

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT**24 CFR Part 972**

[Docket No. FR-4718-P-01]

RIN 2577-AC33

Conversion of Developments From Public Housing Stock; Methodology for Comparing Costs of Public Housing and Tenant-Based Assistance

AGENCY: Office of the Assistant Secretary for Public and Indian Housing, HUD.

ACTION: Proposed rule.

SUMMARY: This proposed rule would establish the cost methodology that Public Housing Agencies (PHAs) must use under HUD's programs for the required and voluntary conversion of public housing developments to tenant-based assistance. Both programs require that PHAs, before undertaking any conversion activity, compare the cost of providing tenant-based assistance with the cost of continuing to operate the development as public housing. The cost methodology was originally contained in HUD's July 23, 1999, proposed rule on voluntary conversions (although the methodology also applies to required conversions). HUD has decided to significantly revise the proposed methodology, based both on public comments received on the proposed rule and upon further consideration of the cost factors that should be assessed by PHAs in making conversion determinations. Accordingly, HUD is issuing this new proposed rule, which will provide the public with an additional opportunity to comment on the methodology that will be used for the required cost comparisons.

DATES: *Comments Due Date:* November 17, 2003.

ADDRESSES: Interested persons are invited to submit comments regarding this proposed rule to the Regulations Division, Office of General Counsel, Room 10276, Department of Housing and Urban Development, 451 Seventh Street, SW, Washington, DC 20410-0500. Communications should refer to the above docket number and title. Facsimile (FAX) comments are not acceptable. A copy of each communication submitted will be available for public inspection and copying between 7:30 a.m. and 5:30 p.m. weekdays at the above address.

FOR FURTHER INFORMATION CONTACT: Bessy Kong, Acting Deputy Assistant Secretary for Policy, Program, and

Legislative Initiatives, Department of Housing and Urban Development, Office of Public and Indian Housing, 451 Seventh Street, SW., Room 4116, Washington, DC 20410-5000; telephone (202) 708-0713 (this is not a toll-free telephone number). Persons with hearing or speech impairments may access this number via TTY by calling the toll-free Federal Information Relay Service at 1-800-877-8339.

SUPPLEMENTARY INFORMATION:**I. Background—HUD's Rules on Required and Voluntary Conversion of Public Housing to Tenant-Based Assistance**

On July 23, 1999, HUD published for public comment two proposed rules to implement the required and voluntary conversion programs authorized by the Quality Housing and Work Responsibility Act of 1998 (Title V of the Fiscal Year 1999 HUD Appropriations Act; Pub. L. 105-276, approved October 21, 1998) (QHWRA) (see 64 FR 40232 for HUD's proposed rule on required conversion; 64 FR 40240 for the proposed rule on voluntary conversion).

The required conversion program is authorized under section 537 of QHWRA, which added a new section 33 to the United States Housing Act of 1937 (42 U.S.C. 1437 *et seq.*) (1937 Act). Section 33 requires Public Housing Agencies (PHAs) to annually review their public housing inventory and identify distressed developments that must be removed from the public housing inventory. If it would be more expensive to modernize and operate a distressed development for its remaining useful life than to provide tenant-based assistance to all residents, or the PHA cannot assure the long-term viability of a distressed development, then it must develop and carry out a plan to remove the development from its public housing inventory, and convert it to tenant-based assistance.

The voluntary conversion program is authorized under section 533 of QHWRA, which amended section 22 of the 1937 Act. As amended, section 22 authorizes PHAs to voluntarily convert a development to tenant-based assistance by removing the development or a portion of a development from its public housing inventory and providing for relocation of the residents or provision of tenant-based assistance to them. This action is permitted only when that change would be cost effective, principally benefits residents of the development and the surrounding area, and not have an adverse impact on the availability of affordable housing.

HUD's final rules on required and voluntary conversions are published elsewhere in today's **Federal Register**. The regulations for the conversion programs will be located in a new 24 CFR part 972 (entitled "Conversion of Public Housing to Tenant-Based Assistance"). The regulations for required conversions will be located in subpart A of new part 972. The voluntary conversion regulations will be codified in subpart B of part 972. Interested readers should consult those final rules for additional information regarding required and voluntary conversion of public housing stock to tenant-based assistance.

II. This Proposed Rule—Cost Methodology for Conversions

This proposed rule would establish the cost methodology that PHAs must use for the required and voluntary conversion of public housing developments to tenant-based assistance. Both conversion programs require that PHAs, before undertaking any conversion activity, compare the cost of providing tenant-based assistance with the cost of continuing to operate the development as public housing. The methodology would be codified as an appendix to new 24 CFR part 972.

The cost methodology was originally contained in HUD's July 23, 1999, proposed rule on voluntary conversions (although the methodology also applies to required conversions). However, HUD has decided to significantly revise the proposed methodology, based both on public comments received on the proposed rule and upon further consideration of the cost factors that should be assessed by PHAs in making conversion determinations. Accordingly, HUD is issuing this new proposed rule, which will provide the public with an additional opportunity to comment on the methodology that will be used for the required cost comparisons. HUD plans to publish this rule as final prior to the effective date for the required and voluntary conversion rules, published in final elsewhere in this **Federal Register**.

III. Significant Changes to Proposed Cost Methodology

The most significant differences between the cost methodology contained in the July 23, 1999, proposed rule on voluntary conversions and this proposed rule are as follows:

1. *Use of OMB Circular A-94.* This proposed rule provides for use of OMB Circular A-94 (Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs) in performing the

discounting required for the cost comparisons. The OMB circular provides guidance on the discount rates to be used in evaluating federal programs whose benefits and costs are distributed over time. HUD believes that adoption of the policies and procedures outlined in OMB Circular A-94 will result in more accurate comparisons of the cost of tenant-based assistance with the costs of continuing to operate developments as public housing. Application of these procedures will also ensure that the approach used for the cost comparison is consistent with the way other federal programs and policies are evaluated. A copy of OMB Circular A-94 may be downloaded from the following Internet Web site: <http://www.whitehouse.gov/omb/circular/a094/a094.html>.

2. *Discounting of public housing operating subsidy and Section 8 voucher costs.* Consistent with OMB Circular A-94, the proposed cost methodology compares the net present value of the stream of costs associated with continued use as public housing with the net present value of the stream of costs associated with vouchers. The period over which costs, both initial and ongoing, are recognized is generally 20 years, but may be a longer period (30 years for new construction) or a shorter period (15 years) under voluntary conversion. Costs are discounted using the real discount rate provided on the OMB Web site at <http://www.whitehouse.gov/OMB/Budget>.

The methodology contained in this proposed rule replaces the approach used in the July 23, 1999, proposed rule on voluntary and required conversions in which public housing and voucher costs were converted to a single-period cost (per unit per month average) by amortizing initial and ongoing modernization costs.

3. *Use of revitalization plan in conduct of cost test.* This proposed rule revises the proposed cost methodology to clarify that, particularly for voluntary conversion, the required cost comparison will not always be based on a revitalization plan.

