling units. Fire-resistant. Parks and playgrounds. \$6.738 million (Total development cost).

35 PROJECT

ARCHITECTS NO. OF BUILDINGS

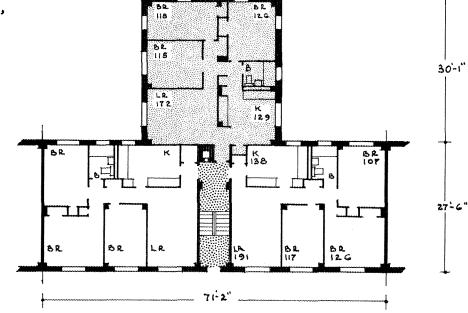
DWELLING TYPES CONSTRUCTION

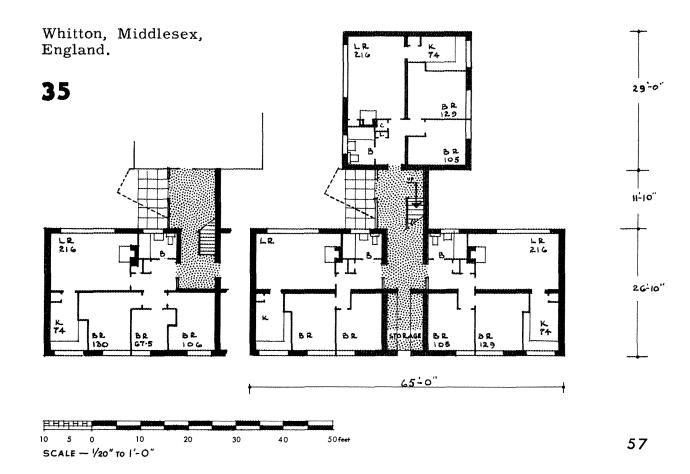
AMENITIES COST Apartments at Whitton, Middlesex, England.
Eric Lyons & G. Paulson Townsend.
4 two storey buildings containing 6 dwelling units each.
24 four & five room dwelling units.
Foundation - concrete slab; exterior wallsbrick & rendered brick.
Storage space & drying yards.
Contract price \$100,000 approximately.

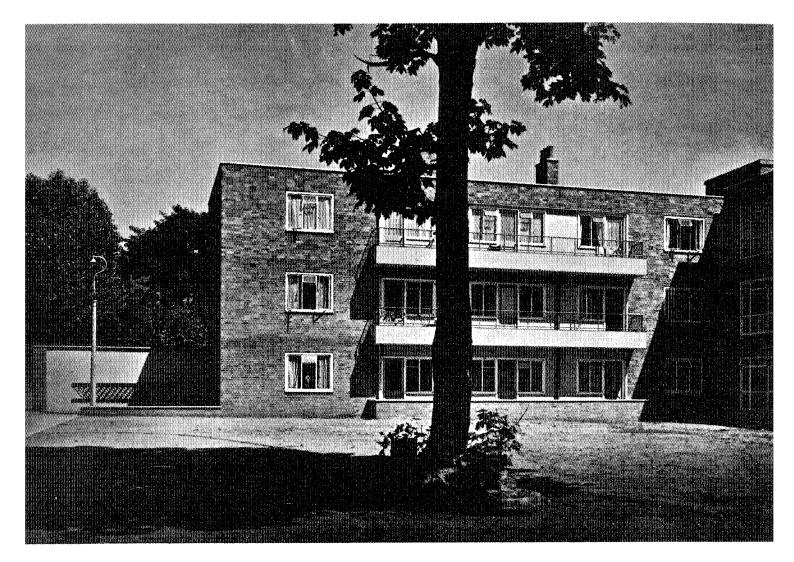
T TYPE PLAN 3 Units/Landing 2 & 3 Bedrooms

GOWANUS HOUSES, Brooklyn, N.Y.C. N.Y., U.S.A.

34







SOMERFORD GROVE ESTATE, Hackney, London, England. Architect, Frederick Gibberd.

Credit, Architectural Review, September, 1949, page 149.

T TYPE PLAN 9 Units/Landing 1, 2 & 3 Bedrooms Elevators & Service Stairs

A CLASSIFICATION OF

36 F

PROJECT

ARCHITECTS COMPLETION DATE PLOT AREA

BUILDING COVERAGE NO. OF BUILDINGS DENSITY

DWELLING TYPES

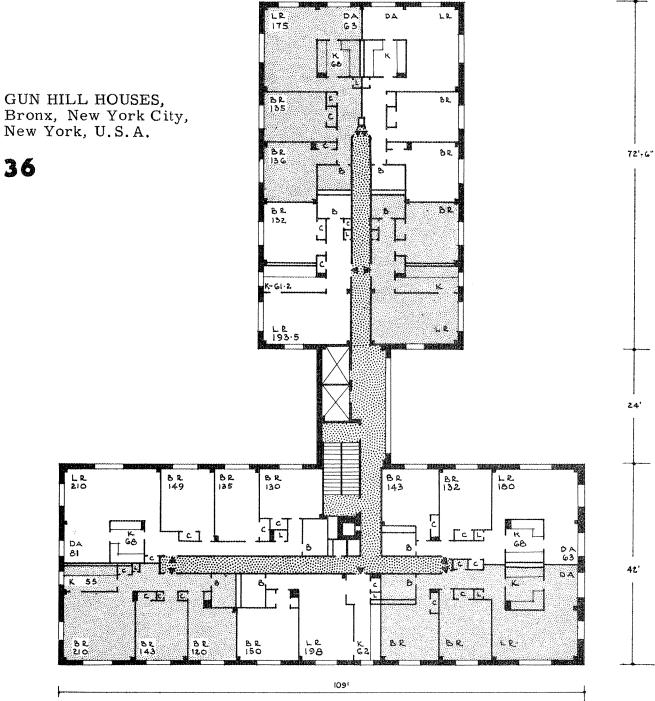
CONSTRUCTION AMENITIES

COST

GUN HILL HOUSES, Bronx, New York City, N.Y., U.S.A. Alfred Hopkins and Associates. Early '50s. 7.21 net acres excluding .72 acre playground. 17.35% (net), 15.84% (gross). 5 fourteen & 1 thirteen storey buildings. 348 persons/acre (net), 317 persons/ acre (gross). 733 three, four and five room dwelling units. Reinforced concrete, faced with red brick. Laundry, children's health station, children's centre, craftrooms, parks and playgrounds.

\$6.840 million (approximate).

T TYPE PLAN 9 Units/Landing 1,2 & 3 Bedrooms Elevators and & Service Stairs



42' - 6"

36

ринни 5 0 10 10 20 30 40 50 feet

SCALE - 1/20" TO 1'-0"

Z TYPE PLAN 4 Units/Landing 1 Bedroom

A CLASSIFICATION OF

37 PROJECT

ARCHITECTS COMPLETION DATE PLOT AREA

NO. OF BUILDINGS DWELLING TYPES CONSTRUCTION AMENITIES

RIVERSIDE TERRACE HOUSING,

Paterson, New Jersey, U.S.A. Stephen Kelly and Sumner Gruzen. 1944.

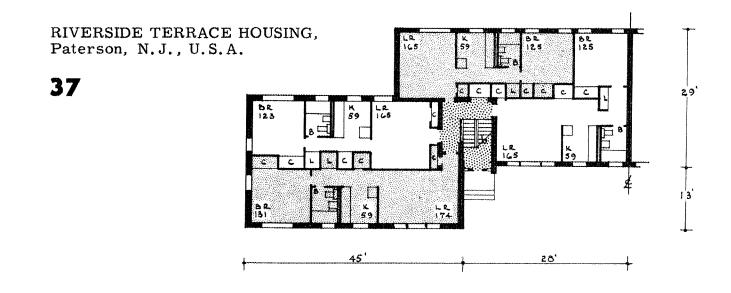
18.7 acre (approximate gross acreage) sloping site.

7 three storey (plus basement) buildings. 224 three room dwelling units.

Brick and concrete block.

Playfield, children's playground, parking areas, drying yards and community centre building.

Z TYPE PLAN 4 Units/Landing 1 Bedroom



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Z TYPE PLAN 6 Units/Landing 1&2 Bedrooms Elevator

A CLASSIFICATION OF

38 PROJECT

ARCHITECTS

COMPLETION DATE PLOT AREA

BUILDING COVERAGE NO. OF BUILDINGS

DENSITY

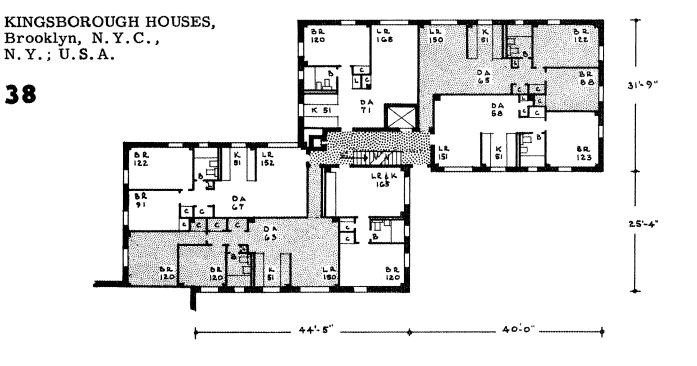
DWELLING TYPES

CONSTRUCTION AMENITIES

COST

KINGSBOROUGH HOUSES, Brooklyn, New York City, N.Y., U.S.A. Skidmore and Owings; Slee and Bryson, Starrett and Van Vleck. October, 1941. 15.28 acres (net), excluding .69 acres of parks and playgrounds. 19% (net), 18.75% (gross). 35 six storey buildings grouped into 16 blocks. 205 persons/acre (net), 196 persons/ acre (gross). 1166 two, three, four and five room dwelling units. Fire-resistant. Playgrounds, parks, health centre and nursery. \$5.175 million (Total development cost).

