

HAWAII STATE HEALTH PLANNING AND DEVELOPMENT AGENCY
RECEIVED

'14 AUG 14 P3:31

ADMINISTRATIVE APPLICATION - CERTIFICATE OF NEED PROGRAM

Application Number: #14-12A
To be assigned by Agency

ST HEALTH PLAN
Date of Receipt:

APPLICANT PROFILE

Project Title: Acquisition of an Additional Computed Tomography (CT) Scanner

Project Address: 221 Mahalani Street
Wailuku, Maui, Hawaii 96793

Applicant Facility/Organization: Maui Memorial Medical Center

Name of CEO or equivalent: Wesley Lo

Title: Regional Chief Executive Officer

Address: 221 Mahalani Street, Wailuku, Maui, Hawaii 96793

Phone Number: (808) 442-5101 Fax Number: (808) 442-5112

Contact Person for this Application: Traci Ing

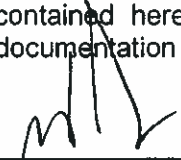
Title: Administrative Services Officer

Address: 221 Mahalani Street, Wailuku, Maui, Hawaii 96793

Phone Number: (808) 442-5103 Fax Number: (808) 442-5112

CERTIFICATION BY APPLICANT

I hereby attest that I reviewed the application and have knowledge of the content and the information contained herein. I declare that the project described and each statement amount and supporting documentation included is true and correct to the best of my knowledge and belief.


Signature

8/12/14
Date

Wesley Lo
Name (please type or print)

Regional Chief Executive Officer
Title (please type or print)

RECEIVED

1. TYPE OF ORGANIZATION: (Please check all applicable)

- Public
- Private
- Non-profit
- For-profit
- Individual
- Corporation
- Partnership
- Limited Liability Corporation (LLC)
- Limited Liability Partnership (LLP)
- Other: _____

14 AUG 14 P 3:31

STATE HEALTH & DEV. AGENCY

2. PROJECT LOCATION INFORMATION

A. Primary Service Area(s) of Project: (please check all applicable)

- Statewide: _____
- O`ahu-wide: _____
- Honolulu: _____
- Windward O`ahu: _____
- West O`ahu: _____
- Maui County:
- Kaua`i County: _____
- Hawai`i County: _____

3. DOCUMENTATION (Please attach the following to your application form):

- A. Site Control documentation (e.g. lease/purchase agreement, DROA agreement, letter of intent)
 - Not applicable – the equipment will be located on the existing hospital campus.*
- B. A listing of all other permits or approvals from other government bodies (federal, state, county) that will be required before this proposal can be implemented (such as building permit, land use permit, etc.) *As a State Governmental agency, MMMC is exempt from obtaining a building permit for this project (see Attachment C). MMMC has an existing radiation facility license (#H0029, expires 3/31/15) that will be amended to add the new CT scanner post-implementation. Such amendment is standard procedure allowed by the State.*
- C. Your governing body: list by names, titles and address/phone numbers
 - Please see Attachment A (Maui Regional Board of Directors).*
- D. If you have filed a Certificate of Need Application this current calendar year, you may skip the four items listed below. All others, please provide the following:
 - Articles of Incorporation
 - Not applicable. HHSC was formed by statute (HRS Chapter 323F).*
 - By-Laws
 - Please see Attachment B (Maui Regional Board By-Laws).*
 - Partnership Agreements
 - Not applicable.*
 - Tax Key Number (project's location)
 - TMK: (2)3-8-046:013

4. TYPE OF PROJECT. This section helps our reviewers understand what type of project you are proposing. Please place an "x" in the appropriate box.

	Used Medical Equipment (over \$400,000)	New/Upgraded Medical Equip. (over \$1 million)	Other Capital Project (over \$4 million)	Change in Service	Change in Beds
Inpatient Facility		X			
Outpatient Facility					
Private Practice					

5. BED CHANGES. Please complete this chart only if your project deals with a change in your bed count and/or licensed types. Again, this chart is intended to help our reviewers understand at a glance what your project would like to accomplish. Under the heading "Type of Bed," please use only the categories listed in the certificate of need rules.

