

County of Kauai, Hawaii

Performance Audit Report
Building Division, Department of Public Works



A Hawaii Limited Liability Partnership

To the Chair and Members of the
County Council of Kauai, Hawaii

As directed by County Council, County of Kauai, Resolution No. 2004-42, we have conducted a performance audit of the Building Division of the Department of Public Works (the Division or Building Division). We conducted our audit in accordance with the standards applicable to performance audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to provide a reasonable basis for our findings and conclusions. Accordingly, we have performed such procedures as we considered necessary under the circumstances.

The purpose of our audit was to provide an independent assessment of the overall contract and construction management using and comparing the Building Division's process and procedures with those that are standard within the industry. This report is current as of the date of the report. We performed no procedures or analysis of the contracts, policies, or procedures after the date of the report. A significant portion of the information we used in our analysis was based on interviews with the Building Division personnel. We did not independently verify all information from these interviews.

This report is the result of our evaluation of the information noted above and is intended solely for the information of the County Council. This restriction is not intended to limit the distribution of this report, which upon acceptance by the County Council is a matter of public record.

KMH LLP

KMH LLP

Honolulu, Hawaii
October 5, 2005

TABLE OF CONTENTS

	PAGE
SUMMARY OF FINDINGS	1
INTRODUCTION	
• Purpose and Authority for the Audit.....	3
• Organization and Responsibilities	3
• Objectives of the Audit	6
• Scope and Methodology of the Audit	6
OBSERVATIONS AND RECOMMENDATIONS	
I. Construction and Contract Procedures and Operations	
1.0 Pre-bid and Bid Documents	9
1.1 Standard Specifications for Public Works Construction	9
1.2 General Provision of Construction Contracts	11
2.0 Project Documents	14
2.1 Contract-Stipulated Sum	14
2.2 Timeline for Completion of Project	16
2.3 Contingency	18
3.0 Project Controls.....	20
4.0 Contract Procurement.....	24
II. Division Procedures and Operations	
1.0 Organization-Roles and Authority	26
2.0 Construction Management	28
3.0 Division Operations	35
3.1 Communications.....	35
3.2 Staffing	40
3.3 Equipment Procurement/Equipment	43
3.4 Training	47
4.0 Building Division Enhancements.....	49
AUDITEE RESPONSE	52
APPENDIX I: RECOMMENDATION SUMMARY	53
APPENDIX II: ROLES AND AUTHORITY	64
APPENDIX III: AUDITEE RESPONSE	72

Performance Audit
County of Kauai
Building Division, Department of Public Works

Summary of Findings

Our review of the information and documents listed above under “*Scope and Methodology of Audit*”, our interviews and discussions with specific Department of Public Works and Building Division leadership personnel, and our review of Department and Division policies and procedures and personnel “Position Descriptions” that defined roles and responsibilities, focused on whether processes allow the County to identify risks during construction and if provisions exist to protect the County from unnecessary delays, cost overruns and litigation.

Further, the performance audit focused on whether the Building Division is adequately staffed and procedurally organized to manage the construction of new County buildings, has an adequate in-place system for inspection and construction management as well as being able to manage the contractor progress payment and final payment process, and has the ability to review the efficiency of the process used for the procurement and selection of contractors relating to qualifications and experience.

Finally, to further analyze, and understand, the capabilities of the Building Division to adequately manage major public building projects in the future, the performance audit focused on the Division’s operations and procedures in performing their overall activities and assignments.

In addressing the Division’s effectiveness in managing construction projects, such as with the past Kilauea Gymnasium project, our efforts were directed at the organizational structure of the Division and its position within, and dependency on, the Department of Public Works. We further reviewed the operations and procedures of the Division relative to internal and external communications, staffing, equipment and equipment procurement, and the training of personnel.

Appendix I summarizes our analysis of the ability of the Building Division to provide and perform construction management services and of each area of policies and procedures, including a rating in each area compared to best practices. In addition, it addresses the Division’s adherence to best practices internally as well as affording recommendations that would align the Division with best practices.

Summary of Findings

The following summarizes our conclusions and major findings:

Pre-Bid, Bid and Contract documents – needed improvements to manage risk

The contract documents generally limit the County's exposure to both common and significant risks. The County uses a Stipulated (Lump) Sum (Fixed Price) contract and establishes the responsibilities and duties of all parties through the application of a Construction Procedure Manual. However, improvements to the pre-bid and bid documents as well as the contract document are needed as detailed in the report and summarized in Appendix I.

Project Policies and Procedures – needed improvements to manage risk

Overall, appropriate project controls are in place to assist the County in managing the risk associated with the construction management of major County building projects. However, recommendations for minor improvements to certain control policies and procedures have been introduced for consideration as detailed in the report and summarized in Appendix I.

Division Procedures and Operations – needed improvements to manage risk

The Building Division organizational structure is effectively layered with qualified and experienced personnel having the proper roles and responsibilities to manage the County's risk associated with the Contract for Public building construction. In addition, the two operating Sections within the Building Division - Code Enforcement and Facilities Maintenance - are properly aligned with best practices in performing the assignments typical to such public works departments.

However, in consideration of the need to constantly improve the services provided to the public and for the community, recommendations for certain improvements have been introduced for consideration relating to the construction management of public building projects, internal and external communications, staffing within the Division Sections, equipment needs and equipment procurement, and training. These recommendations are detailed in the report and summarized in Appendix I.

Auditee Response

In response to our draft report, the Department of Public Works dismisses most of our recommendations. However, due to the length of time that has past since the audit was completed, we have only made minor changes and clarifications to our report, none of which affected our findings and conclusions.

The department's response also included comments from the Finance Department related to procurement related matters.

Performance Audit
County of Kauai
Building Division, Department of Public Works

Introduction

Purpose and Authority for the Audit

This performance audit of the Building Division of the Department of Public Works (the Division or Building Division) of the County of Kauai was conducted pursuant to Resolution No. 2004-42.

The purpose of the performance audit was to provide an independent assessment of the overall contract and construction management. Using and comparing the Building Division's process and procedures with those that are standard within the industry, we have provided recommendations of "best practices" that are intended to improve and strengthen the construction management process for future construction projects.

Organization and Responsibilities

According to Article XIII of the County of Kauai Charter, which instituted the Department of Public Works under Section 13.03, a County Engineer, who reports to the Mayor, is appointed by every new Administration for the Administration's term of four years. Two of the Department of Public Works' County Engineer and/or Deputy or Acting Deputy County Engineer primary oversight responsibilities include:

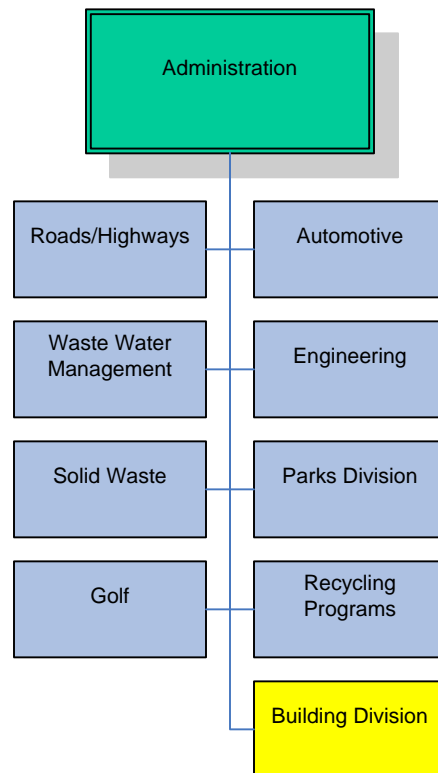
- The performance of all engineering, designing, planning and construction of all public facilities and improvements undertaken by the County; and
- Examining and enforcing the construction requirements and standards of all public and private construction and improvements in accordance with the building code, subdivision code or any other such regulations as may be in effect in the County.

The above activities are undertaken and performed by personnel primarily within six of the eight Divisions under the direction of the County Engineer (Auto Maintenance and Motor Pool Division considered a support Division).

Introduction

These Divisions include Road Construction and Maintenance, Engineering, Parks, Wastewater Management, Solid Waste Management, and the Building Division. The following chart depicts the overall structure of the Department of Public Works.

County of Kauai Department of Public Works



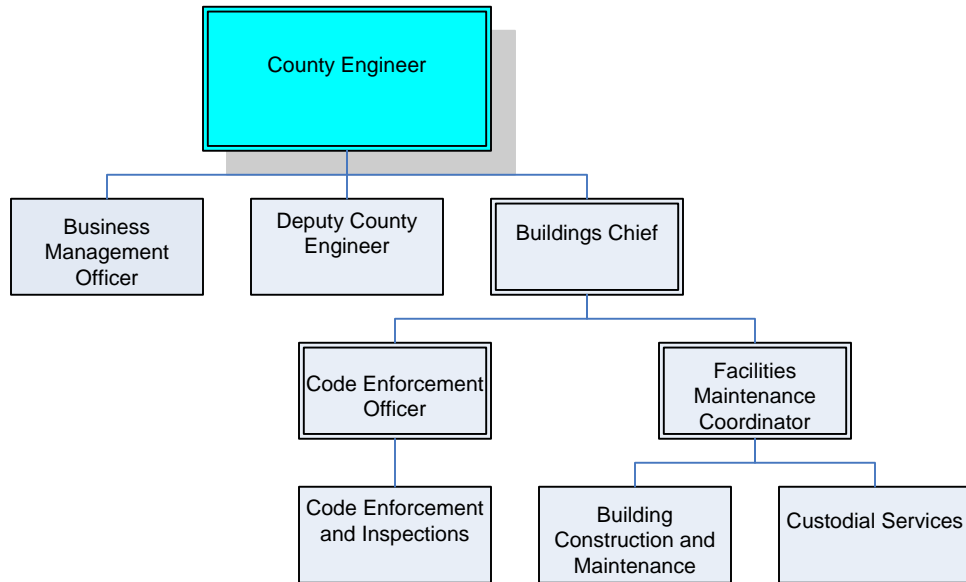
Organization Structure - Building Division

As noted by the Organization Chart above, the Building Division is one of the eight Operating Divisions that falls under the oversight responsibilities of the Department of Public Works' County Engineer (indirect responsibility for Division of Auditoriums).

The Building Division of the Department of Public Works has oversight responsibilities for the procurement of new construction and the construction management of County facilities, as well as the repair and maintenance, providing of custodial services, and the issuance of building permits for all County, commercial and residential facilities. The Building Division is supervised by a licensed Civil Engineer VII who maintains the title of Building Superintendent/Chief of Buildings.

Two sections falling under the supervision of the Building Superintendent are Code Enforcement and Facilities Maintenance. The following chart depicts the overall structure of the Building Division.

COUNTY OF KAUAI BUILDING DIVISION ORGANIZATION CHART



The Code Enforcement Section is responsible for the review, compliance, and enforcement of all applicable County codes and ordinances related to the construction of and improvements to County buildings as well as commercial and residential facilities.

In addition, the Section provides building, plumbing, electrical and other code enforcement inspections. The Facilities Maintenance Section provides all necessary services to repair, maintain and clean all County facilities. At times, depending on the nature of the need, the Facilities Maintenance Section will also provide services related to minor construction projects for the County.

Objectives of the Audit

The objectives of the audit were:

- Assess whether the Building Division is adequately staffed to manage the construction of the new County buildings;
- Assess whether the County's system for inspection and construction management for new County buildings is adequate;
- Assess whether the process used for the procurement and selection of contractors is sufficient for determining contractor qualifications and experience;
- Assess the process used for selecting the design of the new facility; and
- Assess the review process by which the contractor is paid for progress payments and final payment.

Scope and Methodology of the Audit

The audit reviewed certain activities, process and procedures of the Kilauea Gymnasium contract as a sample project. The County requested that only one project be reviewed and provided the Kilauea Gymnasium contract as the sample project. The audit work, performed from July 2005 to October 5, 2005, was conducted in accordance with generally accepted governmental auditing standards.

To understand the development policies and procedures in place for the Building Division of the Department of Public Works of the County of Kauai (the County), the following activities were performed:

Document collection

We reviewed copies of documents received from the County offices in Lihue. Using the Kilauea Gymnasium (constructed in 1997) as a sample project, the documents included the following:

- Pre-bid and Bid Documents
- Primatch Construction's bid including Alternates 1 through 11
- Addendum numbers 1 through 4
- Lump sum contract between Primatch Construction and the County dated 1/19/96
- Various Primatch Change Orders including Daily Report sheets
- Primatch's initial construction Surety Performance Bond and Surety Labor and Material Payment Bond both dated 1/19/96
- Special Provisions including Amendments to the General Provisions
- Project Specifications

- Contract Amendment No. 1 for the addition of the second roof between Primatch Construction and the County dated 11/15/02 including a construction Surety Performance Bond and Surety Labor and Material Payment Bond both dated 11/15/02 and various change orders reflecting extensions of time due to weather delays
- Memorandum of Understanding between Primatch Construction and the County dated 9/30/04 including Project Specifications
- Interim - General Provisions for Construction Contracts-County of Kauai dated 10/5/01
- Memorandums and letters (various dates) relating to the Surety Performance Bond, extended warranty, and letter from the County summarizing the County's belief of the cause of water leaks
- Inspection reports for the gymnasium project – various dates
- Construction project meeting minutes – various dates
- Chronology of events for the various issues and problems relating to the gymnasium roof leaks as of Fall 1996 through 12/11/00
- Kauai County Council meeting minutes (various dates)

Interviews

In addition to our review of the above documents, we conducted interviews with the following individuals to gain different perspectives of the administrative and technical operations of the Department of Public Works, the Building Superintendent, and the two Building Division Sections including Code Enforcement and Facilities Maintenance:

County Engineer-Department of Public Works
 Deputy County Engineer-Department of Public Works
 Building Superintendent/Chief of Buildings-Building Division
 Office Manager-Building Division
 Code Enforcement Coordinator-Code Enforcement and Inspection
 Supervising Building Inspector-Code Enforcement and Inspection
 Senior Building Inspector-Code Enforcement and Inspection
 Building Inspector-Code Enforcement and Inspection
 Supervising Plans Examiner-Code Enforcement and Inspection
 Plans Examiner-Code enforcement and Inspection
 Facilities Maintenance Coordinator-Building Maintenance and Construction
 Repair and Maintenance Supervisor-Building Maintenance and Construction
 Business Management Officer-Department of Public Works
 Purchasing & Assistant Contracts Administrator-Department of Finance
 Deputy County Attorney

Based on instructions provided by the County, we interviewed only County personnel related to this matter.

Analysis

The purpose of the interviews was to ascertain the dominant risks associated with large scale building construction projects and to determine what procedural controls are in place to decrease such risks. By comparing the Department of Public Works and the Building Division's procedures with those that are standard within the industry, we can recommend "best practices" that may decrease risks associated with future projects. In addition, and again, based on the interviews, we can further recommend "best practices" that could assist in the operations of the Department and the Division.

Performance Audit
County of Kauai
Building Division, Department of Public Works

Observation and Recommendations

I. Construction and Contract Procedures and Operations

Pre-bid and Bid Documents

1.1 Standard Specifications for Public Works Construction

Standard specifications for construction have changed significantly over the past twenty-years including those used in Public Works construction. Technical practices and procedures have evolved and been refined to include the introduction of new and/or improved methods and materials. Though construction principles within the industry such as quality workmanship have remained constant, these improvements and advances also include, in some cases, the installation of such materials.

Based on common industry practices, the pre-bid and bid documents used by the County in securing bids for the gymnasium project conform to best practices. Included in the documents are the Notice to Contractors, Contractor's Notice of Intent to Bid, the Instructions and Special Instructions to Bidders, various Federal Certificates and Notices, the Bid and Subcontractor Listing forms, the various bonding documents, Addendum Sections, the Special Provisions, Amendments to the General Provisions of Construction Contracts, and the Bid Specifications.

The reliance on and use of outdated specifications could have an impact on the construction of buildings. Since current specifications will incorporate "lessons learned" in the field relating to installation practices, as well as introducing advanced and improved materials, the lack of proper oversight in addressing the updating of in-house specifications is a potential problem that could well translate to the construction of a building. As an example, this could take the form of improved materials and better methods for implementing moisture protection systems or caulking and sealing of joints to prevent water problems.

During our review of the bid documents, it was noted that the Special Provisions make reference to the "Standard Specifications for Public Works Construction" dated 1986. In addition, reference is made to the "General Provisions of Construction Contracts of the County of Kauai" noted as being approved in 1969 and 1972, and revised in July 1973. Through our review of the documents received from the County, and not being able to note any revision dates that would indicate updates and additions, the use of the above referenced specifications dated 1986 is not considered an industry best practice.

Observation and Recommendations: I. Construction and Contract Procedures and Operations

Recommendation:

Based on this fact and in line with industry best practices which generally involves a company's annual review of its standard specifications, it is our recommendation that the following actions be taken to address the County's "Standard Specifications for Public Works Construction":

1. A review of the County's "Standard Specifications for Public Works Construction" be performed under the guidance of the Building Superintendent relating to practices and procedures, materials and methods, and current and revised code sections, with modifications and changes made to applicable sections.
2. During the above review by the Building Superintendent, consideration should be given to adopting the Construction Specifications Institute's newly published "Master Format-2004 Edition Numbers & Titles" dated 6/8/04. This document is the specifications-writing standard for most non-residential building design and construction projects. It lists titles and section numbers for organizing data relating to construction requirements, products, and activities. By standardizing such information, the Master Format facilitates communication among architects, specifiers, contractors and suppliers, which will help them meet the County's requirements, timelines and budgets.

The 2004 Master Format provides more detailed division classifications as well as introducing new building division numbers. It is noted that current and future specifications issued by architectural and engineering firms will coincide with the new format. In addition, contractors will be using the new format division numbers for their internal cost scheduling and monitoring as well as for billing purposes on their payment applications.

Feedback from construction managers in the industry is that the additional detail afforded in the new CSI format assists them greatly during their project inspections by listing out critical items within the project that need to be tracked and inspected on an individual basis.

3. In reviewing the Bid Documents for the sample gymnasium project, it was noted that Addendum No. 3 dated 12/27/95 incorporated changes to the scope of the project, specifically the deletion of the building insulation material and the installation of such material. It is further noted through a news release from the Garden Island dated 5/4/04, our interview with the Building Superintendent on 8/16/04, and in reviewing the minutes of the meetings of the Council of the County of Kauai dated 2/17/99 relating to the decision to delete the insulation due to "limited funds", that budgetary constraints were the basis for the deletion of stated materials and the installation of said from the gymnasium project.

In accordance with best practices, it is recommended for future building projects where changes are to be instituted that could effect the structural integrity of the facility, an engineering analysis be performed first to determine the potential risk of such decisions.

Observation and Recommendations: I. Construction and Contract Procedures and Operations

As in the case of the sample gymnasium where the components of the facility are integrated to perform collectively as one unit (the metal building with a metal-insulated roofing system), the engineering analysis should also include input from a qualified contractor familiar with the construction of such components as well as from the manufacturer of such buildings and roofing systems.