Z TYPE PLAN 6 Units/Landing 1 & 2 Bedrooms Elevator





L TYPE PLAN 3 Units/Landing 1 Bedroom

A CLASSIFICATION OF

39 PROJECT

ARCHITECT COMPLETION DATE SITE NO. OF BUILDINGS

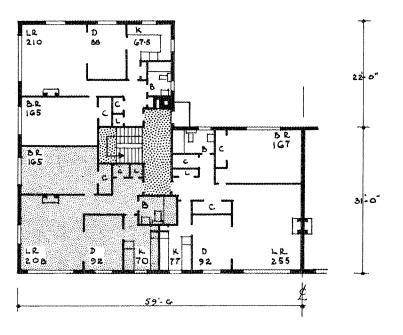
DWELLING TYPES

THE HAINAULT, Vancouver, British Columbia. Harold Cullerne. 1947. City Lot. 2 three storey buildings grouped into 1 block. 12 four room dwellings.

L TYPE PLAN 3 Units/Landing 1 Bedroom

THE HAINAULT, Vancouver, B.C., Canada.

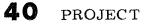




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Y TYPE PLAN 3 Units/Landing 1 Bedroom

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ARCHITECTS COMPLETION DATE NO. OF BUILDINGS

DWELLING TYPES CONSTRUCTION

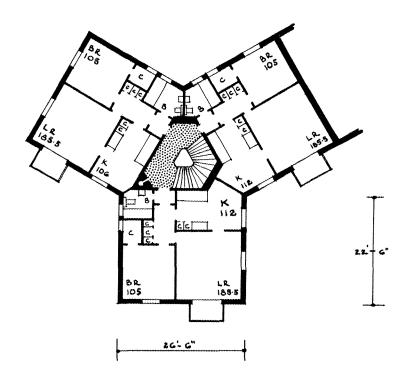
AMENITIES

NYA SMALHUS, Grondal, Stockholm, Sweden. Backstrom & Reinius. 1946.

24 three storey buildings, 18 of which are grouped in one super block. 216 three and five room dwelling units. Colour-washed rendered exterior walls of 10" concrete blocks.

Shops and landscaped terrace garden.

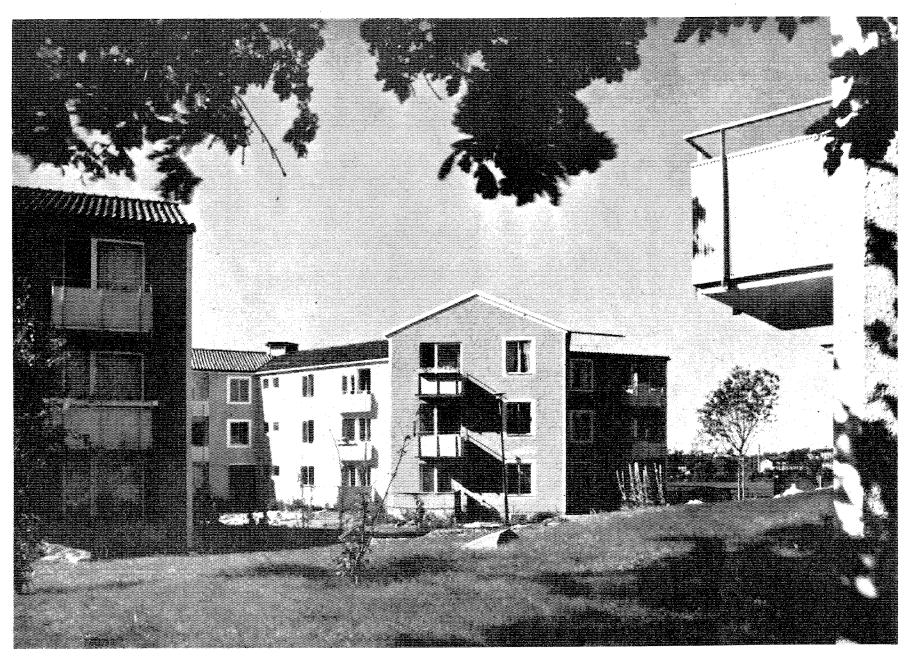
Y TYPE PLAN 3 Units/Landing 1 Bedroom



NYA SMALHUS, Grondal, Stockholm, Sweden.







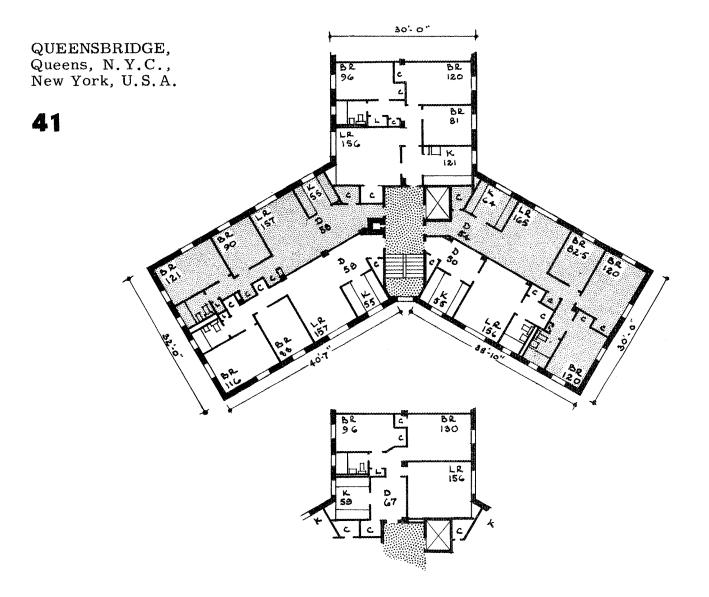
Credit, Architectural Review, June, 1948, page 248.

NYA SMALHUS, Grondal, Stockholm, Sweden. Architects, Backstrom & Reinius. Y TYPE PLAN 5 Units/Landing Bed-Sitting, 2 & 3 Bedrooms Elevator, skip stop type



41	PROJECT	QUEENSBRIDGE,
	ARCHITECTS	Queens, New York City, N.Y., U.S.A. Wm. F. Ballard.(Assoc. Churchill, Frost, Turner.)
	COMPLETION DATE	1940.
	PLOT AREA	34.67 acres, excluding 14.8 acres of parks and playgrounds.
	BUILDING COVERAGE	26%.
	NO. OF BUILDINGS	96 six storey buildings arranged in 26 blocks.
	DENSITY	245 persons/acre (net).
	DWELLING TYPES	3,149 two, three, four and five room dwelling units.
	CONSTRUCTION	12" solid brick and brick and hollow tile walls; reinforced concrete floors and roofs.
	AMENITIES	Community amenities, shops and nursery school.
	COST	\$13.219 million total development cost.

Y TYPE PLAN 5 Units/Landing Bed-Sitting, 2 & 3 Bedrooms Elevator, skip stop type



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OFF-SET CROSS TYPE PLAN 4 Units/Landing 1,2 & 3 Bedrooms Elevators & Service Stairs



42 PROJECT

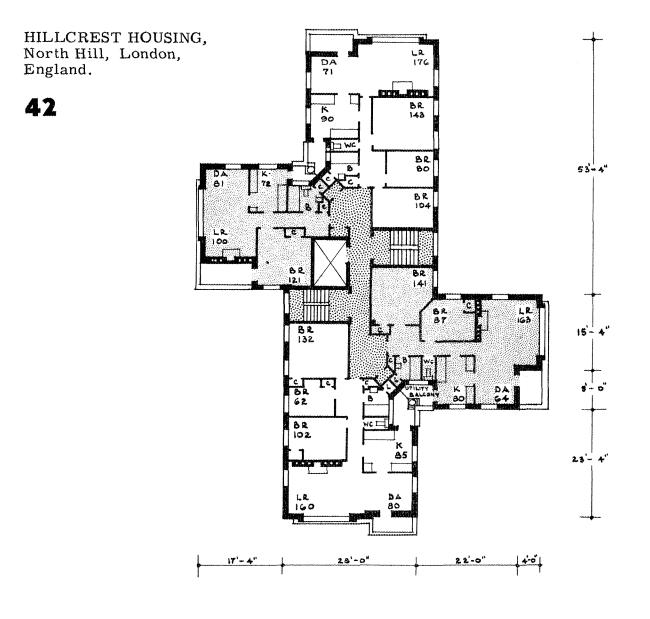
ARCHITECTS COMPLETION DATE PLOT AREA NO. OF BUILDINGS DENSITY DWELLING TYPES

CONSTRUCTION AMENITIES

HILLCREST HOUSING,

North Hill, Hornsey, London, U.K. T.P. Bennett and Sons. 1949. 5.5 acres. 7 four and seven storey buildings. 77 persons/acre. 166 three, four and five room dwelling units. Brick on steel frame construction. Balconies, community centre.

