

**Office of Inspector General**

Pacific/Hawaii District
450 Golden Gate Avenue, Box 36003
San Francisco, California 94102-3448

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Audit Case Number
2002-SF-1002

TO: Joyce L. Lee
Director, Office of Public Housing, 9APH

FROM: //SIGNED//
Mimi Y. Lee
District Inspector General for Audit, 9AGA

SUBJECT: AUDIT MEMORANDUM-Oakland Housing Authority - Limited Review
Rehabilitation of the 49th Street Housing
Development Oakland, California

INTRODUCTION

Because of a citizen complaint, we completed a limited review of the operations at the Oakland Housing Authority (OHA) where we examined the process used to rehabilitate the 49th Street housing development. The objective of this limited review was to determine whether the rehabilitation performed on the housing development at 49th Street was done in accordance with applicable Federal requirements. We performed the following work to accomplish our objective:

- ✓ Interviewed the citizen complainants, OHA management and staff, and HUD Office of Public Housing staff;
- ✓ Reviewed HUD monitoring reports regarding OHA's modernization;
- ✓ Reviewed HUD regulations relating to procurement of construction work;
- ✓ Reviewed contract files and vendor payments related to 49th Street's rehabilitation; and
- ✓ Conducted site inspections and analyzed construction costs of the modernization work done at 49th Street, using our certified general appraiser.

An examination of OHA's management controls was not necessary for our objective. Therefore, our conclusions are not based on any reliance on such controls.

Our review covered the period from June 1998 through December 2000 and was performed intermittently between September 2000 and March 2001. We performed this work in accordance with generally accepted government auditing standards.

Within 60 days please give us, for each recommendation in this report, a status report on: (1) the corrective action taken; (2) the proposed corrective action and date to be completed; or (3) why action is considered unnecessary. Also, please furnish us copies of any correspondence or directives issued because of the audit.

Should you or your staff have any questions, please contact me at (415) 436-8101.

SUMMARY

We found the OHA had expanded the scope of a \$467,500 roof replacement contract into a comprehensive modernization project costing nearly \$3 million without following Federal requirements. As a result, the work cost more than necessary, and a sample of change orders identified \$105,201 of questionable costs. Further, we found problems with the quality of the work. We make several recommendations to correct these problems.

BACKGROUND

As of May 2000, the OHA owned and managed 3,306 dwelling units in its low-rent program, subsidized by the U.S. Department of Housing and Urban Development (HUD). These units are located at 267 sites throughout the city of Oakland, California.

Twenty-four of these housing units are at the northern Oakland 49th Street development (referred to as "49th Street") built in 1968. Each of the development's six two-story buildings is of wood-frame construction with a stucco exterior, and contains four units. All units contain three bedrooms with about 888 square feet total living space and 63 square feet of patio or balcony. The OHA used HUD Comprehensive Grant Program funds for a \$2.9 million rehabilitation of 49th Street, which took place between June 1998 through July 2000.

HUD's Office of Inspector General (OIG) received a citizen complaint alleging various improprieties at the OHA. Our review confirmed problems with the rehabilitation of 49th Street, which are discussed herein.

FINDING: OHA Paid Too Much to Rehabilitate the 49th Street Housing Development, Including \$105,201 of Questionable Payments to the Contractor

In disregard of Federal procurement requirements, the OHA used change orders to expand the scope of a \$467,500 contract for roof replacement and limited exterior work for the 49th Street housing development into an overly costly \$2,966,444 comprehensive modernization project. In addition, proper procedures were not used to manage the change-order process. Our review of \$631,827 out of \$2,397,052 in change orders, which represents a sample of 26 percent of change-order costs, identified \$105,201 of questionable costs. Further, onsite inspection identified problems with the quality of the work. As a result, funds were used that could have been better spent to improve the OHA's housing stock, and additional monies will be necessary to correct the deficient work and its effects.

Federal requirements call for full and open competition and other practices to assure costs are reasonable.

Administrative Requirements for Grants and Cooperative Agreements with State, Local and Federally Recognized Indian Tribal Governments, published in Title 24, subpart 85.36 of the Code of

Federal Regulations (CFR), 24 CFR 85.36 contains HUD's procurement requirements. These regulations require housing authorities to:

- Conduct all procurements in a method providing full and open competition. Grantees are prohibited from placing unreasonable qualification requirements on firms and are prohibited from taking any arbitrary action in the procurement process. [24 CFR 85.36 (c)(1)]
- Perform a cost or price analysis in connection with every procurement action including contract modifications. The method and degree of analysis is dependent on the facts surrounding the particular procurement situation, but as a starting point, grantees must make independent cost estimates before receiving bids or proposals. A cost analysis must be performed when adequate price competition is lacking, and for sole source procurements, including contract modifications or change orders. [24 CFR 85.36(f)(1)]
- Solicit proposals from an adequate number of qualified sources. [24 CFR 85.36(d)(3)]
- Make procurements non-competitively only when competitive procurement is not feasible and the item is available from only one source, a public exigency or emergency exists that will not permit a delay caused by a competitive solicitation, the awarding agency authorizes the procurement, or after a solicitation of a number of sources the grantee determines competition is inadequate. [24 CFR 85.36(d)(4)(i)]
- Maintain a contract administration system that ensures contractors perform in accordance with the terms and condition of their contracts. [24 CFR 85.36 (b)(2)]

Specific HUD procedures have additional requirements concerning contract change orders. Section 6-10 HUD Handbook 7460.8 REV-1, *Procurement Handbook for Public and Indian Housing Authorities*, permits the use of change orders after the contract award only if the

changes are within the scope of the contract. Change orders for new work beyond the original work contracted are considered outside the scope of the original contract and are not allowed. Thus, if the scope of additional work is beyond the scope of the original contract, a new competitive award must be made.

OHA recognized in 1993 the need to wholly modernize 49th Street.

In March 1993, the OHA performed a physical needs assessment for 49th Street. The OHA determined a comprehensive modernization was needed, including the replacement of the project's roofs, windows, doors, bathrooms, kitchens, parking lot, electrical and mechanical items, fences, patios, and numerous other items. The OHA estimated the modernization work would cost \$1,406,556 (\$58,000 per unit). This estimate was increased in May 1996 to \$1,568,256 (\$65,344 per unit) and included additional items such as lead and asbestos abatement, changes to the roof design, and dry rot repair.

A competitive process began in 1997 to do modernization work.

As a result, the OHA solicited proposals, and in July 1997, received two bids of \$1,198,500 and \$1,039,950 for work at 49th Street, which included roof replacement, and other work. (The OHA, however, was unable to provide a copy of the request for proposals or other documents detailing the work to be performed.) At a September 15, 1997 board of commissioners meeting, OHA's executive director requested all bids be rejected on the basis the OHA did not have sufficient funds to rehabilitate 49th Street. The executive director told the board the job should be redesigned in line with OHA's financial capacity. Accordingly, the board voted to reject the bids.

In 1998, the OHA awarded a contract to do only a portion of the needed work.

Thus, while the OHA was aware 49th Street needed a major modernization, it reduced the scope of work statement to cover only the replacement of the roof, windows, and site work. The proposed site work consisted of repairs to the sewer lines, parking lot, landscaping, drainage, and the playground area. On March 18, 1998, the OHA issued a request for proposals for the reduced work and received three bids by the closing date in April 1998. On June 5, 1998, the OHA awarded Contract Number 811963 to the DSKA Construction Corporation that submitted the lowest bid of \$467,500.

The scope of rehabilitation work for 49th Street under the contract with DSKA is listed below:

Roof

- Replace existing building roofs with pitched roofs
- Furnish and install pre-engineered roof trusses and roof framing
- Construct roof gables and dormers
- Extend vents to top of new roofs

Windows

- Replace windows, and restore waterproofing and stucco around window frames

Site Work

- Install hard-wired smoke detectors and fire extinguishers in each unit

Remove/install site lighting, electrical conduit, and cable TV lines due to roof work
Miscellaneous site repairs
Site utility repairs
Repair/reroute water line
Cleanout and inspect sanitary sewer and storm drain systems
Repair sewer lateral and cleanouts
Replace wood trash enclosure with CMU-wall trash enclosure with metal doors
Repair and replace existing parking concrete slab and curbs
Construct access ramps
Repair concrete driveways
Install children play area and playground equipment
Landscaping
Grading and drainage
Repair patio fences

Shortly after work began, conditions were found to be so serious that additional work could not be postponed.

The DSKA began working on the project in June 1998 with work scheduled for completion work in December 1998. The contractor removed the existing roofing and discovered the under-layer of plywood sheathing was disintegrating as well as extensive dry

rot in the supporting wood joists. The project's architect inspected the structure in July 1998 and recommended replacement of the supporting wood joists and the damaged ceiling in the second floor units. Based upon the architect's recommendations, the OHA's project manager instructed the contractor on August 31, 1998 to remove sections of exterior stucco to determine the extent of the dry rot damage from the leaking roof. When the stucco was removed, it was discovered the dry rot damage to the structure of the buildings was extensive and additional work would be necessary.

The OHA disregarded Federal requirements when it decided not to competitively procure for the additional modernization work.

At that time, the OHA should have reassessed the full scope of the rehabilitation. Nevertheless, management decided not to suspend the roof work or solicit proposals for additional work, based on the belief this would have resulted in excessive delays

and additional costs. However, the OHA's decision process did not consider Federal requirements calling for a competitive selection process for the additional work. Thus, in disregard of Federal requirements, the OHA began issuing a series of change orders on September 28, 1998. As a result, the OHA increased the work piecemeal, ultimately doing a comprehensive modernization of the development.