Once the risk is determined, results and facts can be presented to the proper levels of authority to either draw on additional funds to maintain the cost necessary in meeting the original design, or to address the risk of holding to the decision to eliminate a component due to budget constraints thus realizing the potential problems, such as the possibility of condensation due to weather conditions and then implementing a working alternative(s).

1.2 General Provision of Construction Contracts

The General Provision of Construction Contracts, among other things, will define the practices and procedures for the type of contract to be used by a contractor in addition to the qualification and selection of a contractor. Ambiguity within general provisions could lead to potential risks in protecting the owner from contract disputes, litigation, project delays, faulty construction, and overall quality workmanship. In the procurement process, the selection of the most qualified contractor to perform the construction of a proposed major building project is perhaps the most important process of meeting the anticipated budget and insuring the timely completion of a project.

As stated above, the “General Provisions of Construction Contracts of the County of Kauai” were approved in 1969 and 1972, and revised in July 1973. In our review of the Special Revisions for the sample gymnasium bid documents, specifically in the “Amendments to the General Provisions of Construction Contracts, County of Kauai”, we noted under “Section 2.2 Qualifications of Bidders” the deletion and replacement of the second paragraph of Section 2.2 in its entirety. The new paragraph states in part that:

.....upon request of the Contracting Officer (revised earlier to read “The Chief Procurement Officer or designee of the Chief Procurement Officer of the County”),.....(prospective bidders must) submit answers under oath to all questions contained in the “Standard Questionnaire” of the County not less than three (3) calendar days prior to the day fixed for the opening of bids. No bid shall be accepted from any bidder whose qualifications, experience, and/or equipment or financial condition is not considered satisfactory for the performance of the contract.

We assume that because of the age of the above-mentioned general provisions (1973), the current Building Superintendent drafted an “Interim – General Provisions For Construction Contracts-County of Kauai” – Draft IV, dated 10/5/01, which included major modifications to the aforementioned document. Included in the modifications under Section 2.1 Qualification of Bidders is paragraph “A. Notice of Intention to Bid” which in part states:

Observation and Recommendations: I. Construction and Contract Procedures and Operations

.....a written notice of intention to bid must be filed for the construction of any public building or public work when the bid is \$25,000 or more.

Furthermore, paragraph “D. Standard Questionnaire” states in part:

The Director may, in accordance with Section 103D-310 (Procurement Code) Hawaii Revised Statutes, require the prospective bidder to submit answers to questions contained in the Standard Questionnaire for Prospective Bidders on Public Works Contracts, on the form provided by the Director, properly executed and notarised, setting forth a complete statement of the experience of such prospective bidder in performing similar work and a statement of the equipment proposed to be used, together with adequate proof of the availability of such equipment, at least forty-eight (48) hours prior to the time advertised for the opening of bids.

General contractors are well equipped to manage and oversee the construction of the facility contracted to them by an owner. In most cases the general contractor will perform limited scopes of the actual construction through the use of their experienced work force that generally incorporates carpenters, concrete finishers and laborers. In some instances the general contractor may have the resources, tradesmen and equipment to perform a substantial portion of the site work relating to grading, excavation and backfill. However, the construction of the major building components is left to those subcontractors that have the both a depth of experience and skilled workforce to perform their specific trades such as mechanical, electrical, and thermal and moisture protection (roofing) work.

The allowing of a general contractor to perform the construction of such intricate systems or components of a building can result in a risk to the overall project. Though the general contractor can make the argument that a specific system or component being incorporated into his scope of work is labor intensive and suited to his in-house trades, and that the materials being used are applicable to the level of experience of his work force, such qualifications and expertise must be appropriately documented and carefully evaluated.

Using the gymnasium project as an example only, one could assume based on a review of the documents received from the County that a situation existed as discussed above relating to the general contractor’s belief in the experience of his work force resulting in the incorporation of the construction of the roofing system into his scope of work.

Recommendation:

After a careful review of the above referenced document submitted by the current Building Superintendent, we believe the document to be a substantial improvement over the existing General Provisions of Construction Contracts, County of Kauai dated July 1973. With the need to remain current with policies and procedures relevant to the construction industry and in keeping with best practices in controlling dominant risks, it is our recommendation that the following actions be taken to address the County’s “General Provisions of Construction Contracts, County of Kauai”:

Observation and Recommendations: I. Construction and Contract Procedures and Operations

1. A final review of the current Building Superintendent's proposed "Interim – General Provisions For Construction Contracts-County of Kauai" – Draft IV, dated October 5, 2001 be performed by the other Eight Division leaders, within the Department of Public Works, for applicable revisions and modifications with the intent of final approval and adoption within an acceptable time period.

It is further recommended that in addition to these reviewing Division leaders, the review process also include the County Engineer, the Building Division leaders including the Code Enforcement Coordinator, the Supervisor Building Inspector, and the Supervisor Plans Examiner, plus the Business Management Officer, the Purchasing & Assistant Contracts Administrator, and a County Deputy Attorney. Once adopted, it is recommended that this document become a standard of policy and procedures for addressing the general provisions of building and other major projects contracted by the Department of Public Works.

2. During the bid process for all major building projects, and based on best practices, it is recommended that the use of the above stated "Standard Questionnaire for Prospective Bidders on Public Works Contracts" be implemented and enforced in full in order to determine the most qualified contractor to perform the building construction.
3. To conform to best practices in the bid process, we recommend that a minimum of at least five bids be secured for major building projects. This will afford the County a fair and accurate representation of the cost of the project as well as a baseline for reviewing and evaluating the highest and lowest bids to determine reasons for any substantial differences. If substantial differences do exist between the highest, median, and lowest bids (after the evaluation and application of any bid preferences), the generally accepted procedure is to reject the highest and lowest bids with the result being the award of contract to the lowest of the remaining bids or the most favorable of the remaining bids.

It is noted, in the sample gymnasium General Provisions of Construction Contracts, County of Kauai that "Section 3.1 – Award of Contract" states in part:

The award shall be based only on the criteria set forth in the invitation for bids and shall be made to the lowest responsible (emphasis added) and responsive bidder or offeror. "Responsible bidder or offeror" means a person who has the capability in all respects to perform fully the contract requirements, and the integrity and reliability, which will assure good faith performance.

The above noted Section continues in stating that:

The Chief Procurement Officer reserves the right to reject any or all bids and to waive any defect as, in his judgement, may be in the best interest of the County.

In addition, the current Building Superintendent's proposed "Interim – General Provisions For Construction Contracts-County of Kauai" – Draft IV, dated 10/5/01, recommends and states in part, under "Section 3 – Award and Execution of Contract, Subsection 3.2D - Irregular Offers":

Observation and Recommendations: I. Construction and Contract Procedures and Operations

Offers will be considered irregular and may be rejected - if the offer shows any non-compliance with....., or if the prices are obviously unbalanced (emphasis added).

Further, Section 3.4 of the aforementioned document under – “Award of Contract” states in part:

The award of contract, if awarded, will be made.....to the lowest responsible (emphasis added) and responsive bidder (including the alternate or alternates which may be selected by the Director in the case of alternate bids) whose proposal complies with all the requirements prescribed, but in no case will an award be made until all necessary investigations are made.

The adoption and implementation of the above recommended best practices for future major building projects, if applied properly, will serve well to mitigate risks, such as the use of a contractor not having the proper experience, credentials, or qualifications to install certain components or systems of a building.

Project Documents

2.1 Contract-Stipulated (Lump) Sum (Fixed Price)

In the construction industry, various types of contracts are used based on a multitude of conditions and circumstances including the timing for completion, availability of construction drawings and design, and the desire of the owner to have as little involvement in the project as possible. These contract types could include a guaranteed maximum, design and build, turnkey, or a fixed fee/lump sum contract. In addition, there are procedures for addressing changes to the scope of work relative to the type of contract used. The contract selected for the sample gymnasium project was a fixed fee agreement. However, in addressing a multitude of issues encountered over time, changes to the scope of the original agreement were addressed through various means other than a formal change order to the original scope of work. The formal change order process to the original agreement would allow all of the general provisions and terms of the contract to remain in effect throughout the duration of the project.

Based on common industry practice and the public nature of building construction projects undertaken by the County, the decision to request a Stipulated (Lump) Sum cost for a building project is a best practice. This is based on the fact that detailed and accurate construction plans and specifications are generally available during the bidding process allowing for an accurate estimation of the project cost which will in turn assist in mitigating the County’s financial risk.

However, in our review of the various contracts used throughout the history of the sample Kilauea Gymnasium construction, it is noted that a standard second and third contractual agreement with Primattech Construction was not employed by the County (primarily due to attempts to achieve a resolution of potential litigation issues).

Observation and Recommendations: I. Construction and Contract Procedures and Operations

The formal contract for the construction of the Kilauea Gymnasium consisted of a three page document titled Contract No. 5266, dated 1/29/96, between Primatch Construction and the County of Kauai for a total consideration of \$1,393,572 including Alternates Nos. 1 through 8.

The second contract assigned to Primatch Construction by the County for the above referenced sample project was issued on 11/15/02 as “Amendment No. 1” to the above original Contract No. 5266. Its scope of work consisted of the construction of a second roof over the existing gymnasium roof to counteract years of water leakage problems that plagued the facility since its opening in February of 1998.

The third and final contract assigned to Primatch Construction by the County for the gymnasium was issued on 9/30/04 as a “Memorandum of Understanding” to address a conflict that arose between the County and Primatch Construction relating to the previously issued Amendment No. 1 contract. The intent of this document was to finalize the construction of the second roof by completing specific outstanding items at issue.

Once agreed procedurally as to the contract assigned for a project, the formal procedures to add or change a scope of work should be applied in conformance with the contract. Not following the procedures to properly address such changes under an existing agreement could lead to risk to the owner resulting in delays, additional costs, work stoppages, and possible litigation.

Relating to the gymnasium project as an example and as noted above, due to period over which alternatives to the problems were being discussed and argued as well as due to community pressure to get the gymnasium completed and structurally sound (no water leaks), various forms of engagement agreements to perform construction on the Kilauea Gymnasium were employed by the County over a six and eight-year period.

Recommendation:

1. In conjunction with employing the Stipulated (Lump) Sum bid arrangement for future projects, it is recommended that the County consider adopting certain American Institute of Architect’s (AIA) forms. The AIA forms have been developed based on over seventy-five years of construction experience and have been tested repeatedly and successfully in the courts. The specific form recommended for the County is Contract Form A101 “Standard Form of Agreement Between Owner and Contractor” where the basis of the payment is a stipulated sum (fixed price) set in advance by bidding, as is the case with the County major building projects. Form A101 is designed for integration with owner General Conditions, Supplementary Conditions and General Provisions, Drawings, Specifications, and Modifications.

For County projects that have a limited scope of work, the AIA Contract Form A107, “Abbreviated Form of Agreement Between Owner and Contractor”, is recommended.

Further, and based on our understanding that the County has long established in-house documents to address contracts, supplementary conditions, etc., and in lieu of adopting the above AIA document(s),

Observation and Recommendations: I. Construction and Contract Procedures and Operations

it is recommended that the County consider adopting and implementing language from such documents to reinforce its technical and legal position in addressing contractual agreements for their building construction projects. This implementation could serve to consolidate information from other various County documents and possibly prevent the exclusion of such information due to a failure or oversight of incorporating the proper documents into the contract package.

The form includes nine articles dealing with everything from the agreement date and contracting parties plus contract documents and the scope of work, to the contract sum, progress payments, and final payment. In addition it specifically addresses the date of commencement and substantial completion

2. Using the sample gymnasium project as an example, if for future building projects the contractor's scope of work is to be modified or increased for various reasons including issues regarding the quality of the workmanship or relating to problems incurred during the construction, and if a determination is made by the Construction Manager not to exercise the County's rights under suspensions, work stoppage or the Surety Performance Bond, then in accordance with best practices we recommend that changes to the contract be considered through the formal change order process.

Under the "Request for Change" (RFC), the contractor's submittal would include a descriptive summary of the new scope of work, a listing of the project drawings and specifications used in determining that scope of work, the inclusions and exclusions of the work to be performed, an estimate of cost, the start date, and the project time to complete the new work culminating in a fixed completion date.

3. Again citing the above example, if it is determined for future building projects that the contractor's quality of the workmanship is at issue or problems exist relating to the acceptable performance of the contract resulting in adverse effects to the building use or structure itself, and the County will be damaged by the inability to obtain full use of the completed work, upon exhausting all other means and methods of resolution including the suspension of work and work stoppage, written notices and correction of the work, then upon a receipt of a written notice from the Construction Manager that the contract has been terminated, the contractor shall immediately discontinue all operations.

If terminated, in accordance with best practices it is recommended that the Construction Manager exercise the County's right to evoke the Surety Performance Bond, take possession of the work from the contractor, and complete the project by whatever means are deemed appropriate by the Construction Manager and the County.

2.2 Timeline for Completion of Project

One of the major items addressed in any formal agreement between the owner and the general contractor in constructing a building is a timeline for the completion of the project. Many factors account for such importance including revenues, production, and planned-utilization of the facility or personnel for its intended use. If the building is a public use facility, the impact of not completing a project on schedule,

Observation and Recommendations: I. Construction and Contract Procedures and Operations

or completing a project that is not up to standards for such a use and is constantly under repair to reach its objective, is compounded by the public's un-ending attention to the situation.

It is noted that in the original contract for the construction of the sample gymnasium project, no specific time line for the completion of the project was defined in the agreement other than the statement:

The Contractor further understands and agrees that time is of the essence of this contract, that it is difficult or impossible to determine with reasonable accuracy injuries or damages the County will suffer because of delays arising from the Contractor's late performance or non-performance of work under this contract, and that for any failure by the Contractor to complete the required work by the completion times specified in the contract documents or any extension of this contract, the Contractor agrees to pay to the County the sum of Five Hundred (\$500.00) for each and every calendar day of delay.

With the knowledge that the County uses a "Notice to Proceed" document in conjunction with their contracts, and having received what we believe to be the full compliment of documents for the sample gymnasium project, we did not find the "Notice to Proceed" among said documents which generally includes language as to the start and completion dates and the duration of the project. Through our review of the "Kilauea Gymnasium Meeting Minutes", it is noted that a document titled "Pre construction Conference Kilauea Gymnasium-Contract No. 5266 - Minutes" dated January 31, 1996 included "Item 1. – Notice to Proceed" listed the date to proceed as February 1, 1996 and the "contract time" as being 300 consecutive calendar days from that date.

Our further review noted that starting in early October of 1996, a critical period of the gymnasium construction since the building was enclosed, the finish-out work was underway, and the project was heading toward completion, the statement under the "Project Schedule" of the meeting minutes continually read:

The County expressed concern about the overall schedule.

This statement continued to be observed through and up to the January 13, 1997 minutes when at that date it read:

The current contract completion date is January 17, 1997. Inspection for substantial (completion) will be made that day.

As of the following meeting on January 21, 1997, the inspection for the substantial completion had not taken place as indicated above, and was rescheduled for a time following the January 21 meeting. No other meeting minutes following the above January 21 meeting were provided for our review, but we assume the inspection for substantial completion occurred as stated. It is noted, however, that the Certificate of Occupancy for the sample gymnasium project was not issued until *February 18, 1998*, showing that substantial delays and extensions had occurred after the above meeting date.

Observation and Recommendations: I. Construction and Contract Procedures and Operations

As noted above in the case of the sample gymnasium project, a long delay in the completion of a project not well defined as to completion and without the proper application of the enforcement terms of the contract, can have a definite impact on the overall project and put the owner at risk of reaching a reasonable settlement relating to scheduling, delays, completion and cost to complete issues.

It is of primary importance that contract documents contain a specific timeline for both the substantial and final completion of a project with the ability of the owner and the contractor to review, analyze and agree to extensions of the contract due to specific and approved delays. In these cases, schedules are revisited and revised to show the impact of such extensions with the re-establishment of the formal completion date. The terms of such should be presented and stipulated in bid documents and agreed to in the formal contract issued to the qualified and accepted contractor engaged to perform the building construction for the County.

Recommendation:

The relevance to the above is the recommendation of a document, or the implementation of language to the County's Contract as found in the above referenced AIA Form 101, that is all inclusive of the commitments on the part of both parties. This would include a section titled "Date of Commencement and Substantial Completion" listing the dates of commencement and substantial completion as well as a notification of the contract time *based on the contractor's understanding of the scope of work and ability to deliver the product as initially anticipated and bid.*

Therefore during the bid process, and in consideration of the timing of product delivery, the contractor should provide a tentative project schedule which would include some flexibility to account for unforeseen activity delays including normal inclement weather, unusual soil or other conditions that could influence the schedule of the work, and any other factors that could relate to the progress of the work.

Naturally, extensions of time due to various circumstances outside the control of the contractor would be a consideration throughout the course of the project and would allow for modifications to the schedule. However, the contractor would then be committed and obligated to perform as agreed to upon acceptance of the bid with the approval agencies of the County being fully aware of the commitment and obligation upon the review and approval of the Contract.

2.3 Contingency

A contingency is a cost device that can be used to facilitate either an increase or decrease to the budgeted or final contracted cost of a facility. Where there is an awareness on the part of the owner that the construction of a project could meet with issues relating to the need to reduce the costs, whether anticipated or unexpected, a planned contingency structured within the budgeted cost of the project could serve well to facilitate the cost of such a project. As is often the case with public facilities planned under capital improvements budgets, there are situations encountered, often prior to the start of such projects, which could affect the total cost allowed for the actual construction. These situations could include capital improvements budget cuts, a re-distribution of funds, or shortfalls to planned revenues. In our

Observation and Recommendations: I. Construction and Contract Procedures and Operations

review of the documents for the sample gymnasium project, we noted there was no contingency to address the reduction.

A consequence to the lack of a planned contingency where there is anticipation that the budgeted cost of a project could be impacted by uncertainties, an adjustment to specific contract areas might have to be made to allow for a reduction in the overall cost of the project. Where the cost of such a project has been accounted for in an accepted capital improvements budget, and prior to bid process taking place, the issue is often addressed through an addendum by reducing a portion of the scope of work for the project. This reduction could include the removing of a part of a building system or component, such as roofing insulation (citing the gymnasium project as a sample).

A planned contingency within the budgets for the construction of major public buildings should be a consideration in the planning and development of such budgets. As a result, the impact of a necessary and unplanned budget reduction might lessen the effect to the building construction, and in most cases, will have no overall effect on the structural integrity of the completed project.

Recommendation:

Based on the sample Kilauea Gymnasium project, and with the expectation that future major building construction projects could fall under “budgetary constraints” as experienced with the gymnasium project, a best practices of establishing a “contingency” should be considered by the County for certain and specific projects as recommended in the following:

1. The selection of building project(s) considered as needing a contingency would be made at the discretion of the Building Division’s Building Superintendent and/or Construction Manager working in conjunction with the Department of Public Works County Engineer, the Engineering Division, Procurement, and the outside Architect of Record if applicable. The selection of the project(s) would be based on the nature and complexity of the project(s) where the need for a budget adjustment, as determined by the Director of Finance, would have an adverse effect on the utility of the building if such a contingency did not exist. A common industry average for such a contingency would fall in a range of 5% to 10% of the total project budget. Said contingency would be incorporated as a part of the total public building construction budget submitted annually for approval by the Department of Public Works.
2. If the Director of Finance should elect to exercise the budget adjustment against a public building approved and slated for construction having such a contingency, the Building Superintendent and/or Construction Manager working in conjunction with the Department of Public Works County Engineer, Engineering Division, Procurement, and the outside Architect of Record if applicable, will be responsible for collectively determining which component or system is to be deleted or adjusted, resulting in the issuance of an addendum in the bid package under the proposal and specifications for the applicable project.