OFF-SET CROSS TYPE PLAN 4 Units/Landing 1, 2 & 3 Bedrooms Elevators & Service Stairs





OFF-SET CROSS TYPE PLAN 4 Units/Landing 1,2&3 Bedrooms Elevator



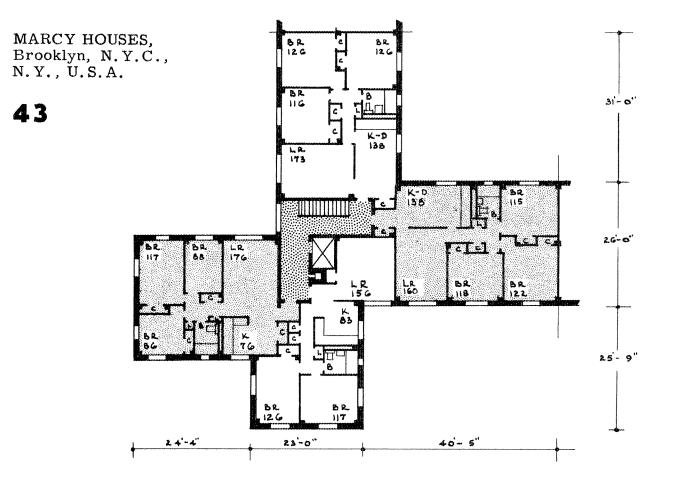
43 PROJECT

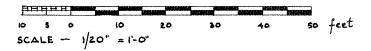
ARCHITECTS COMPLETION DATE PLOT AREA

BUILDING COVERAGE NO. OF BUILDINGS

DENSITY DWELLING TYPES CONSTRUCTION AMENITIES COST MARCY HOUSES,
Brooklyn, New York City, N.Y., U.S.A.
Voorhees, Walker, Foley and Smith.
1948.
Covering two city blocks and comprising
28.49 acres, including 3.2 acre playground.
19.36%.
70 six storey elevator buildings grouped
into 27 blocks.
239.84 persons/acre.
3, 4, and 5 room dwelling units.
Fire-resistant.
Nursery, library, playground and parks.
Approximately \$11 million.

OFF-SET CROSS TYPE PLAN 4 Units/Landing 1,2 & 3 Bedrooms Elevator





77

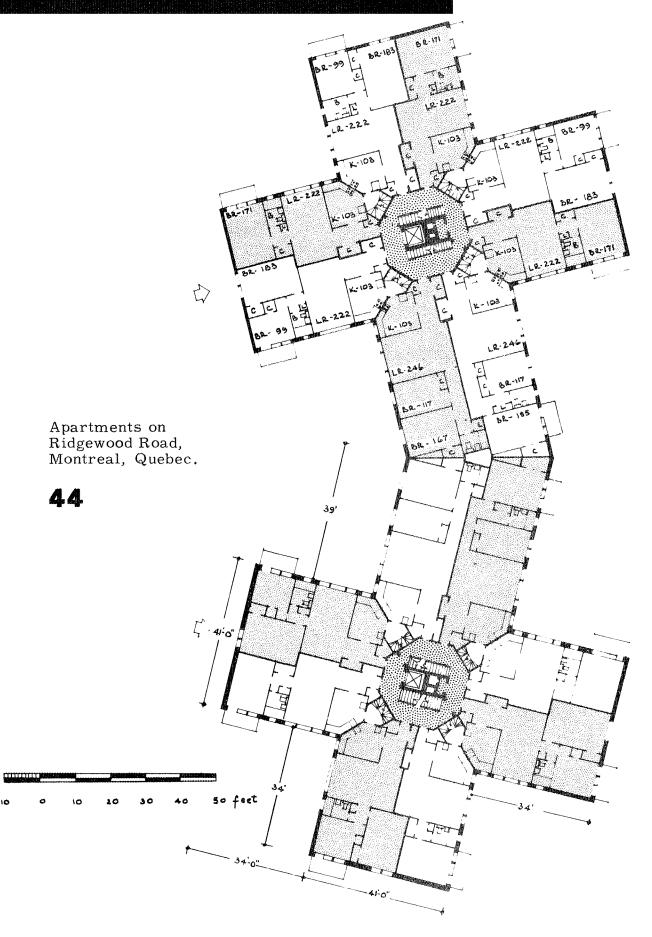
CROSS TYPE PLAN 8 Units/Landing 1&2 Bedrooms Elevator & Service Stairs



44

PROJECT ARCHITECT NO. OF BUILDINGS DWELLING TYPES Ridgewood Road, Montreal, Quebec. Henry E. Greenspoon. 2 five storey buildings. 66 three and four room dwelling units.

CROSS TYPE PLAN 8 Units/Landing 1 & 2 Bedrooms Elevator & Service Stairs



CROSS TYPE PLAN 8 Units/Landing Bed-Sitting, 1,2 & 3 Bedrooms Elevators & Service Stairs



45 PROJECT

ARCHITECTS COMPLETION DATE PLOT AREA

BUILDING COVERAGE NO. OF BUILDINGS

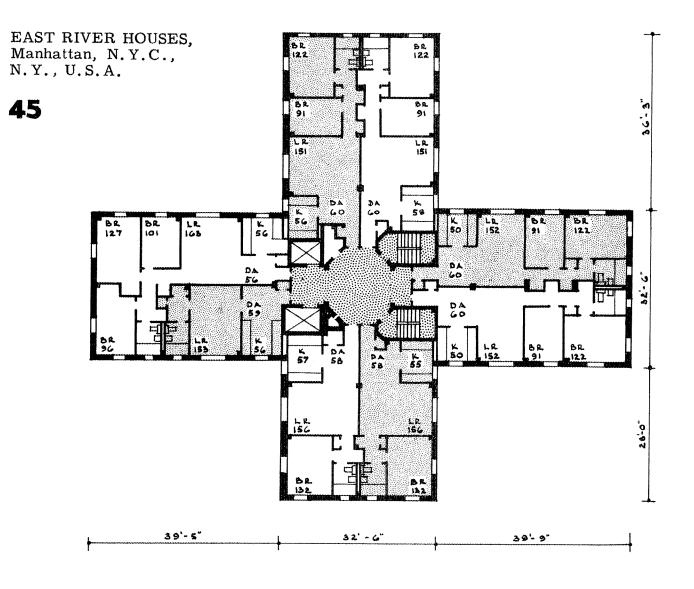
DENSITY DWELLING TYPES

CONSTRUCTION AMENITIES

COST

EAST RIVER HOUSES, Manhattan, New York City, N.Y., U.S.A. Voorhees, Walker, Foley and Smith. 1941. 10.71 net acres, excluding 1.06 acres of parks and playgrounds. 24%. 29 six, ten and eleven storey buildings grouped into 10 blocks. 354 persons per acre (net). 1170 two, three, four and five room dwelling units. Fire-resistant. Park, child health centre and children's playground. Total development cost \$5.304 million.

CROSS TYPE PLAN 8 Units/Landing Bed-Sitting, 1,2 & 3 Bedrooms Elevators & Service Stairs



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10	5	0	10	20	30	40	50 feet
SCALE 1/20 " TO 1'-0"							

CROSS TYPE PLAN 8 Units/Landing 2 Bedrooms Elevators & Service Stairs

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PROJECT

ARCHITECTS

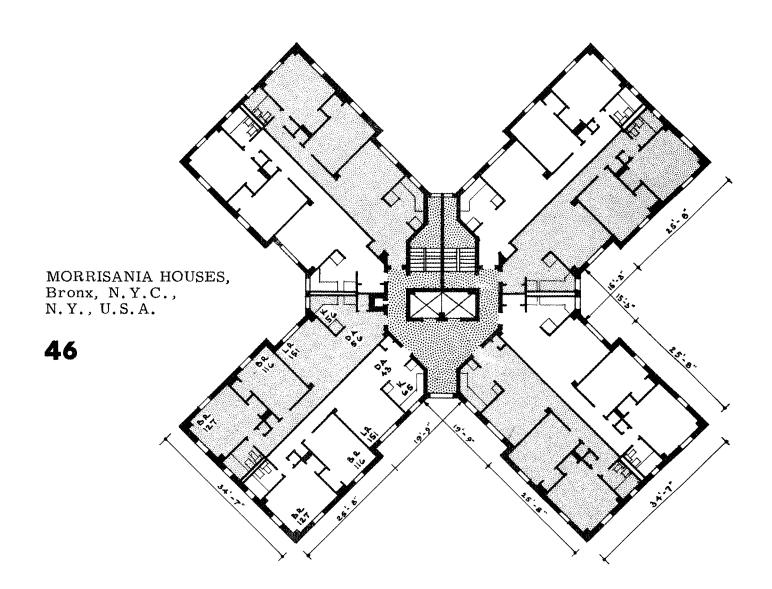
PLOT AREA

BUILDING COVERAGE NO. OF BUILDINGS

DENSITY DWELLING TYPES

CONSTRUCTION AMENITIES COST MORRISANIA HOUSES,
Bronx, New York City, N.Y., U.S.A.
J.F. Delaney, J.W. O'Connor, A. Embury II, E. M.W. Del Gaudio.
16.05 net acres, excluding 1.13 acres of parks and playgrounds.
23%.
25 buildings grouped into 15 six and thirteen storey blocks.
435 persons/acre (net).
1791 two, four and five room dwelling units.
Fire-resistant.
Nursery and play areas and parking.
Total development cost \$10.849 million.