The OHA paid DSKA a total of \$2,397,052 for all change order work. Thirty-one of 66 change orders provided \$1,850,254 for work beyond the scope of the original DSKA contract. Work under these 31 change orders included:

- ❑ Replacing the stucco exterior of all six buildings;
- ❑ Replacing interior sheet rock in all 24 units;

- ❑ Removing and installing new kitchen cabinets, laminated counter tops, wall heaters, toilets, sinks, showers and tubs in all 24 units;
- ❑ Removing and installing double glazed sliding glass doors in the balcony and decks for all 24 units;
- ❑ Installing laminated and vinyl flooring in all 24 units;
- ❑ Renovating the balcony or deck at all 24 units;
- ❑ Installing new exterior and interior doors in all 24 units;
- ❑ Installing new electrical boxes and devices, TV cables and phone lines;
- ❑ Painting the entire interior and exterior of the development; and
- ❑ Installing an irrigation system.

Thus, the total cost for the modernization at 49th Street was \$2,966,444 consisting of \$467,500 for the original contract, \$2,397,052 for change orders, and \$101,892 for architectural/-engineering and other costs.¹

49th Street cost 50 percent more than two similar projects where OHA selected contractors competitively.

While the OHA believed the competitive process would significantly delay completion of modernization work, it still took DSKA over two years to complete the modernization. Also, we believe it is likely OHA could have substantially reduced the cost of the modernization at 49th Street if it had used a competitive bidding process to procure the work beyond the scope of the roofing contract with DSKA.

We reviewed the costs associated with comprehensive modernization performed by general contractors on other OHA developments, selecting two developments that had work done similar to that performed at 49th Street: Campbell and Peralta developments. The modernization of these two developments was done between 1998 and 2000.

The modernization of 77 Campbell units was done between March 1998 and November 1999. This development was built in 1936. Modernization work included, but was not limited to, gutting units, installing all new mechanical systems, hazard abatement, converting and replacing the roofs, converting units for new entry and laundry areas, landscaping, and exterior fencing. Units were two to three bedrooms and averaged 900 square feet. The average per-unit cost was \$83,085.

¹ In hindsight, it would have been more cost effective if the OHA had originally demolished and replaced the development. Our appraiser estimated this would have cost about \$2,840,000, \$125,000 less than the actual modernization cost. Also, a new development would have the advantage of a longer life span as well as better design and function.

The modernization of 140 units at Peralta started around May 1998. At the time of our review in July 2000, the work was 99.9 percent completed. Work included unit gutting, landscaping, roof conversion, hazard abatement, structural upgrading, unit layout, exterior reconfiguration, exterior wall rebuilding, new utilities, drainage, and new mechanical systems. The units were one to three bedrooms and approximately 600 to 900 square feet. The average size of units at the development was 1.77 bedrooms. The average per-unit cost was \$82,999.

While Campbell and Peralta had virtually the same average per-unit cost of \$83,000, the cost for 49th Street was half again higher at \$123,602 (\$2,966,444 divided by 24 units). The unit cost comparisons for modernization work are frequently invalid, and 49th Street had the disadvantage of starting with a partial rather than complete modernization. Still, the 50 percent variance is very large. We believe this variance is at least partially due to unreasonable costs charged for work ordered through the change orders.

A sample of change orders showed most exceeded reasonable cost.

Our certified general appraiser performed an independent cost analysis using standard union labor rates and materials prices from standard construction industry cost estimating books and actual price quotes from suppliers on 9 of the 66 modernization change orders for 49th Street. These represented \$631,827 (26 percent) of the \$2,397,052 in change orders. The nine change orders were selected because their cost estimates could be more readily determined. Thus, the sample was not necessarily representative of all change orders.

For the nine change orders, our appraiser determined the OHA overpaid on eight for a total of \$92,901 (15 percent) out of \$631,827 tested.

Change Order	Work Performed	OHA's Cost	Cost Per OIG Cost Analysis	Excessive Costs
11	Remove and install sliding glass doors	\$35,870	\$23,382	\$12,488
12	Remove and install front metal doors	29,190	16,253	12,937
15	Remove & install all interior sheet rock; remove fixtures in kitchen & bathroom, and wall heater	186,039	162,473	23,566
23 & 33	Install wall heaters, vents, and exhaust fans	39,114	24,661	² 14,453
47	Replace floor coverings	199,998	194,415	5,583
51	Repave parking lot	16,302	10,297	6,005
55	Remove & install water heaters	36,654	18,785	17,869
	Total excessive costs			\$92,901

Payment on change order 19 was also questionable.

We also noted the questionable payment of \$12,300 under change order 19 where work was not done. The change order was for adding color to the exterior

stucco in lieu of painting the exterior; however, our examination showed no coloring within the stucco. Also, there was subsequent change order 50 for painting all exterior surfaces.

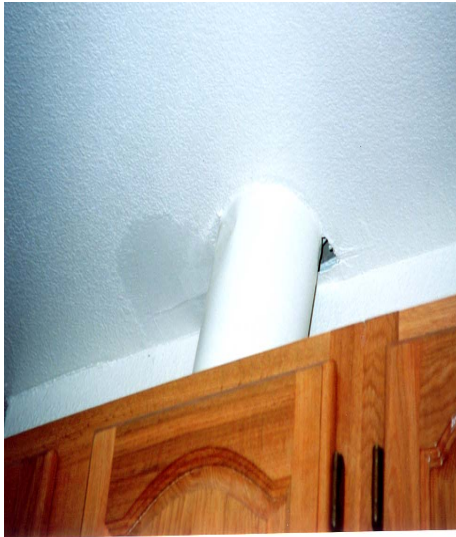
The quality of some work was poor.

Our appraiser considered the overall quality of materials installed and the construction workmanship to be fair, based on observations of the development's exterior and the interiors of two apartments. Nevertheless, she noted several exceptions where work was below average or unacceptable, including:

- Small holes drilled into kitchen walls and not repaired, oversized hole for exhaust fan vent;
- Separation of the kitchen countertops from the walls;
- Use of inferior plastic baseboard moldings;
- Poor quality of materials used for lattice work on patio fences;

² The excessive costs on change orders 23 and 33 are largely due to the apparent duplication of wall heaters in the two change orders.

- Water stains on eaves and soffits due to absent or improper surface treatment; and
- Patio enclosures installed with direct wood-to-earth contact, creating opportunity for rot and termite damage.



The principal effect of the overspending and needed correction of deficient work cited above is the reduction of funds available for modernization of other OHA housing developments.

Further disregard of Federal requirements seriously weakened the change order process.

The OHA's project manager for the modernization work did not perform proper cost analyses required by Federal requirements in order to arrive at reasonable costs for the change orders. Rather than independently determining specific labor and materials quantities and prices in order to evaluate the reasonableness of the contractor's proposed price, the project manager only compared the per-unit cost based upon the DSKA's own estimates of the change order costs. In addition, the contractor provided details of its estimated costs for less than half of the change orders. One notable example of inadequate review of contractor estimates was the change order for painting a metal fence. In this instance, the contractor submitted a subcontractor's invoice for work at a different OHA development as the support for the estimate for 49th Street. There was no evidence the project manager questioned this. Another instance was the duplication of wall heaters in two different change orders.

The OHA's management controls were also weak since supervisory oversight of the change order process was ineffective. Even though there was insufficient or no supporting documentation supporting the basis of the project manager's change order approvals, they were all approved by the supervisor – the director of modernization, the executive director, or deputy executive director.

AUDITEE COMMENTS

The OHA provided its written response dated February 15, 2002 to our draft audit memorandum, which is included as Appendix B-1. The following is the summary of OHA's comments:

OHA claimed they frequently discover unanticipated work that results in costly change orders. The 49th Street reconstruction was unfortunately an extreme example and was not typical. After work had begun, it became apparent to the Authority that they were faced with a much more difficult project than they had anticipated. This was partially due to hidden conditions (e.g. amount of dry rot) and due to events that took place after the work was bid but before work began (vandalism and theft). OHA claimed they have since instituted more thorough destructive testing procedures for similar projects to avoid a repeat of their experience at this site.

OHA stated while they agree with much of the description of the project, they do not agree with the conclusions of the findings. OHA stated to understand more fully the project, it is necessary to have more of the context of the work. In addition, OHA does not agree with amounts proposed as reasonable for the cost of various change orders. OHA stated the amount provided in the draft report is without basis or explanation. At the time of work, OHA's staff completed a thorough review of the contractor's estimates and negotiated price as appropriate. In response to the amounts included in the draft report, OHA reviewed the R.S. Means report for 1998, which provides industry standards for like work. Included in the attached response to the draft is a comparison to R.S. Means for the change orders. OHA stated the R.S. Means schedule of costs supports the reasonableness of the amounts negotiated at the time by OHA representatives. OHA acknowledge that their analysis was not well documented in the file and they have taken steps to ensure ample documentation of cost analysis is retained in the files for the future.

Critical Decisions for OHA:

OHA stated they were confronted with a development under re-construction that had ever-expanding unanticipated critical construction needs. OHA had to make critical and prudent decisions that would be in the best interest of the Authority and in the use of its funds such as the weather, additional cost and time for the contractor delay and for the architectural services, community concerns, and having two general contractors working on the project at the same time.