Observation and Recommendations: I. Construction and Contract Procedures and Operations

3. If the Director of Finance does not exercise the aforementioned budget adjustment at a later date, said contingency will be recognized as a savings to the initial Department of Public Works budget for public building construction, and if applicable, redirected by the County Engineer to offset any budget shortfalls within the Building Division.

3.0 Project Controls

Specific project controls are vital for the proper execution and completion of a construction project. There are a multitude of documents, processes and procedures that allow for the proper management and oversight of both the contract documents as well as the delivery of a project on schedule and within budget. Though in most cases the project controls adopted and used by Public Works are suitable for their type of planned construction, certain other controls practiced within the construction industry are well suited to Public Works use and should be considered a part of their planning.

Using the sample Kilauea Gymnasium project documents, and assuming the documents are representative of those for future building construction projects, our review suggests that the project control system is in accordance with industry “best practices” as presented:

1. *Construction Procedure Manual* – (gymnasium sample copy issued January 26, 1996) is the standard project operations’ policy and procedures guide modified to meet the scope and requirements of the specific project for which it applies. The manual specifically:
 - defines the roles of authority and the responsibilities of the parties to the contract that assists in the decision making process and includes the County of Kauai, Department of Public Works, the General Contractor, Architect if applicable, and the Construction manager
 - establishes the reporting hierarchy
 - establishes set guidelines and conditions for accountability
2. *Project Communications* – Our review notes that the project control system adequately accomplishes the following:
 - provides for comprehensive and accurate minutes of weekly meetings plus noting status of contractor’s progress for the project
 - provides for daily reports covering activities, difficulties encountered by either contractor or Construction Manager, disputes and deficiencies, tests and results, etc.
 - support by the contractor in assisting Construction Manager with any information needed for the daily reports
 - provides for inspection reports for the work in progress and/or completed to date
 - defines the 30 day payment turnaround requirement

Observation and Recommendations: I. Construction and Contract Procedures and Operations

- defines the communication hierarchy which includes the County, the Department of Public Works, the General Contractor, the Architect (if applicable), and the Construction Manager
 - establishes the Construction Manager as the primary representative dealing with the contractor including communications from the County, the Architect (if applicable) and operations specialists
 - establishes procedures are in place for the distribution of relevant information
 - weekly meetings are scheduled to determine and solve problems, anticipate and correct existing conditions that might otherwise lead to construction problems, document construction progress, and to coordinate and expedite the actions and cooperation of contract parties
3. *Project Schedule* – Based on current procedures and common industry practice, the scheduling process outlined in the Construction Procedure Manual, is adequate for the major building construction projects undertaken by the County and inclusive of the following:
- upon receipt of the Notice to Proceed, the contractor will furnish a preliminary performance schedule showing in detail the mobilization of plant and equipment and sequence of all operations including procurement of equipment and materials to complete the work
 - within 30 calendar days after the Notice to Proceed, the contractor is required to submit six copies of the approved performance schedule to the Construction Manager
 - the performance schedule will be updated within 15 days of the adoption of any changes
4. *Progress Reports* – Based on current procedures and common industry practice, the Manual’s presentation of the Construction Manager’s roles and responsibilities is adequate relating to site and building construction observations, for documenting any of the findings related to these activities and creating progress reports for such activities. In addition, the interval and frequency of such progress reports is well within the normal industry practice for such activities.
- upon receipt of the Notice to Proceed, the contractor will furnish a preliminary performance schedule showing in detail the mobilization of plant and equipment and sequence of all operations including procurement of equipment and materials to complete the work
 - within 30 calendar days after the Notice to Proceed, the contractor is required to submit six copies of the approved performance schedule to the Construction Manager
5. *Quality* – Based on the County’s current procedures, with the exceptions as noted above under “*Recommendations - Standard Specifications for Public Works Construction*”, the specifications compliance and quality assurance aspects of the contract documents are in accordance with industry “best practices” as noted by the following:

Observation and Recommendations: I. Construction and Contract Procedures and Operations

- as detailed in the Construction Procedure Manual, submittals are sufficiently handled by the Construction Manager relating to review processes by the contractor and the architect (if applicable) including the identification of the transmittal forms and check lists used in the processes
 - the submittal turnaround time is defined as 45 calendar days after receipt by the architect or the County's Engineering Division if the service of an architect are not used
 - site conditions are monitored closely by the Construction Manager working jointly with the contractor whose written notification to the Construction Manager will alert him to latent physical conditions which might differ from those presented in the contract documents or unknown physical conditions of an unusual nature
 - a testing plan is required to be submitted by the contractor outlining the types and frequency of tests required at least 60 days prior to the scheduled testing activity
 - contractor is required to submit a listing of the proposed manufacturer's representatives and their qualifications
 - test results will be transmitted along with detailed test reports on forms acceptable to the construction with all testing witnessed by the Construction Manager or his designated representative
 - one set of neatly marked, full size, as-built drawings are maintained by the contractor and kept current in accordance with change orders and adjustments to the construction
6. *Change Order Process* – Our review of the change order approval process notes that the County's formal change order process, is in accordance with industry "best practice" as outlined:
- the project control system allows for the change order process to adhere to the communication hierarchy set up within the project whereby the Construction Manager will issue a Request for Proposal (CM-004) in writing with the proposed scope of work
 - the protocol for a different cost magnitude of the change order is addressed – the Construction Manager shall concurrently coordinate with the architect (if applicable) to prepare a cost estimate and time impact assessment independent of the contractor if estimated value of the change exceeds \$10,000
 - the Construction Manager shall document all contract change order negotiations by preparing a "A Memorandum of Negotiation" (CM-007) to be signed by all attending the negotiations and filed with the change order support documents
 - once accepted, the County Engineer will issue a County letter of acceptance through the Construction Manager indicating a formal change order is being processed and that adequate funding is available

Observation and Recommendations: I. Construction and Contract Procedures and Operations

7. *Claims Process* – Our review of the claims process notes that the County’s formal process, with one pending recommendation (noted below), is in accordance with industry “best practice” as outlined:
- the claims submittal turnaround time is well defined under the “Amendments to the General Revisions of Construction Contracts, County of Kauai”, Section 8.12
 - the claims process clearly defines the contractor’s reasons for filing the claim based on additional compensation, damages, or an extension of time
 - establishes the guidelines under which the contractor shall continue to perform during the claims process, review, and acceptance/non-acceptance period
 - provides the guidelines for the contractor in processing the claim including a clear statement of the intent of the claim, the reasons for the claim, date of the protest, decision or action, the contract provision that supports the claim, and an analysis of the progress schedule change if the contractor is asserting a schedule change
 - describes the County’s involvement in the claims filed against the contractor that cannot be resolved by mutual agreement as being decided by the Director whose decision will be final

However, we noted that there were no procedures established to address the non-adherence to the controls in place as outlined in the construction procedural manual. This would incorporate the ability of the owner (County) in communicating the results of such non-adherence including the stopping of work, the termination of the contract, the application of the terms of the bonds, and the engagement of a new contractor to complete the construction of the project due to termination. It is essential that these issues be addressed in writing and that the contractor be aware of the conditions, reasons and consequences for poor performance. In reviewing the gymnasium documents, clarity to these issues was not noted.

The implementation and initiation of such controls, if needed, could assist in mitigating the risk to the owner due a lack of or poor performance on the part of the contractor. A careful review of the County’s current controls and the addition of certain procedures should be considered as an overall improvement to managing future construction projects.

Recommendation:

The following are recommendations for further improvement to the County of Kauai project controls:

Project Communications:

As a part of the Construction Procedure Manual, under “Section II – Communications”, it is recommended that the County establish accountability procedures for not adhering to the Project Controls as outlined in the Manual.

Observation and Recommendations: I. Construction and Contract Procedures and Operations

Project Schedule

It is recommended in keeping with best practices that the Construction Manager ensure there is sufficient project time leeway built into the contractor's schedule to allow for possible unforeseen activity delays.

Change Order Process

Due to the understanding of the contractor that time is generally of the essence in constructing major building facilities for the County, it is recommended in keeping with best practices that the Construction Manager perform an analysis relating to the impact of floats with respect to the change on the proposed completion date.

Once again, it is recommended in keeping with best practices that the County consider reviewing, approving, and adopting the current Building Superintendent's proposed "Interim – General Provisions For Construction Contracts-County of Kauai" – Draft IV, dated 10/5/01 as discussed above under "*Recommendations - General Provisions of Construction Contracts of the County of Kauai*". This is based on our detailed review of both documents, the current General Provisions being used, and the current Building Superintendent's proposed General Provisions.

It is our professional belief that the current Building Superintendent, in his rework of the Interim General Provisions, has revised many of the sections and provisions in the currently used County document to reflect experiences encountered through his involvement with the sample gymnasium project, as well as introducing additional sections and provisions, based on his knowledge of best practices, that will improve and strengthen the County's position in addressing issues, such as claims, and mitigating risk for future major building projects.

4.0 Contract Procurement

Using the Kilauea Gymnasium contract, we reviewed for compliance with the following County's procurement procedures.

- Reviewed Bid or Proposal Tabulation sheet to determine if bids or proposals were obtained if required.
- Reviewed Affidavit of Publication for bid or proposal published in newspaper as a public notice.
- Noted minimum of 10 day window for Invitation for Bid and 32 day window for RFPs between advertisement date and bid opening date per review of Notice to Bidders or Proposal Notice (attached to Affidavit of Publication).
- Determined segregation of duties exists between person handling bid and person accepting bid (i.e. award recommendation and award letter are signed by different people, or approved selection committee is listed).
- Noted maximum 60 day window between bid opening date and award letter date.

Observation and Recommendations: I. Construction and Contract Procedures and Operations

- Where applicable, noted request for professional services from department to Procurement
- Noted Director of Finance/Deputy Director approval of contract.

Nothing came to our attention that would indicate non-compliance with the above procedures. The procedures are in conformance with best practices.

Performance Audit
County of Kauai
Building Division, Department of Public Works

Observation and Comments

II. Division Procedures and Operations

1.0 Organization-Roles and Authority

In addition to the construction procedural manual that establishes the controls in place for the proper management and execution of the contract documents, it is as important for the successful completion of such a project that internal procedures and operations be in-place to support the project. A key factor to the support and success of the project is a clear definition of the roles and responsibilities of positions and personnel within the County and the relationship to and interaction with each other.

Using the gymnasium project as a sample, the lack of clear lines of communication and responsible involvement in project issues could place the County at risk, specifically for future projects. A construction manager/Building Superintendent who, in the process of trying to enforce certain parts of the contract documents, will not prevail without the support of other personnel including the County Engineer, Contracts Administrator and a deputy county attorney.

In our review for compliance with “Best Practices”, this section summarizes our assessment of the key personnel relating to their roles and responsibilities within the Department and the Division, with a focus on determining whether authority resides with the proper personnel in managing the construction of new County buildings or improvements to existing County facilities.

In addition, and to decrease the risks associated with such projects in the future, recommendations are presented that assimilate practices standard within the industry relating to the duties and responsibilities of the personnel discussed as an Appendix II to this report.

In general, based on our discussions with key personnel within the Department of Public Works and the Building Division, the documents reviewed relating to the gymnasium project, and internal job descriptions and requirements established by the County, the duties and responsibilities of these key personnel relating to construction projects, and internal operations to support such projects, we noted the following are in conformance with best practices:

- *Project Reporting* – Documents are in place to identify the reporting process
- *Project Communications* – the hierarchy for the reporting process is well defined in the Construction Procedure Manual

Observation and Recommendations: II. Division Procedures and Operations

- *Project Quality* – the use of an architect for the major building construction projects will ensure the design and construction of the building systems are in conformance with the specifications
- *Project Quality Assurance* – the Construction Procedure Manual sets the standard for performing mandatory material testing as specified by the building codes and engineering requirements
- *Project Oversight* – reporting roles and project responsibilities are well defined for the involvement of different personnel in the construction process
- *Internal Operations* – internal operations relating to procurement, contract administration, construction management, and project closeout are well defined
- *Division Support* – the capabilities for support from other Divisions within the Department of Public Works is in place and well qualified for such assistance if needed
- *Budget Processes* – the means, guidelines and support for establishing internal operating budgets for staffing and equipment to support field activities is well defined
- *Department Health and Safety Program* – a Policy and Standard Operating Procedure for County personnel is in place
- *Division Health and Safety Program* – guidelines for the development of divisional programs are in place

However, with consideration given to the roles and responsibilities defined in various documents we reviewed applicable for both project construction management and administration and internal operations, the need to improve the relationship and interaction of personnel within the Department and the Division is of prime importance for mitigating risk associated with future public building construction.

In addressing this relationship of personnel, the following are recommendations to assist in the risk management process:

Recommendation:

- *Dedicated Project Management* – under the burden of community relationships and the control of budgets for the construction of County sponsored facilities, it is imperative for such major projects that a County project/construction manager be designated and assigned through completion to oversee and assure compliance with the County codes and regulations, contract documents and plans and specifications
- *Enforcement of Procedures* – based on the day to day involvement of the County designated and assigned project/construction manager, the reporting process and field activities of the contractor(s) should be closely monitored and when necessary, enforcement procedures should be implemented for lack of quality, compliance, proper reporting, cost overruns, disputes, claims etc.
- *Project Reporting Process* – though the process is well defined in the construction manual, detailed and accurate minutes of discussions during weekly meetings need to be recorded, then tracked, relating to project issues in order to mitigate future project risks and to serve as support to County actions in addressing such issues
- *Project Communications* – in conjunction with the weekly reporting process relating to tracking and monitoring project issues, communications need to be forwarded to the applicable division

Observation and Recommendations: II. Division Procedures and Operations

and department heads as a notification of such issues with one result being the early input of recommendations or resolution of these issues from said division and department heads

- *Project Oversight Assistance* – early in the construction contract administration and management process for a specific major project, a teaming on an information basis with other division and department personnel, such as the Deputy County Engineer and a Deputy County Attorney, should be established to assist with issues that might arise during the project
- *Internal Operations* – for major County construction projects, consideration should be given to using outside consulting to assist in the initial estimate of the project budget, for a review of the contract document to be issued for construction in order to properly protect and support the County interests, and to establish a feasible working schedule for the performance of the contract which is to be used as a benchmark during the bid process and a tool for comparison to the contractor's schedule upon the award of contract

2.0 Construction Management

Using the gymnasium sample project, it serves well as an example of problems encountered due to the lack of staffing within a Division Section. In cases where the County is obligated to manage the construction of public buildings, whether initially intended or due to budget constraints, consideration must be given to the demands of construction management in addition to many other responsibilities required by such a position as Building Superintendent.

The position of Building Superintendent/Chief of Buildings for the Building Division, under the general direction of the Deputy and/or County Engineer, has the overall responsibility of directing the administrative and technical activities of the Building Division including directing County-wide programs involving the construction of public buildings, building code enforcement and progress and final inspections of both County and non-County commercial and residential construction.

Due to the lack of proper staffing within the Building Division over the previous years, the Building Superintendent has in certain cases undertaken the responsibilities of project/construction manager, as was the case with the gymnasium project. So as not to establish a precedent for such projects, it is important that proper resources be used if the County elects to position itself in this role. If elected by the Building Division to manage a major County building construction project – with such major projects not being the norm for County planning – a determination should be made to either utilize internal resources or employ outside consulting services to represent the County.

Internally, the Department of Public Works has experienced personnel who are capable of, and in fact do, provide the service of managing construction projects. This capability is found in the Road Construction and Maintenance, Engineering, and the Wastewater Management Divisions. Though it is understood that these Divisions are responsible for managing projects specific to their division activities, the Building Division under the approval of the County Engineer, should request the assistance of project/construction management services from another division to assist in the day-to-day management of such major County building projects.

Observation and Recommendations: II. Division Procedures and Operations

The lack of expertise, personnel or the dedication of time by experienced personnel needed to fulfill the role of construction management can, and often does, have a direct impact on the control and execution of a project under construction. Some results due to these factors are delays, inspection failures, schedule extensions, additional costs and possible litigation in addition to completing the project on time.

The success of the construction management of such a project would be dependent on the qualifications and expertise of the divisional person(s) assigned to that responsibility in addition to the individual being able to dedicate the time and resources necessary to fulfill such a role. Through internal discussions, the County Engineer in conjunction with the Building Division Superintendent, would be responsible for determining if the qualifications and expertise of such a person(s) were of the level necessary to manage a specific project while at the time also considering the fact that the individual would still have responsibilities for certain divisional activities outside of the construction project.

In consideration of the above, and based on our review of documents relating to the gymnasium project including memorandums and letters (various dates) relating to the Surety Performance Bond, extended warranty, a County letter summarizing the County's belief of cause of water leaks, inspection reports for the gymnasium project (various dates), construction project meeting minutes (various dates), chronology of events for the various issues and problems relating to the gymnasium roof leaks as of Fall 1996 through 12/11/00, and Council of the County of Kauai meeting minutes (various dates), it is our assessment that issues and problems arising during the original, and additional stages of construction, of the gymnasium project were not the result of the qualifications of the County assigned Construction Manager to fulfil the roles and responsibilities of that position. Rather, a combination of situations might have impacted the ability of the Chief of the Building Division as Construction Manager to carry out the roles and responsibilities of that position. These situations could have included the following:

- A need for the County to take on the construction management position due to the cutting of funds originally budgeted to the project, which then precluded the construction management function being outsourced.
- The additional burden placed on the Chief of the Building Division of performing the construction management function in addition to maintaining the required roles and responsibilities of the Chief of the Building Division.
- The lack of staff to carry out the normal day to day management and inspection activities of the Building Division therefore requiring additional efforts on the part of the Chief of the Building Division to oversee these activities.
- As a result of the time and attention required by the Chief of the Building Division for administering the normal County business activities, proper daily inspections and log entries of activities during adverse weather conditions might not have been monitored or recorded.

This could have resulted in some of the underlying problems facing the current leakage issue as exemplified below in a correspondence noted from Primattech's Project Manager dated August 21, 2003 and applying to the contract for the second roof:

Observation and Recommendations: II. Division Procedures and Operations

(Thursday August 21, 2003 – to the current Building Superintendent) – Two of my primary objectives as Project Manager for Primatech Construction are to provide a safe work environment for our workmen, and quality of workmanship for our clients. Poor weather makes both of these goals difficult to achieve within the time allowed. We have lost an estimated 38 man-hours due to bad weather conditions during the last two weeks. On Thursday and Friday, August 7 & 8, it was too windy to handle the 58' long roof panels safely. We cut our crew size to 4 men on those two days because the fifth man could not be used efficiently. On Tuesday August 12 we lost approximately 6 man-hours to inefficient working conditions due to high winds. Monday, Tuesday, and Wednesday, August 18, 19, & 20, we lost approximately 16 man-hours to inefficient working conditions due to rain. Wet surfaces on the new roof are extremely hazardous, and the extra precautions needed to work safely slow down the progress noticeably.