CROSS TYPE PLAN 8 Units/Landing 2 Bedrooms Elevators and & Service Stairs





CROSS TYPE PLAN 8 Units/Landing 2&3 Bedrooms Elevator & Service Stairs



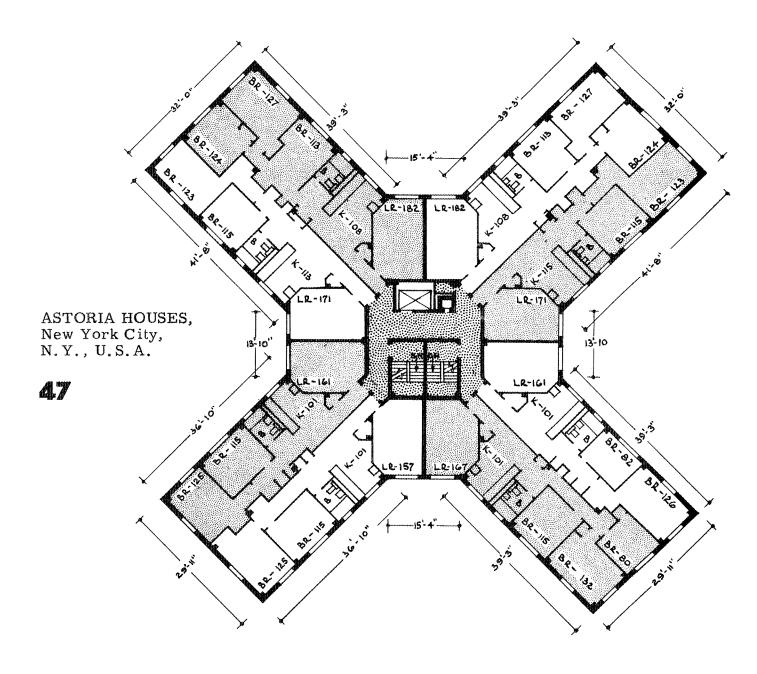
47 PROJECT

ARCHITECTS COMPLETION DATE PLOT AREA

BUILDING COVERAGE NO. OF BUILDINGS DENSITY DWELLING TYPES

CONSTRUCTION AMENITIES ASTORIA HOUSES, New York City, N.Y., U.S.A. Harrison & Abramovitz. Early '50s. 26.79 net acres, excluding 4.35 acre playground. 14.85% (net). 22 six storey buildings. 182.7 persons/acre (net). 1104 four, five and six room dwelling units. Fire-resistant. Social, craft, class & ceramics rooms, laundries, children's center, parks and playground.

CROSS TYPE PLAN 8 Units/Landing 2 & 3 Bedrooms Elevator & Service Stairs



10	5	0	10	20	30	40	50 feet
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PENTAGONAL TYPE PLAN 10 Units/Landing 2 & 3 Bedrooms Elevators & Service Stairs



48 1

PROJECT

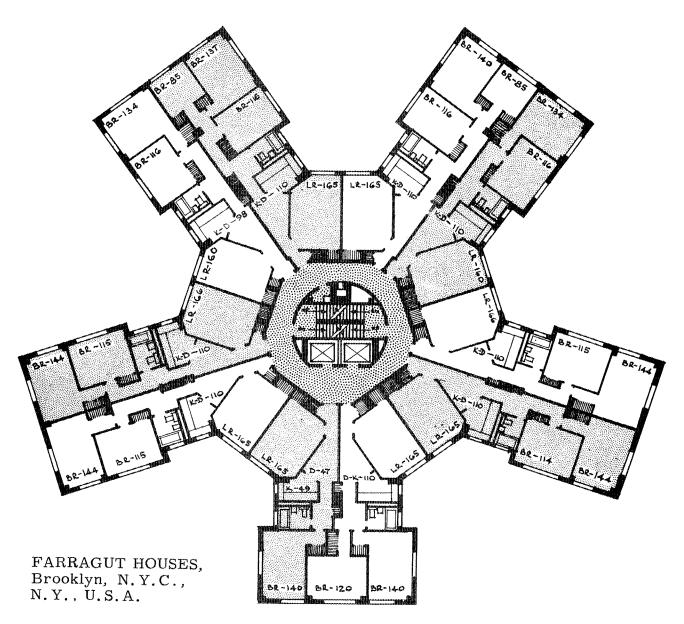
ARCHITECTS COMPLETION DATE PLOT AREA

BUILDING COVERAGE NO. OF BUILDINGS

DENSITY DWELLING TYPES

CONSTRUCTION AMENITIES FARRAGUT HOUSES, New York City, N.Y., U.S.A. Fellheimer, Vagner & Vollmer. Early '50s. Extending over 3 city blocks and comprising 17.29 acres (net) but excluding a .62 acre playground. 12.6% (gross). 10 fourteen storey pentagon shaped buildings. 297.84 persons/acre (gross). 1400 two, three, four & five room dwelling units. Fire-resistant. Community building, playground, child health center, craft rooms and laundry.

PENTAGONAL TYPE PLAN 10 Units/Landing 2 & 3 Bedrooms Elevators & Service Stairs



48

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SQUARE TYPE PLAN 2.4 & 5 Units/Landing 0,1,3,4 & 5 Bedrooms Elevators & Stairs



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PROJECT

ARCHITECTS COMPLETION DATE SITE NO. OF BUILDINGS

DWELLING TYPES CONSTRUCTION

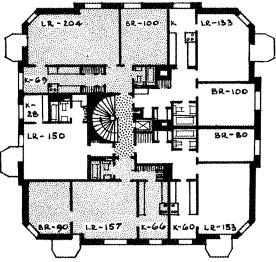
AMENITIES

DANVIKSLIPPAN 'POINT' HOUSES, Stockholm, Sweden. Backstrom & Reinius. 1946.

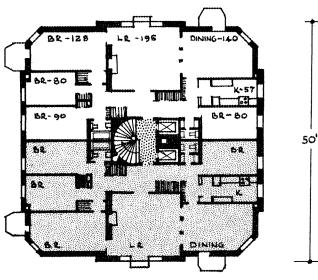
The site is a very rocky promontory. 9 buildings arranged in a rough oval and varying in height from 8 to 10 storeys. 391 one to six room dwelling units. Reinforced concrete. All the buildings have rendered exteriors, which are colour-washed, each one a difference pastel colour.

Each building contains a day nursery, a post office and some small shops. There are bigger shops and transportation facilities available in the centre of the group of buildings.

SQUARE TYPE PLAN 2.4 & 5 Units/Landing 0,1,3,4 & 5 Bedrooms Elevators & Stairs



TYPE A - TOP FLOOR

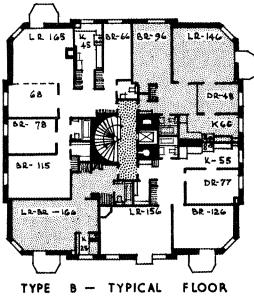


TYPE A - TYPICAL FLOOR

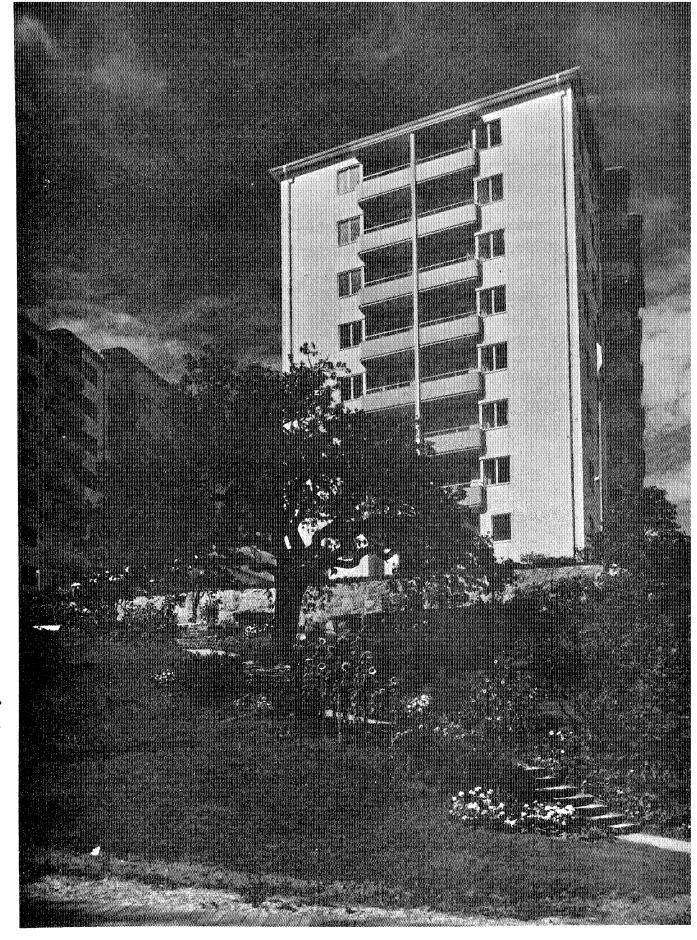
т

DANVIKSLIPPAN, Stockholm, Sweden.