OHA claimed at no time did the management adopt a cavalier attitude towards HUD rules and regulation regarding procurement in making this decision. Nor did OHA management take lightly its need to be a responsible and prudent owner in light of this dire situation. OHA proceeded with change order work after having determined that an extremely urgent situation existed. OHA determined that proceeding with change orders to complete the project was in the best interest of the Authority.

Auditee's Responses to Findings:

OHA stated the 49th Street construction work included similar work as the Peralta and Campbell Village projects and also included additional work such as dry rot repairs, rebuilding of balconies

and replacement of stucco, which the other projects did not have. OHA stated the overhead and profit margin, size and number of units, similarity of work and economy of scale should be considered when comparing unit or square foot cost of projects. Economies of scale can reduce costs for large projects and increase costs for small projects; 49th Street was a small project. With the absence of the three above items from the Peralta and Campbell Village projects, the dissimilarity in unit size and number, and the overhead and profit margin difference, it makes comparison of the three projects unit cost incongruent.

OHA stated it analyzed each change order and determined that the costs were reasonable for the particular task. OHA used the following criteria to establish change order cost:

- Appropriate Davis Bacon wage labor rates were applied, both skilled and unskilled.
- Labor Burden insurance did not exceed 30 percent. These were workman's compensation, liability insurance and EDD/IRS.
- Material cost invoice were verified.
- Contractor's bond did not exceed 2.5 percent.
- Overhead and profit did not exceed 20 percent.

OHA claimed they also negotiated, whenever feasible, the number of the contractor's workers on a particular task and the estimated hours to do the work. It is difficult for the OHA to reasonably compare change order cost with those presented by the OIG in their report because there is no example of the criteria used by the OIG to establish their cost estimates. OHA claimed the costs associated with change order numbers 11, 12, 15, 23-33, 47, 51 and 55 are reasonable and within the industry standards.

OHA stated there was no duplication of payment for wall heaters in change order 15. OHA claimed the wall heaters were only removed in change order 15, when all of the sheet rock was removed. In change order 23, wall heaters were purchased and installed. There was no duplication of payment.

Regarding the alleged ineligible cost in change order 19, OHA claimed it had recommended the paint color of building be mixed into the stucco, as had been done successfully on another project, Peralta Villa. The OHA claimed they verified the paint color mixed into the stucco. However, after the heavy rainfall in the month of February, it was apparent that the paint mixed into the stucco was not sufficient to protect and seal the building against moisture penetration. After meeting with the modernization director, it was determined an additional two coats of paint would be in the best interest of the authority and provide a minimum of five years before these buildings would need additional painting.

Comparison of OIG and OHA Change Order Analysis Results

	OHA	OIG	Difference	1998 R.S. Means
Change Orders	\$555,467	\$450,226	\$105,201	\$662,103

Quality of Work:

The OIG stated in its report the overall quality of work at the 49th Street site was fair, with some exceptions. OHA stated OIG did not identify the units in which suspect work was found. OHA claimed a site visit and inspection was conducted by OHA representatives on February 13, 2002. OHA claimed the following observations were made regarding the exception noted by the OIG:

- Random inspection of kitchen areas did not reveal holes of any kind.
- Random inspection of kitchen areas found no evidence of any separations; however, counter tops are normally caulked and sealed when installed. Over a two or three years period, caulking may dry and crack and this may have been what OIG observed.
- Laminated wood flooring is used in every room but the kitchens and baths. Laminated wood baseboard is used where there is laminated flooring. Kitchen and bath floors are covered with sheet vinyl floor coverings; these areas have vinyl baseboards, as called for in the drawing and specifications, and plastic is not used.
- The patio privacy lattice panels connected to the top of the four foot high patio enclosures are typical industry standard redwood lattice panel. The condition of some of the panels after being installed two years ago, does show signs of weathering and some are in a state of disrepair. Replacement and or repair of those will be addressed by the OHA Facilities Management Department.

The OHA claimed they inspected the project on the early afternoon of February 13, 2002. It had intermittently rained all morning and was raining at the time of the inspection. There were no water stains on the buildings, either on the soffits, eaves or on the exterior stucco. What the OIG may have observed on the eaves was typical weathering of the wood facade, after two years of exposure to rain and sun.

All patio enclosures are three to four inches above grade and approximately two inches above the concrete patio slab (see enclosed photograph).

In summary, OHA's recent inspection of the site determined that the site was reconstructed with the specified and appropriate materials. The quality of work was found to be adequate.

We conducted the exit conference with OHA representatives on April 16, 2002. In response to their request, we provided our supporting calculations for the excessive charges related to the change orders. We also provided them with copies of our pictures showing the inferior work. OHA representatives asked for an additional two weeks to respond to the additional information

provided. The OHA provided its written response on May 14, 2002 which is included as Appendix B-2. The following is the summary of OHA's comments:

“As-built” drawings:

OHA claims it would be advantageous when designing renovations to begin with “as-built” drawings from the original construction. Using “as-built” would provide the Authority with a good starting point and would enable the Authority to avoid costly destructive testing and other analysis. Unfortunately, the Authority does not have “as-built” drawings for the 49th Street project. The absence of “as-built” drawings alone added to the requirement for extensive destructive testing, change orders and expense. Together with the added costs resulting from vandalism and theft, the absence of “as-built” drawings contributed to the unusual expense of the work at 49th Street.

Sequencing of Change Orders:

OHA stated they reviewed the sequencing of the change orders in terms of the actual date that they were processed and approved and the work completed. OHA stated the numerical order as well as imprecise descriptions of the change orders made it appear that work may have been duplicated. OHA stated HUD-OIG outlined perceived discrepancies involved with change order 15 (removal of sheet rock, fixtures, and wall heaters plus reinstallation of sheetrock), change order 23 (vent) and change order 33 (install wall heaters and range hoods). These associated events were properly sequenced, and there was no duplication.

Reasonableness of Costs:

OHA agreed with HUD-OIG's finding of ineligible cost associated with change order 12 in amount of \$12,300. OHA claimed the contractor no longer exists, and therefore they do not have the option to request refund.

OHA stated the change order 55 (removal and install hot water heaters) was another perceived discrepancy. While change order 55 stated 100 gallon hot water heaters were to be installed, a careful check of the specifications revealed that 80 gallon units were in fact required. Despite this error, the price associated with the change order was correctly calculated.

Quality of Materials and Supplies:

OHA claimed the Authority specifies higher quality material where experience has demonstrated higher levels of wear and tear. This was the case in our selection of a more expensive, and more durable, sliding glass door in change order 11. In our experience, we have found that investments made in more durable materials saves maintenance dollar over the life of the product.

OHA stated with exception of \$12,300 for change order 12, the costs were reasonable within the context of this difficult work.

Comprehensive Property Inspection:

OHA stated the contractor is no longer in business; and therefore, the authority will not be able to obtain any credit from the contractor. OHA stated their Preventative Maintenance Program (PM) has completed several cycles through this site. The PM crew routinely inspects the site and each apartment and makes requisite repairs to the building, systems, and apartments. In addition, we are scheduling a special inspection by senior members of the facilities management department within the immediate future.

OIG EVALUATION OF AUDITEE COMMENTS

As we stated in our draft report, we take no exception to the fact that 49th Street needed a comprehensive modernization including the replacement of the project's roof, windows, doors, bathrooms, kitchens, parking lot, electrical and mechanical items, fences, patios, and numerous other items. The OHA was aware of this fact back in March 1993. At that time, OHA estimated the modernization work would cost \$1,406,556 (\$58,000 per unit). However, the OHA decided to delay the modernization project until 1998; and even then, it decided to reduce the scope of work statement to cover only the replacement roof, windows, and site work.

OHA stated they had to make critical and prudent decisions that would be in the best interest of the Authority and its use of funds. OHA believes the competitive process would significantly delay completion of modernization and it would have significantly increased the cost. As a result, the OHA increased the scope of the work by issuing a series of change orders that resulted in comprehensive modernization of the project.

We disagree with this rationale and methodology. It is interesting to note, OHA vacated the 49th Street project in 1996 (the month is unknown) and it did not start modernizing the project until July 1998. It took nearly two years to complete the modernization. We do not believe OHA achieved its goal of completing the modernization in timely manner.

As we stated in our draft report, after the extent of the dry rot damage from the leaking roof was discovered, OHA should have reassessed the full scope of the rehabilitation. In addition, OHA had prior knowledge that the 49th Street project required a major modernization. However, OHA did not suspend the work and disregarded the Federal requirements by not competitively procuring for the additional modernization work.

OHA claimed it analyzed each change order and determined the costs were reasonable for the particular task. However, OHA was not able to provide adequate supporting documentation to support its claim.

We compared the costs associated with comprehensive modernization performed by general contractors on Campbell and Peralta developments to the 49th Street project. We also stated in our report the unit cost comparisons for modernization work are frequently invalid, and 49th Street had the disadvantage of starting with a partial rather than complete modernization. However, the 50 percent variance is very large, even if we take into consideration the economies of scale.

