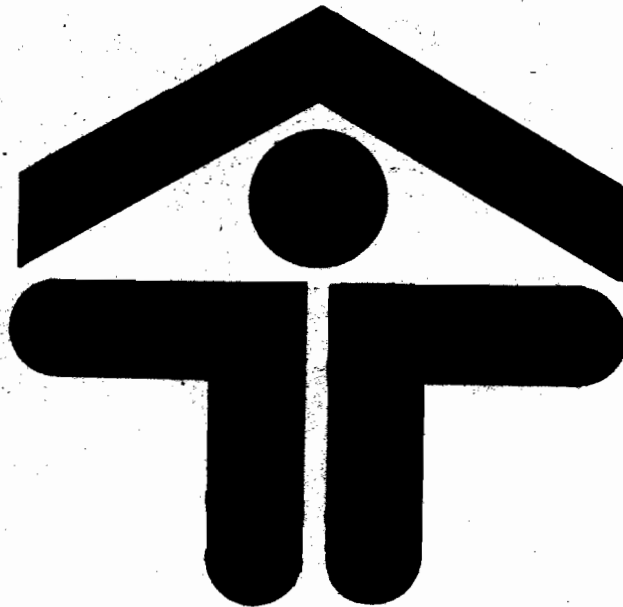


ORIGINAL

HUD-0003954

INFILL HOUSING

**JOINT VENTURE FOR
AFFORDABLE HOUSING**



**HUD
TASK III**

H-5640

NEW YORK CITY
INFILL DEMONSTRATION PROGRAM

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Architect

SHC-BRC Staff

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October, 1984

produced for the
Department of Housing and Urban Development
Contract HC-5640
Task Specification No. 3

This report was produced for the Department of Housing and Urban Development by the Small Homes Council-Building Research Council of the University of Illinois at Urbana-Champaign. The work was performed under HUD contract HC-5640 dated September 23, 1983.

Professor Donald E. Brotherson, AIA, is the Director of the Council.

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SUMMARY

A project to test the feasibility of factory built, infill housing in Queens, Brooklyn and the South Bronx had three objectives. One objective was to see if housing costs could be reduced by correcting procedural and regulatory problems. A second goal sought to analyze the benefits of a cooperative financing package, and working relationship, between government (city and federal) and the private developer. A third objective was to demonstrate that small parcels of previously built-upon urban land could be appropriate sites for factory-assembled housing units.

In March, 1984, staff from HUD and SHC-BRC visited four infill project sites and a newly-opened modular factory in New York City to evaluate the quality and suitability of the new housing units.

All four projects were built from modular components delivered to the site. Two of the projects were detached ranch style homes at a low density of 3-4 units per acre. The other two infill sites were developed with attached townhouses at a higher density of 8-12 units per acre. The units were typical of modular housing, with minimal actual innovation in building technology. (Though less common than detached housing, even multi-level housing units have been available for some time.) The only unique aspect of these projects was their location on urban infill sites.

The site visit provided an opportunity to evaluate the difficulty of slicing through regulatory delays, especially problems that might arise from code enforcement. Fears that delays would occur because of non-cooperation appeared unfounded. Although there were specific minor problems, they were no greater than on any development in any other location. In the same way, problems anticipated in dealing with labor unions did not occur. Negotiations with the unions provided a reasonable settlement that did not add significantly to the cost of the project.

The completed developments were able to blend well into existing neighborhoods. In some cases, the diversity of existing housing meant that the new development did not stand out as much as expected. In the case of the attached townhouses, the building style and scale matched that of the surrounding neighborhood. The developments were each large enough to constitute a neighborhood within a neighborhood. The contrast between the new buildings and the old, rather than differences in size and scale, made the new infill housing units stand out from their surroundings.

BACKGROUND

The Department of Housing and Urban Development (HUD) is seeking to provide lower cost housing through the Joint Venture for Affordable Housing, a partnership between private initiative and cooperative government. One aspect of the Joint Venture program was to initiate an "infill demonstration" program.

The Joint Venture program hopes to bring about a reduction in the cost of housing by correcting many of the regulatory and procedural requirements that have prevented the use of cost-cutting innovations, such as factory assembled modular housing. The combination of regulatory reduction and modular housing has been demonstrated in new subdivision demonstration sites. To see whether the same approach would work in urban sites, HUD chose to visit four "infill demonstration" sites in New York City. The sites are located on small parcels of land in urban and suburban areas--land which was bypassed during original area development or which was cleared of a previous use.

Infill projects in the South Bronx, East New York, Prospect Heights, and Queens were evaluated to see where problems and successes occurred. This report from the SHC-BRC staff who visited the sites describes experiences with the "infill" sites. The report contains information on the sites (density, type of houses, innovations). It describes how problems with unions, codes, and technical details were resolved. The report also makes a subjective evaluation of the likelihood of community acceptance.

Two members of the SHC-BRC staff visited four of the "infill sites in the South Bronx, East New York, Prospect Heights, and Queens in March, 1984. Of the four projects, two were one story detached ranch houses (Queens and South

Bronx). These houses were similar in appearance to suburban, single-family houses. The other two infill sites were developed with attached two and one-half story townhouses (East New York and Prospect Heights). All units in the infill sites were constructed from manufactured modular components. In addition to examining the housing projects, the SHC-BRC staff interviewed various people associated with the projects, including developers, builders, and manufacturers. The visit also included a tour through the recently opened, first modular housing factory in the East New York section of Brooklyn.

This report discusses some of the problems and successes of the projects. Each project is described in terms of its size, planning, unit type, and quality.

COMMENTS ON SITE DEVELOPMENT

In general, these projects show that many desolate areas of the city can be reconstructed with manufactured housing and that this new housing can fit reasonably well into its surroundings. Prior to the staff visit, photographs of the infill activity left the impression that one or two single family houses were being dropped into the midst of a wasteland. Survival of the new structures seemed doubtful, as if the houses might be overwhelmed by the desolation around them. This expectation was erroneous. In the developments visited, the number of houses grouped together created the feeling of a self-sufficient community. The new units were physically integrated into their surroundings; yet there were enough new buildings to form a separate community, if such were desirable.

The new units have a different appearance due to their newness, and this newness and difference were accentuated in those cases where the new housing was of a different type and form than that of the surrounding housing. Where an effort was made to copy the scale and materials of existing housing, the visual fit between old and new was better. On the whole, however, contrasts were not as striking as anticipated.

The highly variable nature of the existing buildings surrounding the infill site lessened the contrast. A mix of housing styles--single family detached, attached townhouses, apartments and abandoned buildings--surrounded the infill sites. This meant that different forms of housing could be inserted into the fabric of the community without too much difficulty. The newness was the outstanding contrasting feature.

Although all the projects visited worked fairly well, the closer the new

modular units imitated their surroundings, the more they were visually integrated into the neighborhood. Since vast areas in many cities, including New York, are comprised of two and one-half story brick townhouses, the two and one-half story, brick-veneered manufactured attached townhouses appeared to blend in better than the detached single story units.

It remains to be seen whether the occupants of the new housing will fit socially, and be integrated into, the existing society in the surrounding area, or will, on the other hand, choose to remain aloof and organize as a separate neighborhood. A third possibility is for individual family units to establish ties into the neighboring community through schools, children, or social groups. Neighborhood coordination would be useful in maintaining the viability of these new infill developments. There are advantages to each arrangement; it may be some years before we can determine the social impact of placing a new development in the midst of an older, urban setting.

QUALITY

Quality was typical of manufactured homes with one or two exceptions in the townhouse units (e.g. kitchen cabinets were good to excellent). In some instances, however, insufficient thought was given to detailing, particularly in the townhouse units. For example:

- o Where the attached townhouses in Brooklyn's Prospect Heights were staggered (either up or down or forward and backward), the connection at the roof was poorly detailed and built.
- o On the townhouses in Prospect Heights, front overhangs were built without fascia. Thus, the edges of the overhang could not be straightened, resulting in a poor appearance.
- o Contractors reported that inaccurate concrete work (foundations out of square) created many problems in erecting the manufactured units. This problem is particularly acute with the attached townhouses because the problem amplifies with each connecting unit. Some of the concrete work exhibited poor quality in that construction joints were quite evident. Also, there was evidence of insufficient rodding in some places, although these flaws usually were located in supports for stoops, etc., where they would not be visible in the finished product.

- At least one case was found where the two halves of the module did not fit together well in a townhouse unit in the East New York project. It was unclear whether the poor fit was a result of the foundation being poured unevenly or the module's inaccuracy. The result was a hump in the floor down the center of the unit as if the plywood subfloor was not flush, but rather one piece resting on the next piece at the joint.

TECHNICAL COMMENTS

Code Requirements

Despite the fact that the houses are all being erected in New York City under the same code, there are a number of variations in the finished structure which are attributed to the different boroughs' interpretation of the code requirements. Other variations were a result of the manufacturers' or developers' choice.

Examples:

- o In one locality in Queens (i.e. Jamaica Village), gypsum board drywall was used as an anti-fire measure on the basement ceilings of single family detached homes. This is not a normal requirement, but instead was the borough inspector's interpretation of the code.

- o The I.B.S. and Deluxe producers used armored cable for wiring rather than non-metallic sheathed cable (commonly known as Romex). This was their own choice.

- o Several townhouse units in Brooklyn used all metal framing for the studs and joists, said to be part of the measures against fire. It should be noted that the units were two story, attached units with basements.

- o Brooklyn's Prospect Heights project used flat roofs to avoid the

shipping problem imposed by sloping roofs--too much height. Flat roofs are likely to be a source of trouble. The treatment of the mansards was very awkward. (See Prospect Heights section.)

- A house sewer trap was required by the borough inspector in the Jamaica Village houses. (For a description of house trap, see the Jamaica Village section). Most knowledgeable people agree that this requirement is unnecessary. In fact, in some jurisdictions its use is forbidden.

Heating

The energy source was changed from electricity to gas in order to reduce operating costs. A water baseboard radiation system, which is generally more common in the New York area, was selected to permit as much factory installation as possible and to eliminate the need to provide shipping space for the ductwork necessary with warm air. The contractor also reported that the wet system had an equivalent, or lower, cost than a warm air system.

Cooling is not provided, but the house is wired to permit the installation of window or through-the-wall units. Sleeves for air-conditioners are not provided, although decorative grilles to protect a future air-conditioner from theft are provided.

Site

Site development seemed to be a major problem in most areas. Sites were frequently overlaid by rubble (building materials such as bricks from demolished structures), the depth and composition of which was unknown. Some of the sites had been used as dumps: Abandoned, buried automobiles were found

in at least one site. At the Jamaica site, the rubble fill was deeper than the basement footing, and supporting concrete piers had to be constructed below the foundation walls. These extended downward to adequate bearing which was 9 to 12 feet below the basement wall footings. Although borings were usually taken to determine site conditions, these did not always disclose all the problems. An instance was cited wherein a 4-foot-square, well-like or cistern-like structure 35 feet deep was found during ground explorations. Site preparation and rubbish disposal added substantially to the costs.

LABOR ARRANGEMENTS

Deluxe Homes (manufacturer for the Jamaica, Brooklyn, and South Bronx developments) operates a union shop using members of the tri-trades shop union. They sent some labor to the site to help in erection and finishing, subject to an agreement to hire one local (site) craftsman for every factory person sent to the site. This particular arrangement is not necessarily overly expensive since the setting of the unit and finishing it out cost between \$1,000 to \$3,000. On the other hand, the site work (excavation, foundation, sidewalks, etc.) normally ran between \$10,000 to \$17,000 per unit. Under this arrangement, it is obvious that the labor costs can be reduced by concentrating as much work as possible in the factory since the union factory employees are paid considerably less than on-site craftsmen.

One of the stops made on the tour of home sites was to the newly opened modular home factory located at 800 Snediker Avenue in the East New York section of Brooklyn. The newly-opened plant employed approximately 30 area residents and was producing one modular housing unit per day at the time of our visit (March, 1984). We were informed by the management that they could produce two units per day by simply working two shifts.

As modular manufacturing plants go, this one was relatively unsophisticated, but fairly efficient. Instead of having the materials lowered from above when they are needed, the materials are stocked in close proximity to the work after the work shift has left for the day. Although the plant is located adjacent to the railroad tracks, it was not determined whether they had their own spur for delivery of building materials. When a module is completed, it is pulled outside with a fork lift. They have no provisions for protecting the units while they are waiting to be picked up.

At this point, it might be a good time to discuss the union arrangement concerning modular homes. Before the opening of the East New York factory, the modulars were manufactured outside the state of New York and trucked in to New York City. With this arrangement, the New York City labor unions had absolutely no control over the manufacturing of the modules in the out-of-state plants. The local unions' tradesmen did have a voice concerning the work done setting and finishing out the unit. An arrangement was negotiated so every person from the plant would be accompanied by a local union tradesman.

COST

All four of the projects visited were subsidized to some degree by the federal and/or municipal government. The amount of subsidy varied from project to project, ranging from \$10,000 to \$20,000 per house. The actual cost of the units, including land development, is between \$60,000 to \$80,000 per unit.

For several of these developments, the funds came from the federal government (HUD) in the form of a UDAG Grant. The amounts from HUD and/or local sources varied between \$10,000 to \$17,000 for the four projects in question. Other support came from the City of New York in the form of land sales for one dollar (city-owned land), no real estate taxes during construction, 421b property tax abatement, some Section 235 low-interest loans for the permanent mortgages, and sales tax exemption on modular units.

Possible Cost Savings

For the Jamaica Village project, the site was perceived as a problem due to low land and drainage problems. Therefore, special drainage measures were required, the sum of which seemed excessive. The solution employed used two systems. On the street side or front of the unit, the rain water was collected in gutters and drained by a pipe through the street curb to the street. This was a reasonable approach. In the rear, the water was drained from gutters into individual dry wells. The contractor suggested that one dry well for every four houses would have been more than sufficient.

Again, for Jamaica Village, a house sewer trap was required. House traps are more fully described under the specific section covering the Jamaica Village project. More elaboration concerning house traps here is unnecessary

except to note its elimination would, of course, lower the units' cost.

One might also question the need for 2 1/2 baths (East New York and Prospect Heights) in subsidized housing. Space could be left and plumbing roughed in for additional fixtures which could be installed at a later date. Economy could be achieved by reducing the number of baths.

APPENDIX I
CHARLOTTE GARDENS

Comments:

Charlotte Gardens is one of the earliest and most well-publicized infill urban projects employing manufactured housing in New York City. The project is located in a particularly decayed part of the South Bronx adjacent to Cortona Park.

This development is similar in planning to many Planned Unit Developments (PUD) employing curvilinear street patterns. The single family detached raised ranch houses face outward toward the street and the surrounding neighborhood which is comprised primarily of older large (4 to 10 story) buildings in various stages of despair.

Being directly across from the park proves to be an asset when trying to blend a suburban type of development into the midst of the inner city. Due to the project's size (90 units), it is less critical that it blend into the neighborhood because it essentially can become a neighborhood in itself.

Ten of the proposed ninety houses were completed in March, 1984. The level of quality is very good in both the modular unit and the site work.

Project Location/Name: South Bronx, Charlotte Gardens

Local Contacts: Edward Logue and Peter Bray of South Bronx Development Corp.

Builder/Developer: I.H.C. Corporation/South Bronx Development Organization, Inc.

Project Description:

Project/Lot Size(s): Charlotte Gardens - 15 acres total, 6000 sq. ft./lot

Number of Units: 90 planned/10 completed

Types/Size of Units: Raised ranch style, three bedroom, full basement, 1-3/4 baths, 24 ft. x 48 ft. = 1152 sq. ft.

Special Features: individual unprotected parking spaces on the lots, white picket fences, insulated half-basement, pre-wired alarm systems.

Site Description and Development Features: Development on 12 contiguous blocks. Work included landscaping, sidewalks, curbs, fences and demolition of existing properties.

Unit Features:

Modular Unit: Delcraft Supreme (DC2444R-1-3/4 B) by Deluxe Homes of PA., Inc., Berwick, Pennsylvania.

Basic Characteristics: Aluminum siding, double-hung wood windows, two modulars/unit, unfinished partially insulated basement with natural light, scissor trusses used to give cathedral ceilings in living/dining area, baseboard heat, pre-wired alarm system, metal grates over windows.

Quality: Good

Variances for Local Conditions/Codes/Practices: Length modified to 48 ft. to add bath fixture so instead of bath-and-a-half, it became 1 3/4; deleted electric baseboard heat; 3/8" plywood exterior wall sheathing.

On-Site Finishing Work:

Basic Characteristics: Demolition of existing properties. Dynamic compaction, excavation and foundation. Pipe columns, electrical hookups, plumbing hookups, and connection of domestic hot water heater. Some carpentry work around entry because it is between floors. Installation of sidewalks and curbs, landscaping, fences, driveways and parking pad, and some street and sewer repairs.

Quality: Good

Variances for Local Conditions/Codes/Practices: none

Construction Costs:

Site: \$10,938/unit for work done outside the lot line, including sidewalk and curb reconstruction, catchbasins, limited street and sewer repairs.

Modular Unit: Deluxe home cost (including transportation and seals, erection and trim out costs).

\$27,400.00

Finishing Work:

Contractor cost IHC	24,857.00
Modular Unit	27,400.00
Other Costs	19,631.00
Total	<u>\$71,888.00</u>

Sales Prices:

\$51,975 for income levels between \$30,000.00 to 40,000/year which means \$20,913 was subsidized, primarily from HUD in the form of UDAG which provided \$15,000/unit.

Sources of Funds an Financing:

UDAG (HUD)	\$1,350,000
NYC HPD Capital	459,434
NYC Public Dev. Corp.	75,000

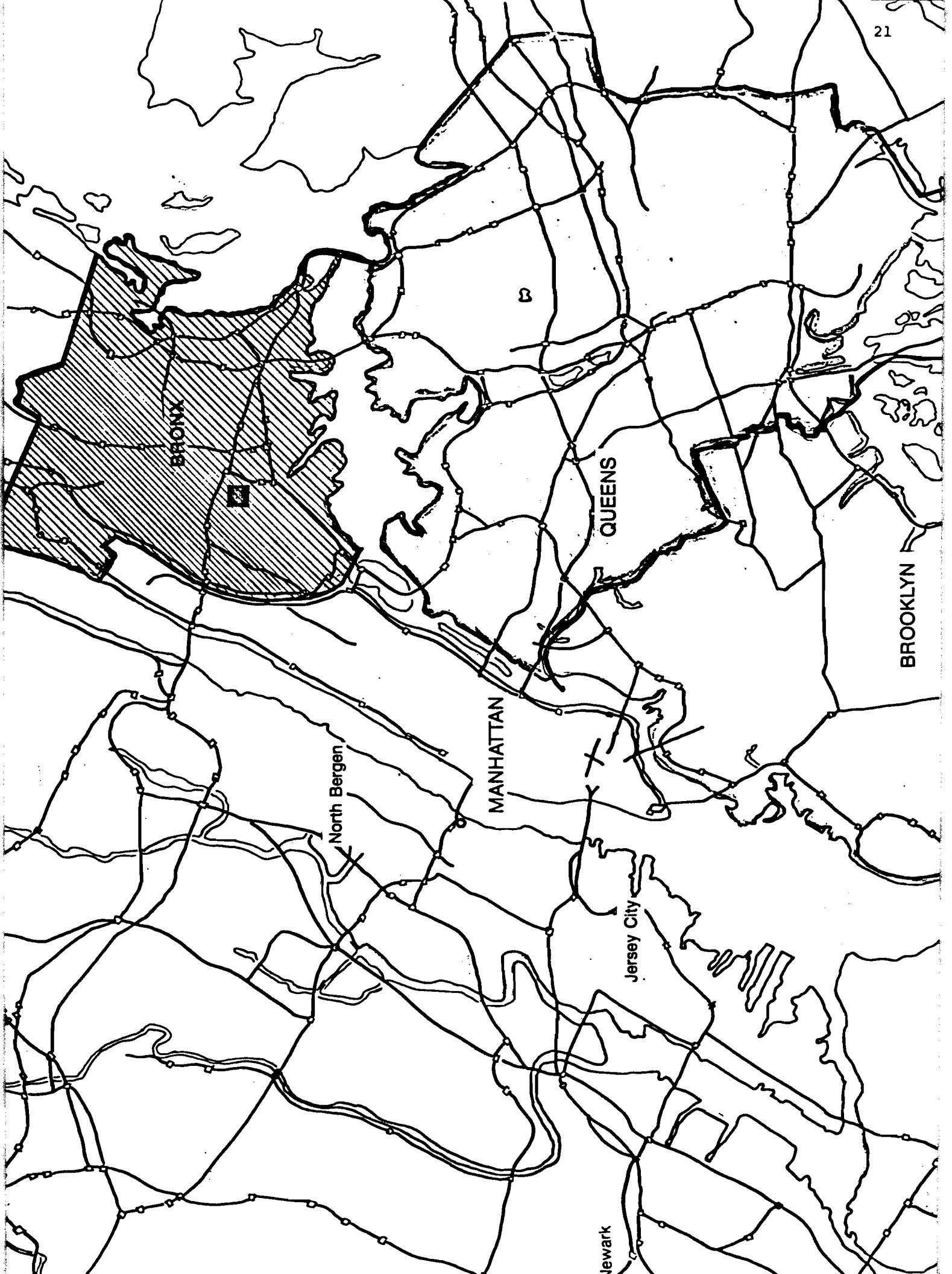
Breakdown/unit

Mortgage amt.	\$44,500.00
Equity amt.	\$5,425.00
UDAG grant	\$10,000.00

Schedule and Current Status:

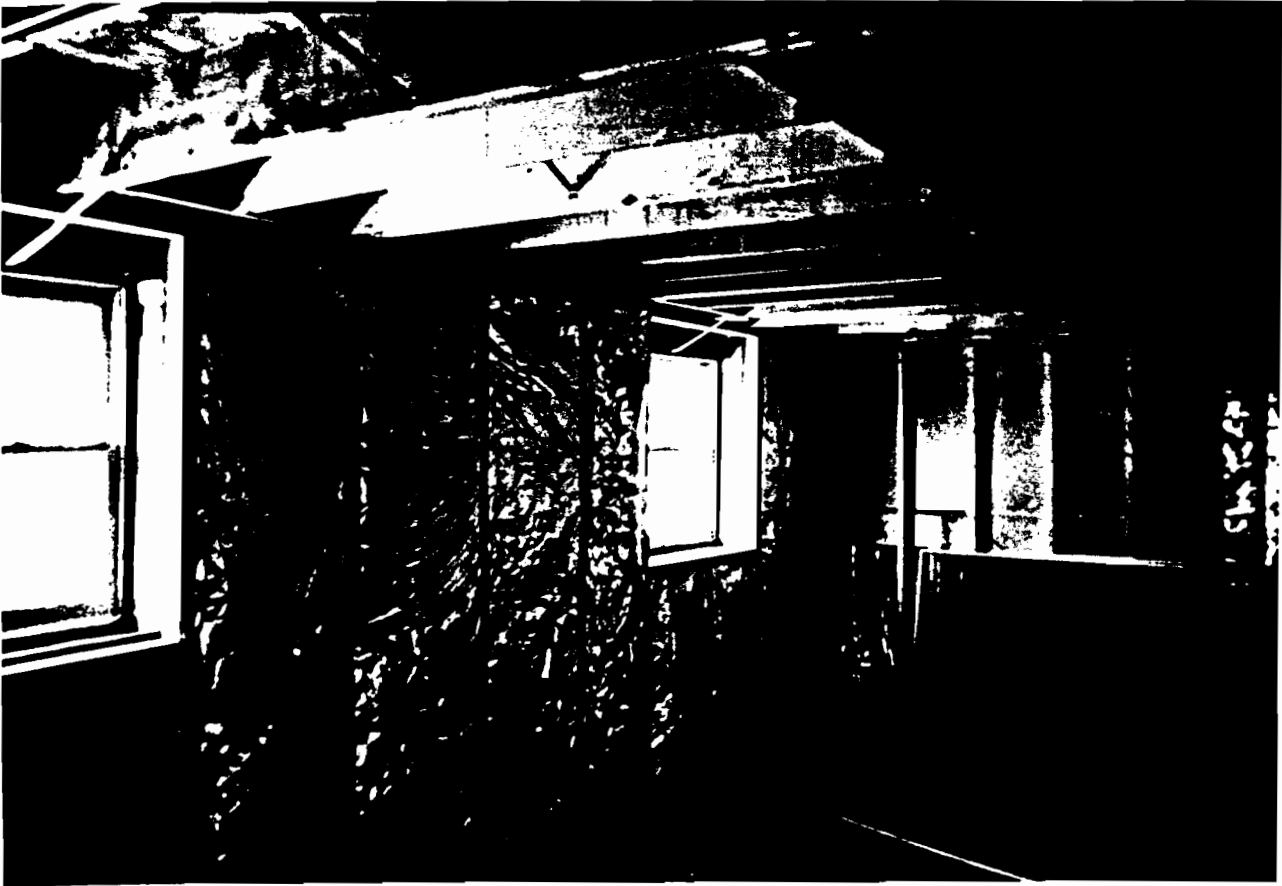
10 Units constructed, 10 buyers, 507 applicants

1. Land from City for \$1
2. 421b. for property tax abatement
3. No real estate taxes during construction
4. Sales tax exemption on modulars





