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# Review Of Frontier Heights Housing Project Snohomish County, Washington

B-177630

Department of Housing and  
Urban Development

BY THE COMPTROLLER GENERAL  
OF THE UNITED STATES

[089896]

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APRIL 2, 1971



COMPTROLLER GENERAL OF THE UNITED STATES  
WASHINGTON, D.C. 20548

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Dear Mr. Meeds:

In accordance with your request of December 21, 1970, the General Accounting Office has made a review of six specific areas relating to the Frontier Heights housing project in Snohomish County, Washington. These areas are construction costs; financing arrangements and costs; material specifications; builder's performance with respect to guidelines and specifications of the Federal Housing Administration (FHA), Department of Housing and Urban Development; FHA and Snohomish County inspection procedures; and FHA follow-up procedures for discharging buyers' complaints.

The results of our review, which are summarized below, are presented in detail in the appropriate sections of the accompanying report that supplements our interim report to you dated February 5, 1971.

Frontier Heights was one of the initial pilot projects developed under the FHA-sponsored Cost-Effective Home Ownership and Improved Contemporary Environment (CHOICE) program which was intended to increase the supply of homes for families of modest incomes through economical land development and simplified housing construction.

Our analysis of the construction cost of the 203 housing units completed as of January 1971 showed that the unit cost averaged \$15,855 per house in division 1, \$16,285 in division 2, and \$16,128 in division 3. The average selling prices for the 135 houses sold in the three divisions were \$16,347, \$16,741, and \$18,081, respectively. The builder's average profit on the 135 houses was about \$560, which is within the profit guidelines established by FHA for this project.

FHA insured the mortgage loans on all Frontier Heights houses sold as of January 1971. Mortgage loan financing was provided by two Seattle, Washington, lending institutions. One of these lenders also provided financing to the builder of the project. The average closing costs for buyers of Frontier Heights houses was \$460. The average selling costs for the builder ranged from \$1,846 for houses in division 1 to \$2,224 for houses in division 3.

The Corps of Engineers, which assisted us in the inspection of Frontier Heights houses and in the evaluation of material specifications and builder's performance, found no evidence that materials used in Frontier Heights houses did not meet FHA-approved specifications for the project.

The Corps found that the housing designs and land development plans for Frontier Heights were prepared generally in accordance with the guidelines established by FHA and Snohomish County and that most of the homeowners' complaints were the result of poor workmanship. The Corps concluded, however, that the houses generally were structurally adequate.

The Frontier Heights houses were inspected at various stages of construction by FHA, the county, the State, and the lending institution which provided financing to the builder. Our examination of certain reports of these inspections showed that the construction work had been performed to the satisfaction of the inspectors.

FHA regulations require the builder or seller of newly constructed houses, such as those at Frontier Heights, to give home buyers who have FHA-insured mortgage loans 1-year warranties that the houses have been constructed in substantial conformity with the plans and specifications submitted by the builder with its application for mortgage insurance. Although FHA is not a party to the warranty and has no authority to enforce it, FHA can administratively impose restrictions on the builder's future participation in an FHA mortgage insurance program when it finds that the builder has not corrected major construction defects.

As discussed with you on January 28, 1971, our review did not include a comparison of the type and quality of housing provided under the FHA and Farmers Home Administration programs, because the Frontier Heights project was built under the CHOICE program and was not typical of FHA-sponsored housing.

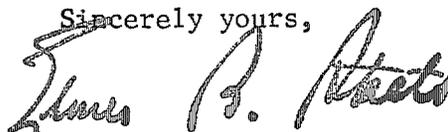
We did not obtain formal written comments from any of the parties involved in the matters discussed in the report.

Since disclosure of information included in this report may be prohibited by the United States Code (18 U.S.C. 1905), we shall not disclose

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its contents to the public. That statute makes it a criminal offense to disclose the "amount or source of any income, profits, losses, or expenditures" of any person or firm.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Thomas B. Puckett".