4. *Calculation of accrual.* The proposed cost methodology has been revised to provide that accrual will be calculated using the portion of the latest published HUD unit Total Development Cost (TDC) limits for the area that HUD attributes to the costs of housing construction. In addition, the amortization period has been changed so that the amounts used for accrual are consistent with the amounts estimated in the HUD-sponsored comprehensive study of public housing capital needs released in 2000.

5. *Additional costs of providing tenant-based assistance.* HUD has clarified the proposed cost methodology to provide that a PHA must consider the following expenses as part of the cost of providing Section 8 tenant-based assistance:

- The cost of addressing environmental concerns related to demolition; and
- An amount equal to \$1,000 (or a higher amount allowed by HUD) for relocation assistance costs (including counseling).

6. *Use of payment standard in calculating cost of providing tenant-based assistance.* HUD has revised the proposed cost methodology to provide that, for purposes of the required cost comparison, the PHA should use the higher of the average cost for voucher units occupied by recent movers, or the applicable Section 8 payment standard for the jurisdiction or designated part of the Fair Market Rent (FMR) area. The term cost as used here means the gross rent of the units (contract rent plus any utility allowance). PHAs have discretion in defining a reasonable time period for measuring recent mover costs.

IV. Discussion of Public Comments on Proposed Cost Methodology

As noted above in this preamble, the cost methodology was originally contained in HUD's July 23, 1999, proposed rule on voluntary conversions. The comment period on the proposed rule closed on September 21, 1999. By close of business on this date, HUD had received six public comments. Comments were submitted by a private citizen, one PHA, two of the three main organizations representing PHAs, and two legal aid organizations. Several of the commenters raised issues concerning the proposed cost methodology. This section of the preamble presents a summary of the significant issues raised by the public commenters on the proposed methodology, and HUD's responses to these comments.

Comment: The proposed cost methodology incorrectly applies cost methodologies developed to deal with distressed housing to non-distressed housing. Two commenters recommended that the cost test not be based on the preparation of a revitalization plan. One of the commenters wrote that PHAs wishing to convert may not always have a completed revitalization plan to serve as the basis for the required cost analysis. The other commenter wrote that the proposed cost methodology incorrectly assumes that the projects to be converted are distressed projects that

need to be revitalized. This commenter wrote that "any project, including viable projects and projects in good condition, are subject to voluntary conversion." The commenter worried that requiring the inclusion of revitalization expenses in the cost methodology would drive up the cost of operating public housing and, thus, increase the likelihood that a development will fail the cost test.

HUD response. HUD has revised the language of the July 23, 1999, proposed rule to be more sensitive to the concerns expressed by the commenters, and to the reality that the renovations needed so that public housing will be usable over its remaining useful life, as contemplated by section 22 of the 1937 Act, will sometimes be less extensive than a revitalization plan.

Comment: Additional costs of providing tenant-based assistance. Section III of the proposed methodology describes the procedures for determining the cost of providing Section 8 tenant-based assistance. One commenter suggested that this section be revised to include the following expenses:

1. Any costs related to dealing with the environmental aspects of demolition;
2. The costs of the various studies required to establish grounds for conversion; and
3. The costs of a strong mobility project. According to the commenter this is necessary to affirmatively further fair housing.

HUD Response. HUD agrees that the cost of providing tenant-based assistance must include expenses incurred to address environmental concerns related to demolition, and has clarified the cost methodology accordingly. HUD has also revised the cost methodology to require the inclusion of \$1,000 (or a higher amount allowed by HUD) for relocation assistance, including counseling.

HUD does not agree that the costs of the required studies should be included in the cost of providing tenant-based assistance. These studies are conducted to determine whether conversion is permissible. Accordingly, the costs of the studies are incurred before the commencement of the conversion process and cannot appropriately be considered as expenses related to the provision of tenant-based assistance.

Comment: Section 8 cost calculation should require PHAs to consider alternatives to the FMR. One commenter wrote that Section III of the proposed cost methodology incorrectly requires PHAs to focus on FMRs in determining the cost of providing tenant-based assistance. The commenter wrote that

the "FMRs may not be fair." The commenter suggested that PHAs be required to consider "submarket rents," exception rents, waivers of the FMRs, and payment standards above the FMRs, which would increase the cost of providing Section 8 tenant-based assistance.

HUD Response. In response to this comment, HUD has revised the cost methodology to provide that, for purposes of the required cost comparison, the PHA should use the higher of the average cost (gross rent) for voucher units occupied by recent movers, or the applicable Section 8 payment standard for the jurisdiction or designated part of the FMR area.

Comments regarding PHA capital costs as part of the cost-comparison between public housing and vouchers. One commenter wrote that a revised method of calculating accrual costs would be appropriate. Specifically, the commenter wrote that it would be more appropriate and customary to calculate accrual based on the hard costs of construction, or revitalization, rather than the total project cost.

HUD Response. HUD has amended the proposed methodology to address the concerns raised by the commenter. Specifically, the cost methodology has been revised to provide that accrual will be calculated using the portion of the latest published HUD unit TDC limits for the area that HUD attributes to the costs of housing construction. In addition, the amortization period has been changed so that the amounts used for accrual are consistent with the amounts estimated in the HUD-sponsored comprehensive study of public housing capital needs released in 2000.

Comment: Comments regarding internet cost calculator. The preamble to the July 23, 1999, proposed rules stated that HUD is considering establishing a web-based cost comparison calculator on HUD's internet homepage to assist PHAs in conducting the cost comparisons required by the proposed rule. (See 64 FR 40232, third column; and 64 FR 40241, first column.) Three commenters supported the idea of a web-based cost calculator, writing that it would reduce the workload on PHAs and provide consistency. Another commenter, however, wrote that it is not possible to comment on the web-based calculator until additional details are provided. The commenter also suggested that the methodology used by the web-based calculator should be subject to notice and comment rulemaking procedures.

HUD Response. HUD agrees that an internet cost calculator will reduce PHA

administrative burden. HUD also agrees that such a calculator will help to ensure the accuracy and consistency of the required cost comparisons. To assist PHAs in completing the required calculations, HUD has developed a spreadsheet calculator that will be available for PHAs to download from the HUD Homepage (<http://www.hud.gov>). The spreadsheet calculator is designed to walk housing agencies through the calculations and comparisons laid out in this proposed rule and allows PHAs to enter relevant data for their PHA and the development being assessed. Results, including net present values, are generated based on these PHA data. Sample pages from the spreadsheet calculator are provided as a part of this proposed rule, showing data for the example used here to illustrate the cost comparison methodology.

V. Issue Highlighted For Public Comment

HUD is seeking comment on whether net proceeds from the sale or lease of a property should be included in the cost test calculation for conversion in cases where a property is determined to have significant market value for an alternative use. In the current proposed rule, voucher costs include annual voucher and administrative costs and demolition and relocation costs. HUD is considering whether to include these net proceeds, which would offset the cost of vouchers.

VI. Findings and Certifications

Impact on Small Entities

The Secretary, in accordance with the Regulatory Flexibility Act (5 U.S.C. 605(b)) (the RFA), has reviewed and approved this proposed rule, and in so doing certifies that this rule would not have a significant economic impact on a substantial number of small entities. The reasons for HUD's determination are as follows.