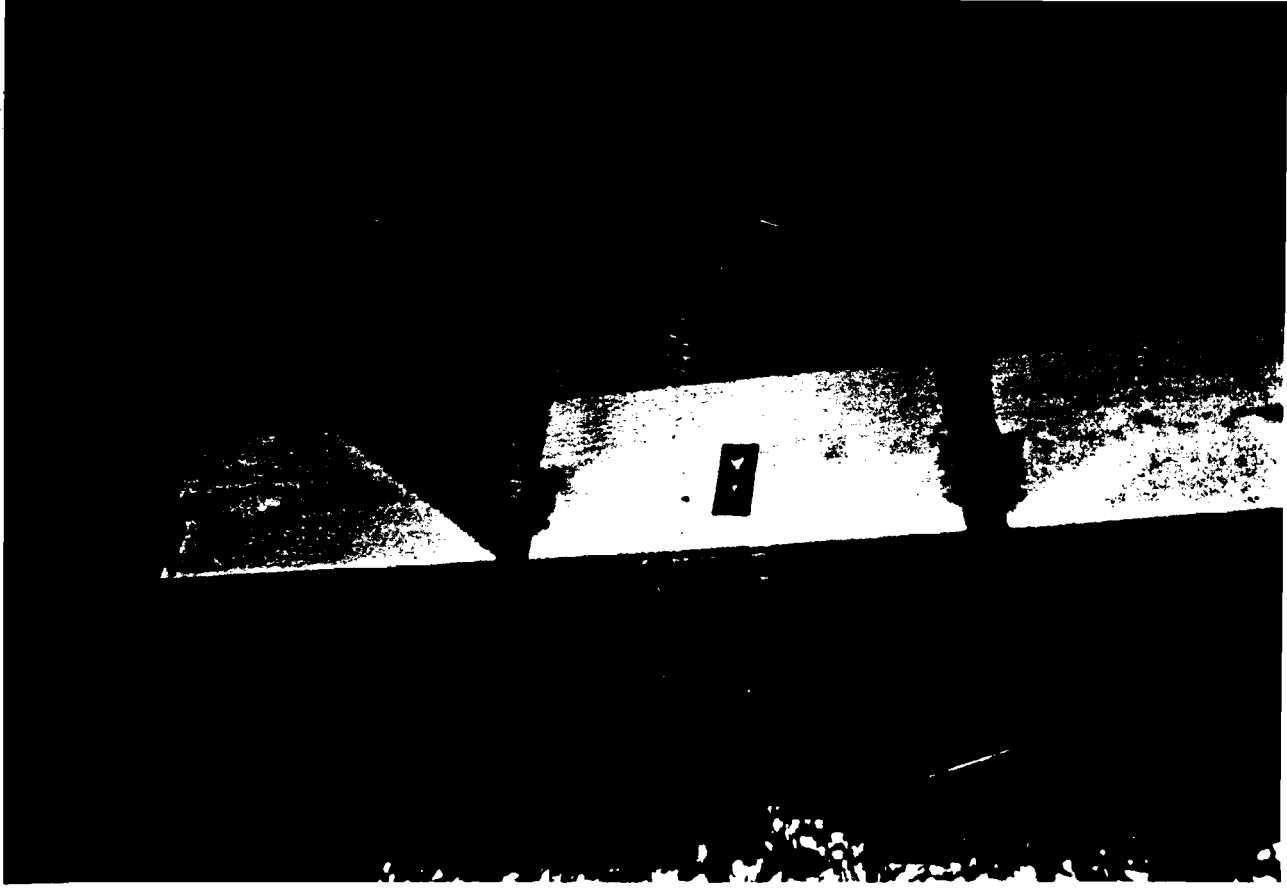
View from the Park Showing the Front Elevations



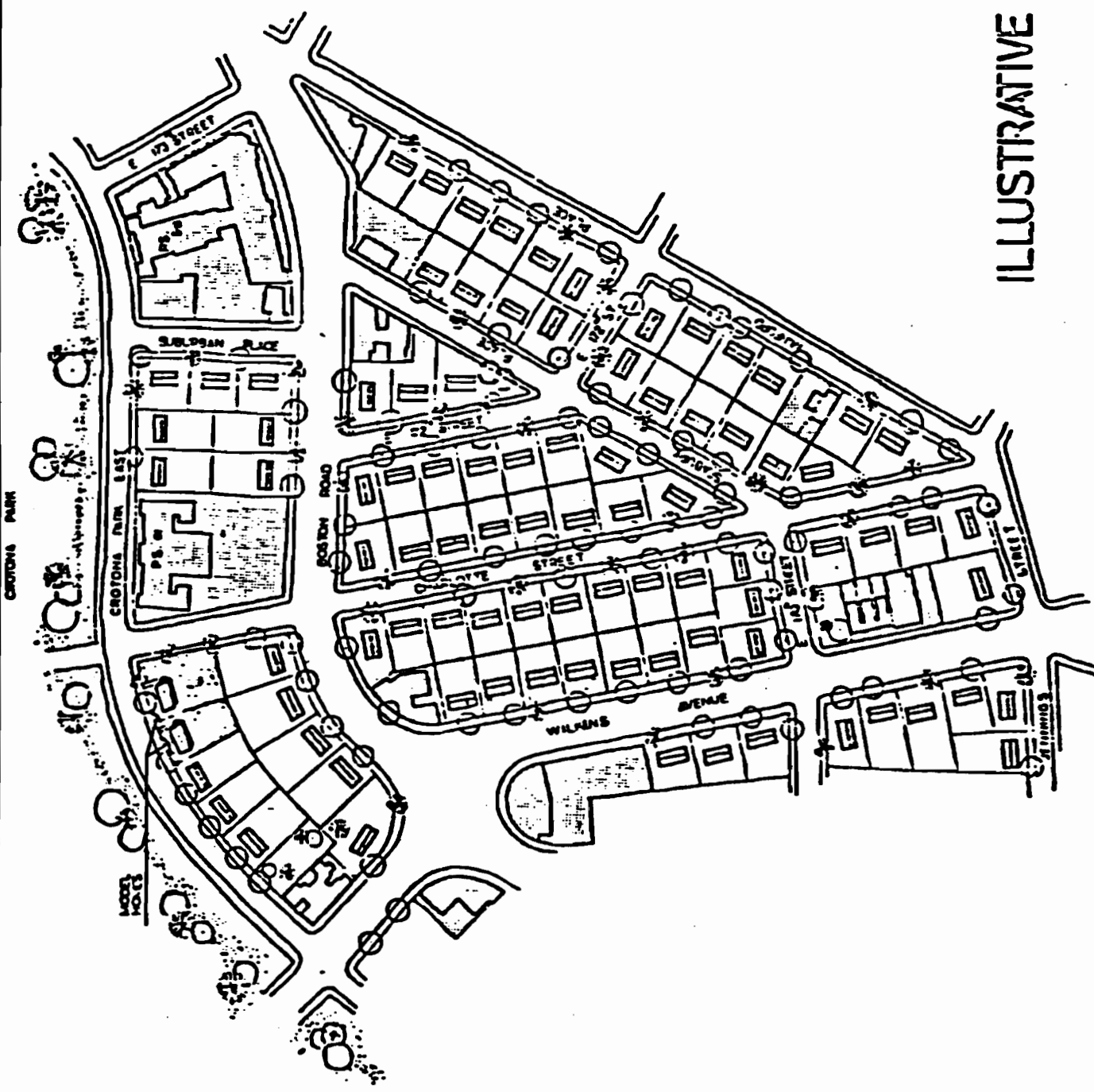
Interior View of the Half Basement as Furnished



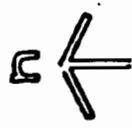
Interior of the Block Showing Back Yards & Rear Elevations



Connecting Bolt and Plate Which Fasten the 2 Halfs of the Module Together in the Basement

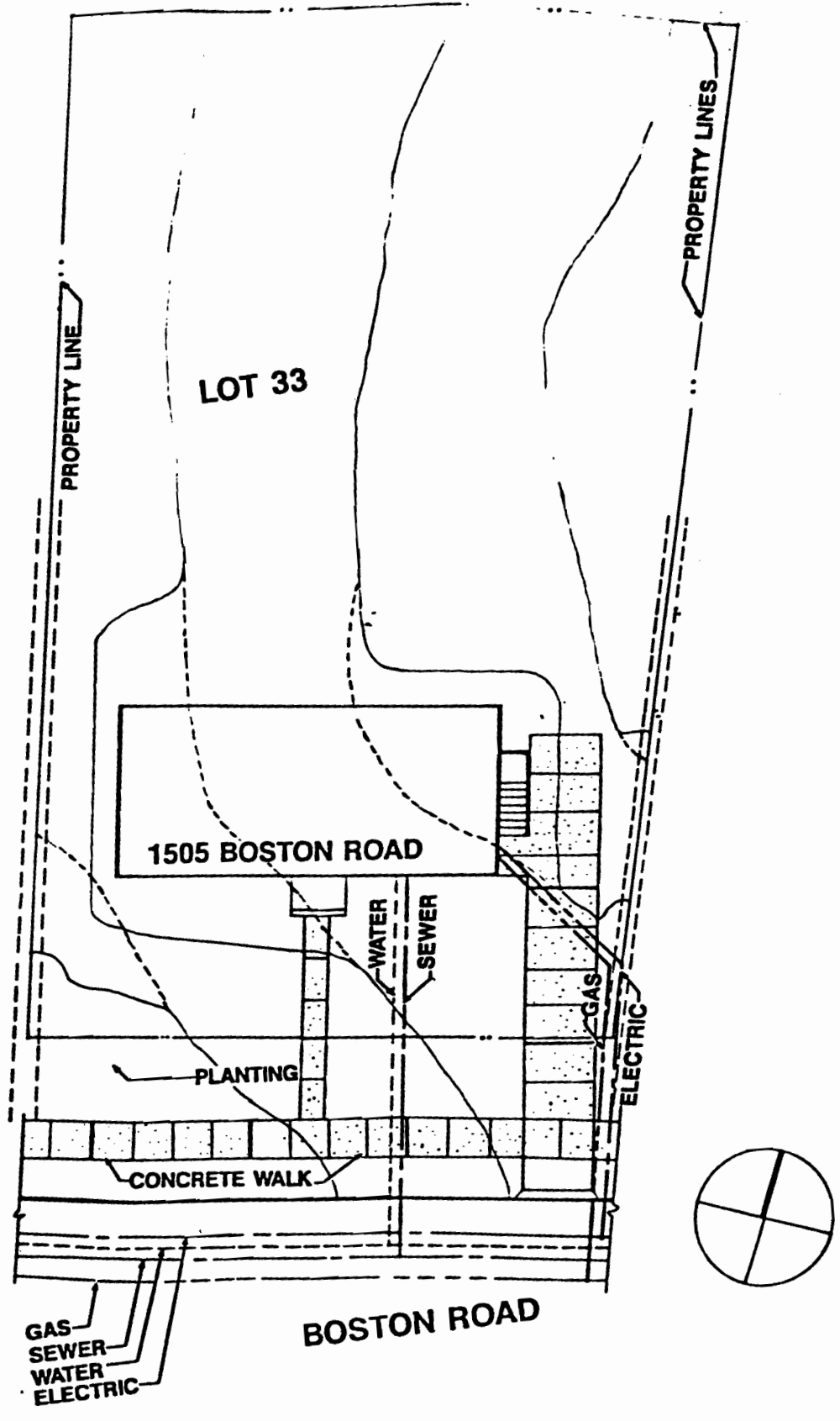


SOUTH BOSTON MANUFACTURE
 117.25 ACRES
 CHARLOTTE GREENS
 90 SINGLE FAMILY HOMES
 SOUTH BOSTON DEVELOPMENT
 CORPORATION PC

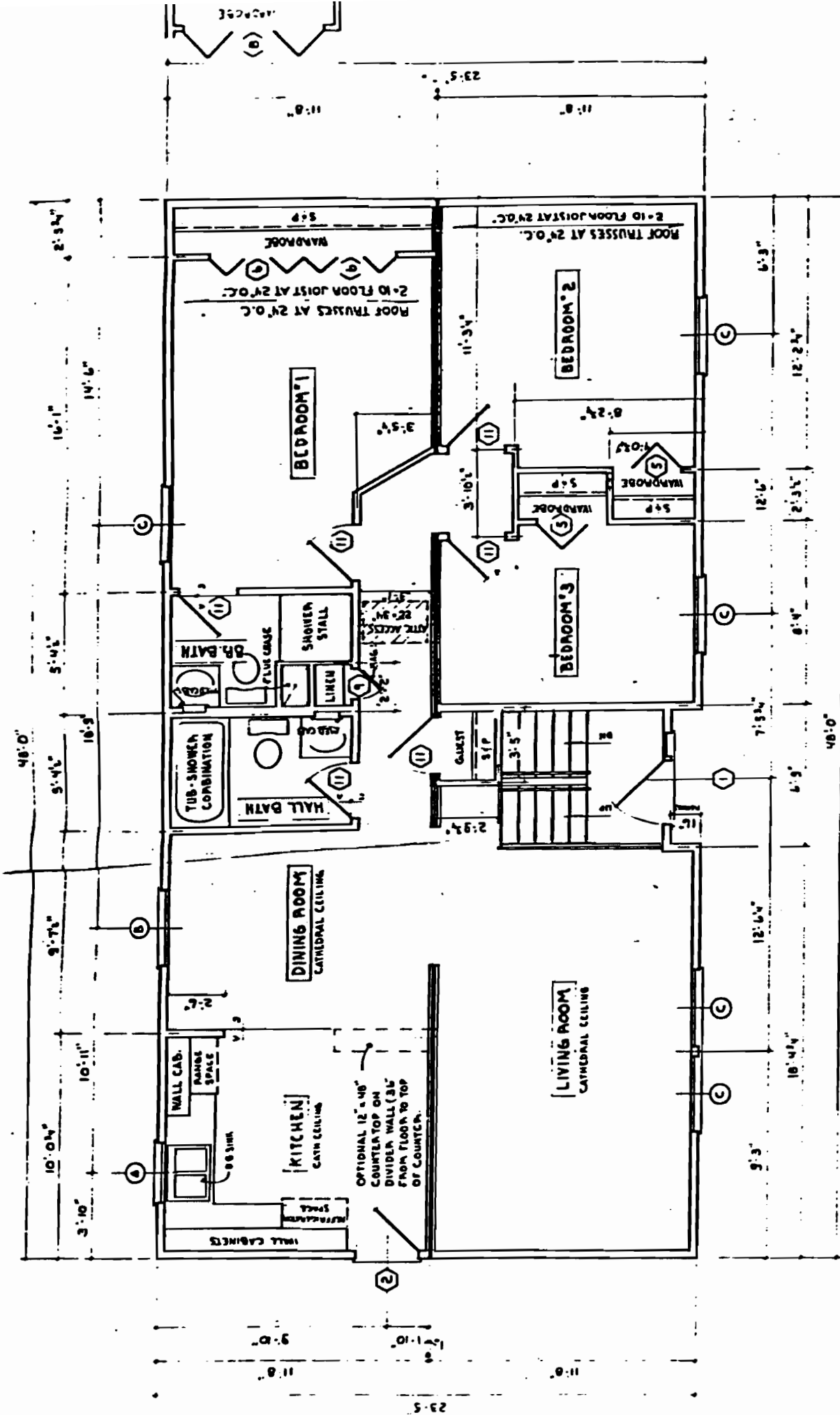


ILLUSTRATIVE SITE PLAN

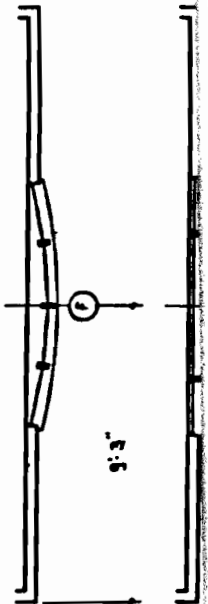
HERRING
 CONSULTING INC.

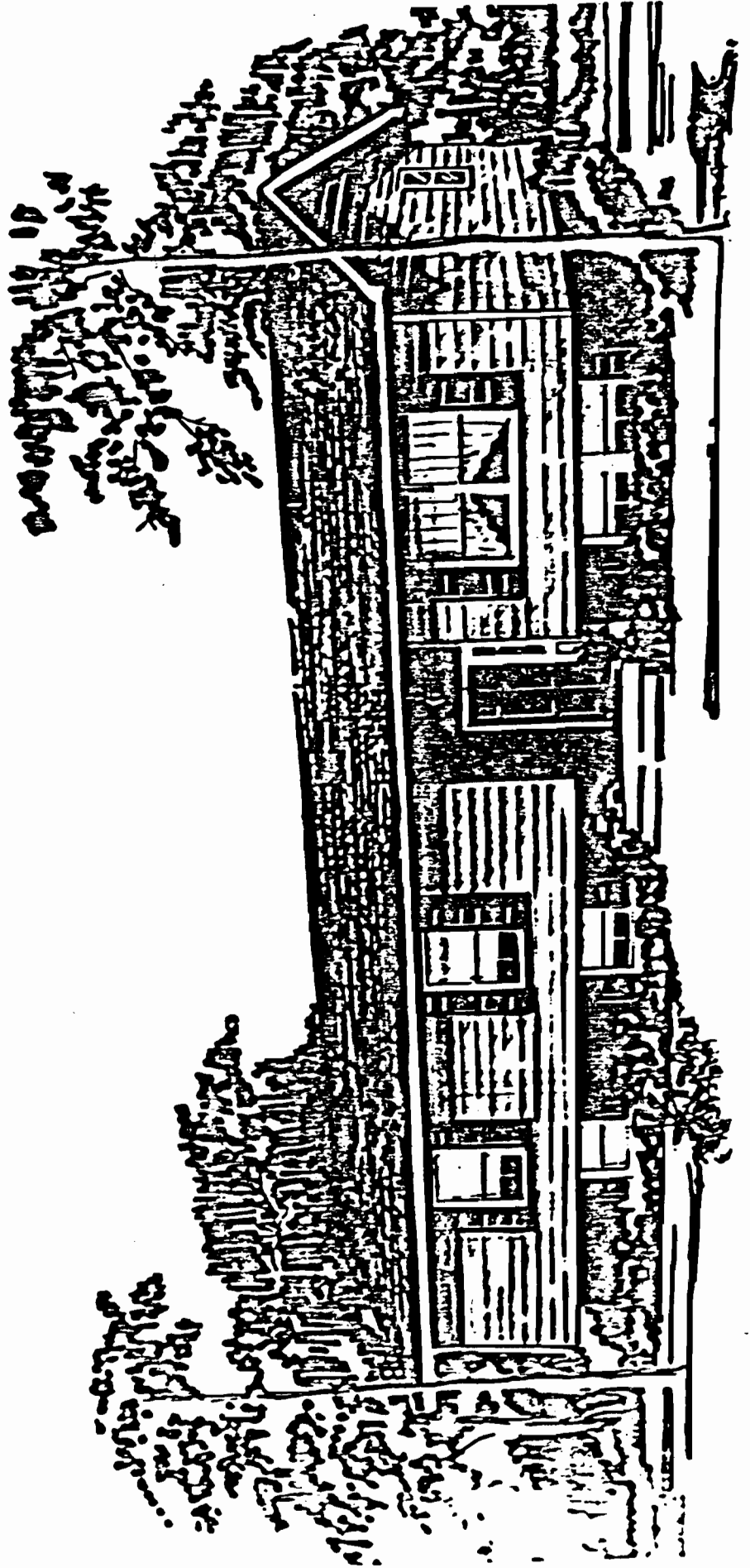


TYPICAL LOT PLAN



Basic Unit Plan As Delivered





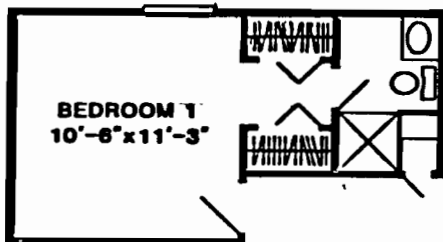
Artist's Rendering of Raised Ranch House

DeLuxe Homes of Pa., Inc.

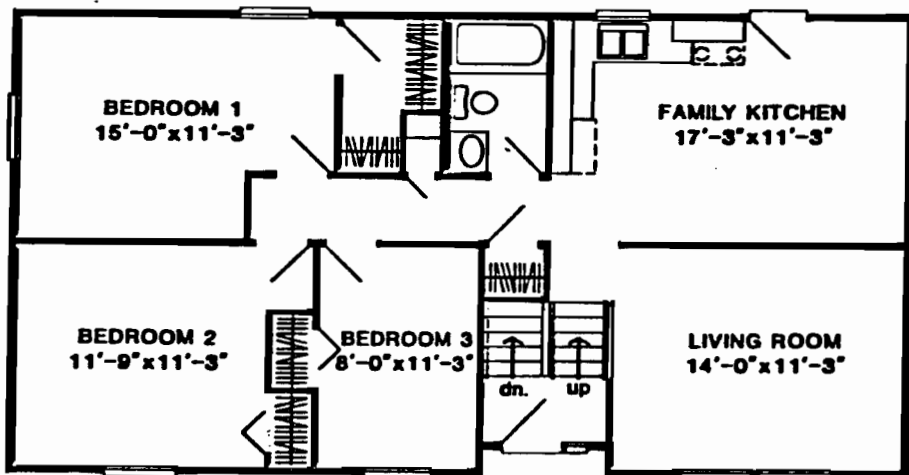
Beechwood Series

P. O. BOX 323 • BERWICK, PENNSYLVANIA 18603 • (717) 752-5914

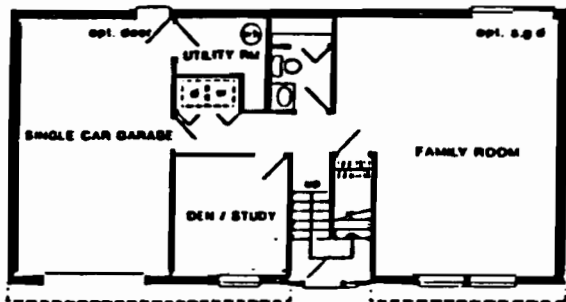
2444SF



Optional 3/4 Bath
With 2 Closets
018



SUGGESTED LOWER LEVEL



Basic Stock House Which
Deluxe of PA Provides

Elevations are artist renderings and may vary to actual construction.

Floor plans and room sizes are approximate. Appliances shown are optional. Plans, Specifications and Prices are subject to change without notice.

DeLuxe

Homes of Pa. Inc.

9TH AND OAK STREETS • P. O. BOX 323 • BERWICK, PENNSYLVANIA 18603 • (717) 752-8914

J-2

RE: Charlotte Gardens/Pointer, Lot #31

Date Shipped _____ *12/7/83* Invoice Date 12/6/83

Sold To DeLuxe Dev. of Delaware Ship To _____
P.O. Box #323
Berwick, Pa. 18603 *LR*

DeLuxe Homes Model #DC2444R-1 1/2 B, SUPREME Serial #106R-6818 Option No. 19795.00

528	25.00
708	175.00
032	670.00
904A	50.00
802	40.00
803	40.00
804	35.00
806-807	255.00
	50.00
	25.00
	100.00
	150.00
	150.00
	175.00
	90.00
	100.00
	25.00
	300.00
	390.00
	100.00
	400.00
	<u>1300.00</u>

- NOTE: Delete Elec.Heat & Insul.Provide thermostat wire,etc.
- SPECIAL : 2" Future vent - Basement
- " Provide (5) receipts.under LR/DR,etc.
- NOTE: 150 AMP Panel box installed on wires for basement,etc.
- SPECIAL: NYC BEC Elec.Requirements
- : 3/8" Plywood Ext.Wall Sheathing
- : Double 4" Siding w/Backer
- NOTE: Mail Slot,Manual chime,Separate keyed dead bolt lock,etc.
- HIP LOOSE: Vertical Alum.Siding at Front Entry,etc.
- NOTE: Cathedral Ceiling - No Beams, LR/DR/KITCHEN
- SPECIAL: Gas Range w/Flex hose & valve
- Pre-wire for alarm system
- : Make 1/2 bath into 3/4 bath
- : Four (4')Ft. Ext.LR. End

4645.00

FREIGHT: Delivery 1130.00

New York State Inspection & Seal 75.00.
TAX EXEMPT

25645.00

Ok 110 12/13/83
25249.10 2% Discount (395.90)

Cleared

CHARLOTTE GARDENS

UDAG Submission - April 1983

Executive Summary

September 14, 1983

2
1,350,000 C. 78
+ 450,000 grant

UDAG AMOUNT:

\$1,350,000 (plus 5% administrative fee of \$67,500 to City of N.Y.)

UDAG USE:

\$900,000 in second mortgage financing to assist families in the purchase of 90 single family homes to be manufactured outside N.Y.C. and set up in the South Bronx. \$450,000 grant for site improvement and a \$50,000 contingency to accomodate physically handicapped buyers.

PROJECT NAME:

Charlotte Gardens

LOCATION:

Crotona South - Charlotte Street area of the South Bronx. Project site bounded by Crotona Park, Minford Place, Jennings Street and Stebbins Avenue.

COMMUNITY BOARD:

The Bronx, #3

TYPE OF PROJECT:

Housing

Second mortgage financing for purchasers of 90 new single family homes, site improvement grant, and contingency to provide accessibility for physically handicapped buyers.

LEVERAGE:

Total Private Investment: \$4,497,750
Private \$ Per UDAG \$: 3.18

JOB:

Not Applicable

TAX BENEFITS:

421(b) tax abatements (as of right)

PROJECT DESCRIPTION:

The South Bronx Development Organization (SBDO) is undertaking a single-family manufactured homes program to expand homeownership opportunities in the South Bronx. It also seeks to stabilize existing residential areas by enabling working families that have achieved modest upward economic mobility to remain in the South Bronx. Most importantly, with the elimination of the Federal Section 235 Program, manufactured homes can provide affordable housing to these families without ongoing Federal subsidies.