Type of Bed	Current Bed Total	Proposed Beds for your Project	Total Combined Beds if your Project is Approved
TOTAL			

6. PROJECT COSTS AND SOURCES OF FUNDS

A. List All Project Costs:	AMOUNT:
1. Land Acquisition	<u>0</u>
2. Construction Contract	<u>\$1,006,523</u>
3. Fixed Equipment	<u>\$1,837,119</u>
4. Movable Equipment	<u>0</u>
5. Financing Costs	<u>0</u>
6. Fair Market Value of assets acquired by lease, rent, donation, etc.	<u>0</u>
7. Other: <u>Not applicable</u>	<u>0</u>
TOTAL PROJECT COST:	<u>\$2,843,642</u>

B. Source of Funds

1. Cash	<u>0</u>
2. State Appropriations	<u>\$ 843,642*</u>
3. Other Grants	<u>\$ 2,000,000**</u>
4. Fund Drive	<u>0</u>
5. Debt	<u>0</u>
6. Other: _____	<u>0</u>
TOTAL SOURCE OF FUNDS:	<u>\$2,843,642</u>

*State CIP funds which are already appropriated

**These funds will come from the State Trauma System fund, which is administered by the State Department of Health through the Emergency Medical Services & Injury Prevention System Branch. The funds are already appropriated, available and designated for this project.

7. **CHANGE OF SERVICE:** If you are proposing a change in service, then please briefly list what services will be added/modified. Be sure to include the establishment of a new service or the addition of a new location of an existing service. Please reference the Certificate of Need Rules Section 11-186-5 for the categories of services. If you are unable to determine which category best describes your project, please consult with agency staff.

There will be no change in service.

8. **IMPLEMENTATION SCHEDULE:** Please present a projected time schedule for the completion of this project from start to finish. Include all of the following items that are applicable to your project:

- a) Date of site control for the proposed project. *Not applicable. The project site is the existing location of MMMC.*
- b) Dates by which other government approvals/permits will be applied for and received. *Not applicable.*
- c) Dates by which financing is assured for the project. *Financing is immediately available.*
- d) Date construction will commence. *The new CT will share space with the new MRI in a building now under construction.*
- e) Length of construction period. *The construction will be complete by December 31, 2014.*
- f) Date of completion of the project. *We expect the new unit to be delivered by December 1, 2014. Installation, testing and training will take a month.*
- g) Date of commencement of operation. *The new CT unit will be operational January 1, 2015.*

Please remember that the Agency does monitor the implementation of Certificates approved. Non-implementation of a project as described in your application may result in a fine and/or withdrawal of the certificate of need.

9. **EXECUTIVE SUMMARY:** Please present a brief summary of your project. In addition, provide a description of how your project meets each of the certificate of need criteria listed below. If a new location is proposed, please attach an easy to read map that shows your project site.

- a) Relationship to the State of Hawai'i Health Services and Facilities Plan.
- b) Need and Accessibility
- c) Quality of Service/Care
- d) Cost and Finances (include revenue/cost projections for the first and third year of operation)
- e) Relationship to the existing health care system
- f) Availability of Resources.

Executive Summary

MMMC proposes to acquire a new Toshiba Aquilion One 320-slice CT scanner. The cost of the scanner itself will be \$1,837,119, which will be financed entirely through the State Trauma Fund. The scanner will share a building with a new MRI scanner. The construction cost of the clinical areas of the CT scanner will be \$1,006,523. Thus, the total cost of for this new CT unit will be \$2,843,642.

The Aquilion One Vision Edition is equipped with a gantry rotation of 0.275 seconds, and 320 detector rows (640 unique slices) covering 16 cm in a single rotation, with the industry's thinnest slices at 500 microns (0.5 mm). The system can accommodate larger patients with its 78 cm bore and fast rotation, including bariatric and patients with high heart rates. This new scanner will become MMMC's primary scanner, but will be supplemented by MMMC's existing scanner.

MMMC currently utilizes a 16-slice CT scanner, which is six years old and two generations behind in technology. With only one scanner, prioritization of patients has become more challenging as the volume of exams has and will continue to increase. A new, state-of-the-art CT scanner will complement the existing equipment and expand the range of imaging services offered to the Maui community. The older 16-slice CT Scanner will not only be used as a backup scanner for when the new one goes down for regular maintenance but will also be used for doing procedural type exams such as biopsies or drainages. Since these types of exams can take longer lengths of time to complete, it won't tie up a needed scanner for incoming trauma or emergent cases.

Computed Tomography (CT) is a non-invasive diagnostic imaging modality that uses x-ray technology to collect various thin sections or "slices" of an area to provide detailed, multi-dimensional images. MMMC currently utilizes a 16-slice CT scanner for a variety of diagnostic functions, with majority of exams performed on Emergency Department (ED) patients. FY2013 utilization is as follows:

Outpatients: 1,157
Inpatients: 2,043
ED patients: 9,720
Total patients: 12,920
Total exams: 17,597

Although the 16-slice scanner is adequate for most applications, CT imaging has seen major advances in technology that have greatly improved its clinical performance. Many health care

institutions now employ more advanced 64-, 128- and 256-slice CT scanners, with technology that reduces image acquisition time and provides better image quality.