Comptroller General  
of the United States

The Honorable Lloyd Meeds  
House of Representatives

GENERAL ACCOUNTING OFFICE

REPORT ON

REVIEW OF FRONTIER HEIGHTS HOUSING PROJECT

SNOHOMISH COUNTY, WASHINGTON

INTRODUCTION

Congressman Lloyd Meeds, by letter dated December 21, 1970, requested the General Accounting Office to review and report on six specific areas relating to the Frontier Heights housing project in Snohomish County, Washington. These areas are as follows:

1. Construction costs.
2. Financing arrangements and costs.
3. Material specifications.
4. Builder's performance with respect to guidelines and specifications of the Federal Housing Administration (FHA), Department of Housing and Urban Development.
5. FHA and Snohomish County inspection procedures.
6. FHA follow-up procedures for discharging buyers' complaints.

Our review was conducted primarily at the Seattle FHA area office, the office of the builder (Village Homes, Inc., Mountlake Terrace, Washington), and the project site. We discussed certain aspects of the development of the project with the design and landscape architects and with the planning engineers employed by the builder to assist in planning the project. We also had several meetings with Snohomish County officials who were knowledgeable of the planning of the project and the inspection of the construction work.

We also used a team of architect-engineers from the Seattle District of the Corps of Engineers to assist us in the inspection of 13 houses in Frontier Heights that were the subject of homeowners' complaints and in the evaluation of material specifications and builder's performance.

On February 5, 1971, we submitted to Congressman Meeds an interim report--which included the results of the Corps' inspection and certain summary data on the builder's costs and selling prices for the houses constructed and sold in the Frontier Heights project--and a copy of the Corps' inspection report.

Frontier Heights was one of the initial pilot projects developed under the FHA-sponsored Cost-Effective Home Ownership and Improved Contemporary Environment (CHOICE) program which was intended to increase the supply of homes for families of modest incomes. The specific objectives of the CHOICE program were economical land development without sacrifice of an attractive environment and simplified housing construction without compromise of quality.

The CHOICE program was a cooperative effort among housing builders, local government agencies, and FHA. Builders were encouraged to use innovative, cost-cutting techniques in construction and site development. The local government agencies and FHA were to examine the applicable zoning requirements and building codes and determine those which can be relaxed in order to reduce costs without sacrificing an attractive environment or essential quality of construction. In CHOICE projects, the FHA minimum property standards are used as guidelines rather than as minimum requirements. For the Frontier Heights project, a number of local zoning requirements and

FHA minimum property standards were relaxed. For example, smaller lots, narrower one-way streets, reduced distances between houses and streets, open drainage ditches or swales, and smaller housing units were approved by Snohomish County and FHA.

Houses built in a CHOICE project may be insured by FHA under the several mortgage insurance programs authorized by the National Housing Act, as amended (12 U.S.C. 1701). Most of the Frontier Heights houses sold as of January 1971 were financed with mortgage loans insured pursuant to sections 203 or 235 of the act. Under section 235, part of the homeowner's monthly mortgage payment is paid by FHA.

The plans for the Frontier Heights housing project provided for the construction of 563 detached and townhouse units--in six divisions--and 207 apartment units. As of January 1971, construction of 203 of the 308 housing units planned for divisions 1, 2, and 3 had been completed and 135 of the completed units had been sold. Further construction of housing units in divisions 3, 4, 5, and 6 has been suspended, and no construction work has been started on the apartment units.

## RESULTS OF REVIEW

### CONSTRUCTION COSTS

We computed the average construction cost for the 203 housing units completed as of January 1971 in divisions 1, 2, and 3 on the basis of the builder's construction cost records. We allocated the builder's overhead costs and the interest on its loans for the purchase and development of the land and construction of the houses to the units on the basis of data obtained during discussions with the builder and with the Washington Federal Savings and Loan Association, Seattle, Washington, which had provided the loans to the builder.

The following table shows our analysis of the average cost of the completed housing units in divisions 1, 2, and 3.