<u>Projects</u>	<u>Total Units</u>	<u>Cost per Unit</u>
Campbell Village	77	\$83,085
Peralta Villa	140	\$82,999
49 th Street	24	\$123,601

We reviewed the OHA Cost Breakdowns based on 1998 R.S. Means (referred to as “Cost Breakdown”) for Change Order Numbers 11, 12, 15, 23-33, 47 and 51 and we have the following comments:

The OIG estimated the labor and material costs based on two construction costs data sources: R.S. Means Repair & Remodeling Costs Data for year 2000 and Saylor Publications of Current Construction Costs for year 2000. In addition to using both cost data sources, the OIG also performed pricing of the costs with major building materials suppliers in the Bay Area. The estimation is primarily based on the scope of work in each of the Change Orders. The estimation also includes the construction work actually performed in two inspected units in terms of the quality of the materials installed and the construction workmanship. OIG’s estimation included union labor wages and made adjustments to reflect the increase in labor wages due to the degree of difficulty of rehabilitation/repair construction. The union labor wages in the Bay Area are slightly higher than the Davis-Bacon Wage Rate. A 2.5 percent bond premium and 20 percent overhead and profit were also included in the estimation.

The labor hours estimated in the OHA Cost Breakdowns are overall 8 percent to 10 percent higher per R.S. Means Standard for Construction. In addition, it is unusual to have the skilled worker perform the work typically performed by the unskilled laborer per R.S. Means Standard for Construction.

The 31 percent of overhead and profit allowance listed in R.S. Means is based on the presumption of the installing contractor’s annual billing of \$1,000,000 and up. In R.S. Means, a 20 percent of overhead and profit calculation is applicable for the \$2,000,000 project. The total rehabilitation costs for the project were \$2,966,444. Thus, a 20 percent overhead and profit calculation is reasonable for the subject project. Both DSKA’s cost breakdown to the Change Orders and our estimation applied the 20 percent calculation.

Change Order 11: Removing and installing sliding glass doors. The Cost Breakdown overstated the labor hours and the cost of the materials. Our estimation includes the labor hours per R.S. Means. The cost of the material was quoted at the local building supplier.

Change Order 12: Removing and installing front metal doors. The front doors, metal frames and locks was to be installed at a cost of \$1,215 each, for a total of \$29,190. The Cost Breakdown number 12 overstated the labor hours, and cost of materials. It is typical to have the demolition laborer remove the disrepaired metal doors and frames. The OIG’s estimation includes the labor hours per R.S. Means. The cost of the material was quoted at the local building supplier.

Change Order 15: Remove and install all interior sheet rock, fixture in kitchen (no replacement), bathroom (no replacement), and wall heater (no replacement). The Cost Breakdown 15 is almost the same with DSKA’s cost breakdown for the Change Order 15 dated April 9, 1999 with the

exception of the difference in unit price and percentage of overhead and profit. Neither of the cost estimations mentioned the removal of all toilets, tubs and all wall heaters. It is reasonable to include all the fixtures and appliances attached to the wall while removing all the interior sheet rock. The OIG's estimation is based on the scope of work stated in the Change Order 15 to calculate the labor hours and cost of material.

Change Order 23: Replacement of heater vent lines and all 24-wall heaters. The Cost Breakdown 23 includes a unit price for the labor and material for the installation of 24-35000 BTU Williams Wall Heaters. DSKA's cost breakdown for the Change Order 23, dated January 11, 1999, includes two unit prices for the replacement of vent lines and heaters for the first and second floors, respectively. The OIG's estimation is based on the scope of work stated in the Change Order 23 to calculate the labor hours and the cost for material was quoted at the local building supplier.

Change Order 33: Provide and install 24-35000 BTU Williams wall heaters and to provide and install 25 NU-tone range hoods in the kitchen areas. The Cost Breakdown 33 stated the removal and replacement of heater vent lines. DSKA's cost breakdown for the Change Order 33, dated November 28, 1999, stated the wall heaters and range hoods installations, and included a lump-sum proposal from a subcontractor. The OIG's estimation is based on one of the items in the scope of work stated in the Change Order 33 because Change Order 23 covers the costs for replacement of vent lines and heaters. The OIG's estimation includes only the costs of providing and installation of 24 NU-tone range hoods in the kitchen area. The cost for material was quoted at the local building supplier.

The unit price in the Cost Breakdown 33 is the same as the unit price in DSKA's cost breakdown for the Change Order 23 dated January 11, 1999. However, the same unit price related to the different scope of work. DSKA's cost breakdown includes the costs not only for the replacement of the vent lines, but also for the heaters for both floors. Cost Breakdown 33 includes the costs for removal and replacement of heater vent lines. It did not include the installation for the 24 heaters. It is unusual for the installation of wall heaters to occur 10 months prior to the removal and replacement of the heater vent lines. It is reasonable that the installation of the vent lines and wall heaters be completed at the same time.

Change Order 47: To provide for approximately twenty thousand square feet of laminated wood floors in each of the twenty-four living units. OIG's estimation is based on the following measurements:

<u>Description</u>	<u>Unit (square feet)</u>	<u>Total (square feet)</u>
Interior living area	888	21,312
Bathroom	40	960
Kitchen	108	2,592
The other living area	740	17,760
	<u>Unit (lineal foot)</u>	<u>Total (lineal foot)</u>
Wall base for bathroom and kitchen	61	1,461
Wall base for the other living area	198	4,752

The OIG's estimation includes the same \$72,004.18 for all the material costs of laminated floor from the supplier's estimate to the DSKA's cost breakdown for Change Order 47. The material supplier stated the estimate was for the approximately 20,000 square feet of floor covering. The 673 pieces of wall base was for the coverage for approximately 5,270 lineal feet for the base of the wall. (Each piece is measured 94" or 7'10.08" long.) The Cost Breakdown 47 contains questionable quantity of the materials. An explanation is necessary from OHA.

Change Order 51: (1) To provide all work necessary to apply hot mixed asphalt paving over a prepared subbase, including a sprayed sealer over the asphalt surface. (2) To provide painted parking stall markings, including one parking stall designated as handicap. (3) All parking stalls are to have one precast concrete wheel stop anchored in the asphalt surface of the parking lot. The Cost Breakdown 51 listed the lump-sum paving contractor cost. Without the details of the itemized cost breakdown, the OIG is not able to determine whether the Cost Breakdown 51 is a reasonable estimation.

Change Order 55: To provide and install four new 100-gallon hot water heaters and six new electrical water pumps. In addition, the contractor is to clean and drain the two other existing hot water tanks and reconnect all of the gas flue and water lines at all six tanks to meet and correct the code violations as specified in the City of Oakland's code correction notice dated March 16, 2000. The unit price of a water heater and circulating pump in Cost Breakdown 55 is \$2,225.56 and \$440.00, respectively. Based on two field inspections, the description of four new water heaters is A.O. Smith, gas-fired water heater, commercial grade, 100-degree temperature rise, 81-gallon, Model BTR180. The quoted unit price for the 81-gallon water heater is \$2,051.75. The quoted unit price for the circulating pump is \$380.00 and J-box is \$18.00. The OIG obtained the costs of the water heater, circulating pumps and J-box with the local building supplier. The OIG inspected only four new water heater installations. The other two water heaters were not inspected because the keys for the two utility closets were not available at the time of the inspection.

The OIG's staff inspected the subject project on March 14, 2001 and March 21, 2001, respectively. Unit 5 of 357 49th Street is an occupied upstairs unit. Unit 3 of 364 49th Street is a vacant downstairs unit. These two inspected units were reported to be representative of the project. The overall quality of materials installed and quality of construction workmanship and conditions in these two units are consistent. The units consist of a living room, kitchen with laundry, three bedrooms and one bath. There is no other floor plan in the project. The Project Manager with the OHA stated the vacant unit sustained severe damage resulting from water/sewer overflow from the bathroom to the living room and hallway. The floor covering in these areas was removed. The bottom portion of the interior drywall in these areas was also removed. The unit has never been occupied since the completion of rehabilitation of the project.

We reviewed OHA's response dated May 14, 2002 and we have the following comments:

We take no exception to the fact that 49th Street needed a major comprehensive modernization including the replacement of the project roof, windows, doors, bathrooms, kitchens, parking lot, electrical and mechanical items, fence, patio, and numerous other items. OHA claimed the lack of the "as-built" drawings contributed significantly to the costs. However, OHA failed to

provide any evidence linking the absence of “as-built” drawings to the rehabilitation effort such as the replacement of the windows, doors, bathrooms, kitchen, wall heaters and other items that resulted in a significant cost over run at 49th Street project.

As we stated in our draft audit report, the excessive costs on change orders 23 and 33 are largely due to the apparent duplication of wall heaters. The change order 15 states “removal of all wall heaters”, the change order 23 states “replacement of all wall heaters”, and change order 33 states “provide and install 24-35000 Williams wall heaters”. These change orders were approved and signed by the contractor, the architect, and OHA’s project manager for the 49th Street project, the director of modernization, and the contract office (executive director). In addition, OHA paid the contractor the amount stated in these change orders for the above tasks. The payments were approved and signed by the project manager, director of modernization and the executive director. Finally, OHA did not provide any supporting documentation to demonstrate there was no duplication of payment for these change orders.

The excess costs associated with change orders 11 and 55 were based on the reasonableness of the costs and not the type of material or supplies.

After reviewing OHA’s comments, we still believe OHA did not follow Federal requirements in rehabilitating the 49th Street project. As a result, the work cost more than necessary, and we identified \$105,201 of questionable payments to the contractor. In addition, we found some problems with the quality of the work.