(1) *A Substantial Number of Small Entities Will Not be Affected.* The entities that would be subject to this rule are public housing agencies that administer public housing. Under the definition of "small governmental jurisdiction" in section 601(5) of the RFA, the provisions of the RFA are applicable only to those public housing agencies that are part of a political jurisdiction with a population of under 50,000 persons. The number of entities potentially affected by this rule is therefore not substantial. Further, HUD anticipates that no more than 10 percent of all PHAs will be subject to the requirements of required conversion. Most PHAs with developments large

enough to be subject to required conversion are located in larger political jurisdictions. This is a result of the statutory direction to identify units subject to the requirements based on the criteria established by the National Commission on Severely Distressed Public Housing, which focused on larger troubled agencies. For all other PHAs, conversion would be undertaken on a voluntary basis.

(2) *No Significant Economic Impact.* The conversion plan will involve a one-time cost, and this cost can vary from development to development, depending on the scope of the assessment, location of the property, and other factors. A mitigating factor concerning the cost for PHAs whose properties are potentially subject to the requirements of required conversion is that they may request assistance from HUD in conducting the required analyses in order to offset the costs. HUD has provided such assistance in the past and intends to continue to do so, if resources are available. Therefore, the cost burden on small entities is not likely to be great.

Environmental Impact

This proposed rule involves external administrative or fiscal requirements or procedures that relate to the discretionary establishment of cost determinations and do not constitute a development decision affecting the physical condition of specific project areas or building sites. Accordingly, under 24 CFR 50.19(c)(6), this proposed rule is categorically excluded from environmental review under the National Environmental Policy Act of 1969 (42 U.S.C. 4332). That Finding is available for public inspection between the hours of 7:30 a.m. and 5:30 p.m. weekdays in the Office of the Rules Docket Clerk, Office of General Counsel, Room 10276, U.S. Department of Housing and Urban Development, 451 Seventh Street, SW., Washington, DC 20410-0500.

Federalism Impact

Executive Order 13132 (entitled "Federalism") prohibits an agency from publishing any rule that has federalism implications if the rule either imposes substantial direct compliance costs on state and local governments and is not required by statute, or the rule preempts state law, unless the agency meets the consultation and funding requirements of section 6 of the Executive Order. This proposed rule does not have federalism implications and does not impose substantial direct compliance costs on state and local governments or preempt

state law within the meaning of the Executive Order.

Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) establishes requirements for federal agencies to assess the effects of their regulatory actions on state, local, and tribal governments and the private sector. This proposed rule does not impose any federal mandates on any state, local, or tribal governments or the private sector within the meaning of the Unfunded Mandates Reform Act of 1995.

Regulatory Planning and Review

The Office of Management and Budget (OMB) reviewed this rule under Executive Order 12866, entitled “Regulatory Planning and Review.” OMB determined that this rule is a “significant regulatory action” as defined in section 3(f) of the Order (although not an economically significant regulatory action under the Order). Any changes made to this rule as a result of that review are identified in the docket file, which is available for public inspection in the office of the Department’s Rules Docket Clerk, Room 10276, 451 Seventh Street, SW., Washington, DC 20410–0500.

Catalog of Federal Domestic Assistance Number

The Catalog of Federal Domestic Assistance number for the program affected by this proposed rule is 14.850.

List of Subjects in 24 CFR Part 972

Grant programs—Housing and community development, Low and moderate income housing, Public housing.

For the reasons discussed in the preamble, HUD proposes to amend title 24 of the Code of Federal Regulations as follows:

PART 972—CONVERSION OF PUBLIC HOUSING TO TENANT-BASED ASSISTANCE

1. The authority citation for 24 CFR part 972 continues to read as follows:

Authority: 42 U.S.C. 1437t, 1437z–5, and 3535(d).

2. Add an appendix to part 972 to read as follows:

Appendix to Part 972—Methodology of Comparing Cost of Public Housing With the Cost of Tenant-Based Assistance

I. Public Housing-Net Present Value

The costs used for public housing shall be those necessary to produce a viable

development for its projected useful life. The estimated cost for the continued operation of the development as public housing shall be calculated as the sum of total operating cost, modernization cost, and costs to address accrual needs. Costs will be calculated at the property level on an annual basis covering a period of 20 years (or an alternative period as discussed in paragraphs I.B. and I.E. below). All costs expected to occur in future years will be discounted, using an OMB-specified real discount rate provided on the OMB Web site at <http://www.whitehouse.gov/OMB/Budget>, for each year after the initial year. The sum of the discounted values for each year (net present value) for public housing will then be compared to the net present value of the stream of costs associated with housing vouchers.

Applicable information on discount rates may be found in Appendix C of OMB Circular A–94, “Guidelines and Discount Rates for Benefit Cost Analysis of Federal Programs” which is updated annually, and may be found on OMB’s Web site at <http://www.whitehouse.gov/OMB>. All cost adjustments conducted pursuant to this cost methodology must be performed using the real discount rates provided on the OMB Web site at <http://www.whitehouse.gov/OMB/Budget>. HUD will also provide information on current rates, along with guidance and instructions for completing the cost comparisons on the HUD Homepage (<http://www.hud.gov>). The Homepage will also include a downloadable spreadsheet calculator that HUD has developed to assist PHAs in completing the assessments. The spreadsheet calculator is designed to walk housing agencies through the calculations and comparisons laid out in this proposed rule and allows housing agencies to enter relevant data for their PHA and the development being assessed. Results, including net present values, are generated based on these housing agency data. (Note that sample pages from the spreadsheet calculator are provided as a part of this proposed rule, showing data for the example used here to illustrate the cost comparison methodology.)

A. Operating Costs

1. Any proposed revitalization or modernization plan must indicate how unusually high current operating expenses (e.g., security, supportive services, maintenance, tenant and PHA-paid utilities) will be reduced as a result of post-revitalization changes in occupancy, density and building configuration, income mix, and management. The plan must make a realistic projection of overall operating costs per occupied unit in the revitalized or modernized development, by relating those operating costs to the expected occupancy rate, tenant composition, physical configuration, and management structure of the revitalized or modernized development. The projected costs should also address the comparable costs of buildings or developments whose siting, configuration, and tenant mix is similar to that of the revitalized or modernized public housing development.

2. The development’s operating cost (including all overhead costs pro-rated to the

development—including a Payment in Lieu of Taxes (P.L.L.O.T.) or some other comparable payment, and including utilities and utility allowances) shall be expressed as total operating costs per year. For example, if a development will have 375 units occupied by households and will have \$112,500 monthly non-utility costs (including pro-rated overhead costs and appropriate P.L.L.O.T.) and \$37,500 monthly utility costs paid by the PHA, and \$18,750 in monthly utility allowances that are deducted from tenant rental payments to the PHA because tenants paid some utility bills directly to the utility company, then the development’s monthly operating cost is \$168,750 (or \$450 per unit per month) and its annual operating cost would be \$2,025,000 (\$450 times 12 months times 375 units). Operating costs are assumed to begin in the initial year of the 20-year (or alternative period) calculation and will be incurred in each year thereafter.