	Division 1 ( <u>55 units</u> )	Division 2 ( <u>98 units</u> )	Division 3 ( <u>50 units</u> )
Land acquisition	\$ 317	\$ 317	\$ 317
Land development	2,506	1,898	1,884
House construction	9,209	10,104	9,741
Nursery and community center	44	44	44
Selling costs	1,846	1,944	2,224
Interest expense	1,208	1,236	1,199
Overhead	<u>725</u>	<u>742</u>	<u>719</u>
Total	<u>\$15,855</u>	<u>\$16,285</u>	<u>\$16,128</u>

Selling prices of Frontier Heights houses ranged from \$12,800 to \$21,250. Average selling prices, by division, for the 135 units sold as of January 1971 were as follows:

	Division 1 ( <u>53 units</u> )	Division 2 ( <u>74 units</u> )	Division 3 ( <u>8 units</u> )
Average selling price (including appliances )	\$16,347	\$16,741	\$18,081

The builder's average profit on the 135 houses sold in the three divisions was \$560, which is within the profit guidelines established by FHA for this project.

#### FINANCING ARRANGEMENTS AND COSTS

Loans for Frontier Heights land acquisition, land development, and construction were obtained by the builder from the Washington Federal Savings and Loan Association. We were informed by an official of Washington Federal that, as of January 1971, the builder had outstanding loans for Frontier Heights amounting to about \$2 million.

As a condition for the loans, Washington Federal required that all mortgage loans to buyers of completed housing units be made by it unless it elected to place the loans with another lender. Washington Federal made loans for 82 of the 135 Frontier Heights houses sold as of January 1971. The remaining houses sold were financed with loans from the Carroll Mortgage Company, Seattle. FHA has insured all the 135 mortgage loans made for the Frontier Heights houses. Of the 135 loans, 50 were insured under the provisions of section 203 of the National Housing Act and 85 were insured under the provisions of section 235.

The average closing costs for buyers of Frontier Heights houses were \$460. These costs included such items as taxes, insurance, recording fees, credit report fees, loan service fees, and FHA property appraisal fees. Part of the closing costs of many of the buyers who obtained mortgage loans

insured under section 235 of the act were, at the buyers' requests, included in the loans rather than paid in cash.

As shown on page 4, the builder's average selling costs ranged from \$1,846 for houses in division 1 to \$2,224 for houses in division 3. The largest items of cost were real estate commissions, sales taxes, and loan service fees in excess of the 1 percent paid by the buyer.

#### MATERIAL SPECIFICATIONS

The Corps of Engineers, which assisted us in our evaluation of material specifications, found no evidence that the materials used by the builder in Frontier Heights houses did not meet FHA-approved material specifications for the project.

The Corps noted, however, that the material specifications provide for the use of standard-grade lumber for floor joists in certain townhouses and that this grade of lumber would not meet the stress-load requirements and deflection tolerances of the FHA minimum property standards. The builder stated, however, that a better grade (construction) of lumber had been used for floor joists. The Corps' inspection of three of these townhouses showed that construction-grade lumber had been used for the first-floor joists of two units and that a mixture of standard-, construction-, and select -grade lumber had been used for the first-floor joists of the third unit.

Although Frontier Heights homeowners had complained about such defects as warped and cracked wooden beams; cracked concrete patios, carports and walkways; cracked plaster; and exposed nailheads, the Corps found that these

defects generally had been caused by normal shrinkage of wood and concrete products. The Corps found also that the electric baseboard heaters were a standard, approved type and that the plumbing materials met local building requirements. The Corps noted, however, that in two units the kitchen cabinets were not fastened securely to the walls. One homeowner's complaint about pitch dripping from a ceiling beam was considered justified by the Corps. With respect to homeowner complaints regarding the washability of interior wall paint and inadequate window-locking devices, the Corps noted that the paint had a low degree of washability and that the locking devices were poorly designed. We found, however, that no standards had been established by FHA for these items.

BUILDER'S PERFORMANCE WITH RESPECT TO  
FHA GUIDELINES AND SPECIFICATIONS

The builder was required to design the housing units and prepare plans for land development in accordance with guidelines established for the project by FHA and Snohomish County. All housing designs and land development plans were required to be approved by FHA and the county prior to the beginning of construction.