In November 1981, through the assistance of a \$20,000 grant from the Local Initiatives Support Corporation (LISC), SBDO employed the architectural firm of Tessler and Panero to investigate the feasibility of using manufactured homes in New York City. It was determined that manufactured homes are feasible in terms of both quality and cost.

A total of 90 homes are proposed for Crotona South, a 14-acre area south and east of Crotona Park. The development of the Crotona South subdivision will occur in two phases. Phase I consists of ten homes on a block adjacent to Crotona Park. Phase II will involve the development of 80 homes on an additional nine blocks.

DeLuxe Homes of Pennsylvania, Inc., located in Berwick, Pennsylvania, has been a manufacturer of housing for 17 years. In December 1982, SBDO signed a contract with DeLuxe for two units which are fully installed and served as model homes for marketing purposes. The development cost of the homes, including the basic raised ranch unit, site preparation including a full basement, utility hookups, and basic landscaping, is \$59,975.

The plans and specifications for the Deluxe units have been approved by the New York State Division of Housing and Community Renewal (DHCR), which is responsible for administering the State Manufactured Home Code.

The Local Initiatives Support Corporation provided a \$102,000 loan to SBDO as working capital for the two model homes on Crotona Park East. A \$25,000 LISC grant to cover special project costs associated with the two models was obtained in December 1982.

Permanent financing will be provided by Chemical Bank, which is participating in the State of New York Mortgage Agency's (SONYMA) forward commitment mortgage program. These mortgages will provide 90% financing at a 9.9% fixed rate for 30 years. The total development cost of the ninety homes is approximately \$6.4m. The Tigor Mortgage Insurance Company will provide private mortgage insurance for all 90 homes.

-3-

The existence of a market for the manufactured homes has been established by the SBDO-sponsored Section 235 Program in the South Bronx and by the response to the Charlotte Gardens marketing program. All of the 250 Section 235 homes being built at four sites have been sold. The buyers, who have met both bank credit requirements and Section 235 income eligibility limits, have gross family incomes between \$20,000 and \$35,000. The development cost of the homes is about \$75,000, with writedowns provided by a previous UDAG.

The Mid-Bronx Desperadoes Community Housing Corporation, the local marketing agent for the homes, has received 507 purchase applications, for Charlotte Gardens during the six-week marketing period which ended May 27, 1983. The average annual income of the applicants is over \$30,000.

The ten buyers for Phase I of the project have been selected, have passed a preliminary credit check, and signed binders of commitment which require a \$500 deposit. Chemical Bank is completing the processing of formal mortgage applications from these ten buyers.

The marketing experience gained by SBDO and the LISC-funded South Bronx Housing Resource Center (affiliated with Cornell University) through the Section 235 Program will benefit Charlotte Gardens.

When the marketing of the entire subdivision is successfully completed, SBDO will open discussions with various manufacturers aimed at locating a manufactured homes factory in the South Bronx. Such a plan could create at least 100 new jobs.

PROJECT COSTS:	Land Acquisition and		
	Relocation	\$	81,090
	Demolition	\$	238,405
	Fees	\$	45,000
	Construction	\$6,017,689	
	Total	\$6,382,184	$\div 90 = 70,913$

SOURCES OF FINANCING:	Chemical Bank Mortgages	\$4,009,500
	UDAG	\$1,350,000
	Equity	\$ 488,250
	City CD/Capital Budget	534,434
	Total	\$6,382,184

TERMS: Deferred Payment Second Mortgages, recapturable through a portion of the profits at home sale or refinancing.

SECURITY: Bank 1st mortgage
UDAG 2nd mortgage

REAL ESTATE TAXES: \$105,260 annually at end of 421(b) abatement period $\div 90 = 1169.56$

COMMUNITY SPONSOR AND SALES AGENT: Mid Bronx Desperadoes Community Housing Corporation.

NEED FOR UDAG: The UDAG is needed to writedown the sales price of these homes to attract buyers into an area that has suffered extensive abandonment and received national attention as the nation's most blighted urban area. Without this subsidy, no market would exist. The UDAG will also fund needed site improvements whose costs cannot fairly be allocated to the price of the home. The UDAG is also needed to meet the needs of handicapped buyers which have been found.

<u>Line Item Activity</u>	<u>SOURCE</u>				
	<u>UWAG Funds</u>	<u>Private Equity</u>	<u>Loans (Including Revenue Bonds)</u>	(City of NY) <u>Other*</u>	<u>Total</u>
a. Land Acquisition	<u>-</u>	<u>-</u>	<u>-</u>	\$ <u>6,000</u>	\$ <u>6,000</u>
b. Relocation of Persons and Businesses (one business @ \$75,000)	<u>-</u>	<u>-</u>	<u>-</u>	<u>75,000</u>	<u>75,000</u>
c. Clearance and Demolition	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
d. Off-Site Improvements (Curbs and sidewalks)	<u>400,000</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>400,000</u>
e. On-Site Improvements a) Sidewalk and curbs b) Street trees c) Demolition	<u>-</u>	<u>-</u>	<u>-</u>	a) <u>188,029</u> b) <u>27,000</u> c) <u>238,405</u>	a) <u>188,029</u> b) <u>27,000</u> c) <u>238,405</u>
f. Building Construction	<u>900,000</u>	<u>4,430,250</u>	<u>-</u>	<u>-</u>	<u>5,330,250</u>
g. Parking Facilities	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
h. Capital Equipment (Ramps for handicapped)	<u>50,000</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>50,000</u>
i. Non-Capital Equipment (FFE, etc.)	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
j. Professional Fees (Architect: \$750 x 90)	<u>-</u>	<u>67,500</u>	<u>-</u>	<u>-</u>	<u>67,500</u>
k. <u>Interim Costs:</u> <u>Construction Period</u> Interest, Real Estate Taxes	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>

SOURCES AND USES OF FUNDS FOR PROJECTS

<u>Line Item Activity</u>	<u>UDAG Funds</u>	<u>Private Equity</u>	<u>Loans (Including Revenue Bonds)</u>	<u>(City of NY)</u>	
				<u>Other*</u>	<u>Total</u>
l. Contingency	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	\$ <u>-</u>
m. Cost Subtotal (sum of lines a-l)	\$ <u>1,350,000</u>	\$ <u>4,497,750</u>	<u>-</u>	\$ <u>534,434</u>	\$ <u>6,382,184</u>
n. Administration	<u>67,500</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>67,500</u>
	(To City of NY)				
o. Working Capital	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
p. Total Project Costs (sum of lines m + n + o)	<u>1,417,500</u>	<u>4,497,750</u>	<u>-</u>	<u>534,434</u>	<u>6,449,684</u>
					<u>71,663</u>

*On a separate page, specify the source and use of other funds if they are not included on UDAG Form 3b.

For Indian Tribes, Tribal Enterprise equity should be placed under "private equity."
Tribal Trust funds should be distinguished from other tribal funds.

South Bronx Development Organization, Inc.

**South Bronx Office
529 Courtlandt Avenue
Bronx, New York 10451
(212) 665-1320**

**Downtown Office
1250 Broadway
New York, New York 10001
(212) 868-6360
In Response Please Call:
(212) 868-6350**

September 14, 1983

The costs forwarded with this package are in two categories:

- A. The costs directly attributed to the \$59,975 value of the home; and,**
- B. Those costs which are exterior to the house and yard and are allocated to the overall cost of the total project.**

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September 14, 1983

OVERALL COST SUMMARY

TOTAL COSTS

90 houses @ \$59,975/house	\$5,397,750
Costs attributed to site	984,434
TOTAL	<u>\$6,382,184</u>

TOTAL SOURCES

Source of Financing for Houses

Chemical Bank	\$4,009,500
90 houses x \$44,550/house	
Equity	
90 houses x \$5,425/house	488,250
UDAG	
90 houses x \$10,000/house	<u>\$ 900,000</u>
Subtotal	\$5,397,750

Sources for Financing Site Costs

NYC HPD Capital Budget	\$459,434
NYC Public Development Corporation	75,000
UDAG Grant	<u>450,000</u>
	\$984,434

GRAND TOTAL FOR SOURCES	\$6,382,184
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September 14, 1983

SUMMARY SHEET

<u>USES</u>		<u>SOURCES</u>	
I. <u>Direct Cost of Home</u>			
Deluxe Homes Cost	\$ 27,400		
Soft Costs	3,743	Chemical	\$44,500
Contractor Costs	24,857	Equity	5,425
SBDO Direct Costs	3,975	UDAG	10,000
(Land, Landscaping, Security Grilles, Basement Alarm, Basement Insulation, Parking Pad and Interior Yard Walkway)			
	\$59,975		\$59,975
II. <u>Project Costs (Not Attributed to Value of Home)</u>			
Property Acquisition	\$ 6,000	NYC HPD Capital	
Relocation	75,000	Budget	\$459,434
Street Trees	27,000	NYC Public Develop-	75,000
Demolition	238,405	ment Corporation	
Exterior Sidewalks and Curbs	588,029	UDAG Grant	450,000
Contingency for Handicapped	50,000		
	\$984,434		\$984,434

South Bronx Development Organization, Inc.

Edward J. Logue
President

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529 Courtlant Avenue
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September 14, 1983

CHARLOTTE GARDENS

Costs Directly Attributed To Value Of Raised Ranch Home (\$59,975)

(Cost Per Home)

I. DeLuxe Home Costs

House FOB Berwick	\$23,795
Freight Charge	1,130
N.Y. State Certification	75
Erection and Trim-out	2,000
1/2 day of Bulldozer (IHC)	400
	<hr/>
	\$27,400

II. Contractor Costs - IHC

Dynamic Compaction	\$ 3,000
Excavation and Foundation	11,620
Pipe Columns and Railings	700
Electrical Hookups	1,300
Plumbing Hookups	4,200
Hot Air Heating System	1,600
Domestic Hot Water Generator	400
Overhead and Profit	2,037
	<hr/>
	\$24,857

III. SBDO Direct Costs

Acquisition of Land	\$ 1
Landscaping and Fence (1) (4" topsoil, seeding, and front yard fence)	1,994
Security Grilles	605
Alarm Prewiring in Basement	75
Basement Insulation	500
Parking Pad and Interior Walks (2)	800
	<hr/>
	\$ 3,975

IV. Project Soft Costs

Architect	\$ 750
Permit/Filing Fees	300
Metes and Bounds Survey	300
Borings	400
Title Search	125
Insurance	100
Security	1,000
Energy	100
Marketing/Services to Homebuyers	500
Construction Financing (by DHCR)	0
Taxes and Use Fees (3)	168
	<hr/>
	\$ 3,743
 Total Per House	 \$59,975

(1) Topsoil and other types of fill for utility trenches.*

125 cubic yards @ \$12/cubic yard	\$ 1,500
Seed and fertilizer	200
Fence (70 ft x \$4.20/ft)	294
	<hr/>
	\$ 1,994

(2) Interior Walkway = 61.5 square feet (includes steps and entry platform).

Parking pad = 350 square feet

(3) Real estate taxes, water and sewer charges prorated over 3 months.

*Con Ed does not permit utility lines to rest on top of rubble of which site is made up. Therefore, a trench must be excavated to contain the lines which must rest on base of clean fill.

September 14, 1983

Sources of Funds

Chemical Bank Loans to Homeowners	\$44,550
Equity	5,425
UDAG	<u>10,000</u>
	\$59,975

September 14, 1983

5. Sidewalks and Curbs

A.	147,870 s.f. @ \$2.75/s.f. for 4" deep concrete sidewalks	\$406,642
B.	Driveways: 10,850 s.f. @ \$3.75/s.f. for 7" deep concrete portion within sidewalk	40,687
C.	Curbs: 7,385 feet @ \$12/ft. (reinforced concrete along side streets)	88,620
D.	Curbs: 2,604 feet @ \$20/ft. (steel-faced along arterials)	<u>52,080</u>
		\$558,029

September 14, 1983

5. Sidewalks and Curbs

A.	147,870 s.f. @ \$2.75/s.f. for 4" deep concrete sidewalks	\$406,642
B.	Driveways: 10,850 s.f. @ \$3.75/s.f. for 7" deep concrete portion within sidewalk	40,637
C.	Curbs: 7,385 feet @ \$12/ft. (reinforced concrete along side streets)	88,620
D.	Curbs: 2,604 feet @ \$20/ft. (steel-faced along arterials)	<u>52,080</u>
		\$568,029

**I. H. C. CORPORATION**

176 JACKSON STREET • HEMPSTEAD, NY 11550 • (212) 895-5750 • (516) 538-6041

July 27, 1983

Tessler & Panero
575 Eighth Avenue
New Yoek, NY 10018

Re: Crotona Park
Sub-Division

Att: Herb Tessler

Dear Herb,

With reference to our meeting of July 18, 1983, please find attached a revised contract cost sheet. As agreed, we propose the total lump sum price of \$24,857 for the work as outlined.

All exlussions and qualifications listed in our letter of July 8, 1983, remain in effect.

Trusting that the above will be found satisfactory, we await your directive.

Very truly yours,

Robert O'Brien, P.E.
I.H.C. Corporation

/lv
Attachment: 1



Homes of Pa. Inc.

45

8TH AND OAK STREETS • P. O. BOX 323 • BERWICK, PENNSYLVANIA 18603 • (717) 782-5914

May 23, 1983

Page 1 of 2

Mr. Herb Tessler
Tessler & Panero, Architects
575 8th Avenue
New York, New York 10018

Re: Price Quote eight (8) houses
for S.B.D.O.

Dear Herb:

Pursuant to our discussion on May 20, 1983 at your office, for eight (8) houses to be delivered during July 1983, the following is a breakdown of costs per your request of certain standard specifications, and an optional cost of listed items for customer requests.

\$19,795.00 - Base price 44' Delcraft Supreme series model (DC2444R-1½B)
1,300.00 - Additional 4' to make 48' house
50.00 - Delete electric heat and insulation, provide thermostat wire, floor registers, return air box, flue & chimney package shipped loose, S.B.D.O. to provide furnace ductwork.
25.00 - 2" Future basement plumbing vent
100.00 - Pre-wire for (Alarm system by S.B.D.O.)
25.00 - Pig-tail wire for basement 3-way switch to foyer light.
150.00 - 150 Amp Electrical Panel box installed on wires for basement installation with galvanized conduit installed from floor and within wall to meter box location.
175.00 - 3/8 Plywood exterior wall sheathing
300.00 - Cathedral Ceiling w/no beams LR., DR., and kitchen
90.00 - Double 4" aluminum siding w/backer
25.00 - Vertical aluminum siding at front entry around door only.
670.00 - RR Entry package w/slate landing
50.00 - Customer End "L" kitchen
390.00 - Gas Range w/flex hose & valve
400.00 - Make ½ bath into ¾ bath w/shower
100.00 - Mail slot, manual chime, and separate keyed dead bolt lock on front door; separate keyed dead bolt lock on rear door.
150.00 - B.E.C. requirements:
a) Wire & box for light at bottom of stairs
b) 110 Volt washer/dryer circuit
c) Wire & box for light by washer/furnace
d) 12-2 Thermostat wire
e) Furnace safety switch w/wire drop
f) Wire & box for basement (smoke detector by S.B.D.O.)
g) Pull chain attic light
23,795.00 - Total house w/listed options
1,130.00 - Freight
75.00 - New York State Certification
\$25,000.00 - Cost of Home Delivered

Tax Exempt #167500

S.B.D.O. to provide flag car service

Bibliography for Charlotte Gardens

- "American Dreams," Progressive Architecture, July 1984, p. 7.
- "Reneging on the South Bronx: HUD Replies," Washington Post, May 10, 1984
- "Reneging on the South Bronx," Washington Post, April 28, 1984.
- "Ranch Houses at Fort Apache," Newsweek, Feb. 13, 1984, p. 30
- "South Bronx Revival," Washington Post, Jan. 17, 1984.
- "The Factory Built House Gets a Foothold in City," The New York Times, Nov. 13, 1983.
- "About Real Estate-Manufactured Housing Moves into the City," The New York Times, Oct. 14, 1983
- "Suburbia Comes to the South Bronx," Architecture, Oct. 1983, p. 65

elusive objective of an adequate home for every American family needs to be defined if we are to make any headway against our housing deficiencies.

In the most devastated section of New York's South Bronx area, ten ranch style houses have risen from the rubble, their flat front lawns bounded by picket fences of defensively massive design. Plans call for 80 more of these houses on adjoining plots. An article in *New York* magazine (June 18, p. 26) takes up the construction of these houses under the direction of Edward J. Logue, veteran urban renewer and former chief of both the Boston Redevelopment Authority and the New York State Urban Renewal Corporation. These houses, says *New York* writer Joe Klein, "are a surreal—almost hallucinogenic—sight. One is tempted to view it as a perverse Celtic practical joke: Reagan and Carter wanted to see the American Dream revived in the South Bronx, and Ed Logue gave it to them in spades, right down to the white picket fence."

Why is the sight of suburban-tract style houses rising from the urban wreckage so unsettling? The dream of a private, single-family house for every family, revived so powerfully by the federal home loan programs of the past half-century, is shared even by the poor minority families of our inner cities. Why not use land now vacant there to deliver this dream to them on their own turf?

For one thing, this outrageous little project mocks the dreams of its residents—who are paying dearly, subsidies notwithstanding—by giving them the form of the suburban house without the relative safety and neighborhood stability that it symbolizes; the houses look extremely vulnerable behind their decorative iron window grilles. On the other hand, they forfeit the traditional benefits of urban living by using land and infrastructure as wastefully as in the suburbs and by failing to promote any sense of community—or offer any shared facilities. For architects and planners, of course, the houses represent a rejection of the skills required for multifamily urban housing developments, and substitution of a product they have no part in.

What these houses do offer is that measure of self-determination that has come with the privately controlled dwelling throughout history. These residents can change the shutters to suit, choose plantings and objects for the front lawn, and display their vehicles in their own driveways. They also have backyards, for *their* barbecues and *their* kids only.

These qualities of self-determination and privacy are what we must try somehow to build into the multiple housing that we now need in large amounts, in both the cities and

the suburbs. For there is no way we could meet our current needs with single-family housing, even if we wanted to.

And we should not even want to, because the families that shared that traditional American dream have changed so radically (see Dolores Hayden's essay, page 85). The stereotypical family of Mom, Dad, and the kids no longer dominates in an array of resident types that includes singles, singles sharing units, one-parent families, and the elderly—mostly single. Most of them do not need—and few of them can afford—the space and the facilities of the American dream home. They need shared day-care facilities, social halls, gyms, and laundries, and they might quite effectively share such facilities as kitchens and TVs as well. They need developments that will accommodate different stages of life without requiring relocation. They need nearby shopping and work opportunities, as well as convenient public transportation, to reduce dependence on private cars.

Unfortunately, none of this is part of the established American dream. All of us who care about the living environment and about social equity should be working for and promoting a new dream—of economically reasonable housing, with *community* benefits of greater value than the tenuous privacy and every-man-for-himself symbolism of the suburban tract. Many of our cities and older suburbs (even our military posts) contain well-planned multiple housing, with community spaces and facilities, which should be preserved and celebrated. Based on these, along with examples from abroad and current American efforts (pages 66–81), we should be generating new, more appropriate patterns for living in America.

John Morris Difer

'Reneging on the South Bronx': HUD Replies

The Post's editorial "Reneging on the South Bronx" [April 28] was not only startling to me but, I'm sure, to the many neighborhood organizations that have worked hard to improve life for the people of the South Bronx.

To suggest that the revitalization of the South Bronx can only be accomplished through one man and his organization is not only unrealistic but insulting to the many other organizations that have contributed greatly to the recovery that has been accomplished thus far.

It is time, we feel, that the successes these organizations have had in creating jobs, reviving commercial areas and providing affordable housing be shared and expanded to benefit the South Bronx. The \$1.3 million for technical assistance activities will be awarded on a competitive basis to local organizations or groups that have the proven ability to develop and implement sound programs to accomplish the three goals stated above.

It is true that the U.S. Department of Housing and Urban Development has provided the South Bronx Development Organization (SBDO), headed by Edward Logue, \$1 million a year since 1979 to help cover operating costs. However, HUD is not "cutting off vital support for the group," as stated in the editorial. Nor is it "undercutting [Mr. Logue's] organization." A \$15 million Urban Development Action Grant (UDAG) project was approved on Oct. 9, 1980, of which HUD's contribution was \$3,790,000. The South Bronx Development Organization continues as the developer of this project.

The Charlotte Gardens, with a total cost of \$5,876,000 and a HUD contribution of \$1,320,000, was approved Sept. 30, 1984. The SBDO continues as the developer of this project as well. These two projects continue independently.

Providing financial assistance to a single organization undercuts the value

of enterprise and competition on which this country's urban and economic strength relies. The SBDO has every right to make an application. If it is innovative, imaginative and sound, it will be given every consideration.

SAMUEL R. PIERCE JR.
Secretary of Housing and Urban Development
Washington

Reneging on the South Bronx

ONLY A FEW months ago, observers of the urban scene were startled by signs of commercial and residential vitality cropping up amid the acres of urban decay known as the South Bronx. Now it appears that the Department of Housing and Urban Development will cut off vital support for the group that has done most to foster this rebirth.

New businesses have moved into a low-rise industrial park built by the city government and the powerful New York-New Jersey Port Authority. Along Charlotte Street, the bombed-out area where both Jimmy Carter and Ronald Reagan promised fresh approaches, people are moving into houses surrounded by picket fences. The area's modest revival owes far more, however, to the energy and ingenuity of local groups than to political promises or federal leadership. The key part has been played by the South Bronx Development Organization and its forceful leader, urban planner Edward Logue.

Mr. Logue's approach should have considerable appeal to the Reagan administration with its emphasis on the sturdy virtues of enterprise, innovation and private home ownership. His organization has played an essential brokerage role in persuading private and public investors to move into the South

Bronx, harnessing the energies of other local groups and providing the job training, business relocation aid and other services needed to get the area functioning as a community.

For five years, HUD has supplied about \$1 million to his organization, which, in turn, has rounded up more than \$100 million in other investment for the area. But with only a month left to run on last year's grant, HUD informed SBDO that it intended to put the money up for competitive bid so that other community groups could get a share.

Many other South Bronx groups have lost funds in the administration's rollback of domestic programs. But worthy as these groups may be, spreading a relatively small amount of money among them will only mean that little that is useful gets done. Competition is necessary in selecting the right organization for a new job—or in replacing one that isn't performing well. But it doesn't make sense to undercut an organization that has worked hard and well on a tough job.

It takes a core of money to maintain an organization with the skills, continuity and flexibility to oversee a major redevelopment effort. Mr. Logue's group has earned the chance to continue its efforts.



Mario Ruiz—Picture Group

The first row of houses on Charlotte Street: Can pride and prefabricated homes rebuild the South Bronx urban nightmare?

Ranch Houses at Fort Apache

David Rivera calls his new ranch house "incredible. . . a great deal." The home has three bedrooms, a sunny dining area off a modern kitchen, cathedral ceilings and wall-to-wall carpeting. It faces a park and a decent school, yet Rivera paid only \$5,000 down, and his monthly mortgage payment is just \$370—hardly more than his former rent for a cramped, underheated apartment across town. More incredible is Rivera's new address: smack in the middle of the very neighborhood that has come to symbolize the nation's worst urban decay—Charlotte Street in New York's South Bronx.

The Rivera home—and the 89 others that will compose Charlotte Gardens—represent a bold attempt to combat a cityscape nightmare with the American dream of home ownership. The Rivera family lives near the spot where first Jimmy Carter, and later Ronald Reagan, assailed the failures of urban renewal and called for ambitious recovery programs. Previously, such promises had always disappeared among Charlotte Street's rubble-strewn lots and burned-out buildings. Almost half the South Bronx's population has fled since 1970, surrendering the streets to addicts, criminals and derelicts; one local police station, once famous as the besieged "Fort Apache," is so isolated in the ruins that locals have renamed it "Little House on the Prairie." To the amazement of anyone who has ever seen it, the prairie has now sprouted suburban-style homesteads.

Charlotte Gardens is the brainchild of Edward Logue, head of the nonprofit South Bronx Development Organization, Inc. He had noticed that as the neighborhood deteriorated, "owner-occupied homes would survive when five-story walk-ups on both sides of them were destroyed," Logue says. With virtually no money available for multi-family housing projects or major renova-

tions, Logue's organization had few options. The final plan combined private enterprise, generous tax breaks and a mélange of federal, state and city assistance programs.

The homes are prefabricated and, thanks to a federal Urban Development Action Grant, priced at \$52,000—\$10,000 below actual costs. (The Rivera home is the only one without a basement and, thus, cost just \$47,000.) Prospective buyers besieged the Mid-Bronx Desperadoes, a local housing group that marketed the development. It quickly found 90 qualified buyers—most of them black and Hispanic and about half of them already Bronx residents—and had to cut off the waiting list at about 500 families.

"Crazy": Rivera, a Bronx shoe-store owner, had been searching futilely for an affordable home in Queens and the Westchester suburbs. The South Bronx, as far as he was concerned, was "just like a devastated area contaminated with atomic fallout—just forsaken like a crack in the wall." But then he toured Charlotte Gardens: "It's beautiful. It's modern. It's fuel-efficient. It feels great. This isn't the Bronx." Rivera decided that the neighborhood would be a perfect home for his wife and 16-month-old daughter. When his application for a home was accepted, friends suggested "we were crazy," he says. "This was the worst place you want to move into . . . full of drug addicts, bums, derelicts, snipers, knifers, muggers." But what I see now is hope.