3. In justifying the operating cost estimates as realistic, the plan should link the cost estimates to its assumptions about the level and rate of occupancy, the per-unit funding of modernization, any physical reconfiguration that will result from modernization, any planned changes in the surrounding neighborhood, and security costs. The plan should also show whether developments or buildings in viable condition in similar neighborhoods have achieved the income mix and occupancy rate projected for the revitalized or modernized development. The plan should also show how the operating costs of the similar developments or buildings compare to the operating costs projected for the development.

4. In addition to presenting evidence that the operating costs of the revitalized or modernized development are plausible, when the projected initial year per-unit operating cost of the renovated development is lower than the current per unit cost by more than 10 percent, then the plan should detail how the revitalized development will achieve this reduction in costs. To determine the extent to which projected operating costs are lower than current operating costs, the current per-unit operating costs of the development will be estimated as follows:

a. If the development has reliable operating costs and if the overall vacancy rate is less than 20 percent, then the development-based method will be used to determine projected costs. The current costs will be divided by the sum of all occupied units and vacant units fully funded under the Performance Funding System (PFS) plus 50 percent of all units not fully funded under PFS. For instance, if the total monthly operating costs of the current development are \$2,250,000 and it has 325 occupied units and 50 vacant units not fully funded under PFS (or a 13 percent overall vacancy rate), then the \$2,250,000 is divided by 350—325 plus 50 percent of 50—to give a per unit figure of \$536 per unit month. By this example, the current costs of \$536 per occupied unit are at least 10 percent higher (19 percent in this example) than the projected costs per occupied unit of \$450 for the revitalized development, and the reduction in costs would have to be detailed.

b. If the development currently lacks reliable cost data or has a vacancy rate of 20 percent or higher, then the PHA-wide method will be used to determine projected costs. First, the current per unit cost of the entire PHA will be computed, with total costs divided by the sum of all occupied units and vacant units fully funded under PFS plus 50 percent of all vacant units not fully funded under PFS. For example, if the PHA's operating cost is \$18 million, and the PHA has 4,000 units, of which 3,800 are occupied and 200 are vacant and not fully funded under PFS, then the PHA's vacancy adjusted operating cost is \$385 per unit per month—\$18,000,000 divided by the 3,900 (the sum of 3,800 occupied units and 50 percent of 200 vacant units) divided by 12 months. Second, this amount will be multiplied by the ratio of the bedroom adjustment factor of the development to the bedroom adjustment factor of the PHA. The bedroom adjustment factor, which is based on national rent averages for units grouped by the number of bedrooms and which has been used by HUD to adjust for costs of units when the number of bedrooms vary, assigns to each unit the following factors: .70 for 0-bedroom units, .85 for 1-bedroom units, 1.0 for 2-bedroom units, 1.25 for 3-bedroom units, 1.40 for 4-bedroom units, 1.61 for 5-bedroom units, and 1.82 for 6 or more bedroom units. The bedroom adjustment factor is the unit-weighted average of the distribution. For instance, if the development with 375 occupied units had in occupancy 200 two-bedroom units, 150 three-bedroom units, and 25 four-bedroom units, then its bedroom adjustment factor would be 1.127—200 times 1.0, plus 150 times 1.25, plus 25 times 1.4 with the sum divided by 375. Where necessary, HUD field offices will arrange for assistance in the calculation of the bedroom adjustment factors of the PHA and its affected developments.

c. As an example of estimating development operating costs from PHA operating costs, suppose that the PHA had a total monthly operating cost per unit of \$385 and a bedroom adjustment factor of .928, and suppose that the development had a bedroom adjustment factor of 1.127. Then, the development's estimated current monthly operating cost per occupied unit would be \$467—or \$385 times 1.214 (the ratio of 1.127 to .928). By this example, the development's current operating costs of \$467 per unit per month are not more than 10 percent higher (3.8 percent in this example) than the projected costs of \$450 per unit per month and no additional justification of the cost reduction would be required.

B. Modernization

Except for some voluntary conversion situations as explained in paragraph E. below, the cost of modernization is the initial revitalization cost to meet viability standards. (For purposes of this cost methodology, the term "viability standards" refers to new housing construction or rehabilitation that meets local housing codes. In the absence of a local code, PHAs shall refer to the Public Housing Modernization Standards Handbook (Handbook 7485.2) or the International Existing Building Code (ICC) 2003 Edition.)

Costs may include costs for demolition and modernization (where the latter also includes the costs, if any, of relocating tenants during the modernization period). Any proposed demolition should be assumed to occur during the initial year of the 20-year (or alternative) period. Modernization costs may be assumed to occur during years 1 through 4, consistent with the level of work proposed and the PHA's proposed modernization schedule. For example, if the initial modernization outlay to meet viability standards is \$21,000,000 for 375 units, and there is no demolition involved, a PHA might incur costs in three equal increments of \$7,000,000 in years two, three, and four (based on the PHA's phased modernization plan). In comparing the net present value of public housing to voucher costs for required conversion, a 20-year period will normally be used. However, when revitalization would be equivalent to new construction, the PHA must compare costs over a 30-year period.

C. Accrual

The cost of accrual (*i.e.*, replacement needs) will be estimated by using the portion of the latest published HUD unit total development cost limits for the area that HUD attributes to housing construction costs (HCC), and applying it to the development's structure type and bedroom distribution after modernization, then subtracting from that figure half the per unit cost of modernization, then multiplying that figure by .025 (representing a 40-year replacement cycle). For example, if the development will remain a walkup structure containing 200 two-bedroom, 150 three-bedroom, and 25 four-bedroom occupied units, and if HUD's HCC limit for the area is \$50,000 for two-bedroom walkup structures, \$70,000 for three-bedroom walkup structures, and \$80,000 for four-bedroom walkup structures, and if the per unit cost of the modernization is \$56,000, then the estimated annual cost of accrual per occupied unit is \$800. This is the result of multiplying the value of \$32,000 (the cost guideline value of \$60,000 minus half the modernization value of \$56,000) by .025. The first year of accrual for the development is \$300,000 (\$800 times 375 units) and should be assumed to begin in the year after modernization is complete. Accrual—like operating cost—is an annual expense and will occur in each year over the 20-year (or alternate) period.

D. Overall Cost

1. The overall cost for continuing to operate the development as public housing is the net present value of the stream of 20-year projected costs, including annual post-revitalization operating costs, modernization costs in the years these costs are assumed to occur, and estimated annual accrual costs. In calculating net present value, the sum of all costs in each future year is discounted back to the current year using the OMB-specified real discount rate. The real discount rate is already adjusted to take into account the effects of inflation.

2. For example, if the sum of costs in year 20 is \$2,325,000, and the real discount rate is 2.8 percent per year, the discounted cost is \$1,363,143. This is obtained by

multiplying the year 20 costs by the discount factor for year 20. The discount factor for year 20 is derived by dividing 1 by $(1 + 0.0285)$ raised to the 19th power, *i.e.*, $1/(1 + 0.0285)^{19}$. The discount factor for year 19 would be $1/(1 + 0.0285)^{18}$ and so on. The sum of the discounted costs for 20 years is the net present value to be compared to the net present value of voucher costs. The comparison should be expressed on a per unit per month basis.