Based on the content of the correspondence as presented, it is only assumed that during the days of the bad weather cited above, the construction of the second roof continued. Under these conditions, the continued construction could have had an effect on the installation, and in some cases, the integrity of the materials being installed. Applying best practices in addressing such situations, the construction manager's responsibility would have included the notification to the contractor to cancel the work activities for those days, allowing the contractor to request, and be approved, an extension of time for completing the project.

To further support the assessment of the difficulties that faced the County during all phases of the construction of the gymnasium project, the following is noted.

During the period from when Primatech was issued the Notice to Proceed with the construction of the Kilauea Gymnasium, dated January 31, 1996, through the current appointment of the current County Engineer on April 1, 2005, four different individuals held the position of County Engineer or served as Acting County Engineer and four different individuals held the position of Deputy County Engineer or served as Acting Deputy County Engineer.

Since it is stated in the "Construction Procedure Manual" for the gymnasium project that "The County Engineer (or assumed Deputy or Acting Deputy County Engineer) is the designated representative who will oversee the construction contract for this project", it is not too difficult to assume the involvement, or lack of involvement in some cases, of three different County or Acting County Engineers and at least five (that we are aware of) different Deputy or Acting Deputy County Engineers, might have caused issues during the construction of the gymnasium.

According to the above-cited documents, specifically the "Review of Roof Leaks at Kilauea Gym" dated November 6, 2001, we note that the first involvement in the project of a County Engineer other than the initial extension of time approved dated May 1, 1998. The next reference to the position of County or Deputy County Engineer being involved in the project is found in the same document and is dated February 2, 1999, which makes reference to a memo from the Deputy County Engineer at that time.

Observation and Recommendations: II. Division Procedures and Operations

Finally, it is noted that there was one constant throughout the entire gymnasium project, that being the position of the Chief of the Building Division as the Construction Manager, the current Building Superintendent.

As a result of the issues and problems experienced through the gymnasium project, the County should consider and budget the outsourcing of the construction management of major public building construction projects. This position is reinforced in light of the community awareness of the gymnasium problems, the current demands on the Chief of the Building Division to administer and manage current Building Division activities, and perceived staffing and equipment issues currently existing within the Division.

As noted above, the construction management during both the Preconstruction and Construction Phases of such a project are time consuming and require the day-to-day involvement of administrative and management time and resources. The attempt by the County to elect to address the need internally could place a burden on the existing management of the Building Division and potentially create similar issues as experienced with the gymnasium project.

Recommendation:

To demonstrate the total involvement and time consuming efforts required of a designated County individual as a construction manager if the County were to elect to manage their own facility, best practices suggests the following as the roles and responsibilities of such a position. In addition, the following could also serve as the criteria for the County's decision to use outside consulting services to meet this need:

Preconstruction

With the architect's assistance (whether an internal or external source is used by the County for architectural services), the construction manager provides the following:

- Prepare preliminary estimates of construction cost for early schematic designs based on area, volume or other standards, assists the architect in achieving an agreed upon program and project budget requirements, and provides cost evaluations of alternate materials and systems.
- In reviewing designs during their development, advise on site use and improvements, selection of materials, building systems and equipment plus provides recommendations on the relative feasibility of construction methods, availability of materials and labor, time requirements for procurement, installation and construction, and factors relating to the cost including alternate designs or materials and preliminary budgets.

Observation and Recommendations: II. Division Procedures and Operations

- Provide a project schedule, for review by the proper department and division heads that coordinates and integrates the construction manager's services and responsibilities, the architect's services, and the County's responsibilities with the anticipated construction schedule.
- Coordinate contract documents, with the proper department and division heads, relating to drawings and specifications as they are being prepared and recommending alternate solutions whenever design details affect construction feasibility, cost or schedules.
- Provide recommendations regarding the assignment of responsibilities for safety precautions and programs, temporary project facilities, and equipment, materials and services for the common use of contractors plus verifying that the requirements and assignment of responsibilities are included in the proposed contract documents.
- Develop a construction schedule providing for all major elements such as phasing of construction, times of commencement, and completion required of the contractor.
- Provide an analysis of the types and quantities of labor required for the project review the availability of appropriate categories of labor required for critical phases of the project.
- Identify and/or verify applicable requirements for equal employment opportunity programs for inclusion in the proposed contract documents.
- Make recommendations for pre-qualification criteria for bidders and develop bidder's interest in the project plus establish bidding schedules, assist in issuing bidding documents, conduct pre-bid conferences to familiarize bidders with bidding documents, management techniques, and with any special systems, materials or methods employed in the project, and assisting the architect with receipt of questions from bidders and the issuance of addenda.
- With the architect's assistance, receive bids, prepare bid analyses and make recommendations for the award or rejection of bids.
- With the architect's assistance, conduct pre-award conferences with successful bidders plus assist in the preparation of the construction contract and advise the County on the acceptability of subcontractors and material suppliers proposed by the contractor.

Observation and Recommendations: II. Division Procedures and Operations

Construction

Commencing with the award of the construction contract, the construction manager will provide the administration of the construction contract and the management of the project through the following services (based on assuming an architect is assigned to the project):

- Provide administrative, management and related services to coordinate the work of the contractor with the activities and responsibilities of the architect and the County to complete the project in accordance with the County's objectives for cost, time and quality.
- Schedule and conduct pre-construction, construction and progress meetings to discuss procedures, progress, problems and scheduling.
- Update the project construction schedule and reissue as required to show current conditions and revisions.
- Endeavour to achieve satisfactory performance from the contractor, and recommend courses of action if the performance is not satisfactory and no attempt is being made by the contractor for corrective action.
- Revise and refine the approved estimate of construction cost incorporating approved changes as they occur in addition to developing cash flow and forecasts as needed.
- Provide regular monitoring of the approved estimate of construction cost showing actual costs for activities in progress and estimates for uncompleted tasks plus identifying variances between actual and budgeted costs and notifying the proper County personnel when projected costs exceed budgeted or estimated costs.
- Recommend necessary or desirable changes to the architect, review requests for changes, assist in negotiating contractor's proposed changes, and if accepted, prepare the change orders for the architect's signature and County approval.
- Develop and implement procedures for the review and processing of payment applications by the contractor for both progress and final payments.
- Review the safety program developed by the contractor as required by the contract documents.
- Coordinate the initial building permit process plus assisting the contractor in obtaining any special permits required for the project.
- If required, assisting in selecting and retaining the services of surveyors, special consultants and testing laboratories.

Observation and Recommendations: II. Division Procedures and Operations

- Determine in general that the work being performed by the contractor is being performed in accordance with the requirements of the contract documents, guarding the County against defects and deficiencies in the work plus requiring special inspections or testing of work not in accordance with the contract documents whether the work has already been fabricated, installed or completed.
- Consult with the architect if the contractor requests interpretations of the meaning and intent of the construction drawings and specifications and assist in the resolution of such questions.
- Receive the certificates of insurance from the contractor and maintaining a file copy of such for the County plus forwarding a copy of such documents to the architect for file purposes.
- Receive from the contractor and review all shop drawings, product data, samples and other submittals and transmit to the architect those recommended for approval plus establishing and implementing procedures for expediting such on approval.
- Record the progress of the project in written progress reports including information relating to the contractor and the overall project itself showing percentage of completion and the number and amount of change orders, the notification of delays from the contractor and the approval for extensions to the schedule, and the establishing and implementing of a daily log containing a record of weather, contractor's activities on the site, number of workers, work accomplished and problems encountered.
- Maintain at the construction site, on a current basis, a record copy of all contract documents including drawings, specifications, addenda, change orders and other modifications.
- Observe the contractor's checkout of utilities, operational systems and equipment for readiness and assist in the initial start-up and testing.
- Upon consideration of the contractor's work, or a designated portion of the work, substantially complete, preparing for the architect a list of incomplete or unsatisfactory items and a schedule for the completion or correction of such, then assisting the architect in conducting inspections for substantial completion and coordinating the correction and completion of the work.
- Assist the architect in determining when the project or a portion of the project is substantially complete, preparing a summary of the status of the contractor's work listing changes in the previously issued certificates of substantial completion of the work recommending the times within which the contractor shall complete uncompleted items on their Certificate of Substantial Completion of the Work.
- Following the architect's issuance of a Certificate of Substantial Completion of the project or designated portion of the project, evaluate the completion of the work and make recommendations to the architect when work is ready for final inspection, assisting the architect

Observation and Recommendations: II. Division Procedures and Operations

in conducting the final inspection, securing and transmitting required guarantees, affidavits, releases, bonds and waivers, plus collecting all keys, manuals, record drawings and maintenance stocks.

3.0 Division Operations

The Building Division of the Department of Public Works is assigned the procurement of construction and the construction management for County facilities. In addition, the Division is responsible for code enforcement and construction inspections of such construction, the repair and maintenance as well as custodial services for all County facilities plus the issuance of building permits and inspections of all commercial and residential construction.

Within the Building Division are two separate sections identified as the Code Enforcement Section and the Facilities Maintenance Section. Code Enforcement is responsible for the review, compliance and enforcement of all County codes and ordinances, is the central coordinating agency for the building permit process, and provides for code enforcement inspections for the construction of new County projects as well as commercial and residential projects. The Facilities Maintenance Section provides for the repairing, maintaining and cleaning of all County buildings as well as addressing minor construction projects on an as-needed basis.

Based on our discussions with various management and senior staff personnel from the Department of Public Works, the Building Division and the Sections within the Division, the following summarizes the most prevalent issues expressed by these personnel with the belief that these issues need to be addressed by the Department of Public Works and the County administration.

3.1 Communications

In the construction of a building that will be used by the public, that has a high priority for a timely completion, and due to delays is in the constant eye of the public as with the gymnasium project, it is essential that addressing communication issues be recognized as a high priority both internally and externally. Externally, the issue should be addressed as one of “Community Awareness” whereas dealing with internal communications should be addressed through improved policies and procedures.

Community Awareness

Discussions with personnel relating to communications addressed two areas where they believed the process could be improved considerably – community awareness and internal communications. If future County activities are to run efficiently and effectively, most personnel agree that both issues need to be addressed by management in hopes of lifting the burden of past experiences with the community and improving the lines of communication between personnel within the Department and the Division(s). Relating to community awareness, over the past several years the perception of the community towards the inner workings of the Department of Public Works, and the administration itself, are summed up by

Observation and Recommendations: II. Division Procedures and Operations

the following comments recorded in a news article from The Garden Island dated May 14, 2004 titled “Leaky roof, closed meetings focus of council criticism” where residents stated:

The holding of the executive sessions (which are closed to the public) is inexcusable, and that the public deserves “an explanation as to what is going on here.”

The holding of the closed meetings gives the appearance that government officials are hiding information from the public.

The issue is that you have to face the public. It doesn’t matter what excuses are used. If council members continue to meet behind closed doors, public confidence will erode further.

In addition, remarks of a community member, which were recorded during a regular meeting of the Council of the County of Kauai on April 15, 2004, express a similar attitude:

Now, because here you have a public works department that have no head, that have no qualified deputy head, that runs a budget of \$35 million a year, including a building division that is always falling behind in doing permits, but it basically engaged in building a useless bypass, you have a purchasing department that doesn’t know how to look after the interests of the county, you handing out contracts, you have a legal department which at the slightest provocation will hire outside counsel.

Though it was constantly reported to the press, and repeated to the public at Council meetings, that closed-door sessions relating to the gymnasium project were necessary because of possible litigation, it was the “appearance” of in-action and secrecy on the part of the County that was unsettling to the Community.

In response to the issue of Community Awareness, the following is noted:

Relating to the Department of Public Works and according to the “Job Description” as defined in the County Charter, one of the additional responsibilities of the County Engineer includes performing other duties prescribed by the Mayor including participation in informational meetings and presentations to the community regarding annual budgets and capital improvement projects. In our discussion with the current County Engineer, he stated that one of his immediate efforts as County Engineer has been addressing community complaints and issues, most of which resulted from the 8-year gymnasium project.

Relating to the Building Division and according to the Position Description, one of the responsibilities of the Building Superintendent (Chief of the Building Division) includes representing the department (Division) before governmental and civic organizations to explain the purposes, objectives and work programs of the Division as well as maintaining effective public relations.

Observation and Recommendations: II. Division Procedures and Operations

Internal Communications

Relating to internal communications, the majority of personnel from the Building Division and the Department of Public Works involved in our discussions indicated that communications at the overall level of the professional work force, though informal and non-structured, were adequate as far as day-to-day operations and problems or issues encountered in the field. Conversations are held in the morning while preparing for the field, or at the close of the workday when personnel return to their perspective offices.

At personnel levels below the Division head and Section Supervisors, the personnel indicated that periodic scheduled meetings would be beneficial relating to the Building Division, and that weekly meetings within the Sections themselves (Code Enforcement and Building Maintenance) could be beneficial and resourceful if overall Department and Division issues were discussed. Department issues would relate to items discussed by the County Engineer at meetings held for the Division leaders, whereas Division issues would relate to items discussed by the Building Superintendent resulting from meetings with his Section coordinators, officers, and supervisors.

In general, there was an expressed need by personnel within the Building Division to have, at the least, periodic meetings to discuss overall County activities, Department activities including any issues or problems involving the other Divisions, and Building Division issues and/or problems.

In response to the issue of Internal Communications, the following is noted:

Relating to the Department of Public Works and according to the “Job Description” as defined in the County Charter, one of the additional responsibilities of the County Engineer includes the administration of the total work force of the Department including all matters relating to personnel and employee management. Again, in our discussion with the current County Engineer, he stated that in addition to community relations, his efforts as County Engineer are being directed at towards his various Divisions relating to in-house training programs, the overall philosophy of team members, and re-establishing the standards and operating procedures for his personnel. Specifically for the Building Division his plans include issues relating to manpower and equipment needs, communications and meetings, tighter enforcement of contract documents, and the leveraging of responsibilities. Relating to the Building Division and according to the “Position Description”, one of the responsibilities of the Building Superintendent (Chief, Building Division) includes consulting and advising personnel on difficult problems (issues).

Based on our discussions with personnel within the Building Division, communication is an issue that needs to be addressed.

The impact of not appropriately addressing communication for an issue such as the completion of the construction of a public facility, and upon completion the constant delay in the use of the facility due to defaults with the building construction, and the eventual additional cost to bring the building to an acceptable standard for use and occupancy, is one that not only effects the community and their view of

Observation and Recommendations: II. Division Procedures and Operations

the operations of the responsible-or irresponsible-Department and Divisions, but over time has an impact on the overall perceptions of the Administration and its ability to work with the community. The “what are you hiding” issue is one that must be addressed in a timely and accurate manner in order to lessen the impact of adversity within the community as well as to gain support for future solutions, and resolutions that might be needed at some future time. In addition, such controversy has a definite effect on the morale of personnel within the Department and affected Divisions and needs to be addressed as well.

In reviewing documents and information provided by the County, one of the major issues on the part of the community was the lack of information relating to the gymnasium project, specifically concerning what was being done to rectify the problem, what would be the cost, and when the facility could be safe for use. The review also noted the hesitancy on the part of various personnel within the Department and the Division to address these issues with the public. Though an issue of this nature must be addressed in a manner so as not to jeopardize a legal position in the case of litigation, there is a manner in which such issues can be discussed tactfully and carefully. This is accomplished through providing the public with the facts of what has taken place rather than the community being informed by the media with issues rather than facts and misleading information.

Recommendations – Community Awareness

In keeping with best practices relating to addressing communication issues in the community, and in conjunction with the assistance of the proper personnel within the Administration, consideration should be given to the County Engineer and in certain cases the Building Superintendent, establishing a process of both visual and personal contact with the community by:

- attending various civic and private business functions as a representative of the County during which he would avail himself for interviews or discussions if the opportunity arises;
- participating in various civic and private business functions as a guest speaker representing the County and discussing the Department, annual budget and various capital improvement projects;
- being a guest speaker on local talk radio programs or local television shows to discuss issues relating to the Department and answering questions posed by the public;
- attending periodic meetings of the County Council to discuss issues relating to the Department, annual budget, and various capital improvement projects and answering questions posed by both the Council and the public;
- making himself available for attending both open or closed sessions of the County Council if and when needed; and
- offering to be a guest speaker to upcoming senior class candidates and to graduating senior class persons at the University discussing the job opportunities available through the County, the requirements necessary for such employment, the benefits associated with a civil service vocation, and the rewards of working for and with the community.

Observation and Recommendations: II. Division Procedures and Operations

- creating a County sponsored web site listing various informational facts or news relating to projects in the community, upcoming major scheduled projects, issues, developments, County Council meeting results, etc.

Recommendations – Internal Communications

In keeping with best practices, the following are recommendations relating to internal communications:

- the leadership of the Sections within the Building Division should consider conducting weekly meetings for the purpose of discussing scheduling, equipment, manpower and health and safety in the workplace, OSHA standards for field operations, community awareness of projects being performed in the field in addition to various issues discussed resulting from their attendance in Division meetings;
- the head of the Division should consider conducting meetings at least once every two weeks to discuss issues brought to attention, and resulting from, the Section meetings in addition to discussing certain elements of meetings with the County Engineer that could affect or include the Building Division or its Sections;
- the County Engineer should consider conducting a meeting at least once a month with all of the various Division leaders to discuss current issues and problems within each of the Divisions, scheduling, equipment, manpower and the sharing of resources, in addition to discussing certain elements of meetings with the County Council that could affect or include the Building Division or its Sections;
- setting up a network of internal communications through the use of computer generated e-mails, electronic memorandums, and producing an internal periodic newsletter for operations' Divisions and Sections whereby the Department, Divisions, Sections and work force can exchange ideas relative to projects, staffing, scheduling, new technology, training, codes and regulations, community issues, Administration and County Council news, etc.;
- the Building Division setting up an internal work-order system, to be shared by all operating Divisions, relating to both public facilities and other County projects that would contain information relative to scheduling, equipment status, completion of activities/inspections and field assignments including the dates of completion, and if not completed, the status of such including a revised date of completion plus the number of work orders completed to date for a specified period, a comment section that is project specific and other information relative to sharing information beneficial to the field activities of the Department Divisions; and
- to further the idea of community awareness and to support the needs of the Division personnel, establishing the County building codes and regulations on a website accessible to Division personnel as well as the public sector.

Observation and Recommendations: II. Division Procedures and Operations

3.2 Staffing

In addition to having an impact on the day-to-day operations that fall under the responsibility of the various Divisions and Sections within the Department, it is evidenced by the gymnasium project that the lack of staffing can impact public building construction projects by requiring a key person with Division responsibilities to manage a project that would normally require daily involvement.