There is, of course, considerable risk in building in an urban combat zone. When the model homes first arrived, some on-site staff remained the night in parked cars to protect them from vandals. Each home has protective window grates and is equipped with an alarm system. The police have cooperated by increasing patrols, which will be supplemented by block-watch programs.

The 90 families moving into Charlotte Gardens hope that it will become a hub around which the South Bronx can finally rebuild. But its critics doubt that a suburban model is any solution for the area. They say that low-density housing doesn't generate enough taxes to support a city neighborhood. And even if the new project thrives, it will not offer a better life to its neighbors who desperately need decent housing—but can never hope to raise \$5,000 to live in a ranch house on Charlotte Street.

MARK STARR with DAVID L. GONZALEZ
in the South Bronx

South Bronx Revival

YOU SAY you're looking for a brand-new three-bedroom home with carpeted, cathedral-ceilinged living room, fully equipped kitchen, dining room and a nice white-picket-fenced yard for the kids? You'd also like it to be an easy commute from downtown and your top price is \$50,000? Perhaps you ought to consider moving to the South Bronx.

That's right; the South Bronx—site of "Fort Apache," irresistible magnet for presidents and presidential aspirants eager to demonstrate their commitment to urban resuscitation. For the first time in decades, people are moving into—rather than out of—the South Bronx, and the suburban-style homes they are buying never appeared on the drawing boards of the urban planners of the '60s and '70s.

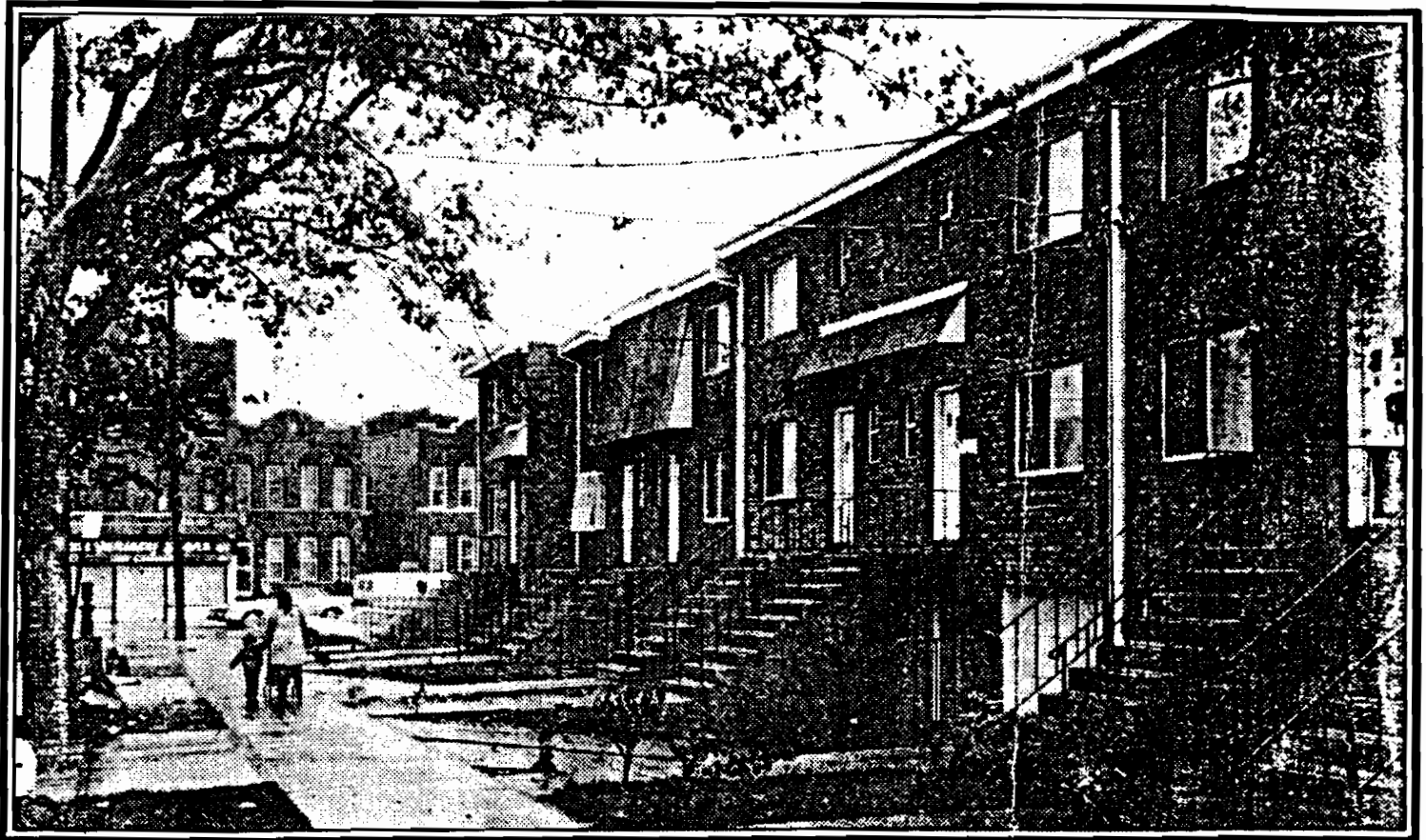
You could view the South Bronx renaissance, if such it proves to be, as the natural completion of the cycle of urban decay and rebirth. From a historical perspective the cycle was remarkably short. Only a few decades ago, the middle- and lower-middle-class families of the area began moving northward into the developing suburbia of Westchester. The run-down five-story walkups they left behind were taken over by lower-income black and Puerto-Rican families who crowded into the tiny apartments. With unskilled jobs rapidly leaving the city, few of these new arrivals could find work. Scattered public construction projects attempted to ar-

rest the blight, but the concentration of poverty and social disorganization overwhelmed public efforts.

Eventually things got so bad that a measure of self-correction set in. Having destroyed almost everything in sight, the vandals moved on. The original "Fort Apache" police station still stands, but now it is surrounded by blocks of razed buildings. They call it the "Little House on the Prairie." Here and there you will find oases of civilization, usually around thriving churches, whose inhabitants have banded together to preserve their neighborhoods. But most of the burnt-out buildings should be torn down—except that, at the moment, no one is willing to spend the money to do it.

That's why the prefab suburbia being constructed by South Bronx Development Office chief Ed Logue makes good sense. Yes, the houses use up a lot of land—but land is cheap in the South Bronx; people are the scarce commodity. No, the new owners aren't poor. But the relatively low cost of the prefabricated homes has made it possible—without government subsidy—to attract young families with modest incomes. If more developers follow in Logue's footsteps, the community will soon have the core of stable families that it needs to be able to attract and serve people both higher and lower on the income scale. It's still a long shot, but the South Bronx could rise again.

Factory-Built Housing Gets a Foothold in the City



The New York Times/Chester Higgins Jr.

A row of factory-built town houses on Essex Street in the East New York section of Brooklyn.

Continued From Page 1

ranch or town house, replicated from site to site, and produced with the efficiencies and quality control that factory conditions enhance. Standardized construction would produce savings, especially in the nonconstruction "soft" costs such as interest.

"To start a factory takes an awesome investment of capital and a lot of pain — like getting a freight train started," said Daniel Reidel, president of Benchmark Homes in Dayton, Ohio.

Benchmark has a contract with the New York City Housing Partnership, a civic organization, to study the feasibility of locating a manufacturing plant in the city. The partnership specifically is considering whether to build a new plant, possibly in the city-owned Zerega South Industrial Park near the White-stone Bridge in the Bronx, with financial assistance from the Port Authority of New York and New Jersey.

THE plant would be operated by an experienced producer, and in part would turn out houses for the city's huge inventory of vacant or partially vacant land. This would take an over-all agreement with city construction unions as well as capital contributions and expedited oversight procedures by city government.

The partnership's study is incomplete. But Donald E. Meske, president of DeLuxe Homes of Pa., the long-established company in Berwick, Pa., chosen by the New York developers to supply their manufactured units, struck a negative note on the possibility of savings from a manufacturing operation at union-scale wages in the city.

"The cost would be about the same as stick-building," he said, estimating that manufacturing and installing a house in New York City would cost about \$50 a square foot exclusive of the land and land-development cost, or \$50,000 for a 1,000-square-foot house.

Manufactured by union labor in Berwick, the same house costs about \$40,000. "The labor rate is \$9 an hour including benefits,"

he said, "compared with about \$22 an hour in New York."

The initial investment to open a plant in New York would be about \$5 million, Mr. Meske said, and it would have to achieve an output of about a thousand units a year to justify the investment.

Meanwhile, Irving Rubin, a Long Island builder who used DeLuxe town houses on his East New York and Prospect Heights sites, is setting up a manufacturing plant in East New York in partnership with Robert and Jesse Epps. They intend to complete Mr. Rubin's Brooklyn production under the Section 235 program there and supply factory-built houses elsewhere.

Another group, headed by Morton Roberson, a lawyer, in association with the architect Warren Gran and Universal Structures of America Inc., a company based in McLean, Va., expects "reasonably soon" to open a plant in the Bronx to build complete wall panels for low-rise housing, a step that moves partway to factory assemblage. MKM Development Corporation, of which Merritt

Meyer is president, is expected to use these panels to speed output of Section 235 housing in Brownsville and on privately owned land in Soundview, the Bronx.

In principle at least, key leaders of construction unions accept the idea of factory-built housing as long as it is done in the city by union labor. "It's progress — a new method," said Joseph Lia, the New York City supervisor of the United Brotherhood of Carpenters and Joiners of America. "There's still work, but it's done in the plant instead of at the job site. It would produce a lot of opportunity for people to afford a house."

"The bottom line is jobs," said James V. Hart, business manager of Plumbers Local One. "If the right factory facilities are set up in our city it would be an acceptable and cost-saving method of production," he said.

The plumbers local was at odds with Mr. Rubin over his East New York houses because of the builder's decision to use plastic pipe, approved under the state building code and in use nationally, but opposed by plumbers in the city on safety grounds.

Mr. Rubin, who has built houses on Long Island for more than 30 years, has abandoned plastic pipe for future production. He has also parted ways with his original manufacturer, DeLuxe, and decided he can do his own factory production more effectively using local labor. Accordingly, he and the Epps brothers, who are black, are setting up manufacturing facilities in a building at 800 Snedicker Avenue in East New York.

The DeLuxe houses already occupied by 30 families in East New York have drawn admiration for the space and amenities they have provided. They are the first factory-built attached houses to appear in New York City. They blend smoothly with their long-established urban environment and cannot be identified by a passer-by as factory-built.

The three- and four-bedroom units have two and a half baths, full basements and garages. They also have peaked rather than flat roofs — an assemblage that will not be repeated in future Rubin houses, which will have flat roofs — and front stoops and gables. The house arrives in four sections and is assembled in one week. There is two months of additional on-site work.

"Not bad at all," said David Powell, an undertaker who has been living with his wife and three children for a month in one of the East New York houses for a month. "I was surprised the house is as good as it is. I didn't expect so much."

About a third of the buyers, including Mr. Powell, have had incomes high enough to afford conventional mortgages. A key question in the city is how much city-owned land is in locations that would have a strong market without the mortgage-interest subsidies, which expire next September.

There are places where city-owned land has a fairly strong marketability to buyers who do not need subsidy assistance. One is Prospect Heights, where the manufactured town house that Mr. Rubin is installing has a flat roof and is again of a generous size — 1,300 square feet for the three-bedroom and 1,500 square feet for the four-bedroom. But over-all, at least 70 percent of the buyers of

the 2,000 houses to be built under the Section 235 program are expected to require the subsidy, said Timothy Flanagan, program director for home ownership in the Office of Development of the Department of Housing Preservation and Development.

In East New York, nonsubsidized buyers are paying \$61,000 for the three-bedroom house and \$68,500 for the four-bedroom house, said Joseph Colon of Tri-State Resources Corporation, the mortgage broker for the builder. Prices are about \$2,000 lower for subsidized buyers.

The East New York house is particularly interesting as a harbinger of the kind of unit that might be constructed in subdivisions of up to 50 houses where lot sizes are only 20 or 25 feet wide. These are often higher-density neighborhoods of older housing, where "in-fill" lots present opportunities.

The Housing Partnership in particular is interested in the possibility of a three-story, two-family house with a duplex apartment of 1,560 square feet occupied by the homeowner on two floors, and a 780-square-foot rental apartment below.

Another housing type suitable for the infill city sites might be a single-family two-story town house without a garage, but with a basement, as Mr. Rubin is building in Prospect Heights.

IN South Jamaica and the Bronx, the manufactured product is quite different. It is a single-family detached ranch unit without a garage. Since its long side faces the street and there is a deep setback for grass, the appearance is almost suburban. Lots are typically 60 feet wide and 100 feet deep. It is definitely not a mobile home, said Mr. Meske, the manufacturer, because it is mounted permanently on its foundation and has no undercarriage.

The house blends well with Jamaica's existing low-density residential environment. It sells for \$50,900 to Section 235 buyers with incomes of \$18,000 to \$24,000 a year, said Kenneth Weinstein, a partner in Greentree Enterprises. It has 960 square feet of living space, one and a half baths and a full basement. There is also a somewhat larger four-bedroom house with two baths selling for \$59,900.

"People instantaneously bought, once they saw the house on the site," he said. Of Greentree's 79-house allocation, he added, the builder is "oversold" by 15 houses and there is a waiting list of 200. Mr. Weinstein also praised the Office of the Queens Borough President for assistance in moving the job along quickly.

In Jamaica, the buyers' incomes were only \$18,000 to \$24,000, and nearly all the buyers are subsidized. In addition, the city spent about \$17,000 a unit on site improvements, since considerable street work had to be done. Citywide, the city's contribution has ranged from \$2,000 per unit upwards, usually for demolition of existing structures and for street and sidewalk improvements.

"The house came in across the bridge at 10 P.M., it was at the site at midnight, the next day the installers were there and in two or three days the house was weathertight," Mr. Weinstein said.

As in South Jamaica, the Charlotte Gardens homes of the South Bronx Development Organization, whose executive director is Edward J. Logue, uses a standard single-family DeLuxe product. The delivery of homes to buyers has been less than expeditious, owing in part to difficult subsurface conditions on the site, a lengthy processing time for buyers and difficult labor conditions. The selling program began from models in April and 10 families are expected to be living in Charlotte Gardens by Christmas.

Demonstrating the appeal of a detached house with a piece of land, 500 people submitted applications for a house at Charlotte Gardens. But only 170 had the income or savings to afford one.

"A house you can walk around that has a garden," Mr. Logue said, "that's the real thing for people who have grown up in the South or Puerto Rico."

The buyers of these houses have incomes of \$30,000 to \$40,000 a year, and 40 percent of them are public employees, Mr. Logue said. They get a standard State of New York Mortgage Agency loan carrying about 9.9 percent interest, but public grants for site work holds the selling price at \$50,000. The actual development cost is \$60,000 a house, of which \$25,000 is for the house alone and \$2,800 to deliver and assemble it.

A big question mark is whether the factory product would be acceptable to the unsubsidized buyer who is now buying a conventional tract house on privately owned land. "We don't know the buyer acceptability of the semiluxury house," said Julius Mehrberg, the builder of the 160-unit Stone Gate at Grasmere project in Staten Island.

He also said that factory production was a "bigger problem in Brooklyn than it is in Queens," underscoring the differences in development conditions in various locations of the city.

But at Benchmark Homes, Mr. Reidel insisted that there would be an "awesome" advantage to factory production as opposed to conventional production on smaller 30- to 50-unit sites because overhead is proportionally greater on small sites for conventional builders. "Social acceptance of our industry has been impaired by the cookie-cutter approach to architecture," he said. "A building without a sense of neighborhood may not be successful."

Both he and Mr. Meske said they had no doubt that appealing manufactured houses could be designed for the New York market.

The Factory-Built House Gets a Foothold in City

By ALAN S. OSER

THE year 1983 is establishing itself as the period in which single-family houses built in a factory and assembled on large development tracts were delivered to New Yorkers for the first time.

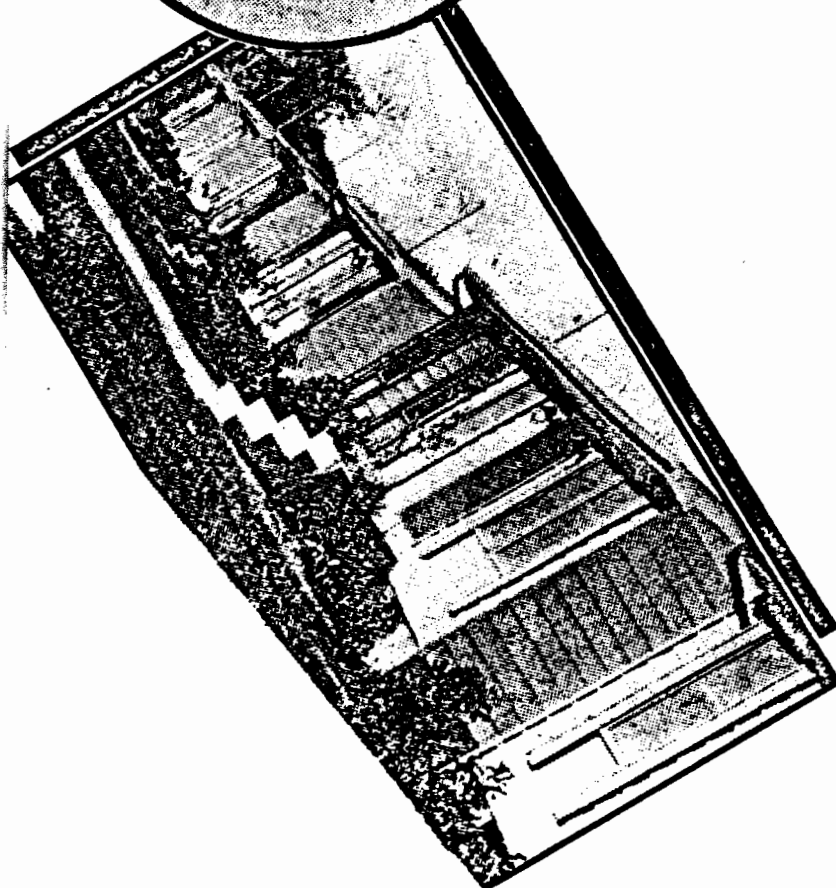
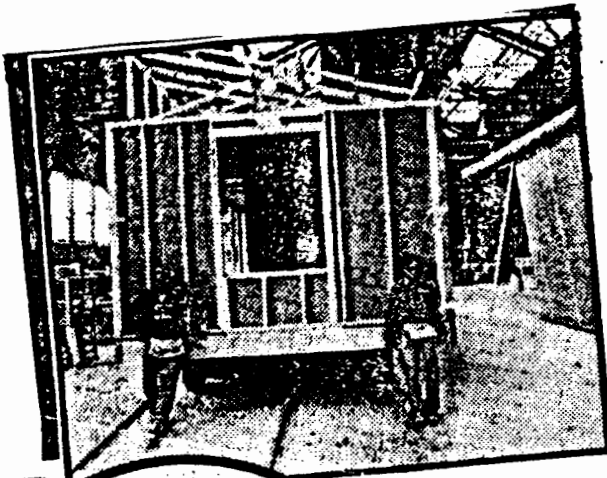
The scale is modest in comparison with what is believed to be the market potential, and with the construction of "stick-built" houses — those built on the site by conventional methods.

Nevertheless, houses manufactured in Pennsylvania have been sold this year to families in Brooklyn, Queens and the Bronx with incomes in the \$20,000 to \$40,000 range. Between 100 and 200 such homes have been occupied, or will be occupied by the end of the year, in the East New York and Prospect Heights sections of Brooklyn, the Crotona Park section of the Bronx and South Jamaica, Queens.

This achievement has awakened new interest in a familiar question: What are the chances for factory production of houses in the city itself, so that construction jobs would not be lost through manufactured output? Would the market accept them? Could a house be produced that suits the New York environment?

Above all, could such houses be delivered at costs significantly below those for stick-built houses? And would the houses be widely salable even without mortgage-interest subsidies for buyers? Subsidies made available under a city-sponsored Federal mortgage-interest program reduce builders' risk in home production and have generated the experimental efforts so far. But this program, called Section 235, expires next September.

With a factory in the city and development processes working smoothly, the hope would be to lift low-rise housing output on large stretches of underutilized land to new levels. Mass production would lower unit costs. City cooperation with land contributions and site improvements could generate production on stretches of city-held land. The "product" would be a standard



About Real Estate

Manufactured Housing Moves Into City

By ALAN S. OSER

Manufactured housing is making its appearance in a widening spectrum of new single-family buildings across the city. At the same time, talks aimed at establishing facilities to do the construction within city limits are intensifying.

So far, public attention has focused on the use of mobile homes trucked to the Bronx in two sections from a plant in Pennsylvania to provide new houses near Crotona Park. These are raised ranches on about 6,000 square feet of land, selling for about \$50,000.

At the same time, a Long Island builder, MMRR Construction of Valley Stream, has started to sell a different type of manufactured house in East New York and Prospect Heights, Brooklyn, and plans to put more on a large site in Brownsville.

These are three-bedroom and four-bedroom attached houses with two and a half baths, a full basement and garage. They arrive in four sections. Assemblage takes less than a week. On-site work — for installation of the heating plant, utility connections, grading and landscaping, outside brickwork, stoop and driveway construction — takes two months. Prices range from \$58,000 to \$71,000 and most buyers earn \$28,000 to \$35,000 a year.

• • •

"There is a tremendous home-owner market in the city among people earning under \$40,000," said Kathryn Wyldé, executive vice president of the housing task force of the New York City Partnership, a citywide nonprofit corporation. "It's an unserved market."

Efforts are under way to establish

factories in the city, Miss Wyldé said. This would not only cut transportation costs, now about \$2,500 from Pennsylvania, but would also create construction jobs.

"There's room in the city for two or three factories," said Joseph Colon, president of the Tri-State Resources Corporation, the mortgage company in Ridgewood, Queens, that worked with MMRR Construction. He said there were more than 1,500 applications for the Brooklyn houses.

"You can sell homes for \$65,000 to \$80,000 all over," he said. "You could build 25,000 to 30,000 houses over three to five years and find a strong market for them."

The president of MMRR Construction is Irving Rubin, who has built several thousand conventional houses on Long Island.

Qualified buyers may take advantage of the Federal Section 235 program, which allows those with incomes between \$16,000 and \$32,000 to obtain 30-year mortgages at an interest rate as low as 4½ percent. MMRR was awarded three sites with a maximum of 435 houses. Financing comes from Chemical Bank.

Of 55 buyers in East New York so far, said Mark Rubin, the builder's son, 65 percent qualified for the low-rate loan (for which down payments range between \$6,000 and \$11,000) and the rest had enough income to afford a market-rate insured loan of about 13 percent. The issue of affordability is critical to the future of new construction, particularly as mortgage-interest subsidies are being phased out.

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More than the price alone, it is the nature of the house itself that is strik-

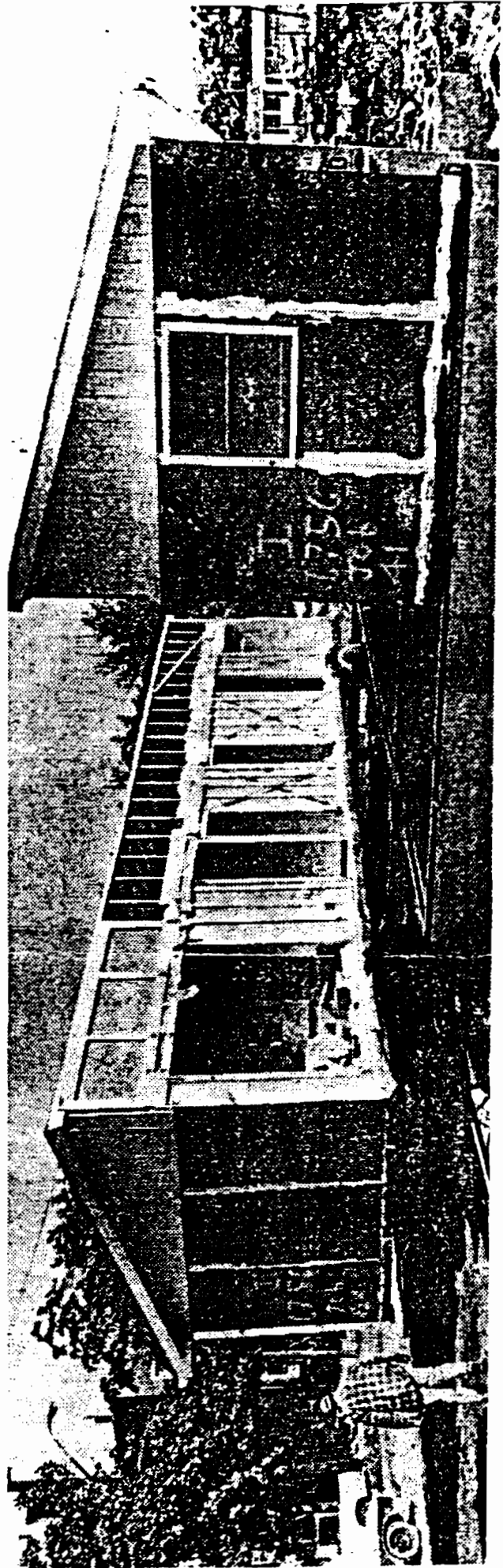
ing about the manufactured MMRR products, some of which are already occupied on Essex Street near New Lots Avenue in East New York. They are "very ambitious units," said Timothy Flanagan, home ownership director in the Department of Housing Preservation and Development.