The Corps found that the housing designs and land development plans generally had been prepared in accordance with the guidelines established by FHA and the county; however, it did note the following homeowner complaints which could be attributed to deficiencies in the housing designs or land development plans.

1. Walls between townhouse units did not provide adequate fire protection and sound barriers.

2. Crawl-space drainage under houses was inadequate or nonexistent.

3. Drainage ditches and swales did not provide adequate drainage runoff.

The Corps noted further that many of the homeowners' complaints were the result of poor workmanship rather than design deficiencies; however, it considered the overall workmanship generally acceptable. In the Corps' opinion, the most flagrant examples of poor workmanship included faulty bathtub overflow connections, unnecessarily large and ragged openings in walls for plumbing pipes, and improperly applied roof sheathing.

The Corps, on the basis of its inspection of 13 houses in Frontier Heights, concluded that the houses were structurally adequate, except for (1) those townhouse units where standard-grade lumber, as specified by the housing designs, may have been used for floor joists and (2) two houses which had roof defects resulting from poor workmanship.

#### FHA AND SNOHOMISH COUNTY INSPECTION PROCEDURES

Both FHA and Snohomish County made inspections of the Frontier Heights houses at three stages of construction--foundation, framing, and completion. The county also made a separate plumbing inspection, and the State made electrical systems inspections.

During various phases of construction, additional inspections were made by FHA and the county because of the experimental nature of the project.

We examined all the building permits issued by the county for construction of houses in Frontier Heights divisions 1 and 2. These permits showed the county's approval at each stage of construction.

We examined also FHA files of inspection reports on 11 houses constructed in division 2. The inspection reports on six of the houses noted that certain work had not been completed at the time of the inspection or that certain items required correction. Of the six items noted by FHA, four concerned crawl-space drainage. Each of the 11 files contained a final inspection report which indicated that all work had been completed to the satisfaction of FHA.

A Snohomish County official stated that the county had six residential construction inspectors and four plumbing inspectors to inspect construction of houses in the county during 1968 when most of the Frontier Heights houses were under construction. During the same period, the FHA Seattle area office had a staff of seven to inspect construction work in the Seattle area. We were informed by FHA that the daily work load of its inspectors varied because an inspection might require from 10 minutes to 2 hours, depending on the problems encountered. We were informed also by FHA that, during the peak construction period of 1968-69, some inspectors made between 18 and 24 inspections a day.

Inspection of Frontier Heights houses were also made by Washington Federal. These inspections were made in connection with the builder's request for loan advances and were primarily concerned with determining construction progress. During the inspections, however, Washington Federal verified that FHA, State, and county inspections for compliance with code requirements had been made.

FHA FOLLOW-UP PROCEDURE FOR  
DISCHARGING BUYERS' COMPLAINTS

FHA regulations require the builder or seller of newly constructed houses, such as those at Frontier Heights, to give home buyers who have

FHA-insured mortgage loans a 1-year warranty that the houses have been constructed in substantial conformity with the plans and specifications submitted by the builder with its application for mortgage insurance. We were informed by the builder that it would repair any major construction defects detected in Frontier Heights houses within a reasonable period of time after expiration of the 1-year warranty period required by FHA.

Normally, when construction defects are detected, the homeowner notifies the builder and the builder determines who is responsible for the repairs. If the homeowner is not satisfied with the builder's decision, he can notify FHA. When such a complaint is received, FHA sends the complaint to the builder with a request that a report concerning the disposition of the complaint be submitted to FHA within a certain number of days. Upon receipt of the builder's report, FHA sends a letter to the homeowner explaining the position of the builder. FHA considers the case closed unless the homeowner informs FHA that he is not satisfied with the action taken by the builder. In such cases, FHA inspects the house and makes its own determination of responsibility and notifies the homeowner and the builder of its findings. Although FHA is not a party to the warranty and has no authority to enforce it, FHA can administratively impose restrictions on the builder's future participation in an FHA mortgage insurance program when it finds that the builder has not corrected major construction defects.