RECOMMENDATIONS

We recommend you require the Oakland Housing Authority to:

- 1A. Return the monies to the modernization program from nonfederal funds for the ineligible and unnecessary/unreasonable costs of \$105,201. (See Schedule of Questioned Costs.)
- 1B. Perform a comprehensive physical examination of the project and require the contractor to repair all construction defects identified, or repair the defects at its own expense with nonfederal funds.
- 1C. Use a competitive procurement process any time there is a substantial change in the scope of a modernization project as required by HUD and Federal procurement regulations.
- 1D. Institute improved procedures over the change order process. These would include requiring contractors to submit supporting cost estimates, OHA performing proper cost analyses, documentation on the negotiation of prices, and effective scrutiny by supervisors.

APPENDIX A**SCHEDULE OF QUESTIONED COSTS**

Issue(Recommendation No.1A.)	<u>Ineligible 1/</u>	<u>Unreasonable/ Unnecessary 2/</u>	Total
Excess charge for change order #11		\$12,488	\$12,488
Excess charge for change order #12		12,937	13,037
Excess charge for change order #15		23,566	23,566
Excess charge for change orders #23 & #33		14,453	14,453
Excess charge for change order #47		5,583	5,583
Excess charge for change order #51		6,005	6,005
Excess charge for change order #55		17,869	17,869
Charge for adding coloring to stucco not done under change order #19	\$12,300		12,300
TOTALS	\$12,300	\$92,901	\$105,201

- 1/ Ineligible amounts are those questioned because of an alleged violation of a provision of a law, regulation, contract, grant, cooperative agreement, or other agreement or document governing the use of funds, or are otherwise prohibited.
- 2/ Unreasonable/unnecessary amounts are those not generally recognized as ordinary, prudent, relevant, or necessary within established practices. Unreasonable amounts exceed those incurred by the ordinarily prudent person in the conduct of a competitive business. Costs must be necessary and reasonable to be eligible under Federal cost principles.

CHANGE ORDER NO. 11

SCOPE: Existing oversized aluminum frame glass sliding doors were beyond repair. New doors are energy conservative double glazed doors that match in color the aluminum frame double glazed windows. 24 doors installed @ \$1,494.57 = \$35,869.68. Reference field directive date 1/31/98 attached.

OHA - Cost Breakdown attached to the response dated February 15, 2002

Items	Quant.	Unit Price	Price	Items	Quant.	Unit Price	Price
<u>Labor</u>				<u>Based on the construction work actually performed</u>			
1. Replace sliding doors	1 carp x 6 hr x 24 balc	\$36.22	\$ 5,215.68	1 carp x 4 hr x 24 doors		\$47.89	\$4,597.44
	1 lab x 6 hr x 24 balc	\$27.19	\$ 3,915.36	1 lab x 4 hr x 24 doors		\$36.84	\$3,536.64
	TOTAL		\$9,131.04				\$8,134.08
<u>Labor Burden Insurance</u>				<u>OIG's Estimation</u>			
Workmen's Comp. Liability EDD/IRS	Insurance 30%	\$2,739.31	\$2,739.31	The above union labor includes Workmen's Comp, Fringe Benefit, Payroll Tax Burden and Supervision			
<u>Materials</u>				<u>Materials</u>			
1. Sliding doors	24 doors	\$ 1,050.00	\$25,200.00	1. Sliding Doors	24	\$452.45	\$10,858.80
	Total		\$37,070.35	Total of Labor and Materials			\$18,992.88
	Bond 2.5%	\$926.75	\$926.75	20% Overhead and Profit			\$3,798.58
	Total		\$37,997.10	Total			\$22,791.46
	Overhead and Profit 31%	\$11,779.11	\$11,779.11	2.5% Bond			\$569.79
	TOTAL		\$49,776.21	TOTAL			\$ 23,361

Union Wage Rate - Carpenter, General \$50.41 x 95% = \$47.89
 Union Wage Rate - Laborer, General \$38.78 x 95% = \$36.84
 Location Adjustment for Oakland - 95%

It should be noted the difference between the two OIG estimates (\$23,382- \$23,361=\$21) is due to rounding and conversion of labor hour factor

OHA	Cost Per OIG	Excessive
Actual Cost	Cost Analysis	Costs
per Change Order	As reported	
\$ 35,870	\$ 23,382	\$ 12,488

CHANGE ORDER NO. 15

SCOPE: Removal and replacement of all interior sheet rock. Removal of all existing kitchen cabinets (no replacement), removal of all toilets, tubs and sinks (no replacement), removal of all wall heaters (no replacements).

OHA - Cost Breakdown attached to the response dated February 15, 2002

Items	Quant.	Unit Price	Price	OIG's Estimation Based on the construction work actually performed	Unit Price	Price
Labor						
1. Demolition of the drywall and cabinets	4 labx 30 daysx 8 hr	\$27.19	\$26,102.40	1. Demolition of the drywall and all attached fixtures	1 ele x 3 days x 8 hr. 1 plu x 3 days x 8 hr. 4 lab x 25 days x 8 hr	\$ 1,381.68 \$ 1,533.60 \$ 28,432.00
2. Installation of the new drywall	92,000 sq.ft.	\$1.11	\$102,120.00	2. Installation of the drywall		
	Total		\$128,222.40		92,000 sq. ft.	\$ 59,800.00
Labor Burden Insurance				Total of Labor		\$ 91,147.28
Workmen's Comp. = 11.6	Insurance 30%	\$38,466.72	\$38,466.72	The above union labor includes Workmen's Comp, Fringe Benefit, Payroll Tax Burden and Supervision		
Liability = 11.0				Materials		
EDDI/RS = 13.6				1. Sheetrock, mater for taping and texture	92,000 sq. ft.	\$ 0.35
						\$32,200.00
Materials				2. Debris	25 days	\$ 350.00
1. Sheetrock and mater for taping and texture		\$21,640.00	\$36,640.00	Total of Labor and Materials		\$132,097.28
2. Debris		\$12,000.00	\$203,329.12			
	Total	\$5,083.22	\$5,083.22	20% Overhead and Profit		\$26,419.46
	Bond 2.5%		\$208,412.34	Total		\$158,516.74
	Overhead and Profit 31%	\$64,607.83	\$64,607.83	2.5% Bond		\$3,962.92
	Total		\$273,020.17	Total		\$162,479.66
	Minus CO #7	(\$22,118.00)	(\$22,118.00)	Union Wage Rate - Electrician, \$60.60 x 95% = \$57.57		
TOTAL			\$250,902.17	Union Wage Rate - Plumber, \$67.26 x 95% = \$63.90		
				Union Wage Rate - Laborer, Demolition, \$37.41 x 95% = \$35.54		
				Location Adjustment for Oakland - 95%		

It should be noted the difference between the two OIG estimates (\$162,480 - \$162,473 = \$7) is due to rounding and conversion of labor hour factor.

OHA	Cost Per OIG	Excessive
Actual Cost	Cost Analysis	Costs
per Change Order	As reported	
\$ 186,039.00	\$ 162,473.00	\$ 23,566.00

CHANGE ORDER NO. 23

SCOPE: Replacement of 1st and 2nd floor vent lines, replacement of 24 wall heaters

OHA - Cost Breakdown attached to the response dated February 15, 2002

Items	Quant.	Unit Price	Price	Items	Quant.	Unit Price	Price
<u>Labor and Material</u>							
Wall Heater	24	X	\$850.00	Based on the construction work actually performed			
				Installation - vent line	24	\$640.00	\$15,360.00
				and 24 wall heaters			
	TOTAL		\$20,400.00	Total			\$15,360.00
	Bond 2.5%		\$510.00	20% Overhead and Profit			\$3,072.00
				Total			\$18,432.00
	Overhead and Profit 31%		\$6,482.10	2.5% Bond			\$460.80
	TOTAL		\$27,392.10	TOTAL			\$18,892.80

It should be noted the difference between the two OIG estimates (\$18,902 - \$18,893 = \$9) is due to rounding and conversion of labor hour factor.

OHA	Cost Per OIG	Excessive
Actual Cost	Cost Analysis	Costs
per Change Order	As reported	
\$39,114.00	\$24,661.00	\$14,453.00

CHANGE ORDER NO. 33

SCOPE: DSKA will provide and install 24-35000 BTU Williams wall heaters where shown on drawings
The Contractor will also provide and install 24 NU-tone range hoods as shown in the kitchen areas

OHA - Cost Breakdown attached to the response dated February 15, 2002

Items	Quant.	Unit Price	Price	Items	Quant.	Unit Price	Price
Labor and Material							
Remove and Replace heater vent lines	12 @ 1st Fl.=20 Ft.	\$630.00 ea	\$7,560.00	Based on the construction work actually performed			
	12 @ 2nd Fl. = 10 Ft.	\$420.00 ea	\$5,040.00	Installation - 24 range hoods in the kitchen	24	\$195.00	\$ 4,680.00
TOTAL			\$12,500.00	TOTAL			
	Bond 2.5%		\$315.00	20% Overhead and Profit			\$936.00
				Total			\$5,616.00
	Overhead and Profit 31%		\$4,003.65	2.5% Bond			\$140.40
				TOTAL			\$5,756.40

It should be noted the difference between the two OIG estimates (\$5,758 - \$5,757 = \$1) is due to rounding and conversion of labor hour factor.

OHA	Cost Per OIG	Excessive
Actual Cost	Cost Analysis	Costs
Per Change Order	As reported	
\$39,114.00	\$24,661.00	\$14,453.00

CHANGE ORDER NO. 47

SCOPE: The Contractor is to provide and install approximately twenty thousand sq. ft. of Laminated wood floors in each of the twenty-four (24) living units. The laminated flooring is to be installed in the living room, bedroom and halls. The sheet vinyl is to be installed in the bathrooms, and kitchen only.