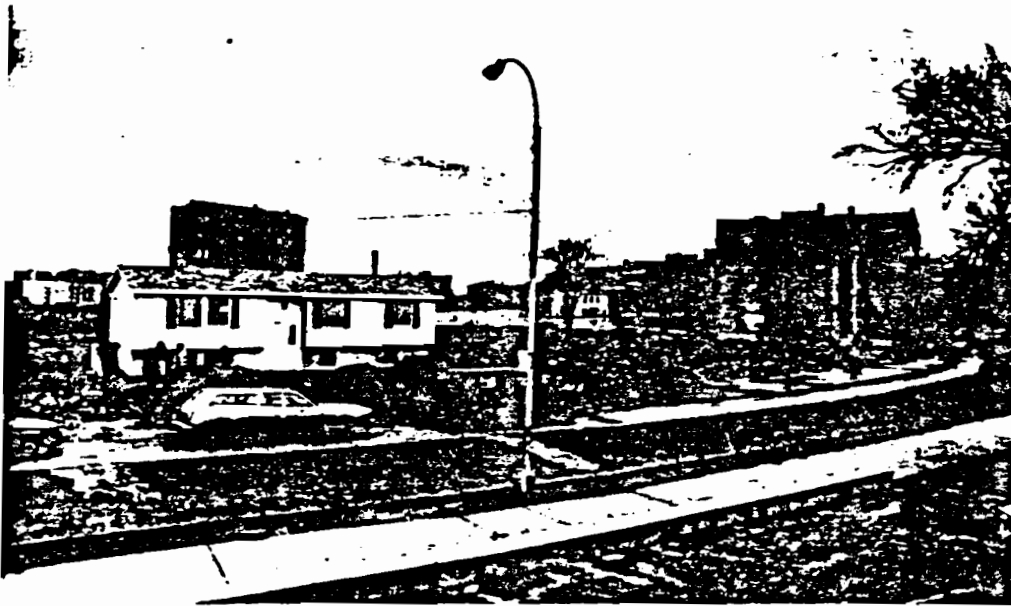
The three-bedroom houses provide 1,400 square feet of living space on two floors, plus full basement and garage. The house is 20 feet wide and 35 or 39 feet deep, on a plot at least 100 feet deep. The four-bedroom house has 1,560 square feet on two floors. There is a garage under the house, and brick facades of varying hues.

In short, the houses are superior in dimension and even in amenities to many of the new conventionally financed condominium and town-house units selling at higher prices on Staten Island, where buyers are of comparable income but the builder must pay the full market price for the land. The buyer gets indoor parking, spacious living rooms of 12 feet by 17 or 20 feet, two and a half baths and superior interior finishes. The 20-foot width exceeds by 4 feet that of most new Staten Island two-family houses.

The architect was Shaftel & Akner of Great Neck, L.I. According to Stanley Shaftel, the homes use high-specification plastic pipe, nonmetallic cable for wiring, steel joists and steel studs and other materials and techniques acceptable under building codes but not generally used in the city.

The manufacturer of the occupied houses was DeLuxe Homes of Berwick, Pa. The current supplier is Tec Buildings Systems of Egg Harbor, N.J. Mr. Rubin said he hoped to open his own factory in East New York.





Don Hogan Charles/The New York Times

They sit amid vacant lots and burned-out shells of buildings: two ranch style, split-level, single-family houses that seem to have fallen out of the sky onto a 15-acre site in the heart of the South Bronx in New York City. The houses, used as models for prospective buyers, created a flurry of quizzical amusement last April when dedicated as Charlotte Gardens, a development that will eventually have 90 such dwellings.

The project is being directed by the South Bronx Development Organization, Inc., a city agency headed by Edward J. Logue, Hon. AIA. The project's location on Charlotte Street is poignant, for it is here that President Carter, and later candidate Reagan, climbed over broken bricks and boards to symbolize their concern for such inner-city devastation. "With these houses my hope is that in 1984 we won't have any presidential candidates coming here," Logue says.

It has been the lack of any action by the federal government, evidenced in the elimination of many housing subsidy programs, by the Reagan Administration, that has caused Charlotte Gardens to come about. Rather than leave the site empty, housing requiring no government subsidies is being built, but it will not be affordable by lower-income families.

This has caused several residents to complain about the project. They claim that lower-income housing is needed "before worrying about these fancy houses," as one local detractor put it.

Peter Bray, project director for Charlotte Gardens, says that this complaint is unfair in light of the fact that no housing at all would be built due to the lack of subsidies.

To charges that Charlotte Gardens is a gentrification project, Bray says that this

replaces old residents with new. Charlotte Gardens is displacing no one and is intended to entice upwardly mobile South Bronx residents from moving to other parts of the city.

Bray also claims that Charlotte Gardens will prove an economic asset to the community. "We're trying two different concepts," he says. "One is that home ownership is required to provide stability in any neighborhood, and two, that we need to retain economic diversity. No neighborhood can be stable with a 100 percent low-income population."

The choice of factory-built detached houses for the development was dictated by economics, Bray maintains. The three-bedroom houses are being offered for \$49,975. Bray says that town house units, although providing a higher density, would have been more expensive to build—about \$10,000 to \$15,000 more per unit. This difference in cost is due to additional site work for codes and utility hookups. "Town house construction requires that you build masonry firewalls in between the structures," says Bray, which increases the amount of on-site labor. More sewer connections also would have been required for a higher density development.

Will the strategy work to keep people from moving out of the South Bronx? Bray says that so far it looks as though it may. Of the 507 applicants, 49 percent are from the area, 30 percent are from the North Bronx, and about 11 percent are from Manhattan—mostly Harlem and East Harlem. The remaining 9 percent are from New Jersey, but many of them once lived in the South Bronx and now want to return.

The first 10 buyers are now undergoing mortgage approval at the bank. All 90 units are expected to be completed by July 4, 1984. MICHAEL J. GROBIE

APPENDIX II
JAMAICA VILLAGE

Comments:

This group of houses fits reasonably well in its surroundings and is of such a size that it would seem that it could maintain its viability.

The group of houses consists of two rows of single family detached houses facing outwards to the surrounding neighborhood which is composed primarily of older two-story detached houses. It will be interesting to see how the new infill housing fits socially into the existing neighborhood. It would appear that, other than the obvious newness of the houses, there is no apparent physical barrier to the integration into the neighborhood. Although new and only single story, the infill fits into the area better than expected. On the other hand, should the owners of the new houses wish to remain aloof from the surrounding neighborhood, there are a sufficient number of new houses to permit the founding of a neighborhood organization and to create some mutual protection.

Floor Framing

Wooden floor framing is modified in the modular units. Normally floor joists run from wall to wall, parallel to each other. In these units, the joists are interrupted by headers so that a boxed off area, large enough to accommodate a truck tire, is formed. These boxed off areas are located in four spots, so that the modular unit can sit down on top of the truck's tires, thereby reducing the height of the unit during transportation. The use of headers does not weaken the building structurally, but it is different from a standard floor joist layout.

House Traps

House traps are required by some sanitary codes, their purpose being to furnish a water seal against the entrance of gases from the sewer into the piping system of the building. They are, however, considered unnecessary by the National Plumbing Code and other authorities, the argument being that they interfere with the flow of sewage and the air movement in the house drain and increase the possibility of back-pressure in the soil pipes.

Project Location/Name: Jamaica Village, Queens, New York City

Local Contacts: Tim Flanagan, Dept. of Housing Preservation & Development

Builder/Developer: K. Weinstein/Greentree Enterprises

Project Description:

Project/Lot Size(s): 60 feet x 100 feet lots situated on three contiguous blocks.

Number of Units: 77 units planned

Types/Size of Units: 2,3,4 bedroom units, 960 sq. ft. in the smallest unit, 24 ft. wide, ranch-style houses.

Special Features: Full unfinished basement, 1 1/2 and 2 baths, unprotected on-site parking, AC outlets but no AC sleeves, protective grills for future placement of window AC units.

Site Description and Development Features: All the units face the street, using the interior of the blocks for private back yards.

Unit Features:

Modular Unit: by Deluxe Homes of PA., Inc., Berwick, Pennsylvania

Basic Characteristics: One-story detached ranch houses with 3 to 12 roof slope and gable ends which are premanufactured in two halves. Asphalt shingles, horizontal aluminum siding, low maintenance prefinished aluminum soffit and fascia coverings.

Quality: High quality modular unit.

Variances for Local Conditions/Codes/Practices: Type X gypsum board on basement ceilings, house traps (see comments) where required; these variations were based on the Queens borough inspector's interpretation of the codes. Foundation depths vary due to site conditions. The units meet all applicable code requirements.

On-Site Finishing Work:

Basic Characteristics: Includes sidewalks, curbs, drives, foundations, basement walls, drainage systems for rain water to dry well in rear of unit and through curb in the front of the unit.

Quality: Adequate

Variances for Local Conditions/Codes/Practices: Greater foundation depths due to unforeseen site conditions. More accommodations for surface drainage for this site because it was fairly low.

Construction Costs:

Site: \$17,000/unit (City spent)

Modular Unit:

Basic Unit & Options:	\$21,419.00	
Freight, permits & taxes:	\$ 2,270.00	
Set up expense:	\$ 1,300.00	
	<u>\$24,060.00</u>	(3-bedroom unit)

Finishing Work:

The total actual cost per unit including land development was
 \$70,000 (3-bedroom)
 \$77,000 (4-bedroom)

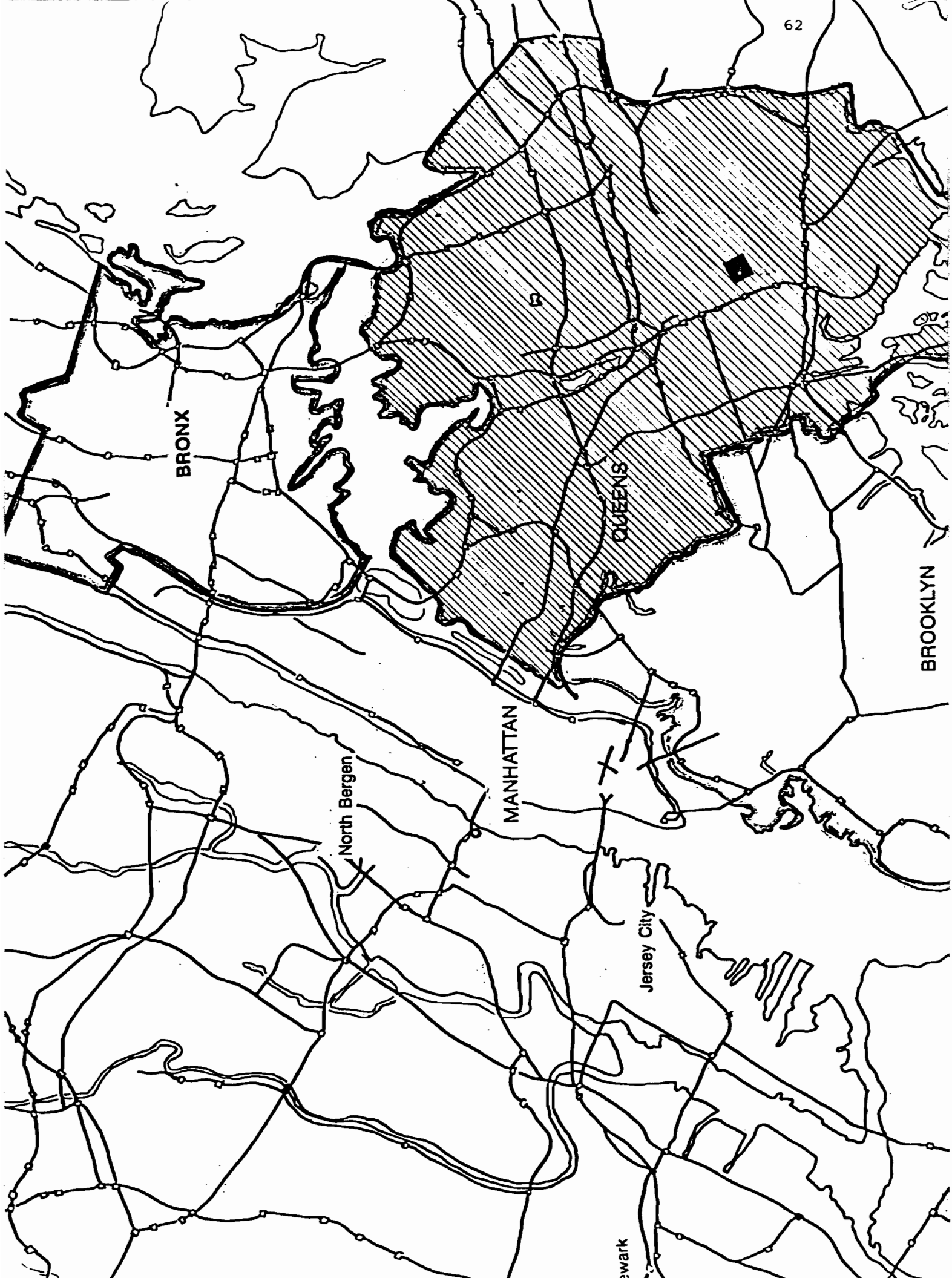
Sales Prices:

\$53,000 (3-bedroom)	maximum allowable mortgage \$47,500 (3 BR)
\$60,000 (4-bedroom)	\$55,000 (4 BR)

Sources of Funds and Financing: NYC land Section 421b property tax abatement, no real estate tax during the construction period. Section 235 financing.

Total subsidy=\$17,000/unit

Schedule and Current Status: Project was initially planned for 77 units; 55 units were basically completed as of March, 1984; 10 are at the factory or on-site not completed, and the 12 remaining units have been dropped due to the inability, or the lack of desire on the city's part, to extend necessary services to the last block.



BRONX

QUEENS

BROOKLYN

MANHATTAN

North Bergen

Jersey City

Newark

DeLuxe

Homes of Pa. Inc.

9TH AND OAK STREETS • P. O. BOX 323 • BERWICK, PENNSYLVANIA 18603 • (717) 752-5914

INVOICE N° 147 63

17-2

RE: Metropolitan Homestead/Larkins, Job #55

Date Shipped _____ Invoice Date 4/10/84

Sold To DeLuxe Dev. of Delaware Ship To _____

P.O. Box #323

Berwick, Pa. 18503

RP

DeLuxe Homes Model #DC2440, SUPREME S/N#104-6875 Option No. 17695.00

701 175.00
620 1250.00
105 25.00
009 150.00

- : 2" Future vent for basement 20.00
- : A.C. Single recept. on separate 20 Amp circuit, etc. 75.00
- : 100 Amp service panel BR#2 endwall at front corner, etc. 100.00
- : Wire & Box for 2nd smoke detector for basement 35.00
- : Electric Door Chimes 35.00
- : Furnace safety switch in hallway w/(10'), etc. 25.00
- : Wire & box for light at bottom of stairway, etc. 25.00
- : 110V (5') drop separate circuit under bath for W/D 35.00
- : Basement light wire & box between furnace & W/D area 25.00
- : 1/2" Metal conduit to basement for ground raceway 25.00
- : R-19 (6") Floor Insulation 325.00
- : New York Specifications 150.00
- : Raingutters two (2) drops only BR.end w/(4) elbows 200.00
- E WALL: 5/8" Type X Gyp. Sheathing all ext.walls 80.00
- E WALL: 5/8" Fire Code drywall int.of all ext.walls 40.00

*William L. Hayes
General Mgr.*

2795.00

- REIGHT: 260 Miles @ 3.10 806.00
- Pa. Permits 40.00
- N.Y. City Permits 50.00
- N.J. Permits 30.00
- Transceiver Charges 36.00
- Tolls 40.00
- Flag Cars 130.00
- Frame Return 133.00

1265.00

Set-Up Expense 1300.00

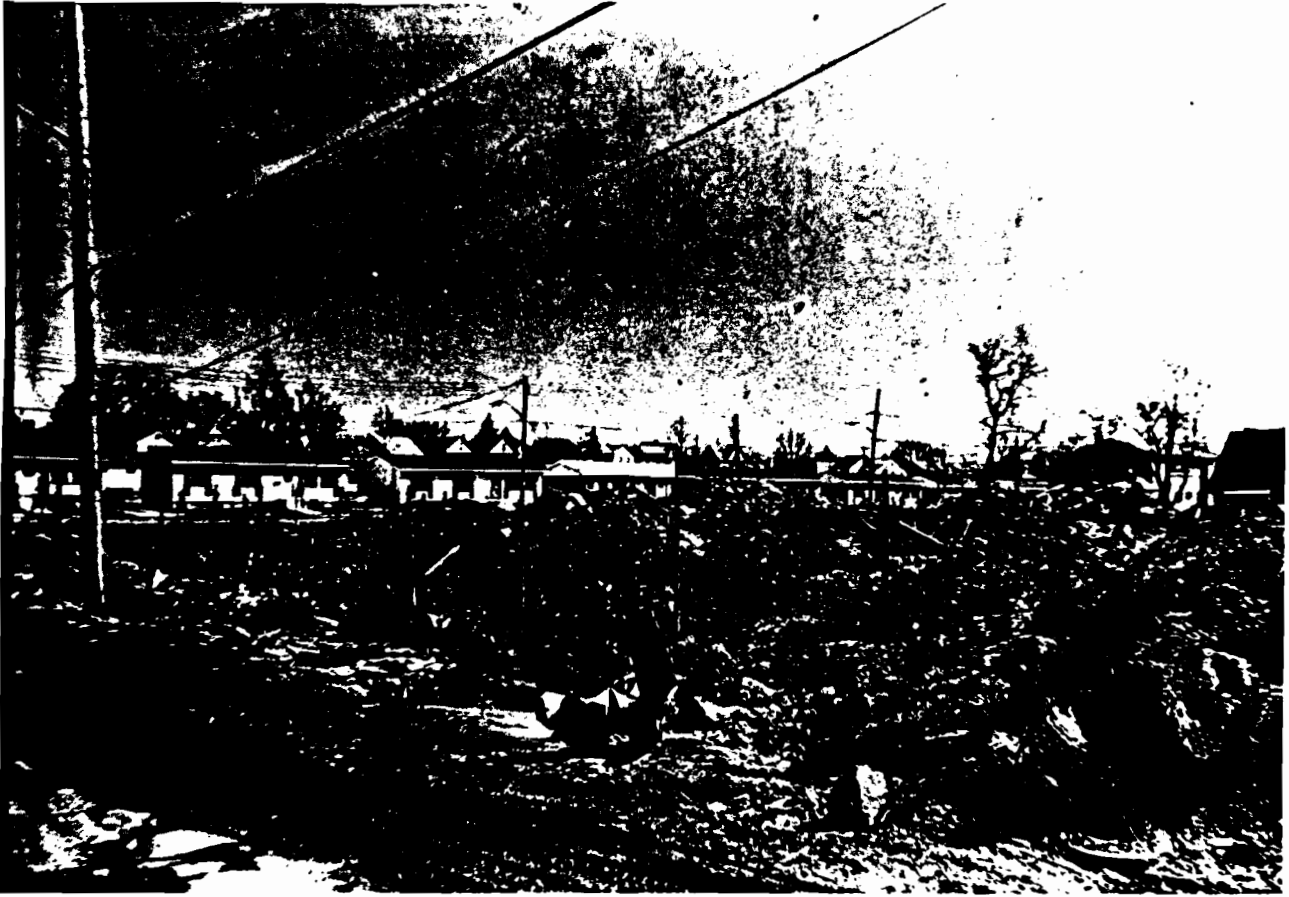
New York State Seal 75.00
8% New York State & City Use Tax 829.73

24059.73

2% Discount (353.90)

Ok. 120 4/30/84

A. Beared



Frontal View of Project in Background;
Vacant Site in the Foreground Slated for More Units.



Basement Excavation in Progress and
a View of the Surrounding Neighborhood



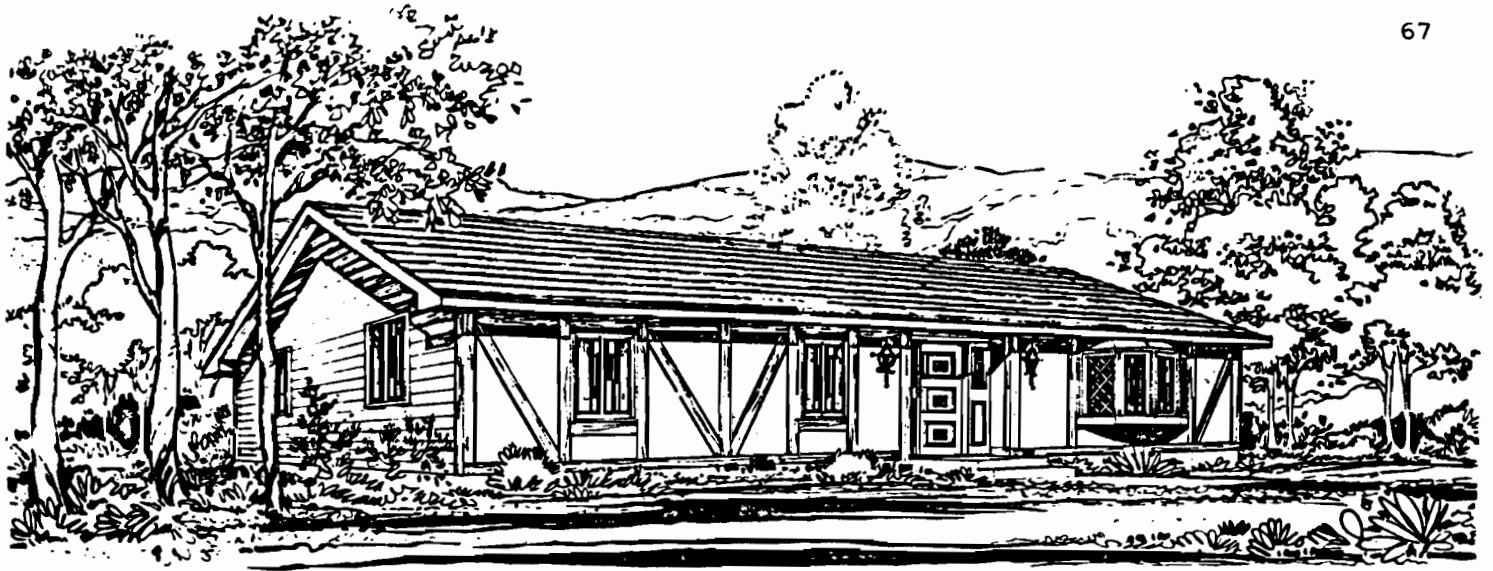
Basement Excavation in Progress; Note the Pier Foundation in the Center



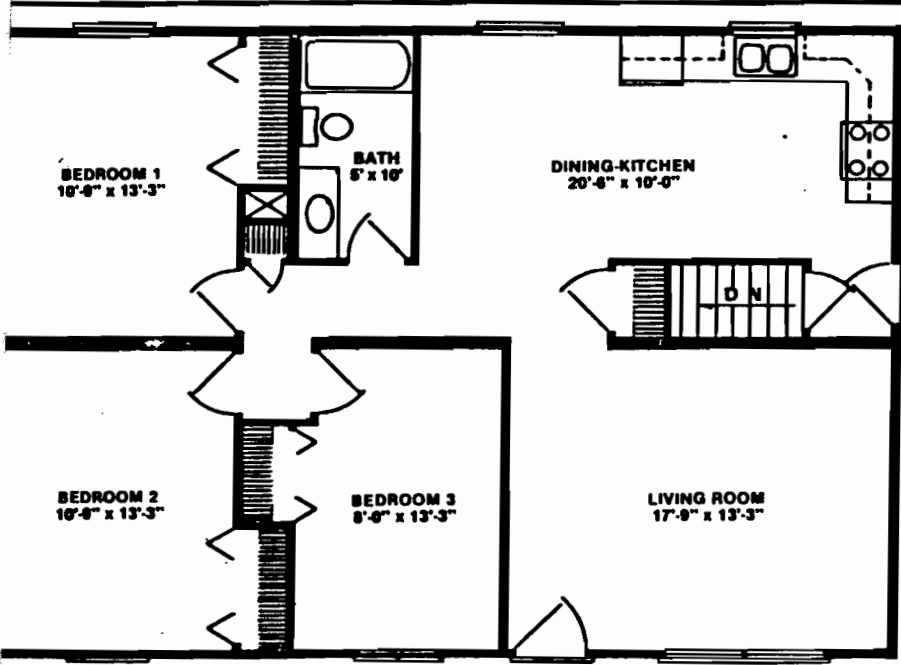
Interior of Project Showing the Back.Yards