49



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REIMERSHOLME, Stockholm, Sweden. Architects, H.S.B., the Swedish Co-operative of Householders 91 Savings and Building Organizations.

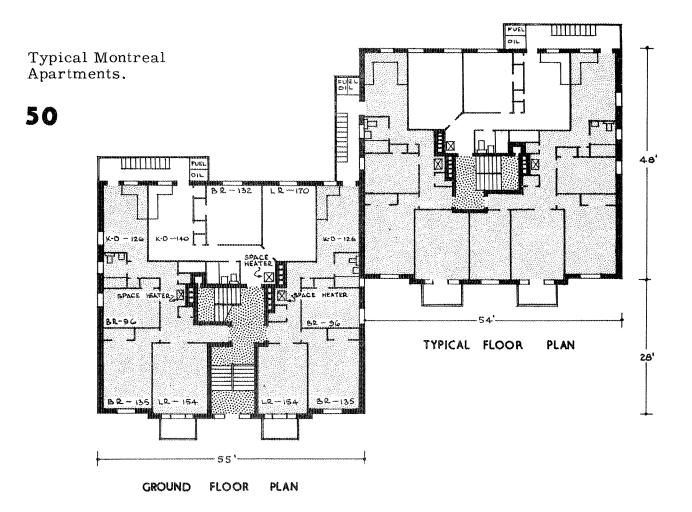
SQUARE TYPE PLAN 3 Units/Landing 1&2 Bedrooms Exterior Service Stairs



50 EXAMPLE OF

Four storey apartments, commonly known as 'cold flats' and typical of the Montreal area.

SQUARE TYPE PLAN 3 Units/Landing 1 & 2 Bedrooms Exterior Service Stairs



^{10 5 0 10 20 30 40} feet SCALE --- 1/20" TO 1'-O"



51 PROJECT

ARCHITECTS COMPLETION DATE PLOT AREA

BUILDING COVERAGE NO. OF BUILDINGS

DENSITY DWELLING TYPES CONSTRUCTION FORDHAM HILL APARTMENTS, New York City, N.Y., U.S.A.

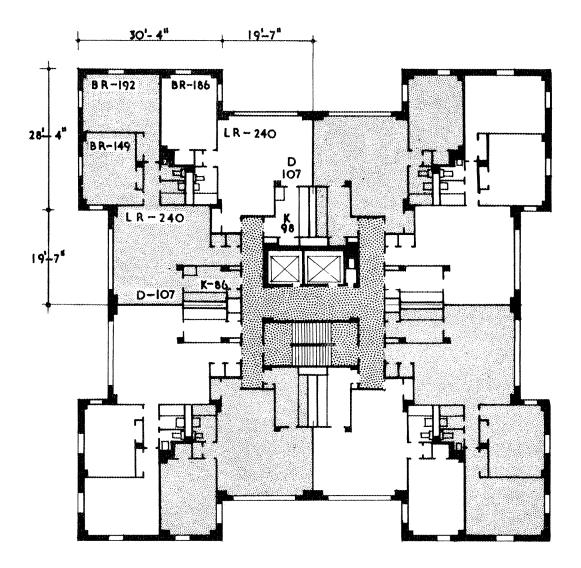
Leonard Schultze & Associates. 1950. Located on the top of a hill in the Bronx district: the site occupies approximately

district: the site occupies approximately 7.5 acres.

Approximately 27.5% (gross). 9 sixteen storey building grouped in a rough oval pattern. Approximately 149 families/acre(gross). 1118 one and two bedroom dwelling units.

Fire resistant buildings with cream coloured brick exteriors.

SQUARE TYPE PLAN 8 Units/Landing 1 & 2 Bedrooms Elevators & Service Stairs



FORDHAM HILL, Bronx, New York City, N.Y., U.S.A.



BALCONY ACCESS, STRIP TYPE PLAN 5 Units/Access Balcony 3 Bedrooms Elevators & Service Stairs

A CLASSIFICATION OF

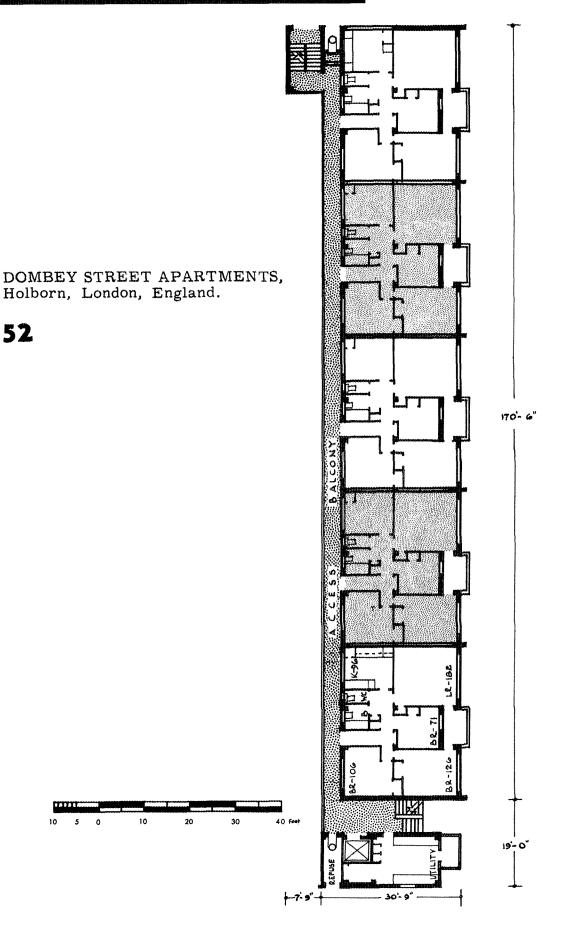
52 PROJECT DOMBEY STREET APARTMENTS, Holborn, London, England. Robert Hening & Anthony Chitty. ARCHITECTS COMPLETION DATE 1948. This building is one of several in a sche-SITE me in the Great Ormond Street area in the Borough of Holborn, where it is planned to accommodate some 4,000 persons. An 11 storey building (including basement). NO. OF BUILDINGS 50 five room dwelling units. DWELLING TYPES **CONSTRUCTION** Reinforced concrete frame, spandrils bricked in.

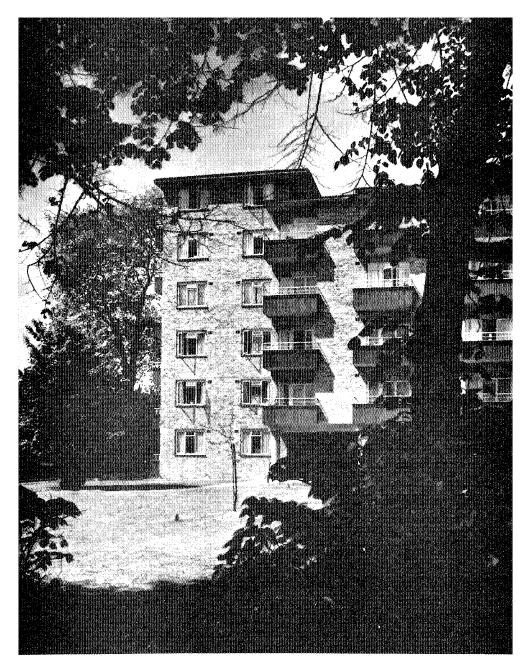
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STRIP TYPE PLAN 5 Units/Access Balcony 3 Bedrooms Elevators & Service Stairs

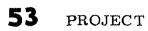




ST PANCRAS WAY. St Pancras, London, England. Architects, Graham Dawbarn, Whitfield Lewis & C.A. Richards. Credit, Architectural Review, June, 1948, page 249.