Level 20,000 sq. ft. of existing floors. Install 20,000 sq. ft. of laminated wood flooring and base

Install 3240 sq. ft. of sheet vinyl flooring and base

OHA - Cost Breakdown attached to the response dated February 15, 2002

OIG's Estimation

Items	Quant.	Unit Price	Price	Items	Quant.	Unit Price	Price
Labor and Material							
Laminated flooring	20,000	\$5.10	\$102,000.00	Laminated flooring incl. 20,000 sq. ft. material	17,760 sq. ft.	\$6.68	\$118,636.80
Laminated Base	32,000	\$1.59	\$50,880.00	Laminated Base incl. 5,270 lineal foot material	4,752 lineal foot	\$3.40	\$16,156.80
Sheet Vinyl Flooring	3,240	\$4.52	\$14,644.00	Sheet Vinyl Flooring incl. 3,700 sq. ft. material	3,552 sq. ft.	\$4.60	\$16,339.20
Sheet Vinyl Base	4,860	\$1.59	\$7,727.00	Sheet Vinyl Base incl. 1,600 lineal foot material	1,464 lineal foot	\$3.06	\$4,479.84
Adhesive			\$900.00	Adhesive plus sale tax			\$976.50
Under Lament			\$1,350.00	Under Lament plus sale tax			\$1,464.75
Total			\$177,501.00	Total			\$158,053.89
Bond 2.5%		\$4,437.53	\$4,437.53	20% Overhead and Profit			\$31,610.78
Total			\$181,938.53	Total			\$189,664.67
Overhead and Profit 31%		\$56,400.94	\$56,400.94	2.5% Bond			\$4,741.62
TOTAL			\$238,339.47	TOTAL			\$194,406.29

OIG's estimation is based on the following measurements

Description	Unit	Units	Total
Interior living area	888 sq. ft.	x 24	21,312 sq. ft.
Bathroom	40 sq. ft.	x 24	960 sq. ft.
Kitchen	108 sq. ft.	x 24	2,592 sq. ft.
The other living area	740 sq. ft.	x 24	17,760 sq. ft.
Wall Base for Bathroom, Kitchen	61 lineal foot	x 24	1,464 lineal ft.
Wall Base for other living area	198 lineal foot	x 24	4,752 lineal ft.

It should be noted the difference between the two OIG estimates (\$194,415 - \$194,407 = \$8) is due to rounding and conversion of labor hour factor.

OHA	Cost Per OIG	Excessive
Actual Cost	Cost Analysis	Costs
per Change Order	As reported	
\$199,998.00	\$194,415.00	\$ 5,583.00

CHANGE ORDER NO. 51

SCOPE: The constructor is to provide all work necessary to apply hot mixed asphalt paving over a prepared subbase, including a sprayed sealer over the asphalt surface. The contractor is also to provide painted parking stall markings, including one parking stall designated as handicap. All parking stalls are to have one precast concrete wheel stop anchored in the asphalt surface of the parking lot. Total cost = \$16,302/6,600 sq. ft. = a unit cost of \$2.47 per sq. ft.

OHA - Cost Breakdown attached to the response dated February 15, 2002

Items	Quant.	Unit Price	Price	Items	Quant.	Unit Price	Price
<u>Proposal from subcontractors</u>							
1. Paving contractor	6,600.00 sq. ft.	\$2.18	\$14,388.00	Based on the construction work actually performed	6,600 sq. ft.	\$ 1.27	\$ 8,368.00
	TOTAL		\$14,388.00	Asphalt paving			\$ 8,368.00
	Bond 2.5%		\$359.70	TOTAL			\$1,673.60
	Total		\$14,747.70	20% Overhead and Profit			\$10,041.60
	Overhead and Profit 31%		\$4,571.78	Total			\$251.04
	TOTAL		\$19,319.48	2.5% Bond			\$10,292.64
				TOTAL			

It should be noted the difference between the two OIG estimates (\$10,310 - \$10,297 = \$13) is due to rounding and conversion of labor hour factor.

OHA	Cost Per OIG	Excessive
Actual Cost	Cost Analysis	Costs
Per Change Order	As reported	
\$16,302.00	\$10,297.00	\$ 6,005.00

CHANGE ORDER NO. 55

SCOPE: The General Contractor is instructed to provide and install 4 new 100 gal. Hot water heaters and 6 new electrical water pumps. The contractor is also to clean and drain the 2 other existing hot water tanks and reconnect all of the gas flue and water lines at all 6 tanks to meet and correct the code violations as specified in the city of Oakland's code correction notice dated 3/16/00.

OHA - Cost Breakdown attached to the response dated February 15, 2002

OIG's Estimation

Items	Quant.	Unit Price	Price	Items	Quant.	Unit Price	Price
1. Water Heaters	4	\$2,225.56	\$8,902.00	Based on the construction work actually performed			
				1. Water Heaters	4	\$2,051.00	\$ 8,204.00
2. Circulating Pumps	6	\$440.00	\$2,640.00	2. Circulating Pumps	4	\$379.00	\$1,516.00
<u>Materials & Labor</u>				<u>Materials & Labor</u>			
Mechanical Labor and Equipment			\$6,618.00	Mechanical Labor and Equipment			\$3,686.33
Electrical Wiring Labor and Material			\$4,741.00	Electrical Wiring Labor and Material			\$1,865.40
Paint and Sheet Rock			\$980.00	Paint and Sheet Rock			\$0.00
Total			\$23,881.00	Total			\$15,271.73
Bond 2.5%		\$597.03	\$597.03	20% Overhead and Profit			\$3,054.35
Overhead and profit 31%		\$7,588.18	\$7,588.18	Total			\$18,326.08
Total			\$32,066.21	2.5% Bond			\$458.15
				TOTAL			\$18,784.23
				Union Wage Rate - Plumber, \$67.26 x 95% = \$63.90			
				Union Wage Rate - Electrician, \$60.60 x 95% = \$57.57			
				Location Adjustment for Oakland - 95%			
				OHA Actual Cost Per Change Order			
				\$36,654.00			
				Cost Per OIG Cost Analysis As reported			
				\$18,785.00			
				Excessive Costs			
				\$17,869.00			

APPENDIX B-1**AUDITEE COMMENTS**

**Housing Authority
of the City of
Oakland, California**

EXECUTIVE OFFICE: 1619 HARRISON STREET
OAKLAND, CA 94612, (510) 874-1500

February 15, 2002

Mimi Lee
District Inspector General for Audit
US Department of Housing and Urban Development
450 Golden Gate Avenue, Box 36003
San Francisco, California 94102-3448

Dear Ms. Lee:

This letter is written to respond to your correspondence of January 18, 2002. Your correspondence included a draft audit memorandum concerning a review of the Oakland Housing Authority's reconstruction of a property on 49th Street in Oakland. We very much appreciate having the opportunity to review the draft memorandum and to provide our own review and comments.

In the process of reconstructing public housing sites that are over thirty years old, we frequently discover unanticipated work that results in costly change orders. The 49th Street reconstruction was unfortunately an extreme example and was not typical. After work had begun, it became apparent to the Authority that we were faced with a much more difficult project than we had anticipated. This was partially due to hidden conditions (e.g. amount of dry rot) and due to events that took place after the work was bid but before work began (vandalism and theft). We have since instituted more thorough destructive testing procedures for similar projects to avoid a repeat of our experience at this site.

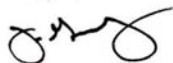
While we agree with much of the description of the project, we do not agree with the conclusions of the draft report. To understand more fully the project, it is necessary to have more of the context of the work. We also do not agree with the amounts your draft report proposes as reasonable for the cost of various change orders. The amounts are provided without basis or explanation. At the time of the work, our staff completed a thorough review of the contractor's estimates and negotiated prices as appropriate. In response to the amounts your draft report includes, we have reviewed the R.S. Means report for 1998, which provides industry standards for like work. Included in the attached response to your draft is a comparison to R.S. Means for the change orders.

The R.S. Means schedule of costs supports the reasonableness of the amounts negotiated at the time by Authority representatives. We acknowledge that our analysis was not well documented in the file and we have taken steps to insure that ample documentation of cost analysis is retained in the files for the future.

Attached is a complete response to your draft report. We hope that you will find it useful in completing your review and in preparing a final report. Please feel free to contact us, as we would be pleased to discuss further your findings and conclusions.

Thank you again for providing the opportunity to review and comment on your draft audit memorandum.

Sincerely,



Jon Gresley
Executive Director

Response to HUD's Office of Inspector General's (OIG) draft report on their, "Limited Review -- Oakland Housing Authority Rehabilitation of the 49th Street Housing Development"

In order to evaluate the experience of the Oakland Housing Authority as it rehabilitated its property on 49th Street, it is necessary to understand a more complete context of the situation. The Authority found itself with a property with many unanticipated problems, a contractor at work, a neighborhood fearful of a long, drawn-out reconstruction effort, and a looming rainy season. As the project progressed, the Authority, like an owner of an old car in need of "just one more repair," got drawn deeper into the project.