Advanced CT scanners are commonly used for interventional procedures, such as in the diagnosis and treatment of stroke, heart attack and major trauma. Whereas those exhibiting signs and symptoms of these conditions are normally subjected to a variety of lengthy and often invasive testing to confirm diagnosis, with modern-day CT this process can be condensed to single, non-invasive examination. In cardiac and stroke case, the resulting image helps physicians detect plaques in coronary artery walls or blockages (clots) in the smallest of blood vessels, providing the rapid confirmation needed to direct appropriate intervention.

Currently cardiac CT technology dictates that some patients are administered medication to slow heart rate (beta-blockers) in order to prevent the blurring of images. In imaging of blood vessels, an iodine dye is often given to provide better contrast. Although considerably more effective than traditional invasive diagnostic methods, typical CT scanners do have their limitations. Beta-blockers can take up to 30 minutes to take effect and are contraindicated for many patients. Conventional CT scanners provide less anatomical coverage of an area, requiring multiple images to be put together to view an entire organ. However, recent advancements in CT technology have greatly improved upon these areas and have enormous clinical implications.

A. Relationship to the Hawaii Health Services and Facilities Plan (HSFP).

This proposal is consistent with the latest HSFP as approved by the Statewide Health Coordinating Council (SHCC) in 2009.

The HSFP contains capacity thresholds for both new and expansions of existing CT units/services. MMMC is proposing to expand its current CT service with the addition of a 320-slice CT scanner. The applicable threshold reads:

- For expansion of existing units/services, the provider's utilization is an average of at least 8,500 CT procedures per year per unit.

Over the last two fiscal years (FY12 – FY13), MMMC has averaged about 18,179 CT procedures per year, more than double the Plan's threshold. We very conservatively estimate an annual increase of 2%. However, even if there were no increase, the two units would be operating at an average of 9,090 procedures, which still exceeds the Plan's threshold.

The proposal is consistent with the following General Principles established by SHCC in the HSFP:

3. Ensure that any proposed service will at least maintain overall access to quality health care at a reasonable cost.

5. Ensure all projects are appropriate for the regional and statewide continuum of care.

The proposal supports the following Specific Health Area of Concern of the SHCC:

2. Establish a statewide emergency and trauma system.

The Emergency Medical Services and Injury Prevention Systems Branch of the Department of Health administers the State Trauma Fund. The Branch has already determined that the proposed CT scanner is of such importance in the statewide system that it will pay the entire cost of the unit.

The proposal is also consistent with the following priority of the Maui County/Tri-Isle SAC: "modernize facilities via construction, reconstruction and/or replacement."

B. Need and Accessibility

Need

The benefits of a new CT scanner for MMMC are significant to the Maui community. As stated above, the equipment currently in use is adequate for most diagnostic applications. However, available new technology offers numerous advantages over earlier generations of CT:

- Improved patient safety and increased workflow efficiency and cost effectiveness,
- The need to administer beta-blockers becomes optional, which has tremendous workflow and patient safety implications.
- Less contrast dye is required, and radiation exposure is significantly reduced.
- Faster image acquisition time allows earlier confirmation of diagnosis and appropriate treatment.
- Image quality is greatly enhanced, allowing physicians to make more accurate diagnosis and treatment decisions.

As noted in Section A of this narrative, our current scanner has averaged 18,179 procedures in the last two fiscal years (FY12 - FY13). This utilization/need will only increase as the population of Maui grows and ages, and as the use of CT scanning in diagnosis increases. We assume an increased annual utilization rate of only 2% in our projections.

Accessibility

MMMC is the only acute-care facility on the island of Maui and provides inpatient, outpatient and emergency care. Imaging services, including CT, are provided 24 hours a day, 7 days a week. MMMC was recently verified a Level III Trauma Center by the Trauma Centers Association of America and designated by the State of Hawaii Department of Health. In FY13, MMMC was the second busiest Trauma Center in the State (after Queen's Medical Center), with approximately 10,000 trauma-related visits. Almost 720 of those patients activated the trauma team or were admitted for their injuries. The majority of these patients require CT

RECEIVED

scans to assist with diagnosis, expedited treatment and life-saving care. A second, state-of-the-art CT scanner will allow MMMC to better serve the trauma needs of the community.