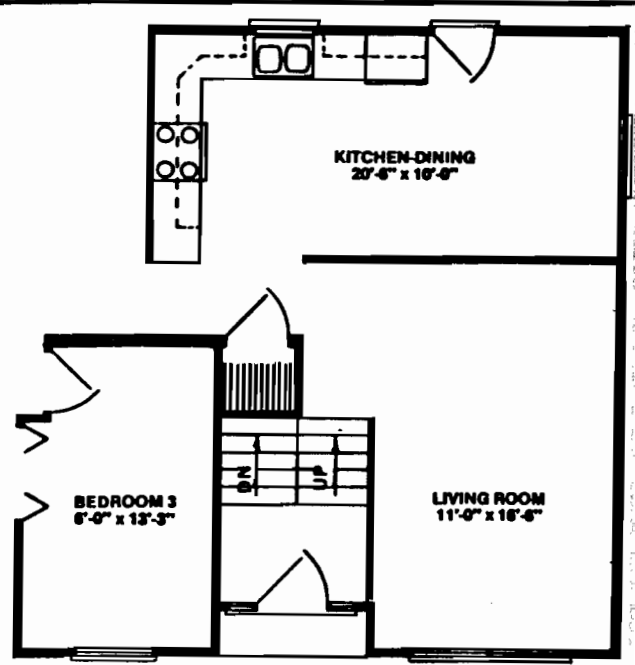
Front View from the Street



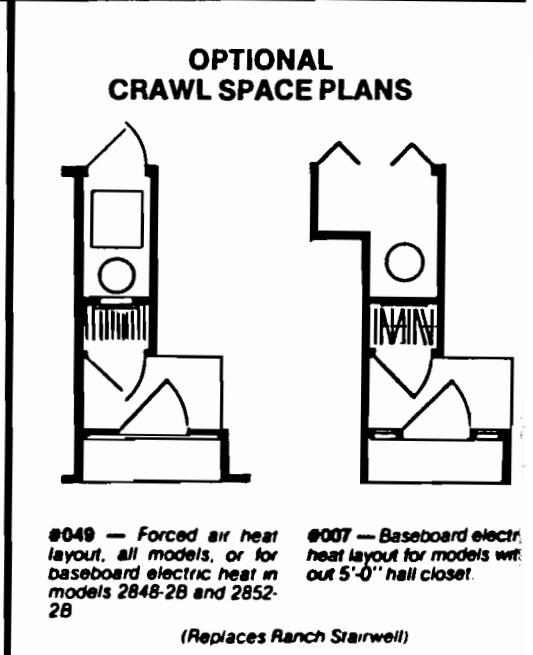
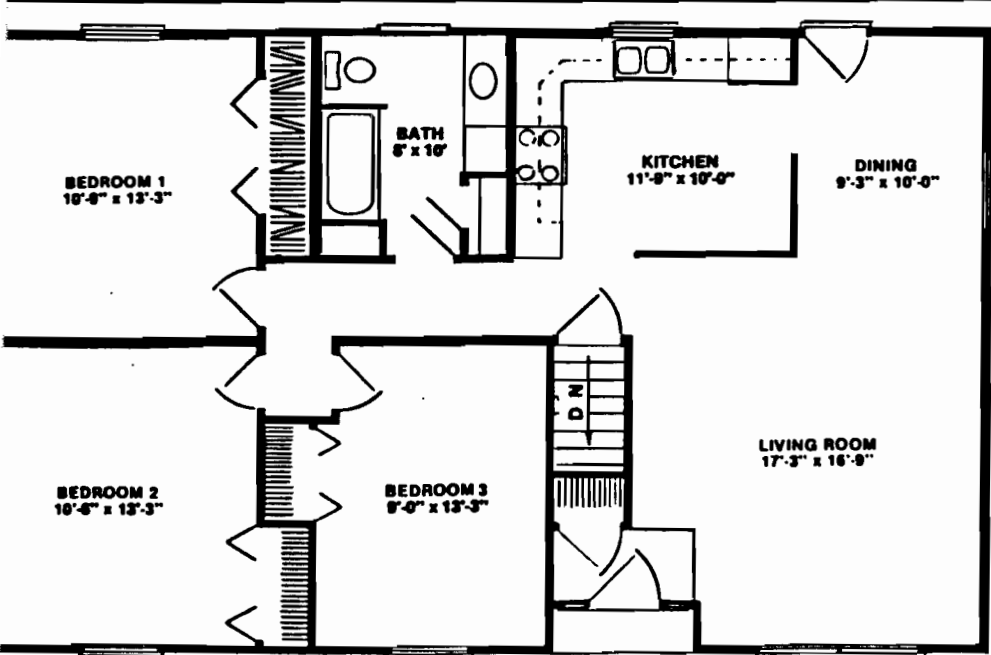
ENGLISH TUDOR... Optional Elevation F shown with added diamond grilled bow window.



MODEL 2840 RANCH BASEMENT PLAN • THREE BEDROOMS, ONE BATH • 27'-5" x 40'-0"



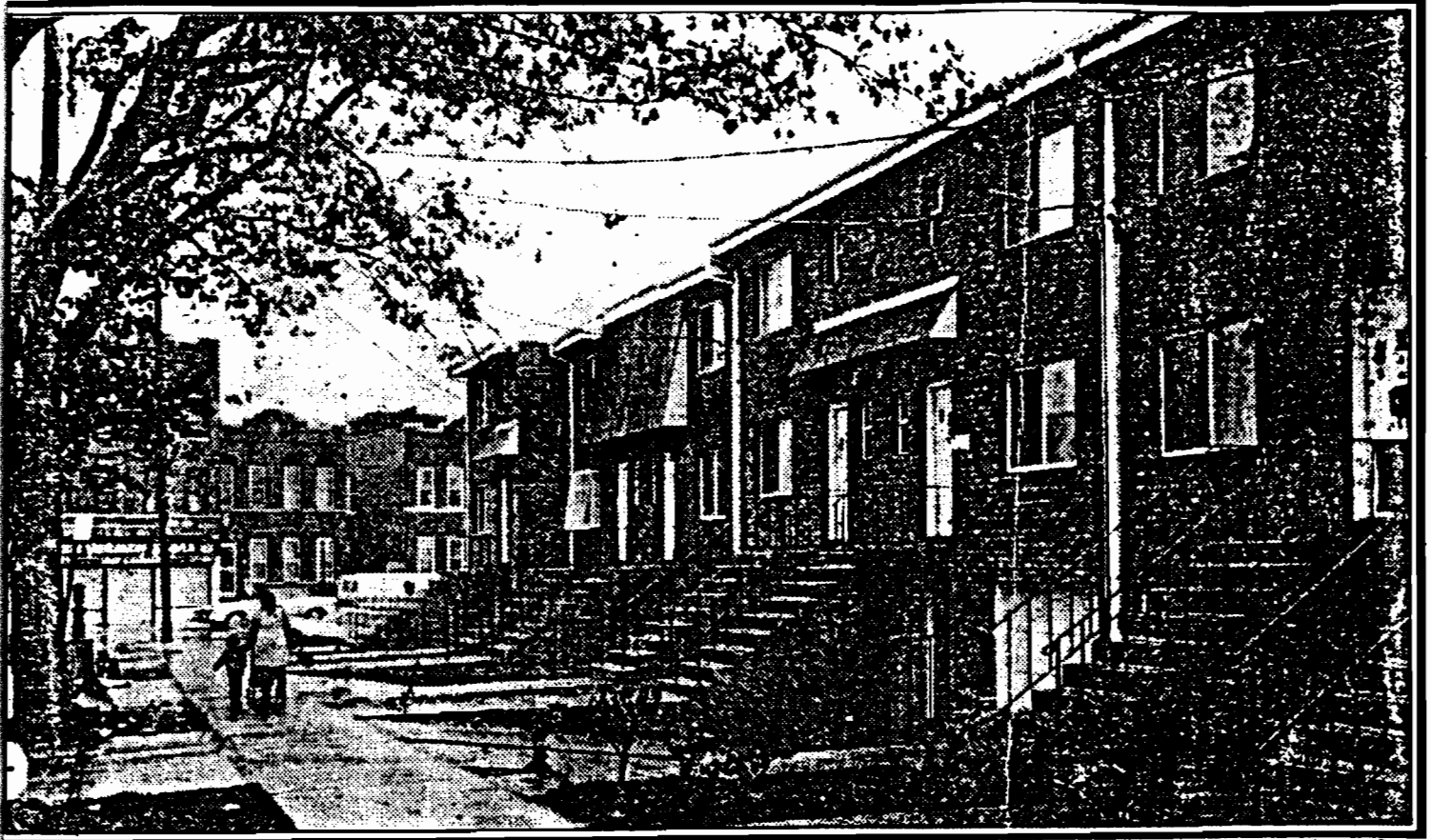
MODEL 2840R RAISED RANCH • 27'-5" x 40'-0"



Bibliography for Queens/Jamaica Village

"Factory Built House Gets a Foothold in City," The New York Times, 13 Nov.,
1983.

Factory-Built Housing Gets a Foothold in the City



The New York Times/Chester Higgins Jr.

A row of factory-built town houses on Essex Street in the East New York section of Brooklyn.

Continued From Page 1

each or town house, replicated from site to site, and produced with the efficiencies and quality control that factory conditions ensure. Standardized construction would produce savings, especially in the nonconstruction "soft" costs such as interest.

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There are places where city-owned land has a fairly strong marketability to buyers who do not need subsidy assistance. One is Prospect Heights, where the manufactured town house that Mr. Rubin is installing has a flat roof and is again of a generous size — 1,300 square feet for the three-bedroom and 1,500 square feet for the four-bedroom. But over-all, at least 70 percent of the buyers of

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A big question mark is whether the factory product would be acceptable to the unsubsidized buyer who is now buying a conventional tract house on privately owned land. "We don't know the buyer acceptability of the semiluxury house," said Julius Mehrberg, the builder of the 160-unit Stone Gate at Gramere project in Staten Island.

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Both he and Mr. Meske said they had no doubt that appealing manufactured houses could be designed for the New York market.

The Factory-Built House Gets a Foothold in City

By ALAN S. OSER

THE year 1963 is establishing itself as the period in which single-family houses built in a factory and assembled on large development tracts were delivered to New Yorkers for the first time.

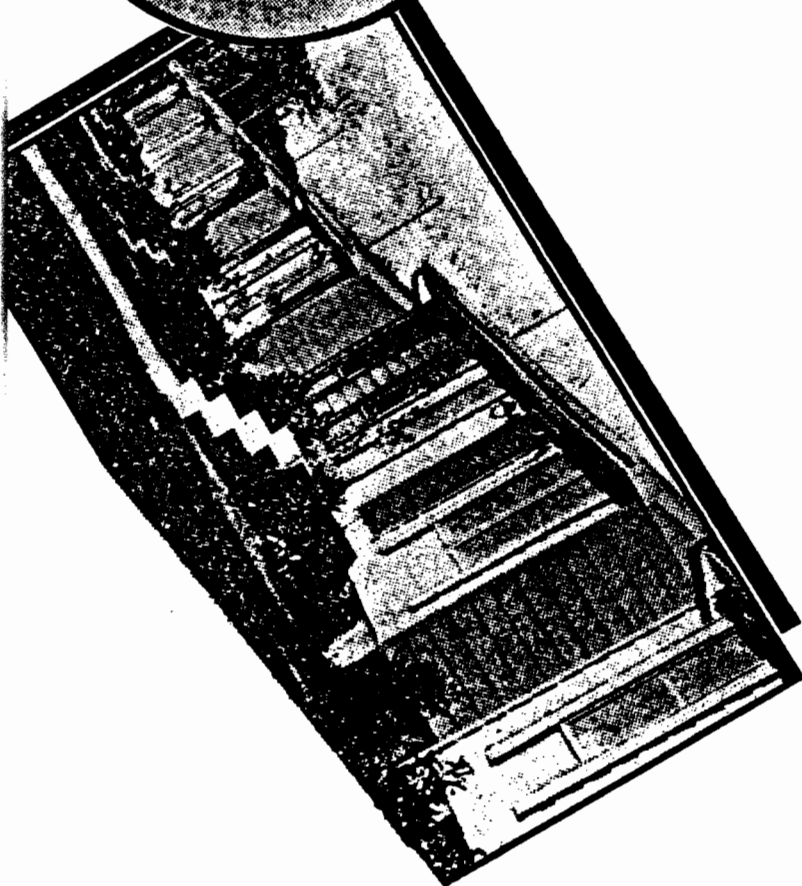
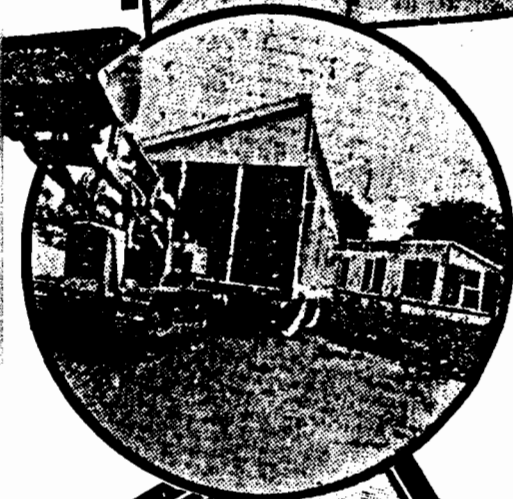
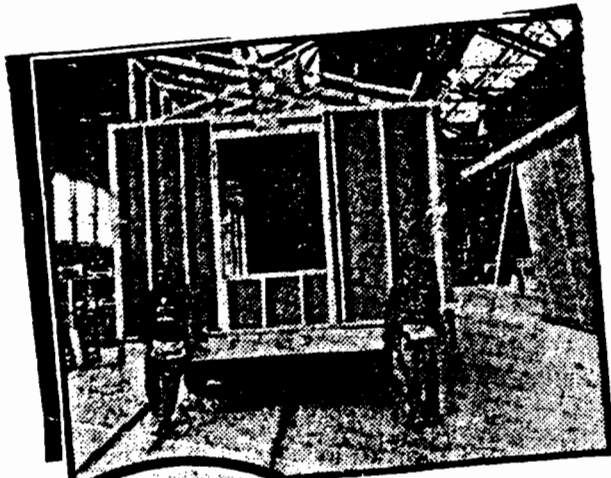
The scale is modest in comparison with what is believed to be the market potential, and with the construction of "stick-built" houses — those built on the site by conventional methods.

Nevertheless, houses manufactured in Pennsylvania have been sold this year to families in Brooklyn, Queens and the Bronx with incomes in the \$20,000 to \$40,000 range. Between 100 and 200 such homes have been occupied, or will be occupied by the end of the year, in the East New York and Prospect Heights sections of Brooklyn, the Crotona Park section of the Bronx and South Jamaica, Queens.

This achievement has awakened new interest in a familiar question: What are the chances for factory production of houses in the city itself, so that construction jobs would not be lost through manufactured output? Would the market accept them? Could a house be produced that suits the New York environment?

Above all, could such houses be delivered at costs significantly below those for stick-built houses? And would the houses be widely salable even without mortgage-interest subsidies for buyers? Subsidies made available under a city-sponsored Federal mortgage-interest program reduce builders' risk in home production and have generated the experimental efforts so far. But this program, called Section 235, expires next September.

With a factory in the city and development processes working smoothly, the hope would be to lift low-rise housing output on large stretches of underutilized land to new levels. Mass production would lower unit costs. City cooperation with land contributions and site improvements could generate production on stretches of city-held land. The "product" would be a standard



APPENDIX III

EAST NEW YORK

Comments:

This project consists of three separate building sites located within several blocks of each other in the East New York section of Brooklyn. The development is comprised of three story, three and four bedroom, attached townhouses. The first site had 28 completed units on it, the second site had about one-half of the modular units set, and the third site had not started construction as of March, 1984.

The modular units arrive in four separate sections and are placed upon a poured concrete foundation wall. The units are covered with brick veneer. The lowest level is about five feet below grade, containing a single car garage and utility room. The middle level contains the living/dining/kitchen while the top floor is where the bedrooms are located.

This project is the most successful in terms of integration into the surrounding neighborhood. Because the surrounding neighborhood is comprised of two and three story brick row housing, the new, brick-covered townhouses appear to be a newer version of the older neighborhood.

Several problems were brought up during the visit to this project. The developer mentioned that this type of unit, which is connected in a row, has a minimum variation allowance since all the units have to match the foundations. Foundations which were not square, level or in correct dimension caused a longer erection period due to adjustments. For example, inside the unit that was inspected the floor where the two halves of the module came together did not align, creating a hump in the floor. It was unclear whether

this was a result of foundation difficulties or workmanship.

Project Location/Name: East New York section of Brooklyn

Local Contacts: Timothy Flanagan, Dept. of Housing Preservation & Development
Bob Scales, MMRR Costruction

Builder/Developer: Irvin Rubin/MMRR Construction

Project Description:

Project/Lot Size(s): 100 feet deep lots/20 to 25 feet wide

Number of Units: 28 units (Phase I); 31 units (Phase II); a total of 100 units planned

Types/Size of Units:

3 and 4 bedroom townhouses, 2 1/2 baths, full basement with garages; 3 bedroom = 1400 sq. ft.; 4 bedroom = 1560 sq. ft.

Special Features:

Peaked Roofs

Site Description and Development Features:

Oriented toward the street with rear yards fenced off; therefore, each unit has a front and rear yard.

Unit Features: Deluxe Homes of PA. (Phase I)

Deluxe Homes of PA. and Tec Buildings Systems of Egg Harbor, NJ (Phase II)

Modular Unit: I.B.S. (the new factory located at 800 Snediker Avenue, NYC) (Phase II)

Basic Characteristics: The units come in four sections and are set on job-built foundations, then the units have brick veneer applied. Three-story townhouses with the lower level half in the ground.

Quality: Good, noticed some problems with connection of the modular halves.

Variances for Local Conditions/Codes/Practices: Steel joists on steel studs; high specification plastic pipe; nonmetallic cable for wiring; house meets all applicable codes.

On-Site Finishing Work:

Basic Characteristics: Foundation, basement walls including garage, brick veneer, drives, sidewalks, landscaping

Quality: Fair. There are some problems mentioned. The foundations were not poured exactly to the correct dimensions, creating difficulties when the units were set.

Variances for Local Conditions/Codes/Practices:

Construction Costs:

Site: \$6,000/unit

Modular Unit: (including transportation) approximately \$35,000/unit

Finishing Work: (including erecting and tying modulars) \$22,000/unit
\$71,000.00 (3-bedroom)
\$78,000.00 (4-bedroom)

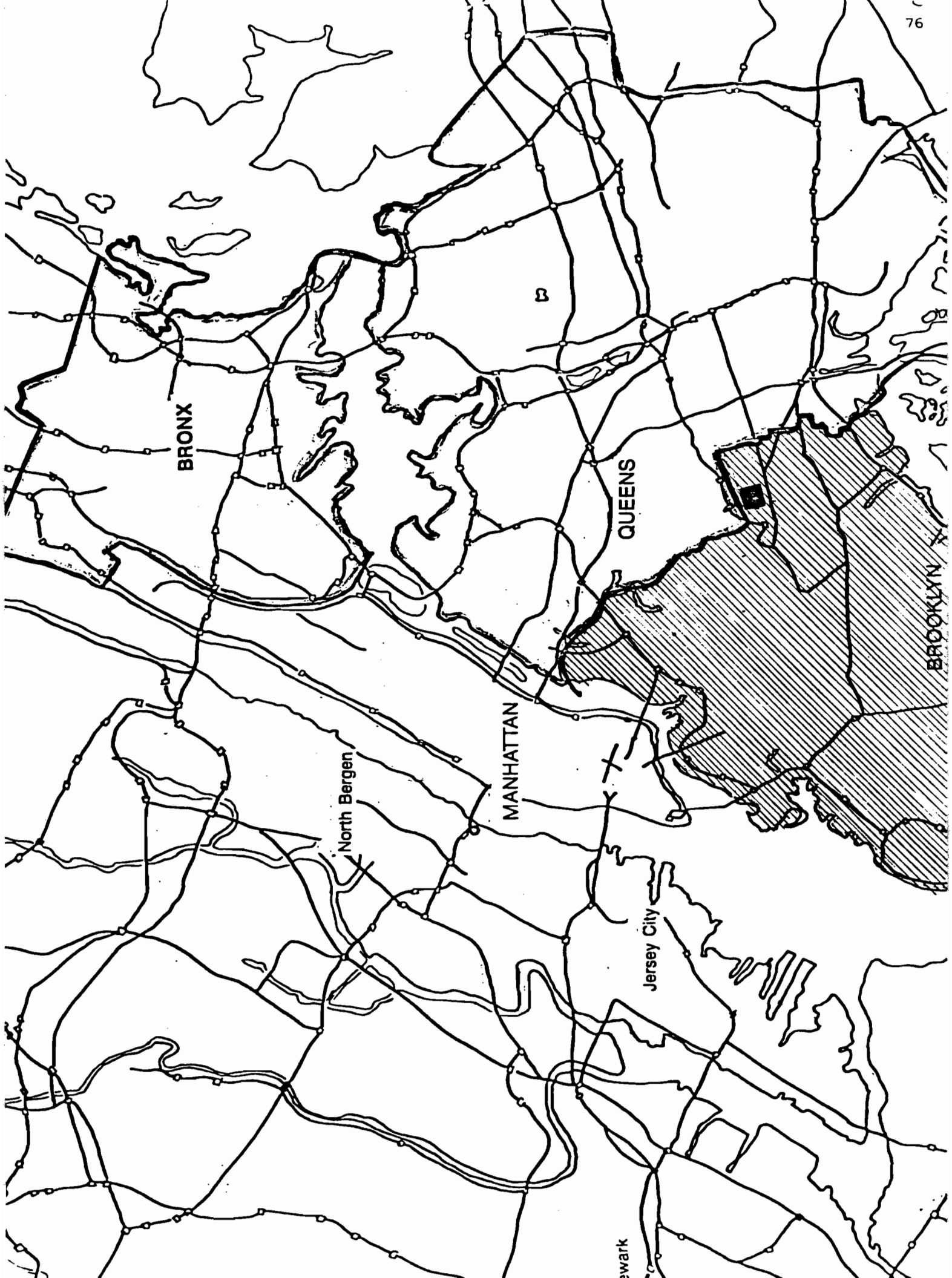
Sales Prices:

\$56,000.00 (3-bedroom)
\$63,000.00 (4-bedroom)

Sources of Funds and Financing: NYC land, Section 421b property tax abatement, sales tax exemption, no real estate tax during construction period, some Section 235 financing (low interest loans 4 1/2%).

Total amount subsidized \$15,000.00

Schedule and Current Status: 28 units were basically complete in March, 1984.