As a result of the need to allocate portions of management responsibility to projects or roles that by themselves require a major involvement such as building construction and the management of the Building Division, at least one, if not both assignments could be impacted by the mere in-availability of time to perform such tasks appropriately. Relating to the construction project, this would place more of a burden on the contractor to complete the work on schedule even though certain necessary inspections or approvals might not have been performed or granted. Though neither party should be held at fault for such an issue, it is one that needs to be addressed by the County relating to future building construction and the need for proper staffing.

Consideration needs to be given by both the Department and the Administration in meeting the requests of the Building Division-Code Enforcement Section in providing the funds and resources necessary for bringing the staffing to an acceptable and highly productive level.

Discussions with personnel relating to staffing addressed two issues where they believed immediate attention might be necessary. The first included the gap in years-of-service and experience between the levels of upper management and group leaders and the newer personnel. The second included the overall lack of personnel, specifically within the Code Enforcement Section, to adequately support the County activities. If the Division is to run efficiently and effectively, all of the personnel agree that both issues need to be addressed by the County in hopes of maintaining a sufficient work force to meet both the needs of personnel and the ability to handle a demanding workload.

Personnel needs would include the Division being able to further the work experience of newer personnel through on-the-job mentoring by experienced leaders or managers. Support for Division activities would include providing a work force able to meet the growing and future needs of the community relating to inspections, permit issuance, and plan review.

According to the Code Enforcement Officer, 1,400 building permits were issued in 2004 with 2005 already exceeding that number. The expectation is that 2006 processed permits will be in excess of 2005.

Regarding the gap of years-in-service and experience between key supervisors, managers, and group leaders to the newer personnel within the Building Division and Department, the following is noted:

- Position – Chief of Buildings/Building Superintendent – Time with County/in current position – 13-years/13-years

Observation and Recommendations: II. Division Procedures and Operations

- Position – Supervisor Building Inspector – Time with County/in current position – 24-years/22-years
- Position – Code Enforcement Coordinator – Time with County/in current position – 31-years/18-years
- Position – Senior Building Inspector – Time with County/in current position – 28-years/20-years
- Position – Building Inspector – Time with County/in current position – 15-years/5-years
- Position – Supervisor Plans Examiner – Time with County/in current position – 32-years/10-years
- Position – Plans Examiner – Time with County/in current position – 8-years/8-years
- Position – Facilities Manager – Time with County/in current position – 23-years/10-years
- Position – Repair & Maintenance Supervisor – Time with County/in current position – 33-years/15-years
- Position – Business Management Officer – Time with County/in current position – 35-years/12-years
- Position – Purchasing & Assistant Contracts Administrator (Finance Department) – Time with County/in current position – 20-years/15-years

In reviewing the above, two points become evident in relationship to key personnel employed by the County and the years-of-service in their current positions. First, the experience level of the leadership group for the Building Division, as well as several of the positions within the Department of Public Works and Finance Department (Purchasing) directly supporting Division operations, is beyond reproach.

The knowledge and experience exemplified by a combined base of experience of almost 250-years with the County, and almost 150-years of combined experience in supervisory and leadership positions, demonstrates the expertise and capabilities of the Department and the Division. In addition, it conveys a vast historical knowledge of the Island where they live and an understanding of the community they serve.

However, though not directly assessed through our discussions, we understand that the years in service and the experience of the work force below these key supervisors, managers, and leaders is significantly less averaging approximately 1 to 10 years.

In discussions with various supervisors and experienced professionals within the Division and the Department, one central theme was constant – the need for additional, qualified staff at entry-level positions. Though the numbers varied, the general consensus was the immediate need for at least one plans examiner and at least two building inspectors.

Further, it was noted that the recruitment of personnel with combined construction experience and knowledge and the ability to read and understand building blue prints would be a positive addition to the work force since such talents are separately required in the above areas of need.

Observation and Recommendations: II. Division Procedures and Operations

Currently for commercial projects, three different examiners are required to review plans, one for each of the primary areas of building, electrical and plumbing. The employment of persons having the combined qualifications indicated above could be a source of easing the understaffing issue by having one or several persons responsible for reviewing and examining all three primary areas. In addition, such personnel would also have the ability to, and responsibility of, inspecting the above primary areas in the field for compliance with the codes and regulations.

According to Code Enforcement, previous periodic involvement of inspectors in the plan review and examination process for certain projects has decreased the overall review time from 21 days to 6 days.

Recommendation:

In consideration of the above, best practices would strongly suggest addressing the immediate issue of staffing needs. This would include:

- the targeted recruitment, mentoring and formal training of new-hire personnel that have the ability to learn and advance over time to supervisory and management positions within the Department's Division Sections;
- an overall promotion of the opportunities available for both skilled workers and young persons seeking a sound and stable vocation in construction, maintenance, and administration; and
- a public relations effort directed at a community awareness of the inner-workings of the Department of Public Works.

To accomplish this, consideration should be given to the following:

- an in-house recruitment plan and process directed at the University of Hawaii, the local high schools, and the existing work force through presentations at the schools, meetings with Civic and business organizations, and interviews and discussions with the local media, with the goal being an awareness of the vast and different activities of the County in addition to creating of a data base of prospective candidates for employment to fill available positions as the need arises;
- a marketing plan to promote an awareness of the application of one's learned skills to the work activities of the County while identifying the opportunities and benefits available through a position in the County's Department of Public Works and the various Divisions within the Department including the Building Division; and
- promoting an idea of a direct involvement in the planning and future of the community in which they live and work.

Observation and Recommendations: II. Division Procedures and Operations

3.3 Equipment Procurement/Equipment

Equipment Procurement

Though not readily perceived as an issue of risk management to a major building construction project such as with the gymnasium, the lack of proper and required equipment could have an indirect impact on such projects. One of the fundamental requirements of any organization that provides services to a community is the need for proper equipment to facilitate their day-to-day operations, whether such equipment relates to field operations or in-house administrative activities to support the field operations.

As noted during our discussions with personnel within the Building Division, the inability to service projects requiring inspections as scheduled due to the lack of transportation to a given site, can cause delays to a project in addition to creating a situation where a certain building system or component is installed without an such an inspection.

Our discussions with the several Department and the various Building Division supervisors, managers, and leadership professionals noted without exception the need for various types of equipment within the Department of Public Works, and specifically within the Building Division. Based on these discussions, in all cases the priority equipment needs related to vehicles, construction equipment, and communications.

The obvious issue in addressing such needs is the budgetary constraints placed on the Department, and coinciding Divisions, by the County Administration. Such budgetary constraints might result from shortfalls in anticipated and projected revenues from various sources including taxes, permits, inspections, plan reviews and examinations, other County services, and Federal, State and local support, or might result from re-apportioning revenue for necessary community needs or political reasons.

What is important to note in the budget process is, with the exception of the newly appointed County Engineer, the response for the need of equipment during our discussions came from those key personnel that have the role and responsibilities of initiating, reviewing, submitting and approving the operating and capital improvement budgets for the County.

In the budget request process relating to equipment, the current County Engineer is responsible for the legitimacy of budget requests, assuring they reflect the actual needs of the various Divisions within the Department of Public Works. The process includes the preparation of budgets by the various Section leaders or Division supervisors, initial reviews by procurement and the financial personnel within the Administration, and final submittal, review and approval by the County Engineer.

At this point, the budgets are submitted to the Director of Finance who, in conjunction with various key personnel within the Administration, grant full or partial approval for the entire budget, or reject certain portions of the budget based on priorities or current needs who then makes a final recommendation to the Mayor. At this level of the process, it is the County Engineer's role and responsibility to represent the various Divisions in securing the needed funds for the additional equipment and manpower.

Observation and Recommendations: II. Division Procedures and Operations

Relating to the other key personnel in the process, one of the additional responsibilities of the Building Superintendent/Chief of Buildings is directing the preparation of budget estimates and program expenditure plans for the Building Division. A responsibility of The Code Enforcement Coordinator includes determining the adequacy of manpower and equipment needs and submitting budget estimates for such.

Finally, the Fiscal Management Officer for the Department of Public Works, and under the general direction of the County Engineer, directs and coordinates all Divisional activities of the Department relative to the overall budget process in addition to directing and summarizing the compilation of the departmental annual operating and capital improvements budget documents, statistical procedures and other means for budget justification, and advising operating management in developing budget estimates.

What is noteworthy during our discussions with several of the key personnel mentioned above are statements of past experiences where the operating Sections of the Building Division had submitted budgets reflective of their actual needs for transportation vehicles, inspection and support vehicles, and off-road equipment required for maintaining facilities, which were approved at both the County Engineer and the Administration levels.

However, the eventual procurement of the approved vehicles and equipment ended up in a pooling situation and were allocated among all the Department's operating Divisions based on the priority of immediate needs – leaving the Building Division short-handed in meeting their needs.

Based on those experiences, and in attempts to secure badly needed equipment through the budget process, it was stated that it became necessary to over represent such needs in hopes of obtaining at least a minimum of equipment required for field operations. This is not a recommended practice, but does occur when desperate attempts are needed to equip Division personnel with equipment required to perform their work.

Equipment

In our discussions with various Section leaders within the Building Division, the following was noted relating to equipment needs:

Code Enforcement Section - Inspection Group

In our discussions with the Code Enforcement Coordinator and the Supervisor Building Inspector for the Building Division, it was noted that the Section is in need of 4-wheel vehicles and inspection vehicles for adequately reaching and completing assignments. Currently, inspection personnel are driven to inspection locations and then picked-up after the inspection has been completed. They are then dropped at the next location.

On this basis, the following reflects the immediate needs of the Code Enforcement Section of the Building Division:

Observation and Recommendations: II. Division Procedures and Operations

Crew Vehicles – to expedite the inspection process and increase productivity:

- 1 Each 4-Wheel Drive Vehicle – for inspection of projects where normal vehicles are unable to traverse poor or non-roadway areas. Currently, inspectors for such projects are required to traverse such locations on foot. The Section does not have a vehicle equipped to address these types of projects.
- 2 Each Inspection Vehicles – used to support the existing number of vehicles currently in the Inspection Group's inventory. There are not enough vehicles in the Group to distribute the work crews to their prospective assignments. Time is lost in collectively transporting different crews to and from various assignments. Delays in scheduling occur when the transport vehicle cannot get back to the original drop-off points in a timely manner in order to move the crews to their next assignments.

Repair and Maintenance Section

In our discussions with the Facilities' Manager and the Repair and Maintenance Supervisor for the Building Division, it was noted that the Section is currently adequately staffed. However, it was further noted that the proper amount of vehicles and equipment required to support the Section's crews in accomplishing their assignments is unsatisfactory. Most of the vehicles used within the Section range from 8 to 12-years old. Generally, when a vehicle is finally taken out of service a replacement vehicle is provided on a one-to-one basis only, with the replacement vehicle being approximately 5-years old.

In addition, the Section does not have sufficient full utility vehicles that would allow for various parts, materials and equipment being at an assignment, or transporting such to an assignment, thus expediting productivity in the field and the ability to schedule and handle a greater volume of assignments in a given workday.

It was also noted that the Section did receive 6 new vehicles in the current year to replace those that were either totally or almost non-operational, which is reflective of the condition of the total fleet that was being used by the Section to carry out their assignments.

The balance of the fleet that has not been replaced is continually requiring a high amount of repair time and effort to keep them in service. Three (3) additional vehicles have been requested in the most recent Division budget to bring the Section up to a standard of high efficiency.

Regarding communications, it was noted that there are communication problems encountered once the work crews are in the field, specifically when emergency issues arise at different public facilities that might need immediate attention. Being that certain crews are at assignments without vehicles, and those that do have vehicles have poor communications systems, addressing emergencies and coordinating work crews with the other Divisions to assist in such emergencies is time consuming and a cause of many delays.

Observation and Recommendations: II. Division Procedures and Operations

On this basis, the following reflects the immediate needs of the Repair and Maintenance Section of the Building Division:

Maintenance Vehicles – to support the maintenance assignments and increase productivity:

- 2 Each Maintenance Vehicles – used to support the existing number of vehicles currently in the Maintenance Group’s inventory. Vehicles will be used to support the workload plus allow an increase in the amount work that can be scheduled on a day-to-day basis.
- 1 Each Utility Vehicle – to carry various materials and equipment to certain assignments that require such rather than having to go back to yards to secure the items – will save on time and assist in getting assignments completed as scheduled.

Off road Equipment – to support field maintenance work and decrease delays due to either having to rent equipment or waiting for other Divisions to supply such equipment based on their work schedules and equipment availability:

- 1 Each Trenching Machine – trenching for repair and maintenance of public building utility systems including sewer, storm, electrical and water lines.
- 1 Each Combination Backhoe/Loader (Rubber Tire) – excavation and backfilling for repair and maintenance or replacement of public building utility systems including sewer, storm, electrical and water lines.

Recommendations – Equipment Procurement/Equipment

Relating to the budget process for firms and businesses that have multiple operating divisions within a department, best practices recommends operational cohesiveness and communications between the various groups within a division, between the divisions themselves, and finally with the department. Specifically for the Building Division and the Department, and in alignment with best practices, the following recommendations relating to the budget process are being presented for consideration:

- An initial meeting(s) conducted by the Section leaders with the field supervisors to discuss the operating needs relating to vehicles and equipment. During these meetings the condition of existing equipment is assessed, current workloads are identified, and future equipment needs are determined based on historical trends and resulting anticipated workloads.
- Based on the information from the initial meeting(s), each of the Section leaders will prepare a sound budget that is submitted to the Division head at a budget-planning meeting during which the budget is reviewed, discussed, adjusted and approved.
- For these first two phases of the budget process and during the planning and review meeting(s), the Section leaders as well as the Division head should work closely with the individual

Observation and Recommendations: II. Division Procedures and Operations

responsible for reviewing internal department budgets in promoting a sound and reasonable budget.

- Upon approval of the budgets by all of the Division heads, a review and approval meeting should be conducted by the Department with all of the Division heads in attendance to openly discuss the various needs as presented in each of the Division operating budgets. The Fiscal Management Officer should be in attendance to discuss the budgets and to provide information relative to any insight available concerning the Administration's anticipation of the current year's budget. The Fiscal Management Officer directs and coordinates all Divisional activities of the Department relative to the overall budget process in addition to directing and summarizing the compilation of the departmental annual operating and capital improvements budget documents, and advising operations management in developing budget estimates. His input would be important prior to the County Engineer submitting the budget to the Administration for final approval.
- Upon approval of the budgets by the County, and in consideration of any adjustments recommended and made by the Administration, the County Engineer will meet with the Division leaders to discuss the approved budgets including adjustments as well as the procurement of the approved items requested by each of the Divisions.
- The County Engineer will hold firm on allocating the approved equipment to the specific Division that made the request.

3.4 Training

Though not directly evidenced by the sample gymnasium project as a result of our review of documents and information, as with any type of project the need for proper training in the principles of construction and the knowledge of building codes and regulations is paramount.

The lack of such training within the Department over time could have an impact on future major public building construction projects by placing the County at risk for less than acceptable inspections by new personnel lacking in both experience and fundamentals. It is noted that formal training in both of the aforementioned disciplines is not established as a training requirement within the Department.

Thus, relating to training, and as noted in our discussions with the current County Engineer, one of his goals as the new County Engineer and related specifically to the Building Division, is establishing in-house training programs for both of the Division Sections. Further, during our discussions and as a result of the gymnasium water leakage problem, he indicated that he is considering a shift in the responsibilities of his personnel, that being "a self-implementation of responsibilities" specifically dealing with contractors.

In addition, he is considering a tighter enforcement of the contract documents including the delegation of responsibility and authority by section heads and supervisors to those professionals working under them. Also, it was noted during discussions with the Deputy County Engineer that there were concerns relating

Observation and Recommendations: II. Division Procedures and Operations

to the Code Enforcement personnel's understanding of the building codes and regulations and with some, the lack in both a knowledge and understanding of the Unified Building Codes (UBC) and regulations.

Further it was noted during the discussion that some problems might exist with these personnel relating to their professional capabilities, specifically relating to construction inspections. Also noted was resistance to certain attempted programs intended to introduce and include new technology and communications, plus a re-examination and adherence to existing policies and procedures, and various training programs.

In conjunction with the above, further discussions with other management and leadership personnel indicated that a college degree is not a pre-requisite to employment within the Division, but rather a construction background is required for such employment as well as a basic ability to read construction blue prints and knowledge of the building codes. For an inspection position, it was noted that prospective new-hires are required to take and pass a building code test, as well as having previous supervisory experience.

In addition and once hired, to supplement the basic abilities that these professionals bring to the Section, code enforcement, plan review, and inspection procedures are learned through on-the-job training. Further, relating to the overall policies and procedures of the Section as well as individual positions within the Section, it is generally left up to the new professional to become familiar with their job position description as well as understanding the Section's policies and procedures.

Finally, it is noted through our discussions that as a compliment to best practices, the Repair and Maintenance Section is current in policies, procedures and training of personnel within the Section and should be cited as a fine example to setting a standard within the Building Division and the Department itself. Both the Facilities Maintenance Coordinator and the Repair and Maintenance Supervisor have taken the direct responsibility for assuring that the personnel within the Section are well versed in policies and procedures that outline the safe use of equipment by work crews performing daily assignments, on OSHA requirements, and on Safety and Health practices.

As a result of his many years with the County in the area of maintenance, the Section Supervisor has become the central person for training their personnel, implementing a Section training manual and attending training seminars. The seminars relate to new technology in the area of maintenance as well as dealing with specific issues such as hazardous materials and asbestos.

Depending on the curriculum of the seminar, the Repair and Maintenance Supervisor will receive a certification relative to the specific training. He then conducts in-house and/or field training sessions relative to the seminar.

Observation and Recommendations: II. Division Procedures and Operations

Recommendation:

In consideration of the above, best practices would suggest addressing training as a top priority within the Building Division that would include periodic internal training seminars for all Division personnel relating to OSHA, Safety and Health, general field operations, and in-house/work-place safety applications.

In addition, specific training geared towards personnel within Code Enforcement should be considered relative to:

- understanding compliance to major construction project safety programs where general contractors are responsible for such a project;
- policy and procedures and the basics for performing an accurate field inspection;
- proper means of code enforcement including the use of applicable forms for addressing issues at a project site;
- the means of recording and documenting issues and/or problems relating to public facilities and commercial and/or residential projects being constructed; and
- procedures for reporting and notifying supervisory personnel relating to issues and/or problems encountered during project inspections due to code violations, testing, non-conformance with contract documents including plans and specifications, etc.

4.0 Building Division Enhancements

Not related directly to the sample gymnasium project issues, discussions with key personnel within the Department and the Building Division provided positive input that could have an impact on future major public building construction projects. Overall, the recommendations and suggested improvements deal specifically with managing projects, increasing staff and equipment levels within a working and designed plan, decreasing the County risk associated with such projects through outsourcing, combining resources and transferring responsibilities for increasing productivity, and bringing the County into the modern age of communications through computer inter-office software and community accessible websites for posting County information.