MMMC does, and will continue to, provide service to all patients, including low income persons, racial and ethnic minorities, women, handicapped persons, other underserved groups and the elderly.

C. Quality of Service/Care

MMMC is licensed by the State, certified by Medicare and accredited by The Joint Commission. Providing high quality, cost-effective health care is a guiding principle at MMMC. MMMC is proactive and diligent in the pursuit, maintenance, and improvement of quality of care and quality of service. We will continue to provide high quality care under this proposal and will have more resources to meet the needs of the community.

MMMC has been a provider of CT services for 20 years, and has quality assurance policies and procedures in place to assure quality of service and care for patients.

Our staff has all necessary licensure and certification requirements, and will maintain its expertise through appropriate training and education.

D. Cost and Finances

Capital Cost. As noted above, the entire capital cost of \$2,843,642 will be funded by State CIP Funds and the State Trauma Fund, and the money is available.

Operating Costs. The cash flow analysis table on the following page shows the revenues and expense projections for the first three years of operation. The table breaks out figures to show the effect of the two units: current plus new. The new unit will be the primary unit.

Cash Flow Analysis:

	Year 1	Year 2	Year 3
CT Revenue			
Current CT Revenue (IP)	738,947	761,116	783,949
Current CT Revenue (OP)	2,364,351	2,435,281	2,508,340
New CT Revenue (IP)	21,523	22,168	22,833
New CT Revenue (OP)	345,412	355,774	366,447
CT Rental Cost Avoidance	66,000	66,000	66,000
Subtotal	3,536,232	3,640,339	3,747,570
CT Costs			
Current Personnel Costs	889,175	915,850	915,850
Current Operating Costs	1,451,781	1,495,334	1,540,194
New Personnel Costs	105,822	108,997	108,997
New Operating Costs	50,000	51,500	53,045
Current CT Service Contract	147,000	151,410	155,952
New CT Service Contract	187,320	192,940	198,728
Subtotal	2,831,097	2,916,030	2,972,766
Net Cash Flow	705,135	724,309	774,804

E. Relationship to the Existing Health Care System

MMMC operates one of five CT scanners on Maui. The other providers of CT services (including type of scanner) are:

- Pacific Cancer Institute (PCI) (4-slice)
- Kaiser Permanente (32-slice)
- Maui Diagnostic Imaging (40-slice)
- Maui Medical Group (16-slice)

These scanners only serve the outpatients of the individual providers, although MMMC currently uses the PCI scanner, which is on our campus, as a back-up when our scanner is down or undergoes any preventive maintenance.

RECEIVED

As noted in the executive summary above, approximately 90% of the patients scanned at MMMC are either inpatients or patients in the emergency department. Therefore, this new scanner will have little or no negative effect on the other providers of inpatient scans. However, it will benefit these providers by allowing their patients to access procedures which can only be done with the new equipment.

STATE DEPARTMENT OF HEALTH & DEY AGENCY

The 320-slice CT scanner will enable MMMC to provide services not currently offered on the island. These include cardiac and brain perfusion studies, calcium scoring, pre- and post-surgery three-dimensional (3D) reconstructions on orthopedic patients.

The State Department of Health is charged with developing a state trauma plan and system, under the Emergency Medical Services and Injury Prevention System Branch. The Department has determined that this CT scanner is such a critical component of the system that it is financing the entire project in cash.

F. Availability of Resources

Finances. As shown above, the capital funds are already available. The revenue and expense projections show that the revenue will cover operating expenses.

Personnel. MMMC retains the personnel resources needed to implement the proposal. All health and management personnel and operating needs have been or will be satisfied prior to implementation. We estimate that only 1.0 FTE additional CT technologist will be needed. Other existing CT personnel are sufficient to handle the increased procedures.

10. Eligibility to file for Administrative Review. This project is eligible to file for Administrative review because: (Check all applicable)

- It involves bed changes, which will have a capital expense of \$1,000,000 or less, and which will have an increased annual operating expense of less than \$500,000.
- It involves service changes which will have a capital expense of \$1,000,000 or less, and which will have an increased annual operating expense of less than \$500,000.
- It is an acquisition of a health care facility or service, which will result in lower annual operating expenses for that facility, or service.
- It is a change of ownership, where the change is from one entity to another substantially related entity.
- It is an additional location of an existing service or facility.
- The applicant believes it will not have a significant impact on the health care system.