BRONX

QUEENS

BROOKLYN

MANHATTAN

North Bergen

Jersey City

Newark



General View from the Street



General View as Approaching the Project from the Street



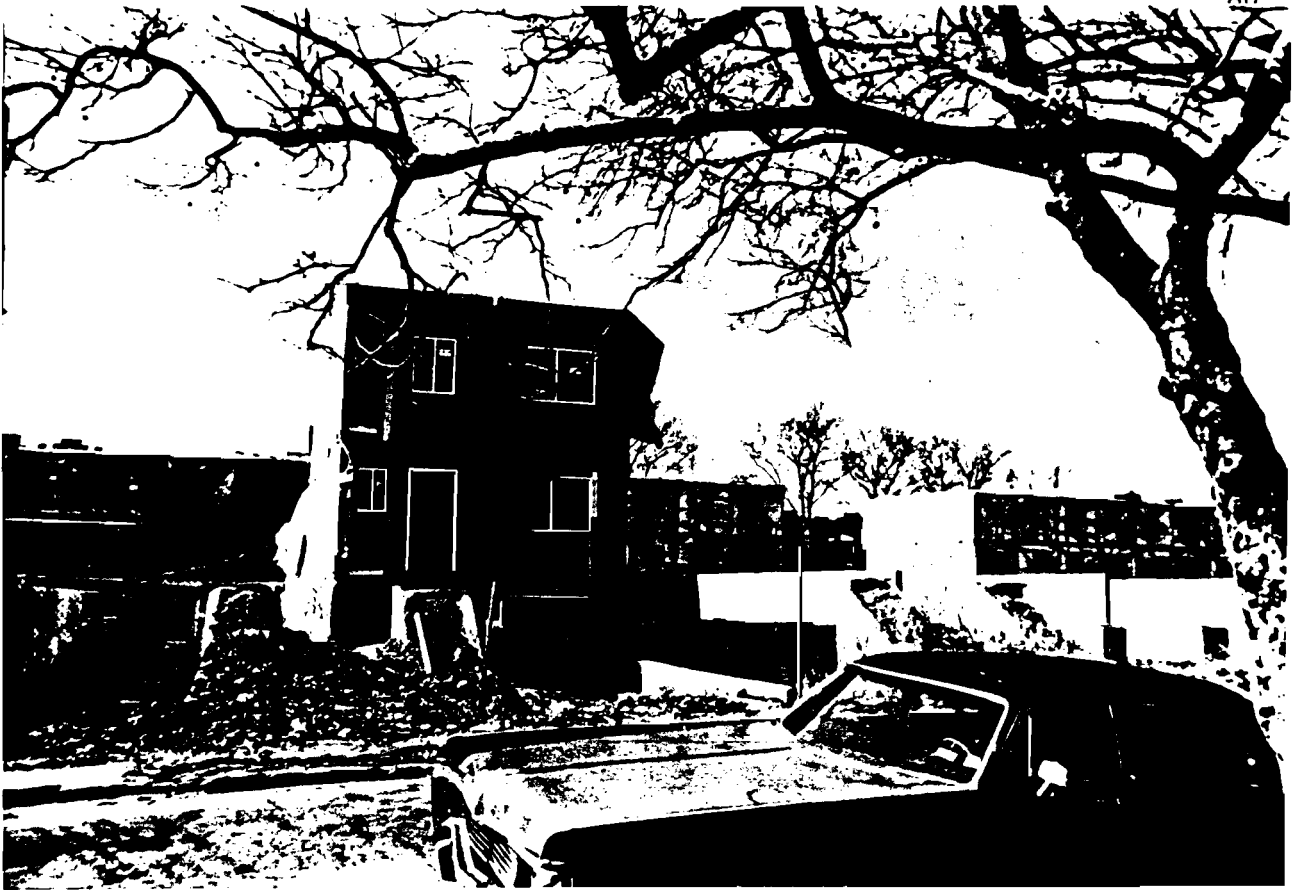
Interior of the Block Showing Fenced Back Yards & Rear Elevations



General Front View



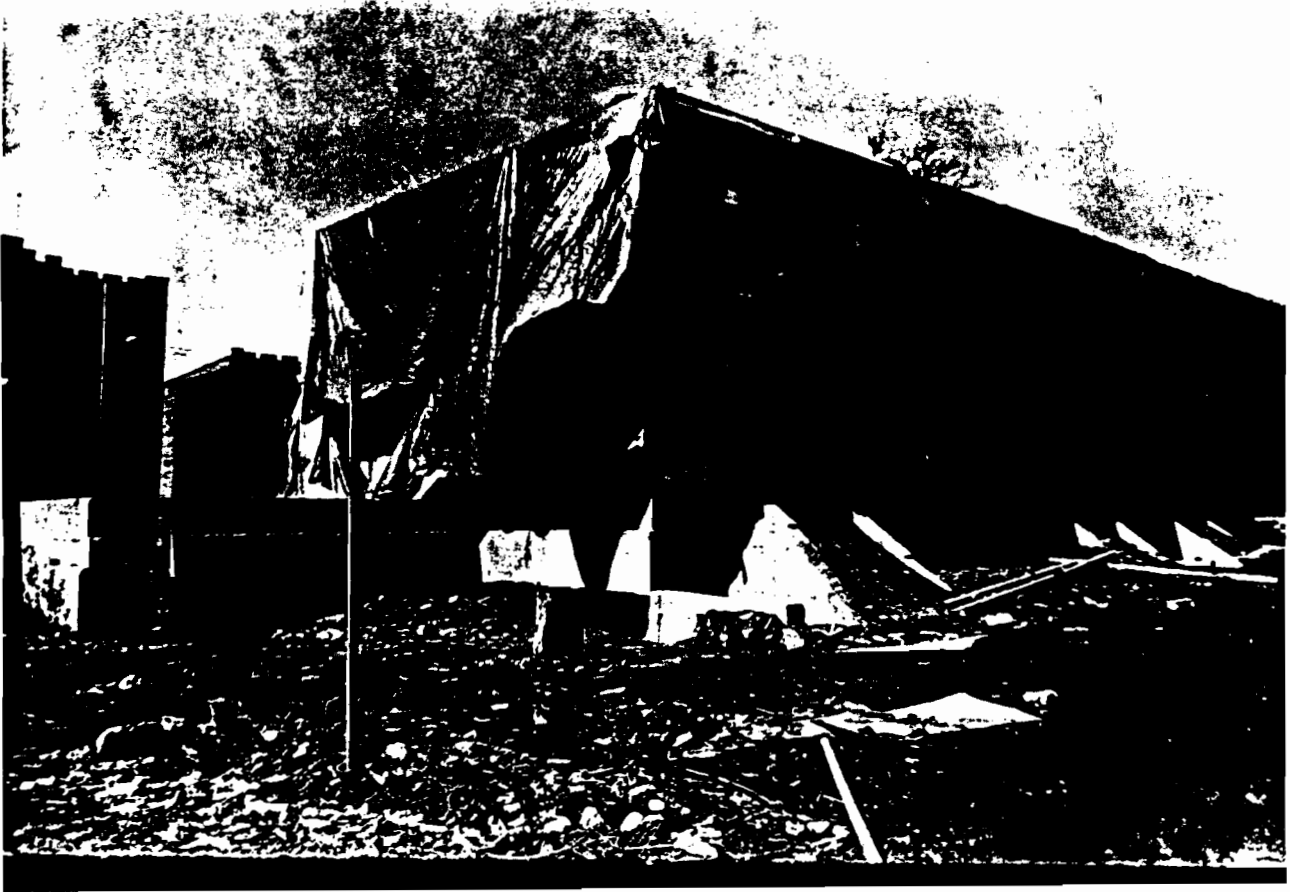
Close Up of Garage and Front Entry



Unit in the Foreground is the First Built in the New York City Factory



View from the Rear of Recently Placed Modules Before any Exterior Finishes are Applied



Modules Set in Place Without Exterior Clading

BROOKLYN TOWN HOUSES

**EAST NEW YORK
BROWNSVILLE
PROSPECT HEIGHTS**

3

**BEDROOM
TOWNHOUSE**



Brooklyn Union Gas



**EQUAL HOUSING
OPPORTUNITY**

MMRR Construction Corporation has chosen natural gas -- the nation's most efficient energy system -- for heating, hot water and cooking at its Marcus Garvey, Prospect Heights and Charette Developments.

Brooklyn Union Gas and MMRR Construction -- working together to save our city's most valuable asset - its neighborhoods.

BROOKLYN TOWN HOUSES

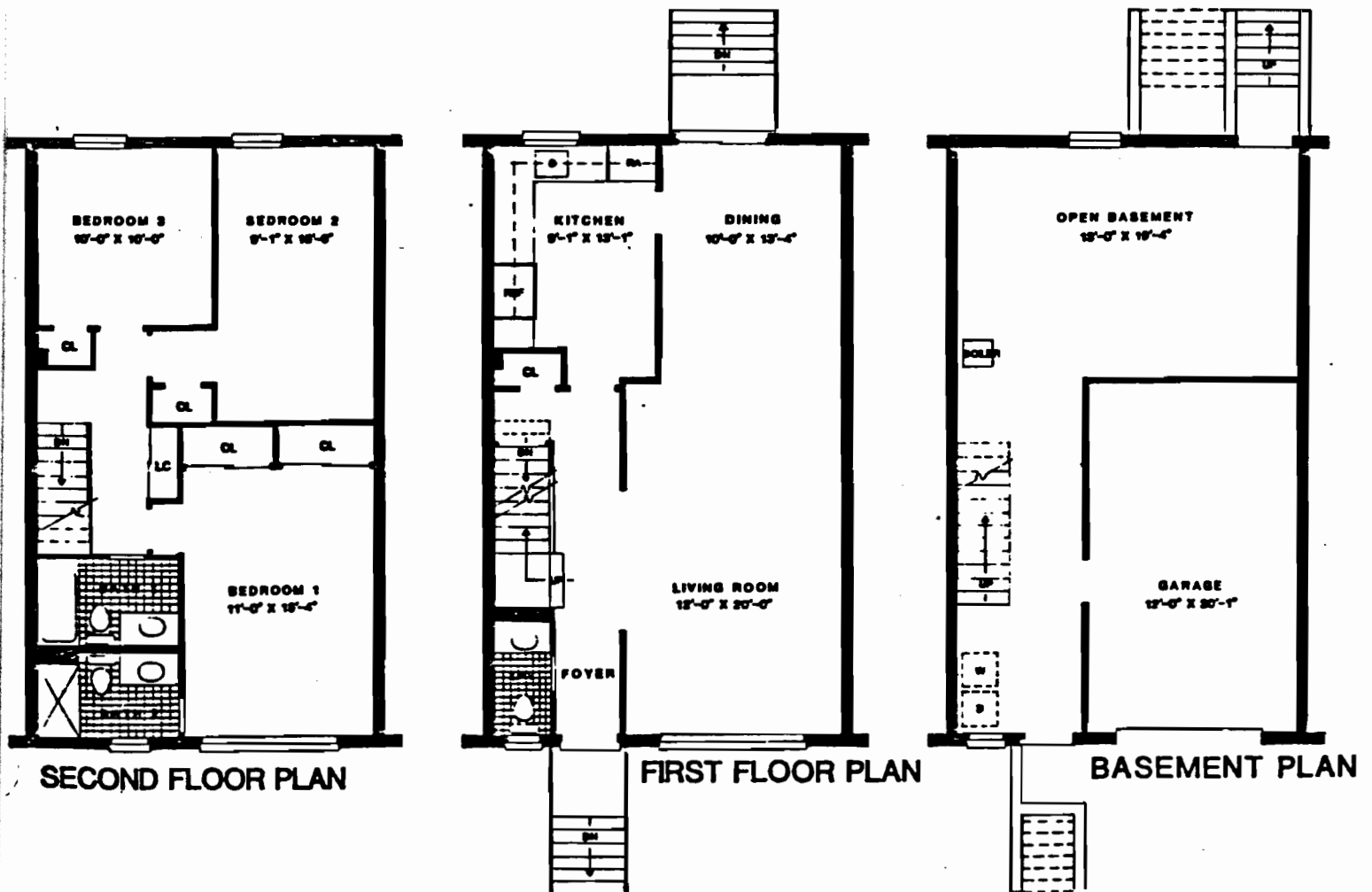
**EAST NEW YORK
BROWNSVILLE
PROSPECT HEIGHTS**

FEATURES

Complete Energy Package

- *elr* Brick Veneer
- Thermo-Break Windows
- Exterior Doors Weather Stripped
- Base Board Radiators
- Copper Plumbing
- Ceramic Tile & Bath

- Beautiful Designer Cabinets
- White Aluminum, Leaders & Gutters
- Large Rooms
- Garage & Basement
- Front & Rear Yard
- Central Air-Conditioning Optional



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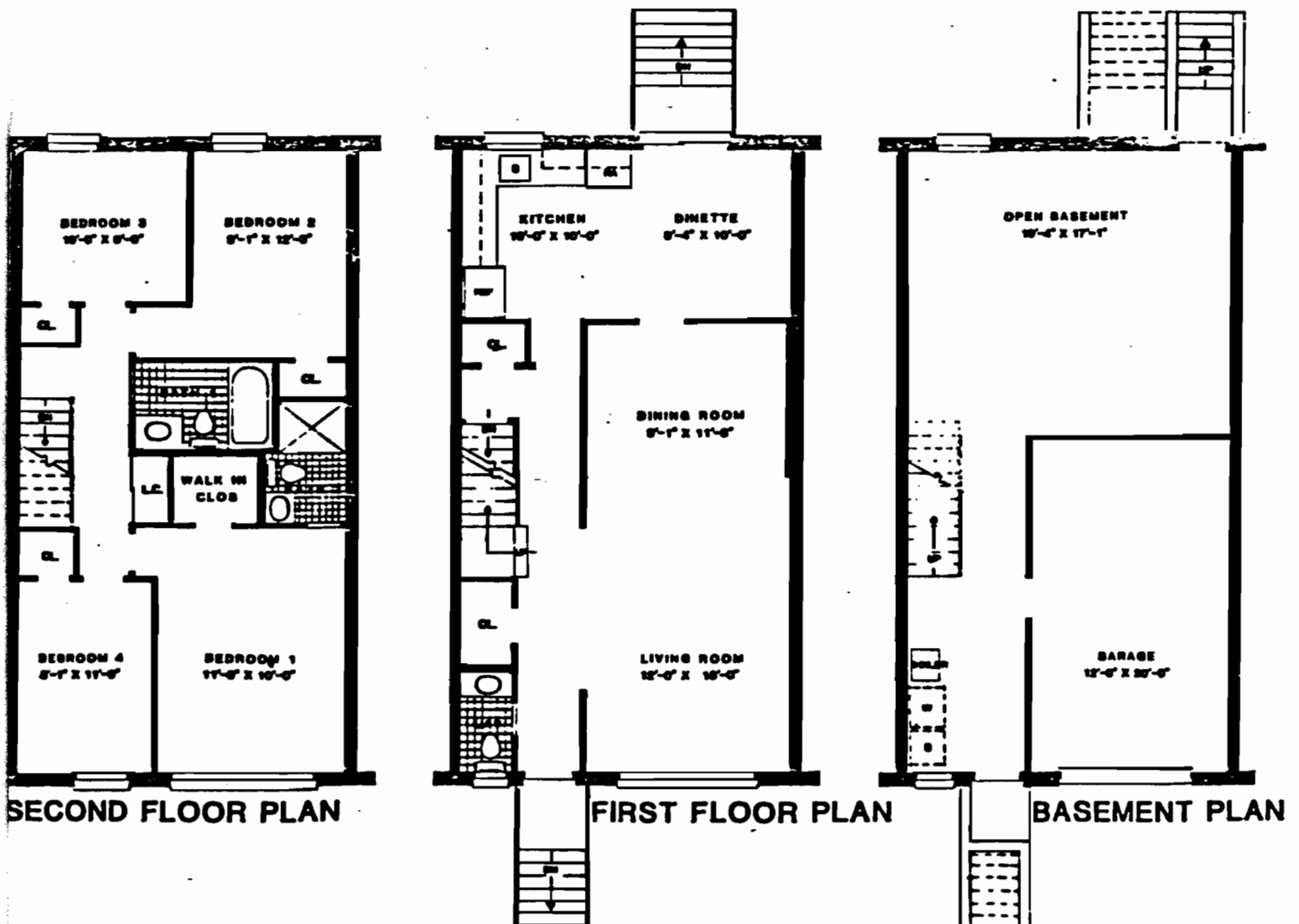
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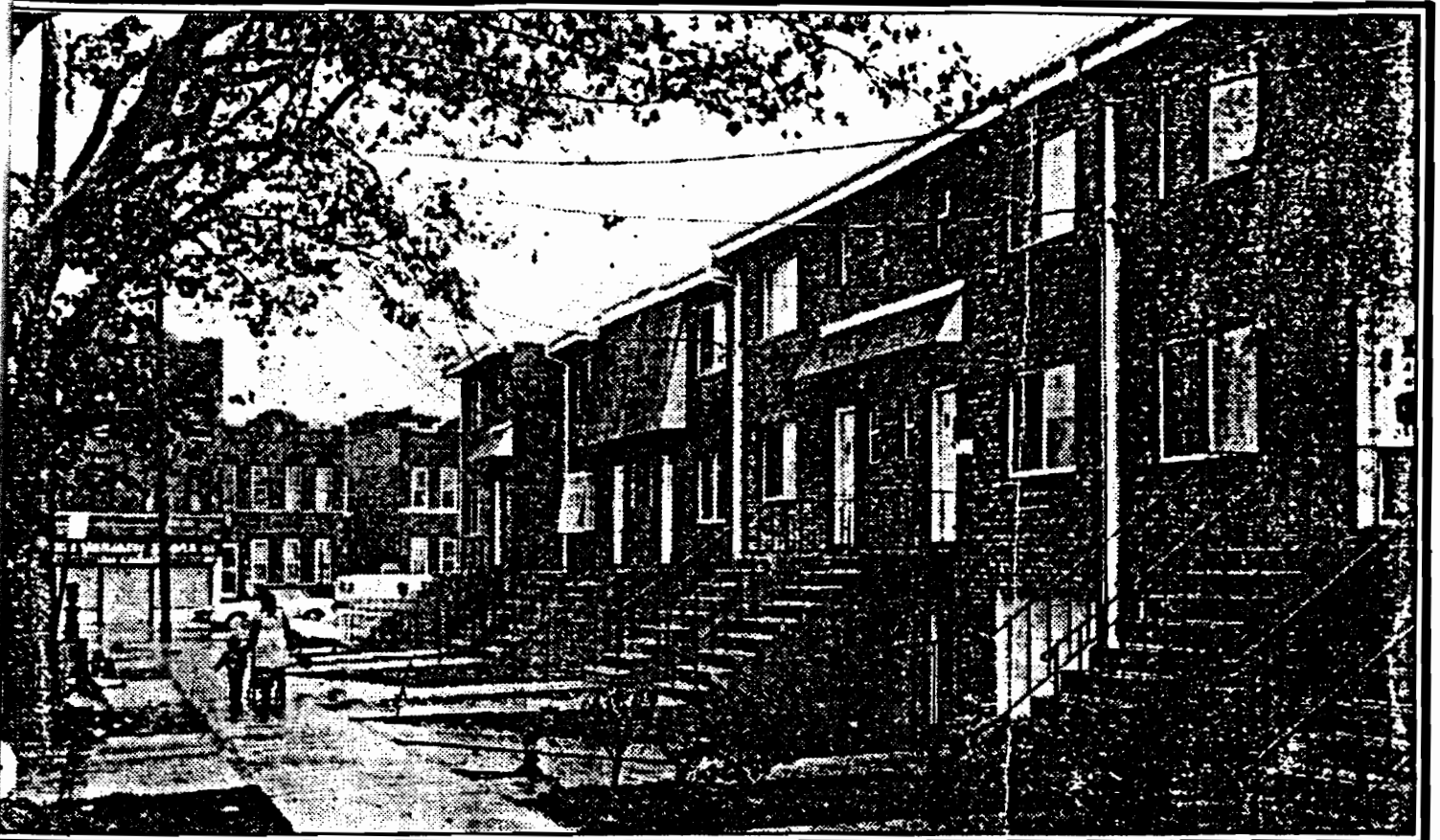


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"About Real Estate - Manufactured Housing Moves into the City," The New York Times, Oct. 14, 1983.

Factory-Built Housing Gets a Foothold in the City



The New York Times / Chester Higgins Jr.

A row of factory-built town houses on Essex Street in the East New York section of Brooklyn.

Continued From Page 1

each or town house, replicated from site to site, and produced with the efficiencies and quality control that factory conditions ensure. Standardized construction would reduce savings, especially in the nonconstruction "soft" costs such as interest.

To start a factory takes an awesome investment of capital and a lot of pain — like starting a freight train started," said Daniel Edel, president of Benchmark Homes in Dayton, Ohio.

Benchmark has a contract with the New York City Housing Partnership, a civic organization, to study the feasibility of locating a manufacturing plant in the city. The partnership specifically is considering whether to build a new plant, possibly in the city-owned Rega South Industrial Park near the Whitehall Bridge in the Bronx, with financial assistance from the Port Authority of New York and New Jersey.

THE plant would be operated by an experienced producer, and in part would turn out houses for the city's huge inventory of vacant or partially vacant land. This would take an over-all agreement with city construction unions as well as capital contributions and expedited oversight procedures by city government.

The partnership's study is incomplete. But Donald E. Meske, president of DeLuxe Homes of Pa., the long-established company in Berwick, Pa., chosen by the New York developers to supply their manufactured units, struck a negative note on the possibility of savings from a manufacturing operation at union-scale wages in the city.

"The cost would be about the same as stick-building," he said, estimating that manufacturing and installing a house in New York City would cost about \$50 a square foot exclusive of the land and land-development cost, or \$50,000 for a 1,000-square-foot house.

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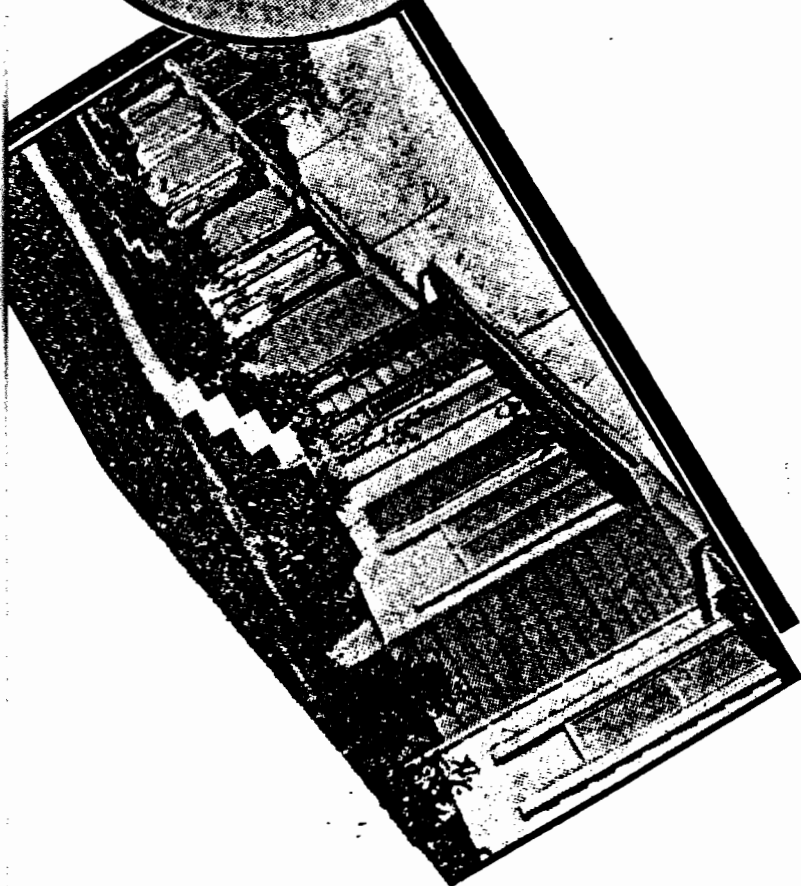
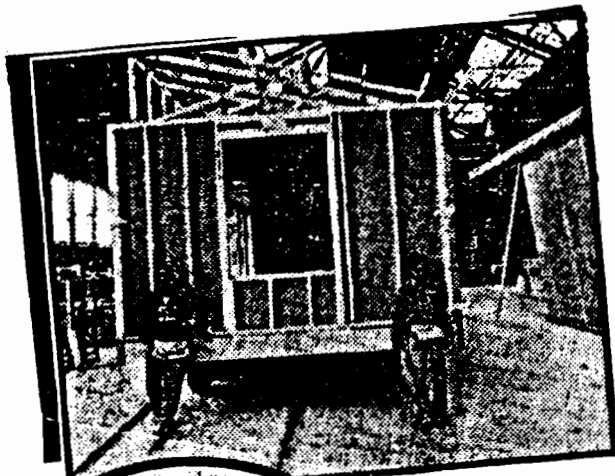
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About Real Estate

Manufactured Housing Moves Into City

By ALAN S. OSER

Manufactured housing is making its appearance in a widening spectrum of new single-family buildings across the city. At the same time, talks aimed at establishing facilities to do the construction within city limits are intensifying.

So far, public attention has focused on the use of mobile homes trucked to the Bronx in two sections from a plant in Pennsylvania to provide new houses near Crotona Park. These are raised ranches on about 6,000 square feet of land, selling for about \$50,000.

At the same time, a Long Island builder, MMRR Construction of Valley Stream, has started to sell a different type of manufactured house in East New York and Prospect Heights, Brooklyn, and plans to put more on a large site in Brownsville.

These are three-bedroom and four-bedroom attached houses with two and a half baths, a full basement and garage. They arrive in four sections. Assemblage takes less than a week. On-site work — for installation of the heating plant, utility connections, grading and landscaping, outside brickwork, stoop and driveway construction — takes two months. Prices range from \$58,000 to \$71,000 and most buyers earn \$28,000 to \$35,000 a year.

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factories in the city, Miss Wyld said. This would not only cut transportation costs, now about \$2,500 from Pennsylvania, but would also create construction jobs.

"There's room in the city for two or three factories," said Joseph Colon, president of the Tri-State Resources Corporation, the mortgage company in Ridgewood, Queens, that worked with MMRR Construction. He said there were more than 1,500 applications for the Brooklyn houses.

"You can sell homes for \$65,000 to \$80,000 all over," he said. "You could build 25,000 to 30,000 houses over three to five years and find a strong market for them."

The president of MMRR Construction is Irving Rubin, who has built several thousand conventional houses on Long Island.

Qualified buyers may take advantage of the Federal Section 235 program, which allows those with incomes between \$16,000 and \$32,000 to obtain 30-year mortgages at an interest rate as low as 4½ percent. MMRR was awarded three sites with a maximum of 435 houses. Financing comes from Chemical Bank.

Of 55 buyers in East New York so far, said Mark Rubin, the builder's son, 65 percent qualified for the low-rate loan (for which down payments range between \$6,000 and \$11,000) and the rest had enough income to afford a market-rate insured loan of about 13 percent. The issue of affordability is critical to the future of new construction, particularly as mortgage-interest subsidies are being phased out.

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ing about the manufactured MMRR products, some of which are already occupied on Essex Street near New Lots Avenue in East New York. They are "very ambitious units," said Timothy Flanagan, home ownership director in the Department of Housing Preservation and Development.

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In short, the houses are superior in dimension and even in amenities to many of the new conventionally financed condominium and town-house units selling at higher prices on Staten Island, where buyers are of comparable income but the builder must pay the full market price for the land. The buyer gets indoor parking, spacious living rooms of 12 feet by 17 or 20 feet, two and a half baths and superior interior finishes. The 20-foot width exceeds by 4 feet that of most new Staten Island two-family houses.

The architect was Shaftel & Akner of Great Neck, L.I. According to Stanley Shaftel, the homes use high-specification plastic pipe, nonmetallic cable for wiring, steel joists and steel studs and other materials and techniques acceptable under building codes but not generally used in the city.

The manufacturer of the occupied houses was DeLuxe Homes of Berwick, Pa. The current supplier is Tec Buildings Systems of Egg Harbor, N.J. Mr. Rubin said he hoped to open his own factory in East New York.

APPENDIX IV
PROSPECT HEIGHTS

Comments:

This development is located in the Prospect Heights area of Brooklyn on a large rectangular site. The project is laid out with twenty-two units in a line facing the street and twenty-two units facing the other side of the street. The rear of the units faces the rear of the other line of units. The first phase, which consists of one line of 22 units, was very near completion in March, 1984. The next phase had not begun.

The three story townhouse units are very similar to the units in East New York. They are constructed from four modular pieces set on a concrete foundation. The brick veneered units are planned the same as East New York units except they have flat roofs.

The neighborhood surrounding this development is two and three story brick townhouses on three sides and some sort of four story masonry factory on the fourth side. Just as the East New York project integrated into its neighborhood, so will this development.

These units suffered visually due to poor planning of the details. The flat roofs were probably chosen for the easy transporting of the modular units to the site, but flat roofs are often a source of trouble in terms of leaking. To soften or humanize the exterior elevations of these brick parapeted buildings, false mansard roofs were added; this is where the problem occurs.