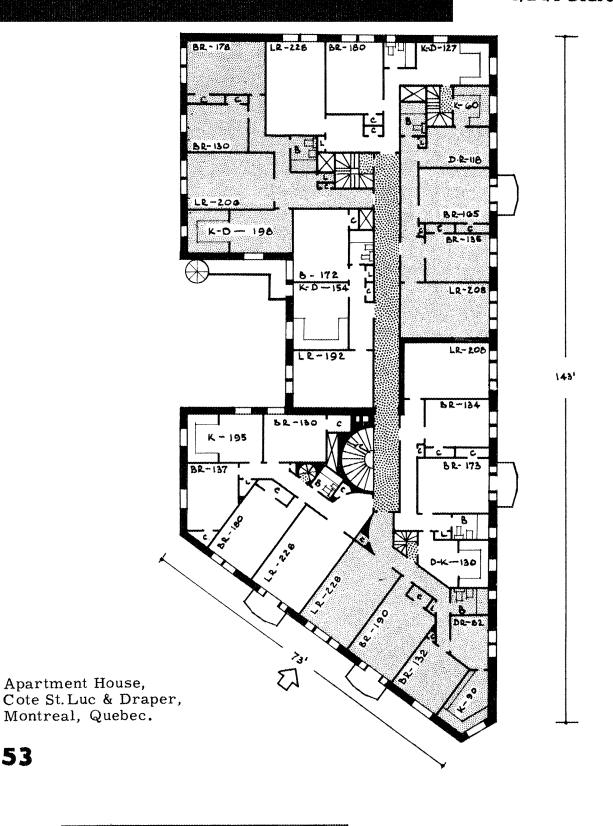
IRREGULAR TYPE PLAN 7 Units/Landing 1,2 & 3 Bedrooms





Apartment House, Cote St. Luc & Draper, Montreal, Quebec.

IRREGULAR TYPE PLAN 7 Units/Landing 1.2&3 Bedrooms



muni 50 feet 40 10 5 0 10 20 30 SCALE - 1/20" TO 1'-0"

MAISONETTE, Y TYPE PLAN 3 Units/Landing 2 Bedrooms

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PROJEC T

ARCHITECTS COMPLETION DATE NO. OF BUILDINGS

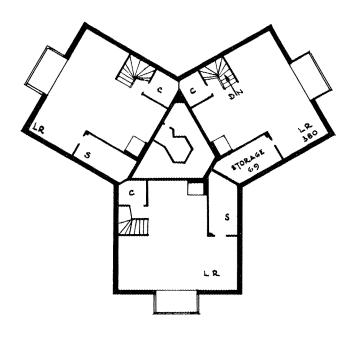
DWELLING TYPES CONSTRUCTION

AMENITIES

NYA SMALHUS, Grondal, Stockholm, Sweden. Backstrom & Reinius. 1946. 24 three storey buildings, 18 of which are grouped in one super block. 216 three and five room dwelling units.

Colour-washed rendered exterior walls of 10" concrete blocks; pitched roofs. Shops and landscaped terrace garden.

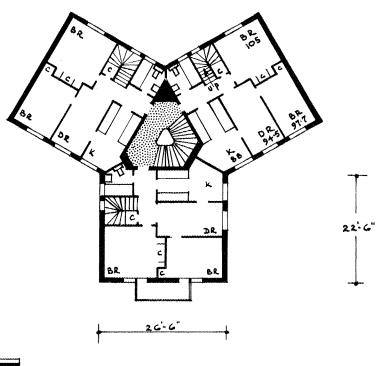
MAISONETTE, Y TYPE PLAN 3 Units/Landing 2 Bedrooms



NYA SMALHUS, Grondal, Stockholm, Sweden.

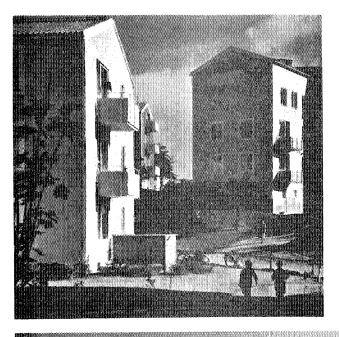
54

UPPER FLOOR PLAN



LOWER FLOOR PLAN



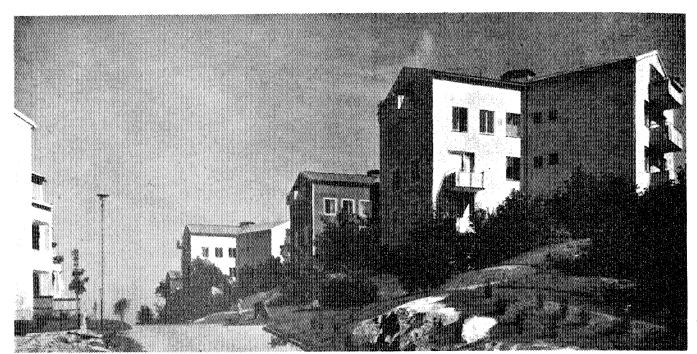




NYA SMALHUS, Grondal, Stockholm, Sweden. Architects, Backstrom & Reinius.

Note: The two lower floors of the building shown on this page are devoted to apartments and the two upper floors are combined to form two storey dwelling units, or 'Maisonettes'; in this case with the entrance hall, bathroom, kitchen, dining & bed rooms on the lower floor and the living room on the floor above directly under the roof. This room is lit by a window giving access on to a balcony in the gable ends of the building.

Credit, Architectural Review, August, 1949, page 82.



MAISONETTE, BALCONY ACCESS TYPE PLAN 4 Units/Landing 3 Bedrooms Elevator

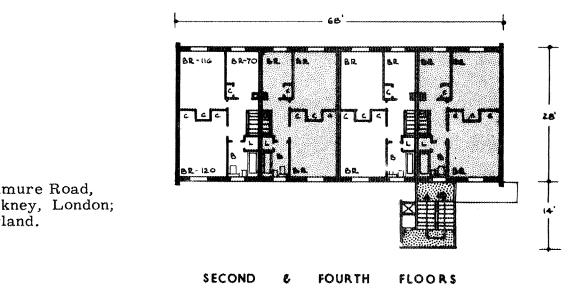


55 PROJECT

Hackney, London, England. Edward D. Mills. ARCHITECTS 1948. COMPLETION DATE PLOT AREA .275 acres. A single five storey basementless build-NO. OF BUILDINGS ing. DWELLING TYPES 8 five room maisonettes, four to an access landing and 1 penthouse apartment on the top floor. Reinforced concrete frame combined CONSTRUCTION with 11" cavity brickwork screen walls.

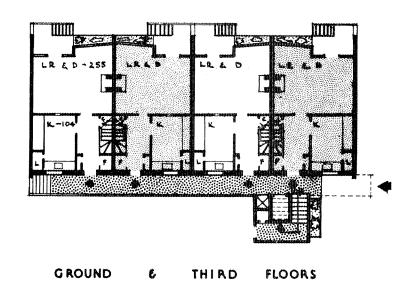
KENMURE ROAD,

MAISONETTE, BALCONY ACCESS TYPE PLAN 4 Units/Landing 3 Bedrooms Elevator



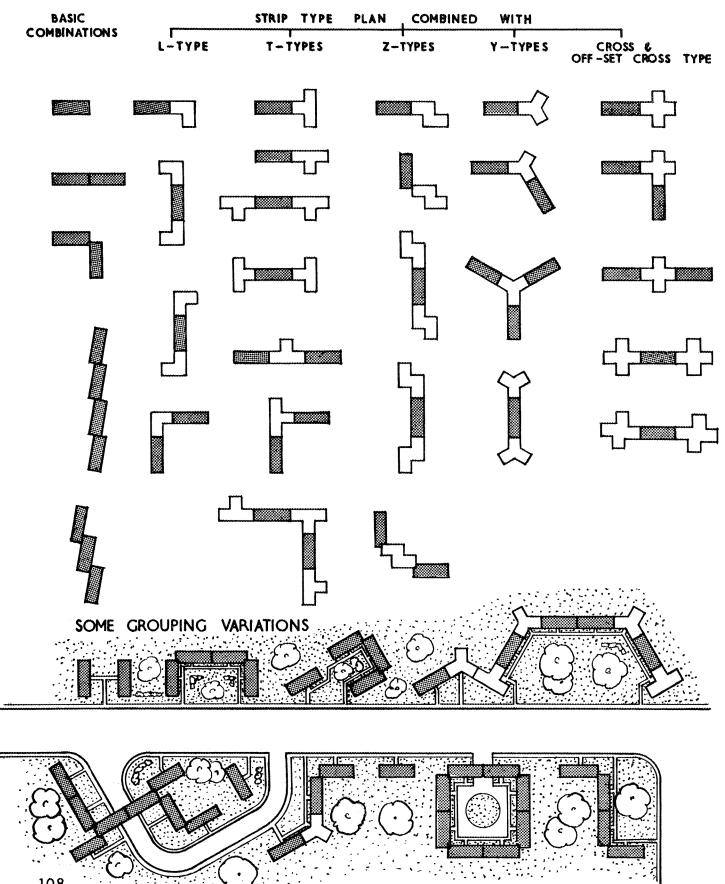
Kenmure Road, Hackney, London; England.