3. To assist PHAs in completing the net present value comparison, and to ensure consistency in the calculations, HUD has developed a spreadsheet calculator (described above) that is available for downloading from the HUD Homepage. Sample pages from the spreadsheet calculator are provided as a part of this proposed rule, showing data for the example used here to illustrate the cost comparison methodology. Using PHA data and property specific inputs (to be entered by the housing agency), the spreadsheet will discount costs as described above and will generate net present values for the time period specified by the PHA depending on the scenario being tested.

E. Adjustment for Shorter Remaining Useful Life (Used Only for Voluntary Conversion—See Subpart B of This Part)

Where a PHA demonstrates that it is reasonable to use a remaining useful life of 15 years rather than 20 or 30 years, the PHA will calculate the net present value of public housing costs over this shorter period and compare such costs to the net present value of voucher costs over the same number of years. The use of a shorter time period is limited to those developments being assessed for voluntary conversion. Under required conversion, a longer period (20 or 30 years, depending on the extent of revitalization) is applied because the focus is on the developments' long-term viability and the public housing phase-out period itself may extend up to five years (or ten years, by exception).

II. Public Housing—New Budget Authority (Used Only for Voluntary Conversion—See Subpart B of This Part)

This cost analysis shall be conducted in a manner similar to the net present value analysis, except that costs will not be discounted. In this case, costs will be inflated for each future year, and the sum of the undiscounted costs will be compared. This second comparison carries out the language of the statute and reflects the appropriation of funding needed to carry out the proposed actions.

III. Tenant-Based Assistance

A. The estimated cost of providing tenant-based assistance under Section 8 for all households in occupancy shall be calculated as the unit-weighted averaging of the monthly costs based on the higher of the average gross rent for voucher units occupied by recent movers, or the applicable Section 8 payment standard for the jurisdiction or designated part of the FMR area; plus the most recent administrative fee applicable to the units (depending on housing choice voucher program size) as published by HUD for the year used for calculating public

housing operating costs; plus the cost of demolishing the occupied public housing units (including the cost of any necessary environmental remediation); plus \$1,000 per unit (or a higher amount allowed by HUD) for relocation assistance costs, including counseling. However, if the sum of the estimated per unit cost of demolition, remediation, and relocation exceeds 10 percent of the average Total Development Cost (TDC) for the units, the lower of the PHA estimate or a figure based on 10 percent of TDC must be used.

B. For example, if the development has 200 occupied two-bedroom units, 150 occupied three-bedroom units, and 25 occupied four-bedroom units, and if the cost (gross rent) for voucher units occupied by recent movers is \$550 for two-bedroom units, \$650 for three-bedroom units, and \$750 for four-bedroom units, and if the administrative fee comes to \$46 per unit, then annual voucher and administrative costs are \$2,922,000—the unit weighted average of the costs of \$603.33 (the sum of 200 times \$550, plus 150 times \$650, plus 25 times \$750, divided by 375 units) plus \$46 in monthly per unit administrative fee, times 375 units times 12 months. To this the PHA adds the costs of demolition, remediation, and \$1,000 per unit for relocation, including counseling (unless a higher amount is approved by HUD). For example, assume that the cost of demolishing 375 occupied units is \$1,875,000 (\$5,000 per unit), remediation is \$375,000 (\$1,000 per unit), and relocation costs are \$375,000 (based on \$1,000 per unit) for a total of \$7,000 per unit. This figure is then compared to 10 percent of the average per unit TDC for the development. For example if the TDC limits are \$88,000 for a two-bedroom unit, \$123,000 for a three-bedroom unit, and \$140,000 for a four-bedroom unit, the average TDC is \$105,470 (200 times \$88,000, plus 150 times \$123,000, plus 25 times \$140,000, divided by 375) and 10 percent of TDC is \$10,547. In this example, the estimated cost of the items (per unit) is less than 10 percent of TDC for the development, and the PHA estimate of \$7,000 is used. If estimated expenses had exceeded 10 percent of TDC (\$10,547 in this example), expenses must be capped at the lower amount.

C. Voucher and administrative costs occur annually. Costs associated with demolition, remediation, and relocation are assumed to occur in year 1. The net present value of the stream of costs is obtained by applying the OMB-specified real discount rate to the sum of the costs in each year for the 20-year (or alternative) period. For example, if the costs in year 20 are \$2,922,000 and the discount factor is 2.85 percent per year, the discounted cost in year 20 would be \$1,713,163 (\$2,922,000 times the discount factor in the twentieth year). The discount factor for year 20 is derived by dividing 1 by $(1 + 0.0285)^{19}$. The discount factor for year 19 would be $1/(1 + 0.0285)^{18}$ and so on. (As noted above, HUD has developed a spreadsheet calculator—available for download from the HUD Homepage—that will perform these computations based on PHA-provided inputs.)

IV. Results

A. In voluntary conversion, this Section 8 cost would then be compared to the cost of the public housing development, both in terms of net present value and new budget authority. In the example of this section, the public housing cost (net present value) of \$609 monthly per occupied unit exceeds the Section 8 cost of \$533 monthly per occupied unit. In addition, the monthly per unit cost of public housing based on New Budget Authority (\$840) exceeds the cost of vouchers based on New Budget Authority (\$799). Therefore, the PHA would have the option of preparing a conversion plan for the development under subpart B of this part.

B. In required conversion, the Section 8 cost would be compared with the cost of the revitalized public housing development on a net present value basis. In the example in this section, the revitalized public housing cost on a net present value basis of \$609 per unit month would exceed the Section 8 cost of \$533 monthly per occupied unit. Therefore, the PHA would be required to convert the development under the requirements of subpart A of this part.

V. Detailing the Public Housing and Section 8 Cost Comparison: A Summary Table

This section summarizes the Section 8 cost comparison methods using the example provided. Sample pages from HUD's spreadsheet calculator are also reproduced, showing inputs and results for the example.

A. Key Data, Development

The revitalized development has 375 occupied units. All of the units are in walkup buildings. The 375 occupied units will consist of 200 two-bedroom units, 150 three-bedroom units, and 25 four-bedroom units. The total current operating costs attributable to the development are \$112,500 per month in non-utility costs, \$37,500 in utility costs paid by the PHA, and \$18,750 in utility allowance expenses for utilities paid directly by the tenants to the utility company. Also, the modernization cost for revitalization is \$21,000,000, or \$56,000 per occupied unit. This will provide standards for viability but not standards for new construction. The cost of demolition (including remediation) and relocation of the 375 occupied units is \$2,625,000, or \$7,000 per unit, based on recent experience.

B. Key Data, Other

The housing construction cost limit, a component of the TDC, is \$50,000 for two-bedroom walkups, \$70,000 for three-bedroom walkups, and \$80,000 for four-bedroom walkups. TDC units for the same sized units in this area are \$88,000, \$123,000, and \$140,000 respectively. The voucher cost for a two-bedroom unit (based on recent movers) is \$550, the cost of a three-bedroom unit is \$650, and the cost of a four-bedroom unit is \$750. The applicable monthly administrative fee amount, in the most recent **Federal Register Notice**, is \$46 per unit per month. The real discount rate is 2.85 percent.