Background:

On March 18, 1998, the Oakland Housing Authority (OHA) advertised in local news and trade papers, an invitation to qualified contractors, to bid on the scope of work to be done at 357-365 49th Street, Oakland, CA., a twenty-four (24) three-bedroom apartments development. Sealed bids were to be received on April 13, 1998 at 2:00 PM. The architectural firm of record was Mariscal Engineering of Oakland, CA. On April 13, 1998, DSKA Construction of San Francisco, CA was the low bidder with a bid of \$467,500. OHA subsequently determined after evaluation, that DSKA was the lowest responsive and responsible bidder. A contract (#210542) was signed between DSKA and OHA on June 5, 1998. A Notice to Proceed was issued for July 6, 1998.

At the pre-construction meeting, OHA reviewed the Davis Bacon Wage Rate General Decision Number CA 980030 for this contract with DSKA. As part of the contract, a 10% overhead and 10% profit margin was negotiated to be applied to all change order work for this project. The following is the Scope of Work as specified in the Official drawings and specifications.

- A. The project is located at 357-365 49th Street, Oakland, CA. The site is a 6-building, 2-story high, 24-unit residential complex, which provides necessary housing for low-income families. The building complex was originally constructed in 1968. All the structures are wood frame with stucco wall, over on-grade reinforced concrete slabs. The buildings have flat built-up roofs.
- B. The work scope consists of the following (see Drawings for complete scope of work):
 - 1. Replacement of existing building roofs with new pitched roofs.
 - 2. Furnishing and installing pre-engineered roof trusses and roof framing.
 - 3. Constructing roof gables and dormers.
 - 4. Extending vents to top of new roofs.
 - 5. Replacement of windows and restoring water proofing and stucco around window frames.

6. Installation of hard-wired smoke detectors and fire extinguishers in each unit.
7. Removing/re-installing site lighting, electrical conduit, and cable TV lines due to roof work.
8. Miscellaneous site repairs.
9. Site utility repairs.
10. Repair/rerouting of water line.
11. Cleanout and TV inspection of sanitary sewer and storm drain systems.
12. Repairing sewer lateral and cleanouts.
13. Replacement of wood trash enclosures with CMU-wall trash enclosure with metal doors.
14. Repairs and replacement of existing parking concrete slab and curbs.
15. Construction of access ramps.
16. Repair of concrete driveways.
17. Children play area and installing playground equipment.
18. Landscaping.
19. Grading and drainage.
20. Repairing patio fences.

NOTE: There are no apparent Hazardous Materials present in the work area, except for Asbestos-Containing Materials (ACM) as shown on report.

Vandalism and theft:

On the morning of July 6, 1998, the OHA project manager received a phone call from DSKA Construction, requesting that an OHA representative meet with DSKA at the 49th Street job site. After the removal of plywood covers of the doors and windows, and upon entering the buildings, DSKA discovered extremely vandalized apartments and homeless people occupying some of the units. The OHA representative immediately notified the OHA Police Department. A police report of the damage and pictures were taken to visually record the condition of the units. It was apparent the intent of the vandals was to strip the 24 units of their copper piping for its salvage value. The thieves damaged large wall areas of sheet rock in bathrooms and kitchens. Major portions of the plumbing system and electrical wiring were ripped out (see Exhibit "A" – a letter from DSKA Construction, dated July 27, 1998.)

Insurance Adjusters, Axis /USA of San Francisco were called to give an estimate of the cost for damages. The Contractor was also asked to give an estimate of cost including any work related to changes in the building code since the building's construction. One of the required upgrades due to unanticipated code corrections are included in Change Order #55, which involves the installation and repair of hot water heaters.

DSKA construction proceeded with the work pertaining to the removal of the existing roof. After removing a large portion of the roofs on each of the three buildings, extensive dry rot was discovered in the roof decking, and in the structural framing members that were needed to support the new roof truss system. A professional termite and dry rot inspection was conducted. The inspection report indicated dry rot was found and

extended into some portions of the building down to the foundation. To repair the extensive dry rot required the removal of large portions of stucco. This created a difficult decision for OHA management. The options at this point were to either to have the stucco replaced at the designated locations after repairs were completed, or to completely replace the stucco. The architect's recommendation was to replace all of the stucco; otherwise, the contractor's warranty would only cover the new work. The risk was high that the joints between the old and new stucco would leak.

Community Concerns:

In 1996, after OHA had vacated the 49th Street property, the OHA Housing Management Department held meetings on a regular basis with the community leaders of the Laurel District, in which the 49th Street property is located. The residents of this community, because of past social problems associated with this development had several concerns; none greater than what was the effect re-occupation of this OHA development would have on their community and their property values. There was strong opposition to this property being restored. Other community questions and concerns were:

- How long would the site be vacated?
- How long would construction take?
- What would the building look like?
- Would there be adequate parking?
- Would there be a play area for children? Moreover, would it be located so parents could observe the children?
- Who would occupy units, people on welfare or working families?
- Would the community leaders be allowed to have input on work done? Could they inspect the site before residents moving in?
- Would there be an OHA caretaker on site to monitor the property?

Critical Decisions for OHA:

OHA was confronted with a development under re-construction that had ever-expanding unanticipated critical construction needs. Concerned members of the community were anxious to see the project completed and the rainy season was drawing near.

- OHA had to make critical and prudent decisions that would be in the best interest of the Authority and in the use of its funds.
- OHA had to consider further damage to the exposed buildings due to expected heavy rains for the season.
- Additional cost or claims of the Contractor for delay of the job.
- Community concerns of an extended time of construction site or an abandoned site, based on OHA's decision to stop or proceed with the work.

- Cost of additional Architectural Services for new drawings and specifications.
- Additional 3 to 6 months of lost time for the completion of drawings and specifications and bidding of the new work.
- Establishing the lines of demarcation between the possibilities of having two different General Contracts on the job at the same time.

All of the aforementioned issues presented difficult decisions for OHA. However, at no time did the OHA Management or Representative adopt a cavalier attitude towards HUD rules and regulations regarding procurement in making these decisions. Nor did OHA Management take lightly its need to be a responsible and prudent owner in light of this dire situation. OHA proceeded with change order work after having determined that an extremely urgent situation existed. OHA determined that proceeding with change orders to complete the project was in the best interest of the Authority. Please see (Letter exhibit "B" – Mariscal Engineering, dated October 2, 1998) and Letter exhibit "C", Mariscal Engineering dated December 8, 1998.

Responses to Findings:

Finding: OHA Paid Too Much to Rehabilitate the 49th Street Housing Development, Including \$105,301 of Questionable Payments to the Contractor.

Did OHA pay too much for this development (\$123,602 per unit), compared to other OHA projects, Campbell Village (\$83,085 per unit) and Peralta Villa (\$82,999 per unit)?

- 49th Street – 24 units at 920 sq. ft., overhead and profit 10/10%
- Campbell Village – 72 units at 700 sq. ft., overhead and profit 10/5%
- Peralta Villa – 140 units at 800 sq. ft., overhead and profit 10/5%

The 49th Street construction work included similar work as the other sites but also included the following work (which Peralta and Campbell Village did not):

- Extensive dry rot repair.
- Complete rebuilding of balconies (24).
- Complete removal and replacement of stucco.

Overhead and profit margin, size and number of unit, similarity of work and the economy of scale should be considered when comparing unit or sq. ft. cost of projects. Economies of scale can reduce cost for large projects and increase costs for small projects; 49th street was a small project. With the absence of the three above items from the Peralta and Campbell Village projects, the dissimilarity in unit size (Peralta and Campbell units are much smaller on average with large numbers of one bedroom units – 49th street has all three bedroom units) and number, and the overhead & profit margin difference, makes comparison of the three projects unit cost incongruent.

OHA Change Orders:

OHA analyzed each change order and determined that the costs were reasonable for the particular task. OHA used the following criteria to establish change order cost:

1. Appropriate Davis Bacon wage labor rates were applied, both skilled and unskilled.
2. Labor burden insurance did not exceed 30%. These were workman's compensation, liability insurance and E.D.D / IRS.
3. Materials cost invoices were verified.
4. Contractor's bond did not exceed 2.5%.
5. Overhead and profit did not exceed 20%.

OHA also negotiated, whenever feasible, the number of the contractor's workers on a particular task and the estimated hours to do the work. It is difficult for the OHA to reasonably compare change order cost with those presented by the OIG in their report because there is no example of the criteria used by the OIG, to establish their cost estimates.

In each of the following Change Orders #11, 12, 15, 23-33, 47, 51 and 55 OHA, after thorough consideration determined the cost reasonable and within the industry standards.

In regard to the OIG concern that there was duplication of payment for wall heaters in change order #15 please note that wall heaters were only removed in change order #15, when all of the sheet rock was removed. In change order #23, wall heaters were purchased and installed. There was no duplication of payment. OHA therefore disagrees with the OIG conclusion.