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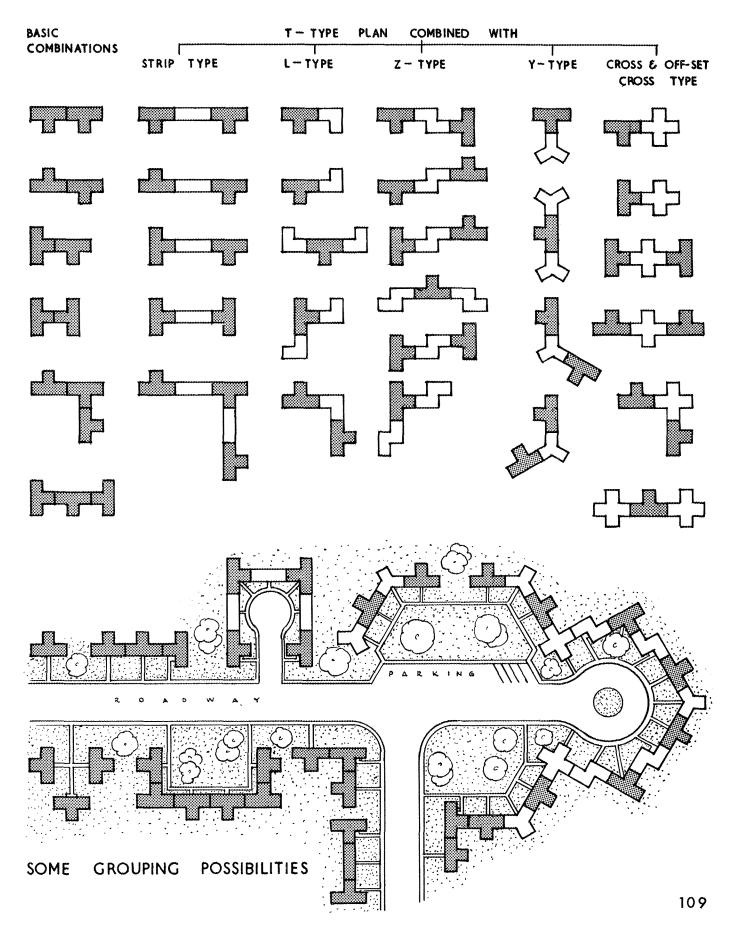


20 30 40 feet 10 50 10 SCALE - 1/20" TO 1'- 0"