C. Calculation of Public Housing Costs (Net Present Value)

1. Operating Cost—\$2,025,000: This is the annual cost of operating 375 units based on

the information above. Costs are assumed to begin in year 1 of the period and occur in each subsequent year.

2. Modernization Cost (Including Any Necessary Relocation)—\$21,000,000: This is the estimated cost of modernization for 375 units. Costs are assumed to occur in equal amounts in years 2, 3, and 4.

3. Estimated Accrual Cost—\$300,000: Accrual is estimated as the per-unit average housing construction cost minus half of the modernization cost per unit, times .025, times the number of units (in this example, \$32,000 times .025 times 375). Accrual begins in the first year after modernization. Accrual costs are incurred annually.

4. Net Present Value per Unit per Month of Public Housing Costs—\$609: This figure is obtained by summing the values described above in each year and discounting each year to the present using the OMB-specified real discount rate assuming a 20-year period. Net Present Values should be expressed on a per unit per month basis.

D. Current Costs of Section 8 (Net Present Value)

1. Annual Voucher and Administrative Costs—\$2,922,000—(based on the unit-weighted average of the costs for voucher units occupied by recent movers): In this example, 200 times \$550, plus 150 times \$650, plus 25 times \$750, divided by 375 plus the administrative fee of \$46 per unit per month times 375 units times 12 months. Costs are assumed to start in year 1 and occur in each year thereafter.

2. Demolition and Relocation Cost—\$2,625,000 (\$7,000 per unit times 375 units): All costs are assumed to occur in year 1.

3. Net Present Value Per Unit Per Month of Voucher Costs—\$533: This figure is obtained by summing the values described above in each year and discounting each year to the present using the OMB-specified real discount rate, assuming a 20-year period. Net Present Values should be expressed in dollars per unit per month.

E. Monthly Per Unit Costs of Public Housing and Vouchers Based on New Budget Authority

The New Budget Authority method produces a monthly per unit cost of \$840 for public housing and \$799 for vouchers. These figures are obtained using the same initial assumptions as for the net present value comparison. In this case, however, the comparison is based on the sum of the undiscounted (but inflated) costs for public housing and vouchers over a period of 20 years.

F. Result

In this example, public housing costs exceed voucher costs on a net present value basis and on the basis of new budget authority. Therefore, a conversion plan would be permissible under voluntary conversion, subpart B of this part. Under required conversion, because revitalized public housing costs on a net present value basis exceed section 8 costs, the PHA would be required to convert the public housing development under subpart A of this part.

Dated: August 11, 2003.

Michael M. Liu,

Assistant Secretary for Public and Indian Housing.

Attachment—Sample Pages From Spreadsheet Calculator

Note: The following sample pages will not be codified in the Code of Federal Regulations.

As noted above in the preamble to this proposed rule, HUD has developed a spreadsheet calculator to assist PHAs in the calculations and comparisons required for the conversion analysis. The spreadsheet calculator will be available for PHAs to download from the HUD Homepage (<http://www.hud.gov>). The following sample pages from the spreadsheet calculator illustrate the

cost comparison methodology contained in this proposed rule.

BILLING CODE 4210-33-P

Cost Comparison Spreadsheet Voluntary and Required Conversions under 24 CFR Part 972

This spreadsheet is provided as a tool for public housing agencies conducting cost comparisons pursuant to 24 CFR Part 972, "Conversions of Public Housing to Tenant Based Assistance." The spreadsheet assists PHAs in comparing public housing costs to voucher costs using the methodology presented in the appendix to 24 CFR 972 for both Required Conversions (subpart A) and Voluntary Conversions (subpart B).

Spreadsheet cells shaded in green allow PHAs to enter information on the subject property's operating, modernization, and accrual costs, as well as information on voucher costs. Use the arrow keys to move from one cell to another. Enter numbers without commas and press "Enter" when you are done with each cell. Enter data only in the cells you need. Green cells may be left blank (you do not need to enter zeros). Where green cells show "NA" the item is not applicable and should be skipped. Cells shaded yellow contain formulas and cannot be changed.

The spreadsheet consists of seven tabs, including this introduction. To move from tab to tab, click on the tab name at the bottom of the screen.

Tab 2 -- Public Housing Operating Cost. At this tab, the PHA enters the projected operating costs for the revitalized property and also checks these costs for reasonableness by comparing them to current operating costs, using either the Development or the PHA-wide method.

Tab 3 -- Public Housing Capital Cost. At this tab, the PHA enters the anticipated costs of revitalization/modernization, relocation, and demolition (if any) and indicates the year in which costs are expected to be incurred based on the PHA's modernization plan. Up to four years are permitted for this activity. PHAs will also enter data needed to estimate ongoing accrual costs for the property.

Tab 4 -- Voucher Cost. At this tab, the PHA enters the average voucher cost and administrative fee in order to calculate annual Housing Choice Voucher (HCV) costs. PHAs will also estimate demolition, remediation, and relocation costs associated with the conversion (and test these against 10% of TDC).

Tab 5 -- Cost Comparison. At this tab, the PHA enters key assumptions, including current OMB-specified discount rates and the number of years for the comparison (15, 20 or 30) depending on the type of conversion (voluntary or required). Summary numbers are then presented from the previous tabs (e.g., first year operating cost, capital costs incurred in years 1 to 4, initial accrual, and voucher and demolition costs). Finally, the net present value of the costs is compared for Public Housing and for Vouchers.

Tab 6 -- Net Present Value Calculation. This tab shows the costs of each line item in each year as well as the discounted totals for public housing and vouchers. The discounted totals are summed for the relevant period (15, 20 or 30 years) to create the cost comparison results at TAB 5.

Tab 7 -- New Budget Authority. This tab shows the costs of each line item in each year, including the effects of inflation. The inflated costs are summed for the relevant period (15, 20 or 30 years) to create the cost comparison results at TAB 5.

Public Housing Operating Cost

Calculation of Projected Operating Cost for the Revitalized Development

Enter the PHA's projected monthly costs for operating the development after revitalization or modernization in the green cells below. This estimate should reflect the costs of operating comparable developments and must be reasonable in light of the revitalization/modernization plan proposed.

a. Non-utility costs (including pro-rated share of overhead costs)	
Utilities	\$112,500
Utility Allowances	\$37,500
Total Projected Monthly Operating Costs for Revitalized Development	\$18,750
	\$168,750
b. Total Number of Units in Revitalized Development	375
c. Projected Monthly Operating Costs Per Unit	\$450
d. Total Projected Annual Operating Costs	\$2,025,000

Reasonableness Tests

Projected operating costs must be shown to be reasonable. This test compares projected monthly per-unit costs (above) with the current operating costs of the property. If projected costs are more than 10% lower than current costs, a narrative description must be provided detailing now this reduction in costs will be achieved. Current operating costs are calculated using either the development-based method or the PHA-wide method. If the development has a current vacancy rate of less than 20% and there is reliable development-level data on operating costs, use the development-based method (A). If the development has a current vacancy rate of 20% or greater or there is no reliable development-level data available, use the PHA-wide method (B).

What is the current vacancy rate of the development?
Is there reliable development based data available?