The most noticeable impact of the recommendations made by the Department and Division personnel would be increasing the public awareness of the activities, advancements and accomplishments of the Department and the Administration. As truly evidenced by the gymnasium project, public awareness was one of the major issues drawing attention and trying to be addressed while resolving the construction problems.

Going forward in hopes of not repeating the events and issues as experienced with the gymnasium project, both the Department and the Administration should give serious consideration, in the form of funds and training, to the points presented, the objective being to better provide the services commissioned by the County in its role of serving the community.

Observation and Recommendations: II. Division Procedures and Operations

Recommendation:

Our discussions with several Department and Building Division leadership personnel suggested certain improvements that are noteworthy of mention and should be viewed as additional recommendations as improvements to the current operations of the Building Division. Overall, the improvements do align with best practices.

Though not related to a specific issue, they are recommendations that over time could assist both the Department and the Building Division, and possibly the other operating Divisions within the Department, in operating more efficiently, increasing productivity, and addressing risk management in a more proactive manner.

In alignment with normal best practices for municipalities, the following are the recommendations to be considered as improvements to operations:

- Implement either a new position, or new Group, within the Code Enforcement Section that would specifically address the contract monitoring and inspection of both new County major construction projects as well as commercial construction projects. This recommendation would replace the current practice of inspection procedures that require an inspection of certain systems or components of the project as requested by the contractor.

Established as a scheduled weekly activity of ongoing projects within the County, the contract monitoring would involve a review of the installation of the building systems and components in accordance with the plans, specifications and contract documents, while the inspection would encompass the installation for compliance with building codes and regulations.

Not meant to replace a construction management position, the intent would be to more closely monitor the overall construction process to mitigate risk and diminish possible delays due to faulty construction, misinterpretation of construction drawing and/or building specifications, failure to apply addenda, and installation of alternate systems and components based on a request for change but prior to the approval of the change request.

Though not replacing a construction manager position, the experience of the professional(s) filling this position would be based on previous construction project management expertise, the ability to read and understand construction building plans and interpret building specifications, familiarization with construction scheduling, complete knowledge and understanding of the building codes and regulations, and an understanding of building construction including those systems and components that comprise the building structure.

- According to information provided by the County, funding levels for the Building Division over the past three years (through 7/1/05) has not increased significantly. Over that period the budget increase for personnel as well as non-personnel items was less than 10% (not including the Revolving Fund). This being the case, and to assist in addressing various needs for additional

Observation and Recommendations: II. Division Procedures and Operations

staffing and equipment as discussed throughout the “Divisional Operations” section of this report, the Division should consider the use of the funds available through the Revolving Fund.

Adopted on March 31, 1999, Ordinance No. 733 established the Plan Review, Permit Processing and Inspection Revolving Fund. The fund may be used to hire persons to assist in plan checking, permit processing and inspections as well as for the cost of materials, supplies and equipment that facilitate plan review, permit processing and inspections. In determining the operating budget for the Building Division, the Building Superintendent and the Section leadership should apply the use of such funding, which is independent of the Division operating budget, to specifically address the need for additional staffing in the Code Enforcement Section.

The use of the Revolving fund for meeting the staffing shortages might allow the Division the flexibility to better address their equipment needs more in line with the overall Department's expectations for operating budgets. For the Building Division, this result could put forth a higher probability of being allocated the cost of such new equipment including vehicles and off-road equipment.

- Allow the Building Division to contract the construction of major County projects to either outside contractors or to other Divisions within the Department capable of performing the construction, which would include the architectural design and engineering, construction, and construction management. Generally such an option is not normally exercised. This sub-contracting of major County projects would not alleviate the Building Division's responsibility of normal building inspections for such projects.
- As a result of the Building Division plans' examiner(s) review and familiarization of and with the construction drawings for new County major building projects, the current job Position and Description for the Plans' Examiner should include the responsibility of handling all zoning issues, which is currently undertaken by the building inspectors. Likewise, under the exchange of such responsibilities, the building inspectors would be responsible for the issuance of building permits currently under the role of the plans' examiner.
- Since computer training classes are budgeted by the County, the Building Division, through the support of the County Engineer, should initiate a plan for the required training of all Building Division operations' personnel relating to basic computer principles, applications and use so as to allow the Division to keep in step with all industries in the market place, most of which are using current computer technology and applications for operations and reporting purposes.

Performance Audit
County of Kauai
Building Division, Department of Public Works

Auditee Response

A draft was submitted to the Office of the County Clerk in December 2005. However, it is our understanding that the Department of Public Works was given a draft only on November 17, 2009. In the department's response letter dated February 10, 2010 (Appendix III), the Department of Public Works and the Finance Department dismissed the need to implement most of the recommendations in this report. Due to the length of time from the initial release of the draft to the date of the response, we have only made minor changes and clarifications to our report, none of which affected our findings and conclusions. Furthermore, no additional work has been performed since the date of our report.

Performance Audit
County of Kauai
Building Division, Department of Public Works

Appendix I Recommendation Summary

County of Kauai
Performance Audit
Building Division, Department of Public Works

Recommendation Summary

Common and Best Practices	Company Practices	Overall Assessment	Comments/ Recommendations
Construction and Contract Procedures and Operations			
Pre-bid and Bid Documents			
Specifications -maintain and upgrade current and applicable “Standard Specifications for Public Works Construction”.	Existing Building Division 1986 “Standard Specifications for Public Works Construction” are outdated.	Needs Updating	Under guidance of Building Superintendent, document needs updating to current practices, procedures, materials, methods, and codes.
CSI codes -use of the newly published CSI “Master Format-2004 Edition Number &Titles” dated 6/8/04.	Currently using old CSI format that is being replaced by the new document dated 6/8/04.	Needs Updating	Implement the new CSI document to serve as the specifications-writing standard for the County-share document with contractors.
Cost reduction -changes to the building structure related to budget reduction are value engineered to mitigate risks and to determine effect on structure, impact on costs, and choice of alternate solution or remedy.	Addendum issued to bidders for deletion of structural building component with no evidence of review for effect on structure or selection of alternatives.	Needs Improvement	Value engineering-investigation and determination of cause and effect of deletion of structural building component and estimate of cost savings plus alternative solutions to mitigate risks.
General provisions -review and maintain current “General Provisions for Construction Contracts”.	Currently using “General Provisions for Construction Contracts” dated 1973.	Needs Improvement	Adoption and implementation of proposed and updated “General Provisions for Construction Contracts” dated 10/05/01.
Quality of bidder -for selection of bidders resulting in contract procurement, a standard questionnaire is completed and submitted as basis for bid qualification, listing similar projects.	Standard Questionnaire is optional and referenced in the General Provisions – but not mandatory.	Needs Improvement	In the process of adopting and implementing the proposed “General Provisions for Construction Contracts” dated 10/05/01, enforcing the request for submittal of the Standard Questionnaire as part of bid process.
Bid review -for major construction projects identified as a capital improvement, the securing of at least five bids with determination of the successful bid based on dismissing the lowest and highest bids provided a substantial and significant differentiation in bids, then deciding on award.	Award of contract made to lowest responsible and responsive bidder having ability to perform fully the contract requirements assuring good faith performance.	Needs Improvement	In the process of adopting and implementing the proposed “General Provisions for Construction Contracts” dated 10/05/01, soliciting and approving a minimum of at least five bidders for major projects then applying highest and lowest elimination process.

County of Kauai
Performance Audit
Building Division, Department of Public Works

Recommendation Summary

Common and Best Practices	Company Practices	Overall Assessment	Comments/ Recommendations
Project Documents			
Contract -stipulated (lump) sum (fixed price) is typically used where detailed and accurate construction plans and specifications are available during the bidding process allowing for accurate estimation of the project cost that will in turn assist in mitigating County’s financial risk.	For major County building projects, County uses Stipulated (Lump) Sum (Fixed Price) contract based on detailed and accurate construction plans and specifications allowing for accurate estimation of the project cost to assist in mitigating County’s financial risk	Excellent	None
Fixed fee -Use of AIA Form A101 “Standard Form of Agreement Between Owner and Contractor” with Stipulated (Lump) Sum (Fixed Price) and designed for integration with owner General Conditions, Supplementary Conditions, General Provisions, Drawings and Specifications and Modifications.	Uses in-house contract document that does incorporate many of the best practices recommended through use of the AIA Form G101 including General Conditions, General Provisions, Drawings and Specifications.	Needs Improvement	Adopt and implement the use of the AIA Form A101 “Standard Form of Agreement Between Owner and Contractor” with Stipulated (Lump) Sum (Fixed Price) and designed for integration with existing County documents currently in use including the Construction Procedure Manual.
Change in scope -upon award of original contract, further expansion of the scope of the work is processed through the use of a standard change order that automatically incorporates the general provisions and contract provisions of original contract.	For the addition of scope of work to original construction, the use of various forms of agreement with the contractor including the use of amendments and “Memorandum of Understanding”.	Needs Improvement	Upon award of original contract, further expansion of the scope of the work is processed through the use of a standard change order that automatically incorporates the general provisions and contract provisions of original contract.
Contract time -contract section titled “Date of Commencement and Substantial Completion” listing dates of commencement and substantial completion and notification of the contract time based on contractor’s understanding of scope of work and ability to deliver product as initially anticipated and bid.	Noted that in original contract for construction of gymnasium project, no specific time line for completion of project defined in agreement other than <i>The Contractor further understands and agrees that time is of the essence of this contract.....</i>	Needs Improvement	Document, or implementation of language to County’s Contract as found in AIA Form 101, that is all inclusive of commitments on part of both parties including section titled “Date of Commencement and Substantial Completion” listing dates of commencement and substantial completion as well as notification of contract time <i>based on the contractor’s understanding of scope of work and ability to deliver product as initially anticipated and bid.</i>

County of Kauai
Performance Audit
Building Division, Department of Public Works

Recommendation Summary

Common and Best Practices	Company Practices	Overall Assessment	Comments/ Recommendations
<p>Change Orders-all changes to the contract are considered and implemented through the formal change order process.</p> <p>Performance Bond-quality of workmanship issue or problems relating to acceptable performance of contract resulting in adverse effects to building use or structure itself, upon exhausting all means and methods of resolution including suspension of work and work stoppage, written notices and correction of work, then upon receipt of written notice from CM that contract is terminated, contractor immediately discontinues all operations with CM to exercise right to evoke Surety Performance Bond, take prosecution of work from contractor, and complete project by whatever means deemed appropriate by the CM</p> <p>Contingency-based on the complexity of project, or anticipation of circumstances impacting agreed upon contract fixed fee, inclusion of owner contingency as owner cost outside of contract agreement with option to exercise by owner, to address either increase or decrease in contract amount for design, bidding and price escalation including materials, equipment, component systems and types of construction, and for adjustments to fixed limit of the construction cost.</p>	<p>Contractor proceeds to make corrections and scope changes by submitting letters and memorandums of change and cost for changes.</p> <p>Site meetings and discussions held with contractor and County personnel trying to decide best method to perform to contract and initiate solution to issues or faulty construction of facility-incorporation of many water tests and visual inspections during rain storms, then followed-up through meetings and additional discussions, normally without resolution.</p> <p>Currently, and based on previous experience of adjustments to operating budgets inclusive of capital improvements, no consideration in bidding or contract documents to allow use of contingency for upward or downward adjustments to contract fixed fee, while staying within the approved County operating budget.</p>	<p>Needs Improvement</p> <p>Needs Improvement</p> <p>Needs Improvement</p>	<p>Under “Request for Change” (RFC), contractor’s submittal would include descriptive summary of new scope of work, listing of project drawings and specifications used in determining scope of work, inclusions and exclusions of work to be performed, estimate of cost, start date, and project time to complete new work culminating in fixed completion date.</p> <p>Upon exhausting all other means and methods of an issue including the suspension of work and work stoppage, written notices and correction of work, upon a receipt of written notice from Construction Manager that the contract is terminated, the contractor shall immediately discontinue all operations. If terminated, recommended that CM exercise County’s right to evoke Surety Performance Bond, take the prosecution of work from contractor, and complete project by whatever means are deemed appropriate by the Construction Manager and the County.</p> <p>Selection of the project(s) for contingency based on nature and complexity of project(s) where need for budget adjustment, determined by Director of Finance, would have adverse effect on utility of building if such contingency did not exist. Common industry average for such contingency in range of 5% to 10% of total project budget. Contingency incorporated as part of total public building construction budget submitted annually for approval by Department of Public Works.</p>

County of Kauai
Performance Audit
Building Division, Department of Public Works

Recommendation Summary

Common and Best Practices	Company Practices	Overall Assessment		Comments/ Recommendations
Project Controls				
Construction procedure manual -defining roles and responsibilities, communication channels, reporting hierarchy and guidelines and conditions for accountability.	In-house document currently used by the County for project set-up, administrative and reporting functions, inspections, quality assurance, etc.	Excellent	None	
Project communications -including accurate minutes of meetings plus project status, daily report procedures, inspection reports, contractor payment procedures, and establishes main project contact, procedures for information and addresses issues and problems.	Currently uses the Construction Procedure Manual as a guideline for project communications.	Excellent		As part of Construction Procedure Manual, under “Section II – Communications”, recommended the County establish accountability procedures for not adhering to Project Controls as outlined in Manual.
Project schedule -upon notice to proceed, contractor furnished preliminary-then final-approved performance schedule and updated within specified period of time incorporating accepted changes.	Currently uses the Construction Procedure Manual as a guideline for project scheduling.	Excellent		Construction Manager to ensure sufficient project time leeway built into contractor’s schedule to allow for possible unforeseen activity delays.
Progress reports -construction manager’s roles and responsibilities defined relating to site and building construction observations, documenting findings related to these activities, creating progress reports for activities and interval and frequency of such reports well defined.	Construction Procedure Manual’s presentation of Construction Manager’s roles and responsibilities is adequate relating to site and building construction observations, for documenting any findings related to these activities and creating progress reports for such, in addition to interval and frequency of progress reports well within normal for such activities.	Excellent	None	
Quality -compliance to the specifications and quality assurance aspect of contract documents relating to contractor review process for submittals including forms and check lists, turnaround time, monitoring of site conditions, required testing and acceptable forms for testing.	Based on the County’s current procedures, and dependent on review and approval of “Recommendations - Standard Specifications for Public Works Construction”, specifications compliance and quality assurance aspects of the contract documents are in place and acceptable.	Excellent		Review, adoption and implementation of the proposed “Standard Specifications for Public Works Construction”.

County of Kauai
Performance Audit
Building Division, Department of Public Works

Recommendation Summary

Common and Best Practices	Company Practices	Overall Assessment	Comments/ Recommendations
<p>Change order process-process adheres to communication and reporting hierarchy including issuance of RFP with proposed scope for change, a CM cost estimate for the change and time impact, documenting change order negotiations, retaining support documents, and processing formal change order.</p>	<p>Project control system allows for change order process to adhere to the communication hierarchy where CM issues a Request for Proposal (CM-004) in writing with proposed scope of work and will concurrently coordinate with the architect (if applicable) to prepare cost estimate and time impact independent of contractor if estimated value of change exceeds \$10,000. CM also documents all contract change order negotiations preparing “A Memorandum of Negotiation” (CM-007) to be signed by all attending the negotiations and filed with the change order support documents, and once accepted, County Engineer issues a County letter of acceptance through the CM.</p>	Excellent	<p>Due to understanding of contractor that time is generally of the essence in constructing major building facilities for County, it is recommended that CM perform analysis relating to impact of floats with respect to change on proposed completion date.</p>
<p>Claims process-claims submittal turnaround time is well defined under General Revisions of Contract, claims process clearly defines contractor’s reasons for filing damages, or extension of time, establishes guidelines under which contractor continues to perform during claims process, review, and acceptance/non-acceptance period, provides guidelines for contractor in processing claim including statement of intent of claim, reasons for claim, date of the protest, decision or action, contract provision that supports claim, analysis of progress schedule change if contractor is asserting schedule change, and describes the owner’s involvement in claims filed against contractor that cannot be resolved by mutual agreement as being decided by the Director whose decision will be final.</p>	<p>General Provisions For Construction Contracts-County of Kauai” – Draft IV, dated 10/5/01 specifically addresses the claims process to include current best practices.</p>	Excellent	<p>Review, adoption and implementation of the proposed “General Provisions for Construction Contracts” dated 10/05/01 that incorporates many of the sections and provisions in the currently used County document to reflect experiences encountered through involvement with the gymnasium project, as well as introducing additional sections and provisions that will improve and strengthen the County’s position in addressing issues, such as claims, and mitigating risk for future major building projects.</p>

County of Kauai
Performance Audit
Building Division, Department of Public Works

Recommendation Summary

Common and Best Practices	Company Practices	Overall Assessment	Comments/ Recommendations
Division Procedures and Operations			
Project Construction Management			
Construction management- furnishes the performance of business administration and management services in an expeditious and economical manner consistent with the best interests of the owner and consisting of the Pre-construction Phase and the Construction Phase.	Building Superintendent/Chief of Buildings for the Building Division due to lack of staffing within the Division over previous years has in certain cases undertaken the responsibilities of project/construction manager.	Needs Improvement	The Pre construction and Construction Phases of a project are time consuming and require day-to-day involvement of administrative and management time and resources. The attempt by the County to elect to address the need internally could place a burden on existing management of the Division and potentially create similar issues as experienced with the gymnasium project. Therefore it is important that proper resources be used if the County elects to position itself in this role.
Division Operations			
Community awareness- in keeping with best practices relating to addressing communication issues in the community, establishing a process of both visual and personal contact with the community.	Personnel addressed two areas where they believed the process of communications could be improved considerably – one being community awareness where they agree the issue needs to be addressed by management in hopes of lifting the burden of past experiences with the community-over the past several years the perception of the community towards the inner workings of the Department of Public Works and the administration has not been complimentary.	Needs Improvement	County Engineer attending various civic and private business functions as representative of County availing himself for interviews or discussions if opportunity arises; participating in various civic and private business functions as guest speaker representing the County and discussing the Department, annual budget and various capital improvement projects; guest speaker on local talk radio or local television to discuss issues relating to the Department and answering questions posed by the public; attending periodic meetings of County Council to discuss issues relating to Department, annual budget, and various capital improvement projects and answering questions posed by the Council and the public; making himself available for attending open or closed sessions of County Council; and being guest speaker to upcoming senior class candidates and graduating senior class persons at the University discussing job opportunities available through the County, the requirements necessary for such employment, the benefits associated with a civil service vocation, and the rewards of working for and with the community; creating a County sponsored web site listing various informational facts or news relating to projects in the community, upcoming major scheduled projects, issues, developments, County Council meeting results, etc.