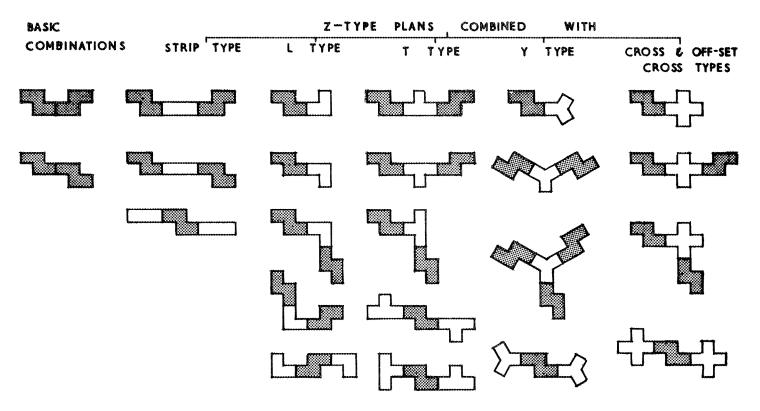


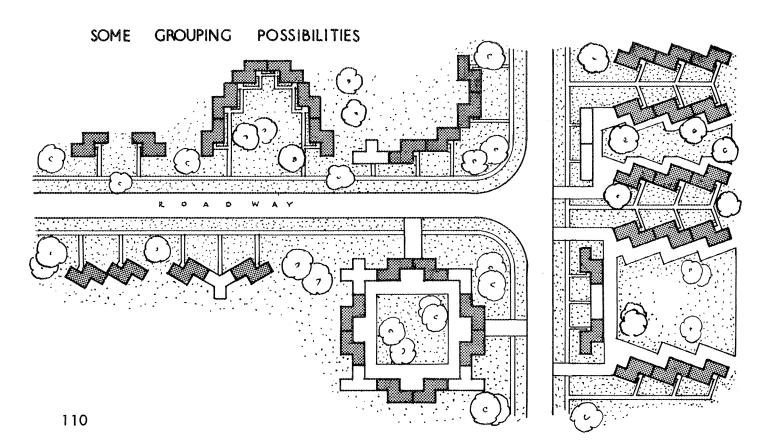




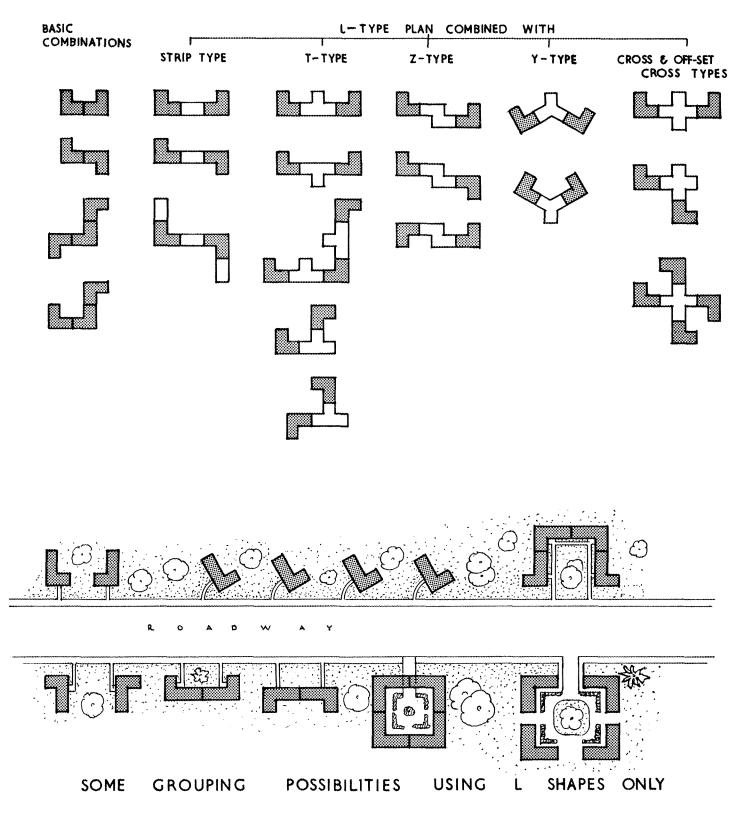




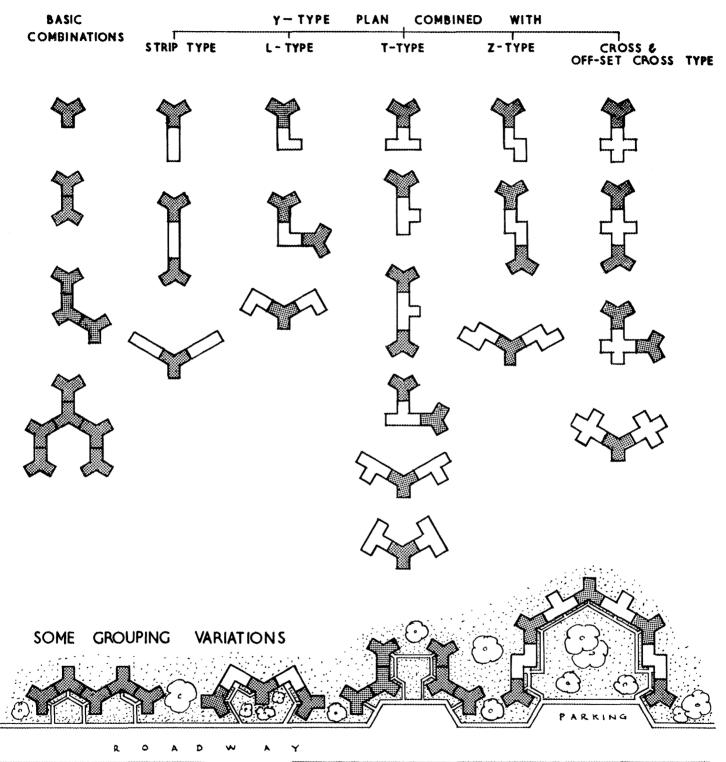


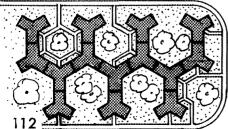


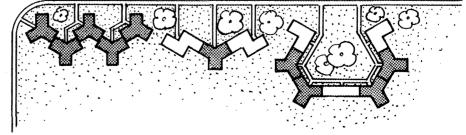




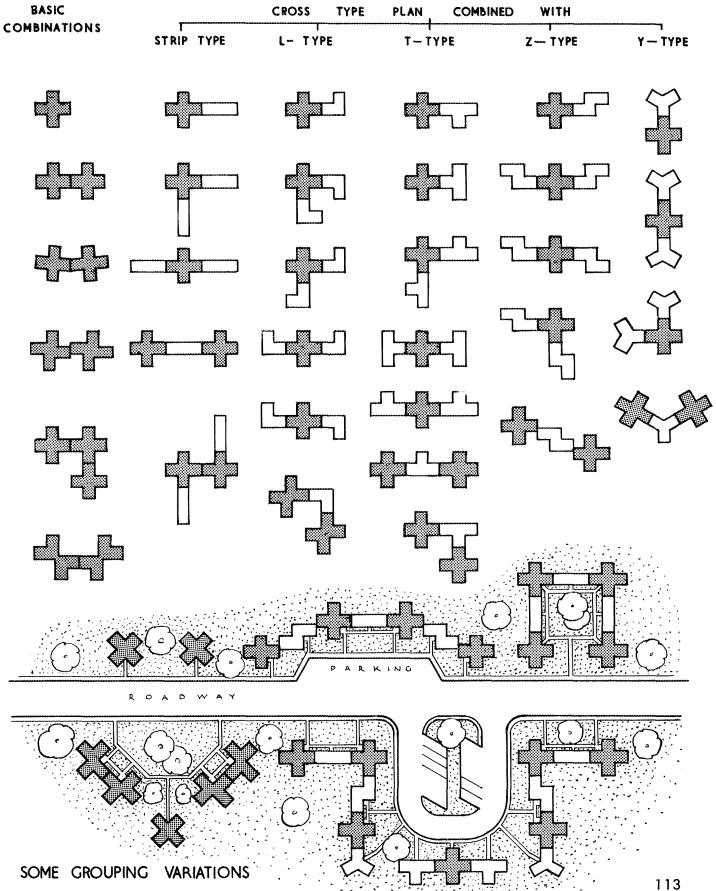












REFERENCE

PROJECT NAME

1.	Killingsworth Park. Portland, Oregon, USA	"Neighbourhoods Built for Better Housing" Land Planning Bulletin #4, FHA.	p. 9
2.	Ordway Gardens. Washington, D.C., USA.	"Neighbourhoods Built for Better Housing" Land Planning Bulletin #4, FHA.	p. 17
3.	Example from	"Planning Rental Housing Pro- jects." FHA.	p. 13 fig. 4
4.	Example from	"Planning Rental Housing Pro- jects." FHA.	p. 39 fig. 37
5.	Callaway Apart- ments. Atlanta, Georgia, USA.	Architectural Forum, Magazine of Building, September '48.	p. 131
6.	Example from	"Planning Rental Housing Pro- jects." FHA.	p. 13
7.	Example from	Practical Builder, Sept. '47.	p. 10
8.	Example from	"Planning Rental Housing Pro- jects." FHA.	p. 39
9.	Apartments at Seattle, Wash.,USA.	Practical Builder, Aug. '47.	p. 22
10.	Typical Montreal 'cold flat'	Plans from C.M.H.C., Head Office, Ottawa.	
11.	Callaway Apart- ments, Atlanta, Georgia, USA.	Architectural Forum, Magazine of Building, September '48.	p. 131
12.	Apartments at Clay- ton, Missouri,USA.	Practical Builder, July '47.	p. 28
13.	Mann Ave. Apart- ments, Ottawa, Ont., Canada.	Plans from C.M.H.C., Head Office, Ottawa.	
14.	Tuft's Cove. Dartmouth, N.S., Canada.	Plans from C.M.H.C., Head Office, Ottawa.	
15.	Mellish St. Apart- ments. Poplar, London, England.	Architectural Design, April '48.	p. 79
15a.	Adaptation of above plan.		
16.	Typical Montreal 'cold flat'	Plans from C.M.H.C., Head Office, Ottawa	

PROJECT NAME

REFERENCE

17.	Allandale Flats. Churchill Park Village, St.John's, Newfoundland; Canada.	St. John's Housing Commission, Newfoundland.
18.	Tuft's Cove. Dartmouth, N.S., Canada.	Plans from C.M.H.C., Head Office, Ottawa.
19.	Mann Ave. Apart- ments. Ottawa, Ont., Canada.	Plans from C.M.H.C., Head Office, Ottawa.
20.	Winchester Hood Apartments. Chicago, Ill., USA.	Architectural Forum, Magazine of Building, January '50. p. 81 NOTE: For similar type apart- ments by the same architects see also Architectural Record, Sept. '50 p. 142, which illu- strates the LUNT-LAKE APART- MENTS, Chicago.
21.	Example from	"Home & Environment" by p. 78 W. Segal. fig. 142
22.	New Pond House. Chelsea, London, England.	Architectural Design, Nov. '48 p. 235
23.	Example from	"Planning Rental Housing Pro- p. 21 jects" FHA. fig. 16
24.	South Jamaica Houses. New York City, N.Y. USA.	"10th Annual Report of N.Y.C. H.A.", 1944. p. 49
25.	Built by Acme Co., Aberdeen, S.D., USA.	American Builder, March '49. p. 106
26.	Catherine Place. 1421 Maple Street, Vancouver, B.C. Canada.	Plans from C.M.H.C., Head Office, Ottawa.
27.	Design built at Hamilton, Kitchener, Brantford, London, Sudbury, Ont., Canada (5 projects)	Plans from C. M. H. C., Head Office, Ottawa.
28.	Design built at Toronto & Stam- ford Center, Ont., Canada (2 projects)	Plans from C.M.H.C., Head Office, Ottawa.

- 29. Design built at Pla Niagara Falls, Off Kitchener, St. Catherines, Burlington, Oakville, Ont., Canada (5 projects)
- Plans from C.M.H.C., Head Office, Ottawa.
- 30. Parkside Houses. Architectural Forum, Magazine New York City, N.Y., of Building, June '49. p. 88 USA.
- 31. Sedgewick Houses. Architectural Forum, Magazine New York City, N.Y., of Building, June '49. p. 89 USA.
- 32. Parkside Houses. Architectural Forum, Magazine New York City, N.Y., of Building, June '49.
 p. 88 USA.
- 33. Dyckman Houses. Architectural Forum, Magazine New York City, N.Y., of Building, June '49.
 p. 89 USA.
- 34. Gowanus Houses. '10th Annual Report of N.Y.C. New York City, N.Y., H.A.', 1944 p. 90 USA.
- 35. Apartments at Mrchitects' Journal, Sept. 9, '48.
 Whitton, Middlesex, U.K.
- 36. Gun Hill Houses. Architectural Forum, Magazine New York City, N.Y., of Building, June '49.
 p. 88 USA.
- 37. Riverside Terrace Architectural Forum, Magazine of Building, July '44.
 Paterson, N.J., USA.
- 38. Kingsborough Houses. "10th Annual Report of N.Y.C. New York City, N.Y., H.A.", 1944.
 p. 57 USA.
- 39. The Hainault.
 825 Gilford Street, Vancouver, B.C., Canada.
 Plans from C.M.H.C. Head Office, Ottawa.
- 40. Nya Smalhus, Architectural Review, June '48. p. 247 Grondal, Stockholm, Sweden.
- 41. Queensbridge Architectural Forum, Magazine Houses. of Building, January '40. p. 13 New York City, N.Y., USA.

 42. Hill Crest, North Architects' Journal, April 23 Hill, Hornsey, '49. London, England. 	8, p. 383
43. Marcy Houses. "10th Annual Report of N.Y. New York City, N.Y., H.A.", 1944. USA.	C. p. 89
44. Apts. on Ridgewood Plans from C.M.H.C., Head Road, Montreal, P.Q.Office, Ottawa. Canada.	d
45. East River Houses. "10th Annual Report of N.Y. New York City, N.Y., H.A.", 1944. USA.	C. p. 53
46. Morrisania Housing. "10th Annual Report of N.Y. New York City, N.Y., H.A.", 1944. USA.	C. p. 84
 47. Astoria Houses. "The significance of the worl New York City, N.Y., the New York City Housing A USA. USA. thority." by A.I.A. (New Yo Chapter) 1949. 	u-
 48. Farragut Houses. "The significance of the work New York City, N.Y., the New York City Housing A USA. USA. thority." by A.I.A. (New Yo Chapter) 1949. 	.u-
49. Danvikslippan 'Point' "The Modern Flat" by Yorke Houses. Stockholm, Gibberd. Sweden.	& p. 170
50. Typical Montreal 'cold flat'Plans from C.M.H.C., Head Office, Ottawa.	£
51. Fordham Hill. Architectural Forum, Magaz New York City, N.Y., of Building, March '50. USA.	ine p. 135
52. Dombey Street Apart- Architectural Review, May '4 ments. London, England.	49. p. 234
 53. Apartment House, Cote St. Luc & Office, Ottawa. Draper, Montreal, P.Q., Canada. 53. Apartment House, Plans from C.M.H.C., Head Office, Ottawa. 	1
54. Nya Smalhus. Architectural Review, June ' Stockholm, Sweden.	48. p. 247

55. Kenmure Road, Architectural Review, May '49. p. 235 London, England.