Enter vacancy rate here:	20%
Enter Yes or No here:	NO

Method to be used:

Use PHA-Wide Method

2A. Development-Based Method

A1 Total Current Operating Cost for the Development

\$2,250,000

A2 Calculation of Vacancy-Adjusted Units for the Property (Enter the number of units of each type.)

Occupancy Adjustment	Property Units - Current	
	Units	Adjusted
# of Occupied units (x1)	325	325
# of Vacant Fully Funded (x1)		
# of Long-Term Vacant (x0.5)	50	25
Total	375	350

350

A3 Current Operating Costs Per Unit Per Month (PUM) ((A1/A2)/12)

\$536

2B. PHA-Wide Method

B1 Total Current Operating Cost for the Agency

\$18,000,000

B2 Calculation of Vacancy-Adjusted Units for the PHA (Enter the number of units of each type.)

Occupancy Adjustment	PHA Units	
	Units	Adjusted
# of Occupied units (x1)	3,800	3,800
# of Vacant Fully Funded (x1)		0
# of Long-Term Vacant (x0.5)	200	100
Total	4,000	3,900

\$3,900

B3 Current Operating Costs Per Unit Per Month (PUM) ((B1/B2)/12)

\$385

B4 Calculation of Bedroom Adjustment Factor (Enter the number of units of each type.)

Bedroom Adjustment	PHA Units		Property Units - Current	
	Units	Unit Cost Factor	Units	Unit Cost Factor
0 BR	500	350		0
1 BR	1400	1,190		0
2 BR	1600	1,600	200	200
3 BR	225	281	150	188
4 BR	75	105	25	35
5 BR		0		0
6 BR		0		0
Total	3800	3,526	375	423
Adjustment Factors		x	y	
		0.928	1.127	

B5 Overall Bedroom Adjustment Factor (y/x)

1.214

B6 Current Monthly Operating Cost per Unit (B3*B5)

\$467

3. Comparison of Projected and Current Operating Costs (and Justification)

Projected Operating Costs (from Section 1)	
Current Operating Cost	Using PHA-Wide Method
Percent difference	

\$450
\$467
3.8%

If current costs exceed the PHA's projection by more than 10 percent, the PHA must justify the use of the lower amount in the space below.

NA

Public Housing Capital Cost

1 Initial Capital Costs (Enter costs over a maximum of four years.)

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
a Demolition Cost						
b Modernization Cost		\$7,000,000	\$7,000,000	\$7,000,000	NA	
c Relocation Cost					NA	
d Total Initial Capital Cost	\$0	\$7,000,000	\$7,000,000	\$7,000,000	NA	\$21,000,000
e Total Number of Units in Revitalized Development						375
f Capital Cost per Unit						\$56,000

2 Accrual (Enter the applicable HCC limits below, along with the bedroom distribution for the revitalized development.)

	Detached/Semi-Detached		Row House		Walkup		Elevator	
	# of Units	HCC Limit	# of Units	HCC Limit	# of Units	HCC Limit	# of Units	HCC Limit
0BR								
1BR								
2BR					200	\$50,000		
3BR					150	\$70,000		
4BR					25	\$80,000		
5BR								
	0	\$0	0	\$0	375	\$22,500,000	0	\$0

a HCC, per unit average	\$60,000
b Total Number of Units in Revitalized Development	375
c 50% of Capital Cost per Unit	\$28,000
d Adjusted HCC (HCC (a) minus 50% of Capital Cost per Unit (c))	\$32,000
e Annual per Unit Accrual for 40 Year Replacement Cycle (Adjusted ACC (d) x 0.025)	\$800
f Annual Accrual after Modification (e x b)	\$300,000

	Year 1	Year 2	Year 3	Year 4	Year 5
g Annual Accrual	0	0	\$0	\$0	\$300,000

(Accrual begins in the year after modernization is complete.)

Voucher Cost

Voucher Cost

Enter the number of units in the revitalized development by bedroom size and corresponding voucher costs per month.

Unit Size Post Revitalization	a # of Units	b Voucher Costs	c Units X Cost
0BR	0		\$0
1BR	0		\$0
2BR	200	\$550	\$110,000
3BR	150	\$650	\$97,500
4BR	25	\$750	\$18,750
5BR	0		\$0
	375		\$226,250

- d Monthly Voucher Cost Per Unit (c / a)
- e Monthly Section 8 Administrative Fee (per unit)
- f Annual Voucher and Administrative Costs
- g Per Unit Demolition Cost
- h Per Unit Remediation Cost (if not in demo cost)
- i Per Unit Relocation Costs (\$1,00 per unit)
- j Total Per Unit Demolition Cost, Remediation, and Relocation Costs

The sum of demolition, remediation and relocation cost per unit must not exceed 10% of the average TDC for the revitalized development.
Enter TDC limits for each structure type and bedroom category below. The unit count is taken from the HCC table used for accrual.

\$603
\$46

\$2,922,000

\$5,000
\$1,000
\$1,000
\$7,000

	Detached/Semi-Detached		Row House		Walkup		Elevator	
	# of Units	TDC Limit	# of Units	TDC Limit	# of Units	TDC Limit	# of Units	TDC Limit
0BR	0		0		0		0	
1BR	0		0		0		0	
2BR	0		0		200	\$88,000	0	
3BR	0		0		150	\$123,000	0	
4BR	0		0		25	\$140,000	0	
5BR	0		0		0		0	
	0	\$0	0	\$0	375	\$39,550,000	0	\$0

k 10% of Average TDC Check

\$10,547

l Allowable Demolition Remediation and Relocation Costs (units x lesser of (j) or (k))

\$2,625,000

Cost Comparisons

Assumptions

	10 Year	30 Year
OMB Nominal Discount Rate	4.2%	5.1%
OMB Real Discount Rate	2.5%	3.2%
Useful Life (Enter 15, 20 or 30 Years)	20	

Inflation Rate for the Selected Useful Life
Real Discount Rate for the Selected Useful Life

1.75%	1.018
2.85%	1.029

Units

375

Uninflated/Undiscounted Cost Summary

Public Housing

	Year 1	Year 2	Year 3	Year 4	Year 5
Annual Operating Cost	\$2,025,000				
Capital Cost	\$0	\$7,000,000	\$7,000,000	\$7,000,000	NA
Annual Accrual after Modification	0	\$0	\$0	\$0	\$300,000

Vouchers

Annual Voucher and Administrative Costs
Year 1 Demolition, Remediation and Relocation Costs

\$2,922,000
\$2,625,000

PUM Cost Comparisons:

New Budget Authority
(Voluntary Conversion only)

Net Present Value

Public Housing
Vouchers
Difference

\$609
\$533
12%

\$840
\$799
5%

Final Result

Public Housing Cost exceeds
Voucher Cost

Public Housing Cost exceeds
Voucher Cost

Net Present Value of the Stream of Costs

Public Housing	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15
Operating	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000
Initial Capital	\$0	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000
Accrual	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL	\$2,025,000	\$9,025,000	\$9,025,000	\$9,025,000	\$9,025,000	\$9,025,000	\$9,025,000	\$9,025,000	\$9,025,000	\$9,025,000	\$9,025,000	\$9,025,000	\$9,025,000	\$9,025,000	\$9,025,000