County of Kauai
Performance Audit
Building Division, Department of Public Works

Recommendation Summary

Common and Best Practices	Company Practices	Overall Assessment	Comments/ Recommendations
<p>Internal communications-relating to addressing communication issues internally, conducting weekly meetings for the purpose of discussing scheduling, equipment, manpower and health and safety in the workplace, OSHA standards for field operations, and community awareness of projects being performed; discussing the sharing of resources; setting up electronic internal communications; and to further the idea of community awareness, establishing the codes and regulations on a public accessed website.</p>	<p>Personnel indicated periodic scheduled meetings would be beneficial relating to the Building Division, and that weekly meeting within Code Enforcement and Building Maintenance to be beneficial and resourceful if overall Department and Division issues were discussed. There was an expressed need within Division to have periodic meetings to discuss overall County activates, Department activities including any issues or problems involving the other Divisions, and Building Division issues and/or problems.</p>	<p>Needs Improvement</p>	<p>Leadership of the Division Sections conducting weekly meetings for discussing scheduling, equipment, manpower and health and safety in the workplace, OSHA standards for field operations, community awareness of projects in addition to various issues discussed resulting from their attendance in Division meetings; Head of Division conducting meetings at least once every two weeks to discuss resulting from Section meetings in addition to discussing certain elements of meetings with the County Engineer that could effect or include the Division or its Sections; County Engineer conducting a meeting at least once a month with all Division leaders to discuss current issues and problems within each of the Divisions including scheduling, equipment, manpower and the sharing of resources, in addition to discussing certain elements of meetings with the County Council that could effect or include the Building Division or its Sections; Setting up a network of internal communications through the computer generated e-mails, electronic memorandums, and producing an internal periodic newsletter for operations' Divisions and Sections exchanging ideas relative to projects, staffing, scheduling, new technology, training, codes and regulations, community issues, Administration and County Council news, etc.; Division setting up internal work-order system, shared by all operating Divisions, relating to public facilities and other County projects containing information relative to scheduling, equipment status, completion of activities/inspections and field assignments including dates of completion, status of projects including revised date of completion plus the number of work orders completed to date for a specified period, a comment section that is project specific and other information relative to sharing information beneficial to the field activities of Department Divisions; To further the idea of community awareness and to support the needs of the Division personnel, establishing the County building codes and regulations on a website accessible to Division personnel as well as the public sector.</p>

County of Kauai
Performance Audit
Building Division, Department of Public Works

Recommendation Summary

Common and Best Practices	Company Practices	Overall Assessment	Comments/ Recommendations
Staffing -targeted recruitment, mentoring and formal training of new-hire personnel; overall promotion of opportunities available for skilled workers and young persons seeking vocation in construction, maintenance, and administration; and public relations effort directed at community awareness.	Personnel addressed two issues they believe need immediate-the gap in years-of-service and experience between the levels of upper management and group leaders and newer personnel and being the overall lack of personnel, specifically within Code Enforcement Section to support County activities-both issues need to be addressed by the County.	Needs Improvement	In-house recruitment plan and process directed at the University of Hawaii, local high schools, and existing work force through presentations at schools, meetings with Civic and business organizations, and interviews and discussions with local media, goal being an awareness of the vast and different activities of County in addition to creating data base of prospective candidates for employment to fill available positions; marketing plan to promote awareness of application of one's learned skills to work activities of County while identifying opportunities and benefits available through a position in the County's Department of Public Works and the various Divisions within the Department including Building Division; and promoting idea of direct involvement in planning and future of community.
Equipment procurement/Equipment -initial meeting(s) to discuss the operating needs relating to vehicles and equipment, the condition of existing equipment, current workloads identified, future equipment needs are determined based on historical trends and resulting anticipated workloads; and preparation of a sound budget.	Code Enforcement Section is in need of 4-wheel vehicles and inspection vehicles for adequately reaching and completing assignments. Currently, inspection personnel are driven to inspection locations and then picked-up after the inspection has been completed. They are then dropped at the next location. Facilities Maintenance proper amount of vehicles and equipment required to support the Section's crews in accomplishing their assignments is unsatisfactory. Most of the vehicles used within the Section range from 8 to 12-years old. Generally, when a vehicle is finally taken out of service a replacement vehicle is provided on a one-to-one basis only, with replacement vehicle approx 5-yrs old.	Needs Improvement	Initial meeting(s) conducted by the Section leaders with the field supervisors to discuss operating needs relating to vehicles and equipment including condition of existing equipment, current workloads are identified, and future equipment needs are determined based on historical trends and resulting anticipated workloads. Based on the information from the initial meeting(s), each Section leader prepares sound budget submitted to Division head at budget-planning meeting where budget is reviewed, discussed, adjusted and approved. For first two phases of the budget process and during planning and review meeting(s), Section leaders and Division head works closely with Purchasing & Assistant Contracts Administrator in promoting sound and reasonable budget. Upon approval of budgets, review and approval meeting conducted by the Department with Division heads in attendance to discuss various needs presented in Division operating budgets. The Fiscal Management Officer in attendance to discuss budgets and provide information relative to insight available concerning Administration's anticipation of current year's budget. Fiscal Management Officer directs and coordinates all Divisional activities of Department relative to overall budget process in addition to directing and summarizing compilation of departmental annual operating and capital improvements budget documents, and advising operating management in developing budget estimates. His input important prior to County Engineer submitting the budget to the Administration for final approval. Upon approval of budgets by County, and in consideration of adjustments recommended and made by the Administration, the County Engineer meets with Division leaders to discuss approved budgets including adjustments as well as the procurement of approved items requested by Divisions. The County Engineer will hold firm on allocating approved equipment to specific Divisions that requested such.

County of Kauai
Performance Audit
Building Division, Department of Public Works

Recommendation Summary

Common and Best Practices	Company Practices	Overall Assessment	Comments/ Recommendations
Training -addressing training as a priority that would include periodic internal training seminars relating to OSHA, Safety and Health, general field operations, and in-house/work-place safety applications.	Concerns relating to personnel's understanding of building codes and regulations, lack in both a knowledge and understanding of the Unified Building Codes (UBC) and regulations, plus some problems exist with personnel relating to their professional capabilities relating to construction inspections, plus noted resistance to certain programs intended to introduce and include new technology and communications and a re-examination and adherence to existing policies and procedures.	Needs Improvement	Training to include periodic internal training seminars for all Division personnel relating to OSHA, Safety and Health, general field operations, and in-house/work-place safety applications; specific training geared towards personnel within Code Enforcement relative to understanding compliance to major construction project safety programs where general contractors are responsible for project; policy and procedures and the basics for performing an accurate field inspection; proper means of code enforcement including use of applicable forms for addressing issues at project site; the means of recording and documenting issues and/or problems relating to public facilities and commercial and/or residential projects being constructed; and procedures for reporting and notifying supervisory personnel relating to issues and/or problems encountered during project inspections due to code violations, testing, non-conformance with contract documents including plans and specifications, etc.

County of Kauai
Performance Audit
Building Division, Department of Public Works

Recommendation Summary

Common and Best Practices	Company Practices	Overall Assessment	Comments/ Recommendations
Building Division Enhancements			
<p>Division improvements-noteworthy improvements to current operations that over time could assist in operating more efficiently, increasing productivity, and addressing risk management in a more pro-active manner.</p>	Not addressed	Recommended Improvements	<p>Implement new position, or Group in Code Enforcement to address contract monitoring and inspection of new County construction commercial projects. Recommendation replaces practice of inspection procedure requiring inspection of certain systems or components of project requested by the contractor.</p> <p>Use of Revolving fund for meeting staff shortage might allow Division flexibility to address equipment needs in line with Dept's expectations for operating budgets. For Building Division, this could put forth a higher probability of getting new equip including vehicles and off-road equipment.</p> <p>Allow Division to contract construction of County projects to outside or other Divisions within Dept capable of doing the construction, including the architectural design and engineering, construction, and construction management. Generally option is not exercised. Sub-contracting of major County projects not to eliminate the Division's task of building inspections for such projects.</p> <p>As a result of Division plans' examiner(s) review and familiarization of construction drawings for new County projects, the current job description for Plans' Examiner should include responsibility of zoning issues, currently done by inspectors. Likewise, under exchange of such role, inspectors responsible for issuance of permits under the role of the plans' examiner.</p> <p>Since computer training is budgeted by County, Division should initiate plan for required training of all personnel relating to basic computer principles, applications and use to allow Division to keep in step with all industries in market place who are using current computer technology and applications for operations and reporting purposes.</p>

Performance Audit
County of Kauai
Building Division, Department of Public Works

Appendix II Roles and Authority

County Engineer-Department of Public Works

The current County Engineer is a Civil Engineer graduate from the University of Hawaii and has a MBA from the University of Phoenix. His 28 years construction experience in waste water systems and civil engineering projects, in addition to commercial and residential construction, are compliments to his ability to serve as the County Engineer.

As of April 1, 2005 he was appointed as the County Engineer for the Department of Public Works. Prior to the current County Engineer's appointment, the position of County Engineer had been vacant for almost three years. During that period various personnel were appointed as Deputy County or Acting Deputy County Engineer, the most recent person being the current Deputy County Engineer whose term as Acting Deputy County Engineer began on November 3, 2003 and expired as of the appointment date of the current County Engineer.

The position of County Engineer is one of dual roles and responsibilities directed both at community relationships and managing the Department of Public Works. With the community, the current County Engineer efforts are directed towards addressing complaints and issues in addition to dealing with Waste Water regarding long range plans for solid waste, and Parks and Roads regarding long range planning. With the Department of Public Works, his efforts are directed towards the working personnel within his Divisions, specifically the team members and players and their overall philosophy. His role includes weekly meetings with the Department of Public Works personnel and meetings with the various section leaders and supervisors from all of the Divisions within the Department.

Relating specifically to the Building Division, he is responsible for in-house training programs and the standards and operating procedures for his personnel as well as the manpower and equipment needed to support the Division's various projects and activities. Under his management role, he is tasking himself to consider a possible shift in the responsibilities of personnel, this being a self-implementation of responsibilities specifically dealing with contractors. This is a result of the gymnasium water leak issue.

As a part of this shift in responsibilities, he is implementing tighter enforcement of the contract documents including the delegation of responsibility and authority by the section heads and supervisors to those professionals working under them. In conjunction with this, he is addressing issues as to the qualifications of supervisors to perform their slotted duties and to carry out their responsibilities specifically relating to the personnel's expertise being suitable to their position. Included in addressing

Appendix II: Roles and Authority

this issue is an oversight review as to a duplication of efforts within other operating divisions relating to inspections, construction management, and plan review and examination.

In the budget request process for manpower and equipment, the current County Engineer is responsible for the legitimacy of budget requests, assuring they reflect the actual needs of the various Divisions. The process includes the preparation of budgets by the various Section leaders or Division managers, initial reviews by procurement and the financial personnel within the Administration, and final submittal, review and approval by the County Engineer. At this point, the budgets are submitted to the Director of Finance who, in conjunction with various key personnel within the Administration, grant full or partial approval for the entire budget, or reject certain portions of the budget based on priorities or current needs. At this level of the process, it is the County Engineer's role and responsibility to represent the various Divisions in securing the needed funds for the additional equipment and manpower.

Building Superintendent/Chief of Buildings-Building Division

The current Building Superintendent is a Construction Management graduate of Cal Poly Tech in San Louis Obispo, California, has an MBA degree from the University of Hawaii, and is a Professional Engineer and a licensed ABC Contractor. Prior to his employment with the County, the current Building Superintendent worked for Hawaii Dredging for 8 years in addition to other construction work related to commercial and residential projects. The current Building Superintendent has been in his current position for 13 years.

The position of Building Superintendent/Chief of Buildings for the Building Division is under the general direction of the Deputy and/or County Engineer with the overall responsibility of directing the administrative and technical activities of the Building Division that includes directing County-wide programs involving the construction, repair, renovation and maintenance of public buildings and the building code enforcement and construction inspections of non-County commercial and residential construction.

Additional responsibilities of the position include interpreting policies, developing work programs, directing the preparation of budget estimates and program expenditure plans, formulating and directing the execution of divisional policies, standards and procedures, making final inspections of completed work, and performing many other related duties as required and as related to the daily functions and activities of the Building Division.

In 1996, the current Building Superintendent was personally involved in the construction of the gymnasium project primarily due to the lack of staff to meet all of the needs of County activities. He personally performed the construction management of the project as well as the County inspections. In addition, for the gymnasium project the County subcontracted an architect to perform the construction inspections related to the contractor's payment request approvals and signed-off on the application showing that the payment was reflective of the work performed to date. The Architect also participated in weekly meetings to discuss issues and the status of the ongoing work. Generally for work relating to new

Appendix II: Roles and Authority

construction of major County buildings, it is at the County's discretion as to the use of an outside architect and engineering firm.

As one of the responsibilities of the Building Superintendent, he is initiating certain improvements for future construction projects of a similar nature including the implementation of departmental procedures in addressing issues that might arise during construction. The improvements include written documentation of such issues, outlining the steps for involving the County Attorney in addressing such issues, defining more specifically the involvement and responsibilities of a County subcontract-assigned architect both during the design and the construction process, and the use of consultants in assisting in drawing up the general provisions for projects of this nature.

On this basis, in 2001 the current Building Superintendent developed a draft of "General Provisions" for the facility management of construction contracts.

For internal training, the current Building Superintendent had initiated and been approved a \$3,000 budget for his personnel to participate in various training programs. The primary focus of the training related to the maintenance personnel and addressed safety issues. The building inspectors were also sent to these training classes with a majority of the personnel attending the classes receiving a passing grade.

Code Enforcement Coordinator-Building Division

The Code Enforcement Coordinator has an associate degree in architecture and a degree in Business and Liberal Arts. He has been with the County for over 31 years, and has been in the current position as Code Enforcement Coordinator for 18 years. Since joining the County, the Code Enforcement Coordinator has worked in almost every position within the Building Division including as a permit clerk, inspector, and plans examiner.

The Code Enforcement Coordinator for the Building Division, under the general supervision of the Building Superintendent/Chief of Buildings, has the overall responsibility of supervising and coordinating activities relating to building plans examining, building permit issuance and building inspections, plus coordination of building plans examining for code compliance.

Additional responsibilities include planning, directing and coordinating the activities of the Building Division relating to review and approval of building plans and specifications, issuance of building permits and certificates of occupancy, conferring with architects, engineers, contractors and others on problems concerning code compliance, developing and implementing operational policies and procedures, and determining the adequacy of manpower and equipment needs and submitting budget estimates for such.

The Code Enforcement Coordinator's overall responsibilities include all building, electrical and plumbing inspections, enforcement of building, electrical and plumbing codes, and the enforcement of sign ordinances.

Appendix II: Roles and Authority

His daily activities include working on a limited basis with other departments for processing plans, inspecting new construction for code compliance, overseeing the activities of the building, electrical and plumbing inspectors, and issuing permits. Code Enforcement issued over 1,400 building permits in 2004.

Relating to plans examining, commercial facilities require three different examiners to review the plans, one for each of the primary areas of building, electrical and plumbing. For residential units, only one plans examiner is required for the entire facility. He noted that due to the involvement of various inspectors in the plan review and examining process, the plan review time for commercial projects has gone from 21 days to 6 days.

Supervisor Building Inspector-Building Division

The Supervisor Building Inspector has been with the County for 24 years and started his career as a permit clerk, a position that he held for his first 2 years. He moved from the permit clerk position to a building inspector position that he has maintained over the past 22 years, now holding the position of Supervisor Building Inspector. The Supervisor Building Inspector was self taught and learned his County profession through on-the-job training. Prior to joining the County, he worked in commercial construction as a carpenter for 3 years.

Supervisor Building Inspector for the Building Division, under the general supervision of the Building Superintendent/Chief of Buildings and the Code Enforcement Coordinator, has the overall responsibility of supervising a program concerned with the inspection of the construction, alteration of buildings and related structures, and construction, installation or alteration of signs to assure compliance with the County of Kauai Building Code and other ordinances and adherence to approved plans and specifications.

As a part of these overall responsibilities, the Supervisor Building Inspector plans, assigns, and reviews the work of subordinate building inspectors, coordinates work with other inspection sections, renders decisions in cases where disputes arise between inspectors and contractors or the public, makes field inspections where difficult problems arise, reviews plans and specifications for public building improvement projects prepared by architects and engineers under contract, and recommend approval, disapproval and/or changes to superiors, and prepare building plans and specifications

Relating to qualifications for staffing within the inspection and plan review groups, a college degree is not a requirement, however a construction background is necessary for hiring into the code enforcement and inspection area. Prospective candidates for positions must also have the ability to read construction drawings as well as knowledge of the building codes. To supplement this required experience, new hires learn the code enforcement, plan review and inspection trades through on-the-job training in addition to internal training meetings and seminars.

Within the inspection group, inspections cover any requests for such including those from the public as well as those from internal sources. However, the main focus of the inspectors is geared towards County financed projects. For major construction projects initiated by the County, the Building Division will normally hire an outside inspector to address the daily inspections with the County Inspectors performing

Appendix II: Roles and Authority

limited checks. In addition to the limited checks performed by the County, the inspectors will also perform an inspection upon notification by the builder and/or developer that an inspection is needed for a specific issue or installation.

Senior Building Inspector-Building Division

The Senior Building Inspector joined the County on the apprenticeship program and has been with the County for 28 years and is the oldest and most experienced of the County inspectors. He initially started his career with the County in building maintenance where he worked for almost 20 years. He has been in the inspection group for 8 years. Prior to being with the County, the Senior Building Inspector worked as a carpenter for 10 years.

Senior Building Inspector for the Building Division, under the general supervision of the Supervising Building Inspector, has the overall responsibility for inspecting construction, alterations or maintenance of all types of buildings and structures, including multi-storied buildings, for compliance with the provisions of the Building Code and other pertinent codes and ordinances, and for adherence to approved plans and specifications.

Additional responsibilities include checking to see that buildings and structures are being constructed in a safe manner and in accordance with approved plans and specifications, checking the quality of materials and methods of construction, inspecting existing buildings and structures to determine hazardous conditions, checking for the lack of building permits for projects, investigating complaints, issuing stop work orders when necessary, and providing information to owners, contractors, and the general public regarding building codes, ordinances and regulations.

Regarding staffing within the inspection group, new inspectors perform inspections with a senior inspector until it appears they are ready to perform such on their own. During this period of on-the-job training, contact with experienced inspectors and management is always available. In applying for employment in the inspection group, prospective new hires are required to take and pass a building code test and must have previous supervisory experience.

Relating to the responsibilities of new inspectors, there are job descriptions that include the policies and procedures governing the activities that are undertaken by the inspectors. Relating to new construction, inspectors will normally inspect the site conditions and improvements prior to the pouring of concrete footings and foundations or building floor slabs. As the project proceeds, the inspectors will also inspect the framing as well as the balance of the structure build-out, all in conjunction with the building codes.

Supervising Plans Examiner-Building Division

The Supervising Plans Examiner has been with the County for 32 years. Upon joining the County, the Supervising Plans Examiner joined as a permit clerk, then worked within the building division for 12 years, and has been in the plans examiner group for the past 20 years, now holding his current position as the Supervising Plans Examiner.

Appendix II: Roles and Authority

Supervising Plans Examiner for the Building Division, under the general supervision of the Code Enforcement Officer, has the overall responsibility for planning, assigning and reviewing the work of subordinate examiners and overseeing the maintenance of records of all plans checked. Additional responsibilities include field inspections on projects to assure compliance, providing first line resolution to disputes arising between plans examiners and permit applicants, coordinating work with the permitting, inspecting and examining sections, and providing technical expertise in matters involving provisions of the building code plus the responsibility of conferring with designers, contractors and the general public to explain proper procedures in submitting plans and specifications for projects.