Regarding the alleged ineligible cost in change order #19, OHA had recommended that the paint color of the building be mixed into the stucco, as had been done successfully on another project, Peralta Villa. The OHA field representatives verified the paint color mixed into the stucco. However, after the heavy rainfall in the month of February, it was apparent that the paint mixed into the stucco was not sufficient to protect and seal the buildings against moisture penetration. After meeting with the Modernization Director it was determined that an additional two coats of paint would be in the best interest of the authority and provide a minimum of five years before these buildings would need additional painting (See picture exhibit). The results of OHA's analysis of Change Orders are summarized on the following table

TABLE

Comparison of OIG and OHA Change Order Analysis Results

Change Order	Description	OHA	OIG	Difference	1998 RS Means
#11	Remove and install sliding glass doors	\$35,870	\$23,382	\$12,488	\$49,776
#12	Remove and install front metal doors	29,290	16,253	13,037	29,260
#15	Remove and install all interior sheet rock; remove fixtures in kitchen and bathroom, and wall heater	186,039	162,473	23,566	250,902
#23 & #33	Install wall heaters, vents, and exhaust fans	39,114	24,661	14,453	42,411
#47	Replace floor coverings	199,998	194,415	5,583	238,340
#51	Repave parking lot	16,302	10,297	6,005	19,348
#55	Remove and install water heaters	36,654	18,785	17,869	32,066
#19	Adding color to Stucco	12,300			
	Total costs	\$555,567	\$450,266	\$105,301	\$662,103

Quality of work:

The OIG stated in its report that the overall quality of work at the 49th street site was fair, with some exceptions. The OIG however, did not identify the units in which suspect work was found. On February 13, 2002, a site visit and inspection was conducted by OHA representatives. A resident of the development indicated that her unit had been inspected by the HUD IG representatives. The OHA representatives were able to inspect her apartment in addition to the other sample inspections conducted. The following observations were made regarding the exceptions noted by the OIG:

- OIG: Small holes in kitchen walls, oversized hole for exhaust fan, neither of which have been repaired.
 - OHA Response: Random inspection of kitchen areas did not reveal holes of any kind.
- OIG: Counter tops in kitchens were separating from the walls.
 - OHA Response: Random inspection of kitchen areas found no evidence of any such separations; however counter tops are normally caulked and sealed when installed, over a two or three year period caulking may dry and crack and this may have been what the OIG observed.

- **OIG: Inferior plastic baseboard moldings were used.**
 - o **OHA Response:** Laminated wood flooring is used in every room but the kitchens and baths. Laminated wood baseboard is used where there is laminated flooring. Kitchens and baths floors are cover with sheet vinyl floor coverings; these areas have vinyl baseboards, as called for in the drawings and specifications, plastic is not used.
- **OIG: Poor quality of lattice panels used at patio fences**
 - o **OHA Response:** The patio privacy lattice panels connected to the top of the four foot high patio enclosures are a typical industry standard redwood lattice panel. The condition of some of the panels after being installed two years ago, does show signs of weathering and some are in a state of disrepair. Replacement and or repair of those will be address by the OHA Facilities Management Department.
- **OIG: Water stains on eaves and soffits**
 - o **OHA Response:** The OHA representatives inspection on February 13, 2002, in the early afternoon. It had intermittently rained all morning and was raining at the time of the inspection. There were no water stains on the buildings, either on the soffits, eaves or on the exterior stucco. What the OIG may have observed on the eaves was typical weathering of the wood façade, after two years of exposure to rain and sun.
- **OIG: Patio enclosures installed with direct wood to earth contact.**
 - o **OHA Response:** All patio enclosures are three to four inches above grade and approximately two inches above the concrete patio slab please see enclosed photograph.

In summary, our recent inspection of the site determined that the site was reconstructed with the specified (and appropriate) materials. The quality of work was found to be adequate.

AttachmentsLetters

- "A" – DSKA Construction letter, dated 7-27-1998
- "B" – Mariscal Engineering letter, dated 7-30-1998
- "C" – Mariscal Engineering letter, dated 10-2-1998
- "D" – Mariscal Engineering letter, dated 12-8-1998

*Change Order Analyses

- C.O. #11 – Replace sliding glass doors.
- C.O. #12 – Replace exterior doors.
- C.O. #15 – Replace drywall.
- C.O. #23 & 33 – Replace 24 wall heaters.
- C.O. #47 – Laminated wood flooring.
- C.O. #51 – Repair parking lot.
- C.O. #55 – Replace four water heaters and repair 2 water heaters.
-

Photographs

- Photo #1 – Interior damage.
- Photo #2 – Interior damage.
- Photo #3 – Interior damage.
- Photo #4 – Exterior

* Note: Copy of table of overhead and profit from RS Means, 1998 that was used for analysis is included

APPENDIX B-2



**Housing Authority
of the City of
Oakland, California**

EXECUTIVE OFFICE: 1619 HARRISON STREET
OAKLAND, CA 94612, (510) 874-1500

May 14, 2002

Mimi Lee
District Inspector General for Audit
US Department of Housing and Urban Development
450 Golden Gate Avenue, Box 36003
San Francisco, California 94102-3448

Re: OIG Draft Audit Memorandum, Audit of Oakland Housing Authority
49th Street Rehabilitation Project, dated January 18, 2002

Dear Ms. Lee:

Thank you for meeting with representatives of the Oakland Housing Authority to discuss your draft findings and our initial response. We understand the findings more clearly as a result of the discussion and the detailed worksheets you subsequently provided. We also appreciate having the opportunity to provide this supplemental information to our initial response.

"As-built" drawings

It would be advantageous when designing renovations to begin with "as-built" drawings from the original construction. Using "as-builts" would provide the Authority with a good starting point and would enable the Authority to avoid costly destructive testing and other analysis (assuming accuracy in the "as-builts"). Unfortunately the Authority does not have "as-built" drawings for most of the 255 scattered sites constructed for the Authority between 1968 and 1972, including the 49th Street site. The absence of "as-built" drawings alone added to the requirement for extensive destructive testing, change orders and expense. Together with the added costs resulting from vandalism and theft, the absence of "as-built" drawings contributed to the unusual expense of the work at 49th Street.

As we mentioned in our letter of February 15, 2002, "We have since instituted more thorough destructive testing procedures for similar projects to avoid a repeat of our experience at this site."

Sequencing of Change Orders

We have once again reviewed the sequencing of the change orders (C/O), in terms of the actual dates that they were processed and approved and the work completed.

We can appreciate that the numerical order as well as imprecise descriptions of the C/O made it appear that work may have been duplicated.

The following examples were discussed at our meeting and are again reviewed for the purpose of clarifying the issues raised in your draft report. You outlined perceived discrepancies involved with C/O #15 (removal of sheet rock, fixtures, and wall heaters plus reinstallation of sheetrock), C/O's #23 (vents) and #33 (install wall heaters and range hoods). These associated events were properly sequenced, and there was no duplication. C/O # 15 involved two distinct work items; namely, (1) the removal of sheetrock, kitchen cabinets, toilets, tubs, sinks and wall heaters and (2) the replacement of the sheetrock only. When the first portion of work under C/O #15 was complete, work for C/O # 23 (vents) was undertaken. The remainder of work under C/O # 15 was completed thereafter. This is described on the Schedule of Change Orders (HUD 51002) dated 10/26/99 that shows work under C/O #15 53% complete when work under C/O 23 was complete. C/O #15 was completed by 11/26/99. C/O 33 was completed by 1/10/00.

Reasonableness of Costs

We acknowledge that there was a problem with respect to C/O #19 (adding color to the stucco). Whatever action was taken by the contractor to implement this change order failed. At the time, the Authority decided that the result was not sufficient to protect and seal the buildings from water penetration. In hindsight, it appears that the Authority should have questioned the inclusion of color in the stucco application and should have sought to recover the erroneous cost of \$12,300. The construction company no longer exists, and therefore we do not have the option to request a refund.

Another perceived discrepancy appears in C/O #55 (remove and install hot water heaters). While the C/O stated that 100 gallon hot water heaters were to be installed, a careful check of the specifications revealed that 80 gallon units were in fact required. Despite this error, the price associated with the C/O was correctly calculated.

Quality of materials and supplies

In certain areas, the Authority specifies higher quality materials where experience has demonstrated higher levels of wear and tear. This was the case in our selection of a more expensive, and more durable, sliding glass doors, i.e., C/O #11. In our experience we have found that investments made in more durable materials saves maintenance dollars over the life of the product.

We continue to object to the substitution of the judgments, after the fact, of OIG auditors for those of the Authority. There is no doubt that in almost any situation, two different conclusions can be made about what an item should cost.

It is within the responsibility of the Authority to make a reasonable estimate of costs and to complete the project. During the renovations, the Authority must negotiate with the contractor with the pressure of obtaining completion and avoiding a stalled or incomplete project. We have also the experience of attempting to complete projects—when agreement cannot be reached and the contractor walks off the job. In addition to delays, complications arise through problems of coordination of work with multiple subcontractors. The OIG cost estimates do not reflect all of the circumstances surrounding the need to obtain completion and closure of this work.

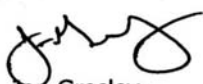
With the exception of the \$12,300 for coloration of the stucco, the Authority maintains that the costs were reasonable within the context of this difficult work. As we mentioned in our letter of February 15, 2002, "We acknowledge that our analysis was not well documented in the file and we have taken steps to insure that ample documentation of cost analysis is retained in the files for the future."

Comprehensive Property Inspection

Your draft audit recommended that the Authority perform a comprehensive physical inspection to identify construction deficiencies and require the contractor to correct them. As mentioned above, the construction company is no longer in business; and therefore, the Authority will not be able to obtain any credit from the contractor. We will examine whether we have any recourse through any performance guarantee. We point out that the Authority's Preventative Maintenance Program (PM) has completed several cycles through this site. The PM crew routinely inspects the site and each apartment and makes requisite repairs to the building, building systems, and apartments. In addition, we are scheduling a special inspection by senior members of the Facilities Management Department within the immediate future.

Thank you again for providing the opportunity to review and comment on your draft audit memorandum

Sincerely,



Jon Gresley
Executive Director

APPENDIX C

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