Since the flat roofs drain to the rear, no gutters are required on the front of the unit which, in turn, means a fascia board is also not required.

Therefore, one was not used. The problem arises because a fascia and sub-fascia also serve to straighten the connection of the soffit and roof. Without them, it is very difficult to straighten the connection. This is not a structural problem but rather it simply looks like sloppy workmanship. Also, the treatment of the mansard termination around the corners is ill conceived and very awkward (see photos).

Project Location/Name: Prospect Heights area of Brooklyn.

Local Contacts: Timothy Flanagan, Dept. of Housing Preservation & Development
Bob Scales, MMRR Construction

Builder/Developer: Irving Rubin, MMRR Construction

Project Description:

Project/Lot Size(s): 100 feet deep lots x 20 to 25 feet wide

Number of Units: 22 units (Phase I); 22 units (Phase II)

Types/Size of Units: 3 and 4 bedroom townhouses, 2 1/2 baths, full basement and garage; 3 bedroom = 1300 sq. ft.; 4 bedroom = 1500 sq. ft.

Special Features: Flat roof with small mansards covered with asphalt shingles

Site Description and Development Features:

One large single block, units on both sides of the block facing the streets and using the interior of the block as the units' rear yards.

Unit Features:

Modular Unit: Deluxe of PA. (Phase I); Tec Building Systems of Egg Harbor, NJ (Phase II)

Basic Characteristics: The units arrive in four sections which are set on the half-submerged basement to create three-story townhouses.

Quality: Fair to poor; detailing ill-conceived, particularly concerning the roofs (mansard). Done without fascia so there was no way to keep the soffits straight. Not thought out very well on exterior details.

Variances for Local Conditions/Codes/Practices: Steel joist and studs; high specification plastic pipe; the units comply with all applicable codes.

On-Site Finishing Work:

Basic Characteristics: Foundation and basement floor and walls; electrical hookups; brick veneer; all sitework including: sidewalks, driveways, concrete stairs and stoop, landscaping.

Quality: Fair, but the basic details were poorly planned, which led to problems.

Variances for Local Conditions/Codes/Practices:

Construction Costs:

Site: \$6,000 unit

Modular Unit: approximately \$35,000/unit

Finishing Work: including erecting and typing modulars: total cost =
approximately \$71,000 (3-bedroom)
\$78,000 (4-bedroom)

Sales Prices: approximately
\$56,000 (3-bedroom)
\$63,000 (4-bedroom)

Sources of Funds and Financing: NYC land, Section 421b property tax abatement
Sales tax exemption, no real estate tax during construction

Schedule and Current Status: 22 units are basically completed as of March,
1984.



95

NEW YORK

Jersey City

North Bergen

MANHATTAN

QUEENS

BRONX

Vernon

52





View from the Rear Showing Roof Edge/Parapet Detail



Rear View During Construction. View of Neighborhood in Background



Front View Showing Roof Edge Detail



Front View

BROOKLYN TOWN HOUSES

98

**EAST NEW YORK
BROWNSVILLE
PROSPECT HEIGHTS**

3

**BEDROOM
TOWNHOUSE**



Brooklyn Union Gas



MMRR Construction Corporation has chosen natural gas -- the nation's most efficient energy system -- for heating, hot water and cooking at its Marcus Garvey, Prospect Heights and Charette Developments.

Brooklyn Union Gas and MMRR Construction -- working together to save our city's most valuable asset - its neighborhoods.

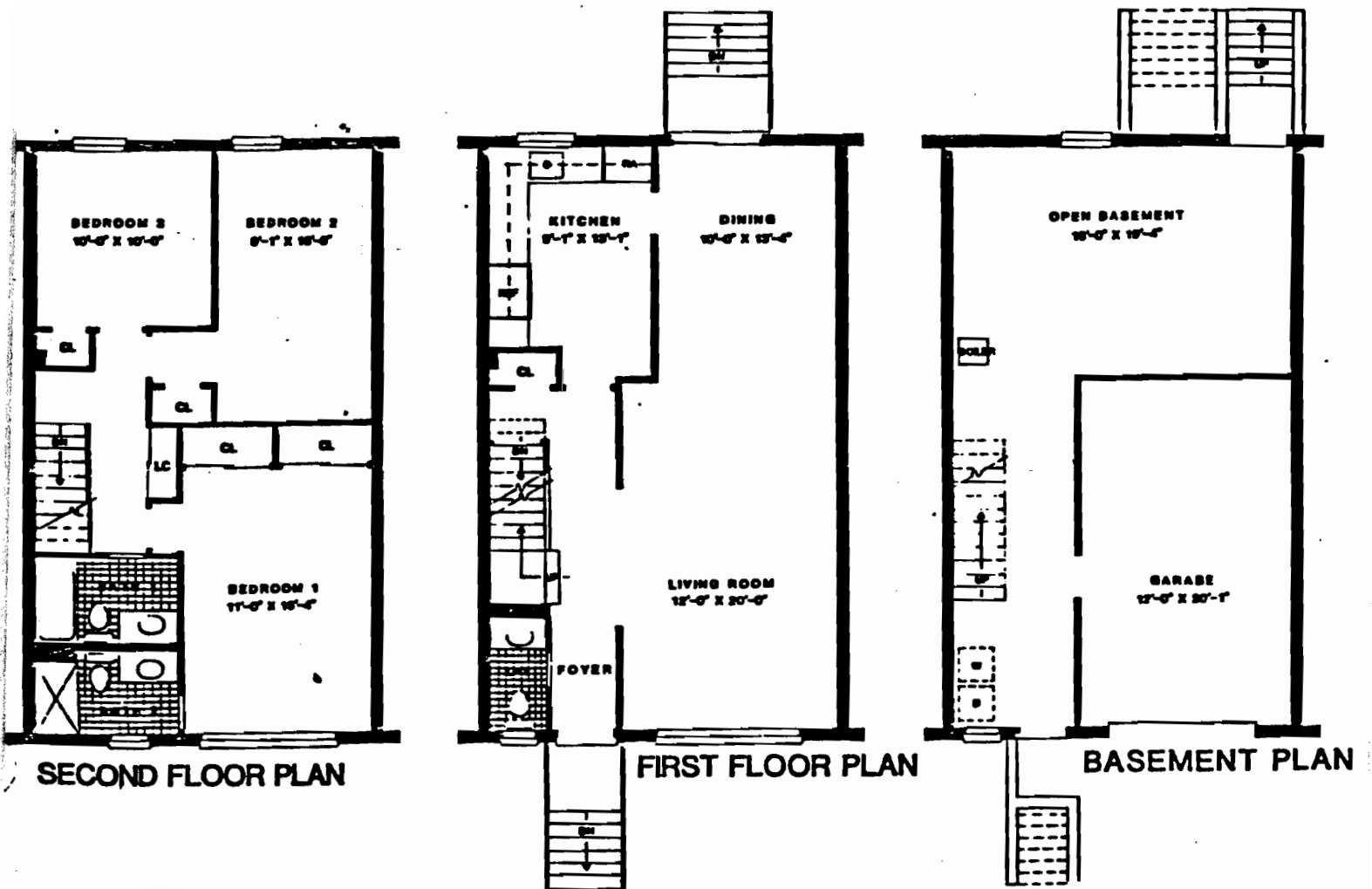
BROOKLYN TOWN HOUSES

**EAST NEW YORK
BROWNSVILLE
PROSPECT HEIGHTS**

FEATURES

Complete Energy Package

- *elr* Brick Vener
- Thermo-Break Windows
- Exterior Doors Weather Stripped
- Base Board Radiators
- Copper Plumbing
- Ceramic Tile & Bath
- Beautiful Designer Cabinets
- White Aluminum, Leaders & Gutters
- Large Rooms
- Garage & Basement
- Front & Rear Yard
- Central Air-Conditioning Optional



BROOKLYN TOWN HOUSES

100

**EAST NEW YORK
BROWNSVILLE
PROSPECT HEIGHTS**

**4
BEDROOM
TOWNHOUSE**



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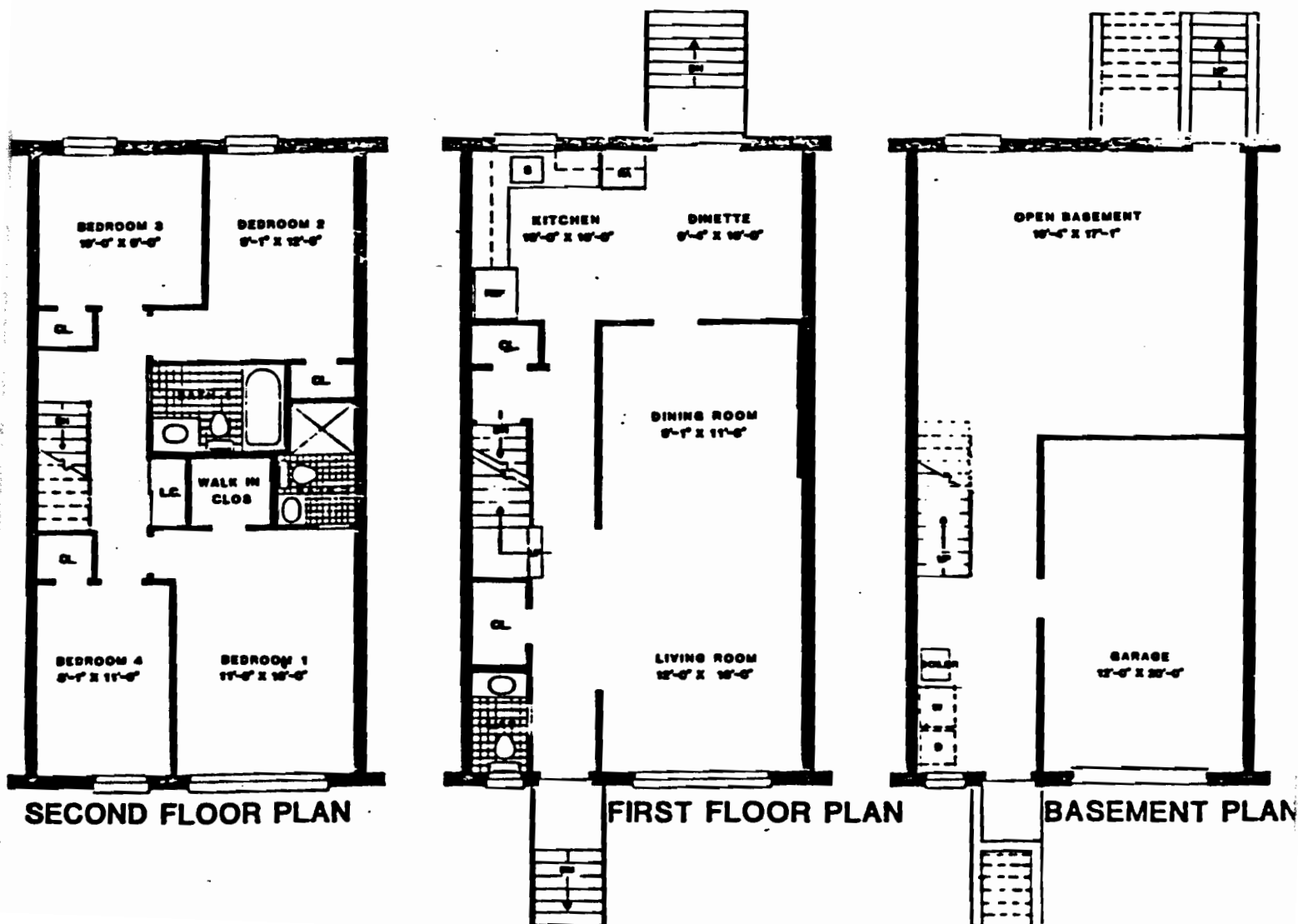
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Factory-Built Housing Gets a Foothold in the City



The New York Times / Chester Higgins Jr.

A row of factory-built town houses on Essex Street in the East New York section of Brooklyn.

Continued From Page 1

branch or town house, replicated from site to site, and produced with the efficiencies and quality control that factory conditions enhance. Standardized construction would produce savings, especially in the nonconstruction "soft" costs such as interest.

"To start a factory takes an awesome investment of capital and a lot of pain — like getting a freight train started," said Daniel Seidel, president of Benchmark Homes in Dayton, Ohio.

Benchmark has a contract with the New York City Housing Partnership, a civic organization, to study the feasibility of locating a manufacturing plant in the city. The partnership specifically is considering whether to build a new plant, possibly in the city-owned Jerega South Industrial Park near the White-stone Bridge in the Bronx, with financial assistance from the Port Authority of New York and New Jersey.

THE plant would be operated by an experienced producer, and in part would turn out houses for the city's huge inventory of vacant or partially vacant land. This would take an over-all agreement with city construction unions as well as capital contributions and expedited oversight procedures by city government.

The partnership's study is incomplete. But Donald E. Meske, president of DeLuxe Homes of Pa., the long-established company in Berwick, Pa., chosen by the New York developers to supply their manufactured units, struck a negative note on the possibility of savings from a manufacturing operation at union-scale wages in the city.

"The cost would be about the same as stick-building," he said, estimating that manufacturing and installing a house in New York City would cost about \$50 a square foot exclusive of the land and land-development cost, or \$50,000 for a 1,000-square-foot house.

Manufactured by union labor in Berwick, the same house costs about \$40,000. "The labor rate is \$9 an hour including benefits,"

he said, "compared with about \$22 an hour in New York."

The initial investment to open a plant in New York would be about \$5 million, Mr. Meske said, and it would have to achieve an output of about a thousand units a year to justify the investment.

Meanwhile, Irving Rubin, a Long Island builder who used DeLuxe town houses on his East New York and Prospect Heights sites, is setting up a manufacturing plant in East New York in partnership with Robert and Jesse Epps. They intend to complete Mr. Rubin's Brooklyn production under the Section 235 program there and supply factory-built houses elsewhere.

Another group, headed by Morton Roberson, a lawyer, in association with the architect Warren Gran and Universal Structures of America Inc., a company based in McLean, Va., expects "reasonably soon" to open a plant in the Bronx to build complete wall panels for low-rise housing, a step that moves partway to factory assemblage. MKM Development Corporation, of which Merritt

Meyer is president, is expected to use these panels to speed output of Section 235 housing in Brownsville and on privately owned land in Soundview, the Bronx.

In principle at least, key leaders of construction unions accept the idea of factory-built housing as long as it is done in the city by union labor. "It's progress — a new method," said Joseph Lia, the New York City supervisor of the United Brotherhood of Carpenters and Joiners of America. "There's still work, but it's done in the plant instead of at the job site. It would produce a lot of opportunity for people to afford a house."

"The bottom line is jobs," said James V. Hart, business manager of Plumbers Local One. "If the right factory facilities are set up in our city it would be an acceptable and cost-saving method of production," he said.

The plumbers local was at odds with Mr. Rubin over his East New York houses because of the builder's decision to use plastic pipe, approved under the state building code and in use nationally, but opposed by plumbers in the city on safety grounds.

Mr. Rubin, who has built houses on Long Island for more than 30 years, has abandoned plastic pipe for future production. He has also parted ways with his original manufacturer, DeLuxe, and decided he can do his own factory production more effectively using local labor. Accordingly, he and the Epps brothers, who are black, are setting up manufacturing facilities in a building at 800 Snedicker Avenue in East New York.

The DeLuxe houses already occupied by 30 families in East New York have drawn admiration for the space and amenities they have provided. They are the first factory-built attached houses to appear in New York City. They blend smoothly with their long-established urban environment and cannot be identified by a passer-by as factory-built.

The three- and four-bedroom units have two and a half baths, full basements and garages. They also have peaked rather than flat roofs — an assemblage that will not be repeated in future Rubin houses, which will have flat roofs — and front stoops and gables. The house arrives in four sections and is assembled in one week. There is two months of additional on-site work.

"Not bad at all," said David Powell, an undertaker who has been living with his wife and three children for a month in one of the East New York houses for a month. "I was surprised the house is as good as it is. I didn't expect so much."

About a third of the buyers, including Mr. Powell, have had incomes high enough to afford conventional mortgages. A key question in the city is how much city-owned land is in locations that would have a strong market without the mortgage-interest subsidies, which expire next September.

There are places where city-owned land has a fairly strong marketability to buyers who do not need subsidy assistance. One is Prospect Heights, where the manufactured town house that Mr. Rubin is installing has a flat roof and is again of a generous size — 1,300 square feet for the three-bedroom and 1,500 square feet for the four-bedroom. But over-all, at least 70 percent of the buyers of

the 2,000 houses to be built under the Section 235 program are expected to require the subsidy, said Timothy Flanagan, program director for home ownership in the Office of Development of the Department of Housing Preservation and Development.

In East New York, nonsubsidized buyers are paying \$61,000 for the three-bedroom house and \$68,500 for the four-bedroom house, said Joseph Colon of Tri-State Resources Corporation, the mortgage broker for the builder. Prices are about \$2,000 lower for subsidized buyers.

The East New York house is particularly interesting as a harbinger of the kind of unit that might be constructed in subdivisions of up to 50 houses where lot sizes are only 20 or 25 feet wide. These are often higher-density neighborhoods of older housing, where "in-fill" lots present opportunities.

The Housing Partnership in particular is interested in the possibility of a three-story, two-family house with a duplex apartment of 1,560 square feet occupied by the homeowner on two floors, and a 780-square-foot rental apartment below.

Another housing type suitable for the infill city sites might be a single-family two-story town house without a garage, but with a basement, as Mr. Rubin is building in Prospect Heights.

IN South Jamaica and the Bronx, the manufactured product is quite different. It is a single-family detached ranch unit without a garage. Since its long side faces the street and there is a deep setback for grass, the appearance is almost suburban. Lots are typically 60 feet wide and 100 feet deep. It is definitely not a mobile home, said Mr. Meske, the manufacturer, because it is mounted permanently on its foundation and has no undercarriage.

The house blends well with Jamaica's existing low-density residential environment. It sells for \$50,900 to Section 235 buyers with incomes of \$18,000 to \$24,000 a year, said Kenneth Weinstein, a partner in Greentree Enterprises. It has 960 square feet of living space, one and a half baths and a full basement. There is also a somewhat larger four-bedroom house with two baths selling for \$59,900.

"People instantaneously bought, once they saw the house on the site," he said. Of Greentree's 79-house allocation, he added, the builder is "oversold" by 15 houses and there is a waiting list of 200. Mr. Weinstein also praised the Office of the Queens Borough President for assistance in moving the job along quickly.

In Jamaica, the buyers' incomes were only \$18,000 to \$24,000, and nearly all the buyers are subsidized. In addition, the city spent about \$17,000 a unit on site improvements, since considerable street work had to be done. Citywide, the city's contribution has ranged from \$2,000 per unit upwards, usually for demolition of existing structures and for street and sidewalk improvements.

"The house came in across the bridge at 10 P.M., it was at the site at midnight, the next day the installers were there and in two or three days the house was weathertight," Mr. Weinstein said.

As in South Jamaica, the Charlotte Gardens homes of the South Bronx Development Organization, whose executive director is Edward J. Logue, uses a standard single-family DeLuxe product. The delivery of homes to buyers has been less than expeditious, owing in part to difficult subsurface conditions on the site, a lengthy processing time for buyers and difficult labor conditions. The selling program began from models in April and 10 families are expected to be living in Charlotte Gardens by Christmas.

Demonstrating the appeal of a detached house with a piece of land, 500 people submitted applications for a house at Charlotte Gardens. But only 170 had the income or savings to afford one.

"A house you can walk around that has a garden," Mr. Logue said, "that's the real thing for people who have grown up in the South or Puerto Rico."

The buyers of these houses have incomes of \$30,000 to \$40,000 a year, and 40 percent of them are public employees, Mr. Logue said. They get a standard State of New York Mortgage Agency loan carrying about 9.9 percent interest, but public grants for site work holds the selling price at \$50,000. The actual development cost is \$60,000 a house, of which \$25,000 is for the house alone and \$2,800 to deliver and assemble it.

A big question mark is whether the factory product would be acceptable to the unsubsidized buyer who is now buying a conventional tract house on privately owned land. "We don't know the buyer acceptability of the semiluxury house," said Julius Mehrberg, the builder of the 160-unit Stone Gate at Grasmere project in Staten Island.

He also said that factory production was a "bigger problem in Brooklyn than it is in Queens," underscoring the differences in development conditions in various locations of the city.

But at Benchmark Homes, Mr. Reidel insisted that there would be an "awesome" advantage to factory production as opposed to conventional production on smaller 30- to 50-unit sites because overhead is proportionally greater on small sites for conventional builders. "Social acceptance of our industry has been impaired by the cookie-cutter approach to architecture," he said. "A building without a sense of neighborhood may not be successful."

Both he and Mr. Meske said they had no doubt that appealing manufactured houses could be designed for the New York market.

The Factory-Built House Gets a Foothold in City

By ALAN S. OSER

THE year 1933 is establishing itself as the period in which single-family houses built in a factory and assembled on large development tracts were delivered to New Yorkers for the first time.

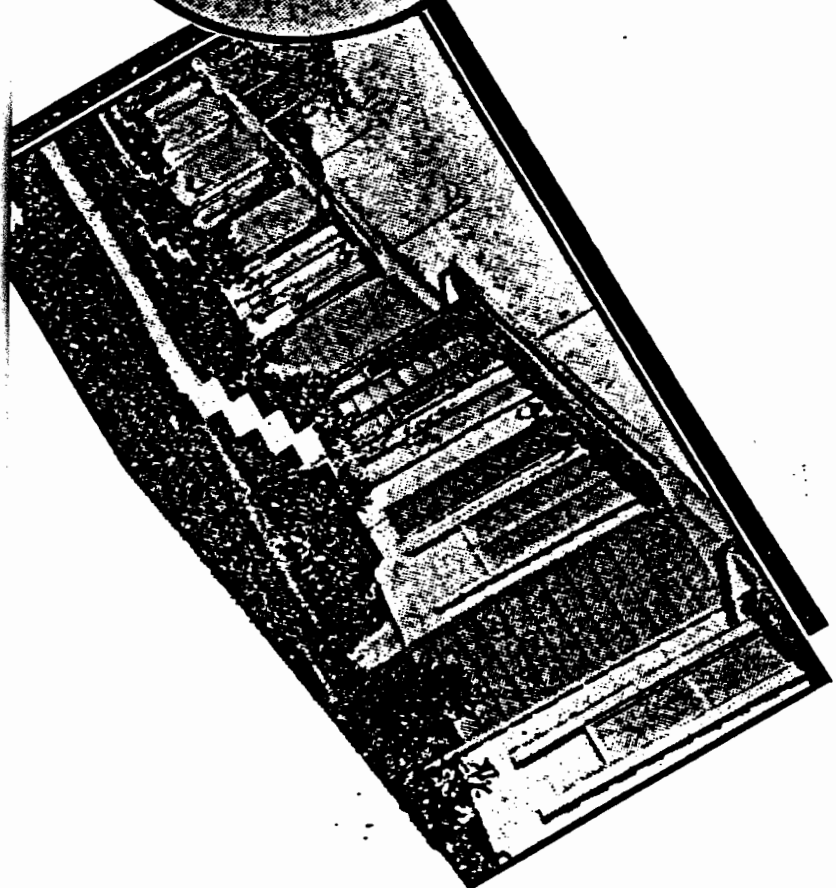
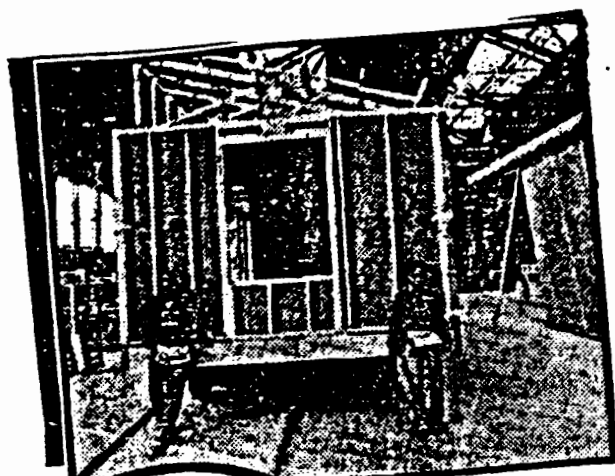
The scale is modest in comparison with what is believed to be the market potential, and with the construction of "stick-built" houses — those built on the site by conventional methods.

Nevertheless, houses manufactured in Pennsylvania have been sold this year to families in Brooklyn, Queens and the Bronx with incomes in the \$20,000 to \$40,000 range. Between 100 and 200 such homes have been occupied, or will be occupied by the end of the year, in the East New York and Prospect Heights sections of Brooklyn, the Crotona Park section of the Bronx and South Jamaica, Queens.

This achievement has awakened new interest in a familiar question: What are the chances for factory production of houses in the city itself, so that construction jobs would not be lost through manufactured output? Would the market accept them? Could a house be produced that suits the New York environment?

Above all, could such houses be delivered at costs significantly below those for stick-built houses? And would the houses be widely salable even without mortgage-interest subsidies for buyers? Subsidies made available under a city-sponsored Federal mortgage-interest program reduce builders' risk in home production and have generated the experimental efforts so far. But this program, called Section 235, expires next September.

With a factory in the city and development processes working smoothly, the hope would be to lift low-rise housing output on large stretches of underutilized land to new levels. Mass production would lower unit costs. City cooperation with land contributions and site improvements could generate production on stretches of city-held land. The "product" would be a standard



About Real Estate

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