Discount Rates	1.000000	0.972290	0.945347	0.919152	0.893682	0.868917	0.844840	0.821429	0.798657	0.776536	0.755018	0.734096	0.713754	0.693976	0.674745
Discounted Costs	\$2,025,000	\$8,774,915	\$9,531,760	\$8,285,343	\$2,077,810	\$2,020,233	\$1,964,252	\$1,909,822	\$1,856,900	\$1,805,445	\$1,755,416	\$1,706,773	\$1,659,478	\$1,613,493	\$1,569,783

Net Present Value:

	15 Year	20 Year	30 Year
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Total	\$47,565,421	\$54,780,061	\$66,498,267
Per Unit	\$126,841	\$146,082	\$177,328,71
Per Unit Month	\$705	\$809	\$493

Voucher	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15
Voucher	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000
Demolition	\$2,625,000														
TOTAL	\$5,547,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000

Discount Rates	1.000000	0.972290	0.945347	0.919152	0.893682	0.868917	0.844840	0.821429	0.798657	0.776536	0.755018	0.734096	0.713754	0.693976	0.674745
Discounted Costs	\$5,547,000	\$2,841,031	\$2,762,305	\$2,685,761	\$2,611,338	\$2,538,977	\$2,468,021	\$2,400,215	\$2,333,704	\$2,269,037	\$2,206,161	\$2,145,028	\$2,085,589	\$2,027,796	\$1,971,606

Net Present Value:

	15 Year	20 Year	30 Year
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Total	\$38,894,168	\$47,962,347	\$62,688,440
Per Unit	\$103,718	\$127,900	\$187,169
Per Unit Month	\$576	\$533	\$464

Net Present Value Delta

	15 Year	20 Year	30 Year
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Dollar	\$128	\$76	\$28
Percent	18%	12%	6%

Public Housing	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24	Year 25	Year 26	Year 27	Year 28	Year 29	Year 30
Operating	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000	\$2,025,000
Initial Capital															
Accrual	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000
TOTAL	\$2,325,000	\$2,325,000	\$2,325,000	\$2,325,000	\$2,325,000	\$2,325,000	\$2,325,000	\$2,325,000	\$2,325,000	\$2,325,000	\$2,325,000	\$2,325,000	\$2,325,000	\$2,325,000	\$2,325,000
Discount Rates	0.656048	0.637869	0.620193	0.603007	0.586298	0.570051	0.554255	0.538897	0.523964	0.509445	0.495328	0.481602	0.468257	0.455281	0.442665
Discounted Costs	\$1,526,311	\$1,483,045	\$1,441,949	\$1,401,992	\$1,363,143	\$1,325,370	\$1,288,643	\$1,252,935	\$1,218,216	\$1,184,459	\$1,151,637	\$1,119,725	\$1,088,697	\$1,058,529	\$1,029,197

Voucher	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24	Year 25	Year 26	Year 27	Year 28	Year 29	Year 30
Voucher	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000
Demolition															
TOTAL	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000	\$2,922,000
Discount Rates	0.656048	0.637869	0.620193	0.603007	0.586298	0.570051	0.554255	0.538897	0.523964	0.509445	0.495328	0.481602	0.468257	0.455281	0.442665
Discounted Costs	\$1,916,972	\$1,863,852	\$1,812,204	\$1,761,988	\$1,713,163	\$1,665,690	\$1,619,534	\$1,574,656	\$1,531,022	\$1,488,597	\$1,447,347	\$1,407,241	\$1,368,246	\$1,330,332	\$1,293,468

New Budget Authority

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15
Public Housing															
Operating	\$2,025,000	\$2,050,440	\$2,096,500	\$2,133,191	\$2,170,525	\$2,208,512	\$2,247,163	\$2,286,491	\$2,326,508	\$2,367,225	\$2,408,654	\$2,450,808	\$2,493,700	\$2,537,343	\$2,581,750
Initial Capital	\$0	\$7,122,509	\$7,247,161	\$7,373,995											
Accrual	\$0	\$0	\$0	\$0	\$321,559	\$327,187	\$332,913	\$338,739	\$344,668	\$350,700	\$356,838	\$363,083	\$369,437	\$375,903	\$382,481
TOTAL	\$2,025,000	\$9,182,948	\$9,343,661	\$9,507,187	\$2,492,084	\$2,535,699	\$2,580,076	\$2,625,231	\$2,671,176	\$2,717,924	\$2,765,491	\$2,813,891	\$2,863,137	\$2,913,246	\$2,964,231
Voucher															
Operating	\$2,822,000	\$2,973,139	\$3,025,172	\$3,078,116	\$3,131,987	\$3,186,801	\$3,242,574	\$3,299,322	\$3,357,065	\$3,415,817	\$3,475,598	\$3,536,426	\$3,598,317	\$3,661,292	\$3,725,369
Demolition	\$2,625,000														
TOTAL	\$5,547,000	\$2,973,139	\$3,025,172	\$3,078,116	\$3,131,987	\$3,186,801	\$3,242,574	\$3,299,322	\$3,357,065	\$3,415,817	\$3,475,598	\$3,536,426	\$3,598,317	\$3,661,292	\$3,725,369

New Budget Authority

Public Housing PUM
 Voucher PUM
 Delta Dollar
 Delta Percent

15 Year
 20 Year
 30 Year

\$889
 \$774
 \$115
 13%

\$840
 \$739
 \$42
 5%

\$824
 \$864
 -\$40
 -5%

	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24	Year 25	Year 26	Year 27	Year 28	Year 29	Year 30
Public Housing															
Operating	\$2,626,933	\$2,672,908	\$2,719,687	\$2,767,285	\$2,815,716	\$2,864,994	\$2,915,135	\$2,966,154	\$3,018,065	\$3,070,885	\$3,124,629	\$3,179,314	\$3,234,956	\$3,291,571	\$3,349,178
Initial Capital															
Accrual	\$399,175	\$395,986	\$402,917	\$409,968	\$417,143	\$424,444	\$431,872	\$439,430	\$447,121	\$454,946	\$462,908	\$471,009	\$479,253	\$487,640	\$496,174
TOTAL	\$3,016,109	\$3,068,894	\$3,122,604	\$3,177,253	\$3,232,859	\$3,289,438	\$3,347,007	\$3,405,584	\$3,465,186	\$3,525,831	\$3,587,537	\$3,650,323	\$3,714,209	\$3,779,211	\$3,845,352
Voucher															
Voucher	\$3,790,568	\$3,856,907	\$3,924,408	\$3,993,090	\$4,062,974	\$4,134,081	\$4,206,432	\$4,280,050	\$4,354,956	\$4,431,173	\$4,508,724	\$4,587,632	\$4,667,921	\$4,749,615	\$4,832,739
Demonition															
TOTAL	\$3,790,568	\$3,856,907	\$3,924,408	\$3,993,090	\$4,062,974	\$4,134,081	\$4,206,432	\$4,280,050	\$4,354,956	\$4,431,173	\$4,508,724	\$4,587,632	\$4,667,921	\$4,749,615	\$4,832,739