Facilities Maintenance Coordinator-Building Division

The Facilities Maintenance Coordinator attended the University of Hawaii receiving a degree in Civil Engineering. He has been with the County for 23 years serving in various positions within the Department of Public Works including Engineering, Waste Water Management, and the Building Division where he served as a permit clerk. He has been in his current position as the Facilities Manager for 10 years.

Facilities Maintenance for the Building Division, under the general supervision of the Building Superintendent/Chief of Buildings, has the overall responsibility for the supervision and administration of all services necessary for minor County construction projects including improvements to County facilities, repair, maintenance and alteration of buildings, structures, equipment, utility systems and other public facilities as well as the cleaning of all County facilities. Additional responsibilities for the above type projects include interpreting plans and specifications and determining necessary building materials, preparing of budget estimates, gathering of cost data and estimating the cost of Capital Improvement Projects, inspecting both work in-progress and completed work for proper workmanship, reviewing reports of subordinate supervisors for accuracy and completeness, purchasing or arranging the purchase of equipment and materials, establishing work standards and determining the priority of projects.

Currently, Facilities Maintenance is listing, on a weekly basis, its work orders showing the results of that week's accomplishments including how many work orders were completed, the dates of completion, and comments regarding the project or assignment. In addition, the Section is in the process of implementing a computer program to assist in work order assignment, results and stats, and scheduling.

The Facilities Maintenance Coordinator is considering initiating a move to create a Maintenance Department staffed by their personnel and machinery and equipment to provide and perform the necessary work in support of their daily activities and assignments. The proposed Maintenance Department, though under the Building Division, would be a centralized department with the ability to service all of the various Divisions within the Department of Public Works.

Repair and Maintenance Supervisor-Building Division

The Repair and Maintenance Supervisor has been with the County for over 33 years. Upon joining the County, the Repair and Maintenance Supervisor worked in the maintenance area for 18 years supervising

Appendix II: Roles and Authority

various electrical and plumbing projects and their assigned inspectors. He has held his current Repair and Maintenance Supervisory position for 15 years. Prior to joining the County, the Repair and Maintenance Supervisor worked for 2 years in the trades as a carpenter and 2 years in maintenance at a hospital.

The Repair and Maintenance Supervisor for the Building Division, under the general supervision of the Facilities Maintenance Coordinator, has the overall responsibility for planning, assigning and coordinating the work of several work crews through subordinate trades' supervisors involved in the construction, repair, maintenance and alteration of buildings, structures, equipment, utility systems and other public facilities.

Additional responsibilities include interpreting plans and specifications and determining necessary building materials, participating in the preparation of budget estimates, assisting in the gathering of cost data and estimating the cost of Capital Improvement Projects, inspecting both work in-progress and completed work for proper workmanship, and establishing work standards and determining the priority of projects.

Due to his many years with the County in the area of maintenance, he has become the central person for training and for assuring that the personnel within the construction and maintenance areas are well-versed and up to date on OSHA regulations. He was responsible for implementing a training program for the personnel within the construction and maintenance areas in the early 1990's in addition to developing a Safety and Health Manual that is currently used by his department. The Repair and Maintenance Supervisor attends various training seminars relating to such areas as full protection, asbestos, hazardous materials, etc., and depending on the training provided through the seminars, becomes certified in the specific areas, then bringing this training in-house to the Section's personnel.

Business Management Officer -Department of Public Works

The Business Management Officer attended Honolulu Business College and has been with the Department of Public Works for over 35 years serving in various positions including payroll clerk, accounting, and business management. He has been in his current position as the Business Management Officer for 12 years.

The Fiscal Management Officer for the Department of Public Works, in the Administration Division, and under the general direction of the County Engineer, has the overall responsibility of advising and assisting top management in business management functions, fiscal administration, financial and organizational management and directs and coordinates all divisional activities of the Department relative to the overall budget process and associated management and fiscal matters.

The duties and responsibilities of the Fiscal Management Officer include directing and summarizing the compilation of the departmental annual operating and capital improvements budget documents, planning and directing the development of work measurement standards, statistical procedures and other means for budget justification, conducting the development of operating and capital improvements budget manuals and advising operating management in developing budget estimates.

Appendix II: Roles and Authority

Additional duties and responsibilities include directing the monitoring and payment systems for departmental service and construction contracts, assuring the compliance with contract management principles and State and County procedures, directing and participating in service and construction contract issue resolution, and in conjunction with the Mayor and appropriate departmental and council officials, directs the preparation, and integration, of the Department's legislative six-year capital improvement program complementing and reflecting the State and Federal programs for the County.

Purchasing & Assistant Contracts Administrator-Finance Department

The Purchasing & Assistant Contracts Administrator attended the University of Hawaii receiving a minor in Economics and a major in Industrial Relations and has additional experience in real estate mortgage financing. The Purchasing & Assistant Contracts Administrator has been with the County for over 20 years serving in various positions including Deputy Director of Finance. He has been in his current position as the Purchasing & Assistant Contracts Administrator for 15 years.

The Purchasing & Assistant Contracts Administrator in the Finance Department has the overall responsibility for purchasing and contract administration for the County.

Relating to new building construction contracts for the County, once a contract has cleared the Finance Department, the contract administration process is passed to the Building Division project manager who, in addition to managing the work, must also deal with contract amendments, settlements, and working out any additional agreements. During this phase of the project, it is very important that the project manager work closely with the Director of Finance and the County Attorney in addressing issues relating to construction contracts and contract administration.

Performance Audit
County of Kauai
Building Division, Department of Public Works

Appendix III Auditee Response Letter

Appendix III: Auditee Response Letter

Bernard P. Carvalho, Jr.
Mayor



Gary K. Heu
Administrative Assistant

OFFICE OF THE MAYOR

County of Kaua'i, State of Hawai'i
4444 Rice Street, Suite 235, Lihue, Hawai'i 96766
TEL (808) 241-4900 FAX (808) 241-6877

February 10, 2010

Mr. Ernesto G. Pasion
County Auditor
4386 Rice Street, Room 106
Lihue, Hawai'i 96766

Subject: Responses to the Performance Audit of the Department of Public Works, Building Division

Dear Mr. Pasion:

Thank you for the opportunity to respond to the draft Performance Audit of the Department of Public Works, Building Division, conducted by KMH LLP. The subject responses have been provided by the Department of Public Works and the Finance Department.

Feel free to contact Deputy County Engineer Ed Renaud for any questions that you may have regarding specific Public Works responses, and Finance Director Wally Rezentes for inquiries regarding Finance related responses. Please let me know if I can be of any further assistance as you work with KMH LLP in finalizing the performance audit.

Sincerely,


A handwritten signature in black ink, appearing to read "Bernard P. Carvalho, Jr.", is written over a horizontal line.

Bernard P. Carvalho, Jr.
Mayor

Appendix III: Auditee Response Letter

County of Kaua'i Department of Finance INTER-DEPARTMENT MEMO

TO: GARY HEU, ADMINISTRATIVE ASSISTANT

FROM: WALLACE REZENTES, JR., DIRECTOR OF FINANCE 

SUBJECT: KILAUEA GYM PERFORMANCE AUDIT INFORMATION

DATE: FEBRUARY 9, 2010

Attached are comments and information in response to the Kilauea Gym Audit Performance Audit Recommendations of 11/25/09. The Public Works Buildings Division requested assistance for the following Observations and Recommendations:

- 1.1 Standard Specifications for Public Works
- 1.2 General Provision of Construction Contracts
- 2.1 Contract Stipulated (Lump) Sum (Fixed Price)
- 2.2 Timeline for Completion of Project
- 4.0 Contract Procurement

In discussions between Purchasing and Doug Haigh, it was determined that Public Works would respond to Observations and Recommendations 1.1 and 2.2. Please be advised that Exhibit I (Interim General Provisions For Construction Contracts County of Kaua'i, Draft IV) was submitted to the auditors as a reference by the Department of Public Works. This document was in "draft" form and was subsequently never adopted by the County.

The Exhibits may be returned to the Purchasing Division when they are no longer needed.

Appendix III: Auditee Response Letter

PERFORMANCE AUDIT – DPW-BLDG DIVISION

Observation & Recommendation No.

I. **1.1 Standard Specifications for Public Works Construction**

The Dept of Public Works is responsible for the Standard Specifications for Public Works Construction. The General Provisions would be amended by Special Provisions based on input by Public Works.

Public Works will respond to this section

II. **1.2 General Provision of Construction Contracts**

1. ***Auditor Recommendation: Review Interim – General Provisions for Construction Contracts – County of Kauai – Draft IV, dated October 5, 2001 with the intent of final approval and adoption within an acceptable time period with recommended committee. Also this document becomes the standard of policy and procedures for addressing the general provisions of building and other major projects contracted by Public Works.***

The revision of the County of Kauai's General Provisions was initiated by Elmer Muraoka in 1999 with a Public Works Committee that included Doug Haigh, Ken Kitabayashi/Wally Kudo, Harry Funamura/Mel Matsumura, Russell Sugano, Troy Tanigawa, Mel Nishihara. The Interim – General Provisions for Construction Contracts – County of Kauai – Draft IV (Exhibit 1) was developed from the State of Hawai'i General Provisions (See Exhibit 2). Committee met numerous times to discuss and incorporate County requirements but review was not final. A new committee would need to be formed & convened to (re)review and update with latest requirements.

The General Provisions, 1972 as amended in the bid document has been regularly updated by the Purchasing Division as new laws are adopted. (see Exhibit 3A & 3B)

Purchasing Comment: The General Provisions should be updated and amended but at this time our office would not be able to devote time and effort into this project due to the vacancy in the Assistant Chief Procurement Officer position and the amount of work that we are trying to complete with the staff shortage. I recommend the continued use of General Provisions, 1972 as amended and updated as necessary until such time as it can be replaced with a new document.

Appendix III: Auditee Response Letter

2. **Auditor Recommendation: *Use of Standard Questionnaire for Prospective Bidders to determine the most qualified contractor to perform construction:***

Reference State of Hawai'i questionnaire form (see Exhibit 4) issued by the Procurement Policy Board.

The agency may require submission of questionnaire. Pursuant to Admin Rules. HAR 3-122-108 (b) states "If the procurement officer requires additional information, the offeror or prospective offeror may be required to answer questions contained in the sample questionnaire provided by the policy board."

There are no established County standards for review of areas including completeness, financial statements, acceptable experience and equipment, and grounds for denial therefore use isn't recommended by our office at this time.

Sufficient time must be allowed during procurement process to review, approve or deny. Denial allows contractor request for admin hearing.

Contractors and their subcontractors must be properly licensed by the State of Hawai'i to perform work at the time of bid. Additional requirements at contract execution include submission of Performance and Payment Bonds; State and Federal Tax Clearances, a Certificate of Good Standing (SOH - DCCA); a Compliance Certificate (SOH-DLIR); Certificates of Insurance as required.

Purchasing comment: Until standards for review of the Questionnaire form, for approval and denial of a Contractor is developed, we would not recommend its use.

3. **Auditor Recommendation: *Recommended a minimum of at least five bids be secured for major building projects.***

... If substantial differences do exist between the highest, median and lowest bids... , the generally accepted procedure is to reject the highest and lowest bids with result being the award of contract to lowest of the remaining bids or the most favorable of the remaining bids.

Further explanation required for the following phrases in the recommendations.

"at least five bids be secured" – submitted, responsive, responsible?

"major building projects" – vs minor

"substantial differences" \$100, \$1000, \$10,000, \$20,000.....

"or the most favorable" vs lowest responsive, responsible

The County of Kauai procurement of Goods, Services and Construction are conducted pursuant to State law (HRS 103D and related Administrative Rules)

Appendix III: Auditee Response Letter

and no minimum number of bids is required. Reference HAR 3-122-33, Bid evaluation and award states "The award shall be made to the lowest responsive, responsible bidder" and HAR 3-122-35, addresses situations where only one bid is received. (See Exhibit 5)

A Request for Exemption of Chapter 103D should be filed with justification for approval by the CPO if awarding to other than the lowest bidder or restricting award only if a minimum of 5 bidders is secured. If CPO approved, these conditions/procedures for use would need to be stated in the bid.

User Agencies should review and consider the effect of projects not being awarded due to not meeting the minimum required number of bids such as the delay of accomplishing construction work, additional cost to rebid, etc.

Purchasing Comment: We would not recommend adding a requirement of "at least a minimum of 5 bids". If 5 bids are not "secured", the bidding of the project would need to be repeated. This adds costs to the County and the Contractors in dollars and in time. (Advertisements, bid documents, approvals, staff time, supplies, etc.; and delay in the project)

III. 2.1 Contract Stipulated (Lump) Sum (Fixed Price)

1. **Auditor Recommendation: *Adopt certain AIA forms/adopting & implementing language to reinforce its technical & legal position in addressing contractual agreements.*** (See sample - Exhibit 6)

The County Attorney should be requested to review this recommendation.

2. **Auditor Recommendation: *Recommended that changes to the contract be considered through the formal change order process.***

Per Doug Haigh, the auditors are addressing to the use Memorandum of Understanding by the County Attorney. (see Exhibit 7) Note: This agreement was not signed by the Finance Director.

3. **Auditor Recommendation: *If contract is terminated, it is recommended that the Construction Manager exercise the county's right to evoke the surety Performance Bond, take possession of the work from the contractor, and complete the project by whatever means are deemed appropriate by the Construction Manager and the County.***

Recommendation is addressed in the County General Provisions, Section 8.2 Termination of Contract-Work Maybe Taken Over by County (see Exhibit 3).

Appendix III: Auditee Response Letter

IV. **2.2 Timeline for Completion of Project**

Public Works will respond to this section.

V. **4.0 Contract Procurement**

No comment – no recommendations provided.

Appendix III: Auditee Response Letter

Building Division,

January 27, 2010

Audit Response for:

Performance Audit of the Department of Public Works, Building Division

1.1 Standard Specifications for Public Works Construction

- Recommendation No. 1 – The Standard Specifications for Public Works Construction dated 1986 has been superseded by the Hawai'i Standard Specifications for Road and Bridge Construction, dated 2005. This document is managed by State of Hawai'i Department of Transportation, Highways Division and does not directly relate to building projects.
- Recommendation No. 2 – Since the reference document is not intended for building projects it is unlikely that the format could be changed as recommended.
- Recommendation No. 3 – Our practice has been to rely on the design professionals involved in the project to evaluate cost saving and value engineering proposals.

2.2 Timeline for Completion of Project

- Recommendation - Since contracts are awarded to the responsible low bidder based on bid documents with set contract durations it does not seem appropriate to discuss alternate schedules during the bid process.

3.0 Project Controls

- Project Schedule Recommendation – Since it is inherently difficult to predict time for unforeseen delays it seems prudent to follow our current practice of evaluation each unforeseen delay separately and add appropriate contract time by contract change order.

4.0 Building Division Enhancements

- Zoning issues are managed by the Planning Department and Building Division plan examiners do not have the specialized knowledge to handle zoning issues or the authority. The authority is with the Planning Department.

Appendix III: Auditee Response Letter

Audit Response for:

Performance Audit of the Department of Public Works, Building Division

Observation 2.3 Contingency

1. The audit recommendation to comply with the industry average for a building project contingency in the range of 5%-10% has always been the practice for Public Works construction projects. However, the recommendation of an annual submittal for the contingency as part of the total public building construction budget is not conducive to the CIP project funding process. The CIP ordinance appropriates funding to individual CIP projects rather than a "blanket funding" for all CIP projects. The bid procurement process may determine a shortfall in the estimated funding allocated to a specific CIP project. Any additional funding requirements inclusive of a contingency requiring the transfer of moneys between projects and/or additional appropriations for the project requires an amendment to the capital budget ordinance and shall require Council approval.
2. Recommendation is the current practice.
3. The audit recommendation to recognize savings to the initial Public Works budget for public building construction, and if applicable, redirected by the County Engineer to offset any budget shortfalls within the Building Division is a violation of the CIP budget ordinance. Unexpended CIP funds following a project completion may not be transferred to another project without an amendment to the Capital Budget Ordinance. Additionally, the determination of the use of unexpended funds are not limited to public building construction but rather the entire County CIP funding requirement is considered.

Observation 3.3 Equipment Procurement/Equipment

Code Enforcement Section-Inspection Group

4-wheel Drive vehicles are available for use within the Department of Public Works and are available for inspectional use as required. The Department of Public Works has determined that the majority of the inspections are conducted on improved areas not requiring use of a 4 wheel drive vehicle. One of the recent Inspectional vehicle replacements is a 4 wheel drive SUV.

The audit observation relative to the shortage of vehicles to transport crews to various assignments is unfounded. Inspection vehicles are available on a "one for one" basis per Inspectional employee. Additionally, the inspectors do not work in crews as opposed to maintenance employees.

Repair & Maintenance Section

Appendix III: Auditee Response Letter

The audit observation that the Section did not receive replacement vehicles for those that were either totally or almost non-operational is unfounded. The County fleet of vehicles with the exception of emergency response vehicles are replaced following an evaluation by the County's Fleet Management System. If the vehicle is deemed to be non-operational, it would have been replaced. Additionally, all vehicle and equipment replacement requests are evaluated during the budget process and replaced when justifiable within the budget fiscal constraints.

Best management practices are in place for equipment procurement as recommended relative to the budget process as recommended in the audit.

Appendix III: Auditee Response Letter

Gary Heu

From: Doug Haigh
Sent: Thursday, January 28, 2010 4:18 PM
To: Edmond Renaud
Cc: Gary Heu; Clint Saiki
Subject: Response to Performance Audit of the Department of Public Works, Building Division
Attachments: NTP.pdf

One additional response:

On Page 17 the consultant stated that they did not find the Notice to Proceed. Attached is a copy of the Notice to Proceed, dated January 29, 1996.

Appendix III: Auditee Response Letter

Maryanne W. Kusaka
Mayor

Robert D. Mullins
Administrative Assistant



DEPARTMENT OF PUBLIC WORKS
BUILDING DIVISION
4444 Rice Street
Mo'ikeha Building, Suite 175
Lihue, Hawaii 96766

Steve Oliver
County Engineer

Ed Renaud
Deputy County Engineer

January 29, 1996

Primatech Construction Co.
1895 Haleukana
Lihue, HI 96766

Attention: Jack Ho

Subject: NOTICE TO PROCEED, KILAUEA GYMNASIUM, CONTRACT NO. 5266

The official Notice to Proceed date for the subject project is February 1, 1996. The contract duration is 300 consecutive calendar days with a completion date of November 27, 1996.

Please submit certificates of your liability and builders risk insurances no later than the first day of physical work at the job site. Refer to Section 4.4 Insurance of the Special Provisions for insurance details.

Should you have any questions, please contact me at 241-6650.

Very truly yours,

DOUGLAS HAIGH
Chief, Building Division

cc: Steve Oliver
Ed Renaud
Architects Kauai
P.W. Fiscal
Purchasing
Parks & Recreation