House District 16

Senate District 7

THE TWENTY-FOURTH LEGISLATURE
HAWAI'I STATE LEGISLATURE
APPLICATION FOR GRANTS & SUBSIDIES
CHAPTER 42F, HAWAI'I REVISED STATUTES

Log No: 189-C

For Legislature's Use Only

Type of Grant or Subsidy Request:

☐ GRANT REQUEST – OPERATING ☒ GRANT REQUEST – CAPITAL ☐ SUBSIDY REQUEST

"Grant" means an award of state funds by the legislature, by an appropriation to a specified recipient, to support the activities of the recipient and permit the community to benefit from those activities.

"Subsidy" means an award of state funds by the legislature, by an appropriation to a recipient specified in the appropriation, to reduce the costs incurred by the organization or individual in providing a service available to some or all members of the public.

"Recipient" means any organization or person receiving a grant or subsidy.

STATE DEPARTMENT OR AGENCY RELATED TO THIS REQUEST (LEAVE BLANK IF UNKNOWN): _____

STATE PROGRAM I.D. NO. (LEAVE BLANK IF UNKNOWN): _____

1. APPLICANT INFORMATION:

Legal Name of Requesting Organization or Individual:
National Tropical Botanical Garden

Dba:

Street Address: 3530 Papalina Road
Kalaheo, HI 96741

Mailing Address: Same

2. CONTACT PERSON FOR MATTERS INVOLVING THIS APPLICATION:

Name Guy M. Nakashima

Title Director of Foundation and Government Relations

Phone # (808) 346-4046

Fax # (808) 626-2602

e-mail gnakashima@ntbg.org

3. TYPE OF BUSINESS ENTITY:

☒ NON PROFIT CORPORATION
☐ FOR PROFIT CORPORATION
☐ LIMITED LIABILITY COMPANY
☐ SOLE PROPRIETORSHIP/INDIVIDUAL

4. FEDERAL TAX ID # [redacted]

5. STATE TAX ID # [redacted]

6. SSN (IF AN INDIVIDUAL): _____

7. DESCRIPTIVE TITLE OF APPLICANT'S REQUEST:

National Tropical Botanical Garden's Botanical Research Center

(Maximum 300 Characters)

8. FISCAL YEARS AND AMOUNT OF STATE FUNDS REQUESTED:

FY 2008-2009 $ 1,500,000

9. STATUS OF SERVICE DESCRIBED IN THIS REQUEST:

☒ NEW SERVICE (PRESENTLY DOES NOT EXIST)
☒ EXISTING SERVICE (PRESENTLY IN OPERATION)

SPECIFY THE AMOUNT BY SOURCES OF FUNDS AVAILABLE AT THE TIME OF THIS REQUEST:

STATE $ 0
FEDERAL $ 200,000
COUNTY $ 0
PRIVATE/OTHER $ 12,893,779

TYPE NAME & TITLE OF AUTHORIZED REPRESENTATIVE:

[redacted]
AUTHORIZED SIGNATURE

Guy M. Nakashima, Director of Foundation and Government Relations
NAME & TITLE

01/31/08
DATE SIGNED

Applicant National Tropical Botanical Garden

Application for Grants and Subsidies

If any item is not applicable to the request, the applicant should enter "not applicable".

I. Background and Summary

This section shall clearly and concisely summarize and highlight the contents of the request in such a way as to provide the State Legislature with a broad understanding of the request. Include the following:

1. A BRIEF description of the applicant's background;
2. The goals and objectives related to the request;
3. State the public purpose and need to be served;
4. Describe the target population to be served; and
5. Describe the geographic coverage.

II. Service Summary and Outcomes

The Service Summary shall include a detailed discussion of the applicant's approach to the request. The applicant shall clearly and concisely specify the results, outcomes, and measures of effectiveness from this request.

1. Describe the scope of work, tasks and responsibi[redacted]
2. The applicant shall provide a projected annual timeline for accomplishing the results or outcomes of the service;
3. The applicant shall describe its quality assurance and evaluation plans for the request. Specify how the applicant plans to monitor, evaluate, and improve their results; and
4. The applicant shall list the measure(s) of effectiveness that will be reported to the State agency through which grant funds are appropriated (the expending agency). The measure(s) will provide a standard and objective way for the State to assess the program's achievement or accomplishment. Please note that if the level of appropriation differs from the amount included in this application that the [redacted]

measure(s) of effectiveness will need to be updated and transmitted to the expending agency.

III. Financial

Budget

1. The applicant shall submit a budget utilizing the enclosed budget forms as applicable, to detail the cost of the request.

2. The applicant shall provide its anticipated quarterly funding requirements for the fiscal year 2008-2009.

Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total Grant

IV. Experience and Capability

A. Necessary Skills and Experience

The applicant shall demonstrate that it has the necessary skills, abilities, knowledge of, and experience relating to the request. State your experience and appropriateness for providing the service proposed in this application. The applicant shall also provide a listing of verifiable experience of related projects or contracts for the most recent three years that are pertinent to the request.

B. Facilities

The applicant shall provide a description of its facilities and demonstrate its adequacy in relation to the request. If facilities are not presently available, describe plans to secure facilities. Also describe how the facilities meet ADA requirements, as applicable.

V. Personnel: Project Organization and Staffing

A. Proposed Staffing, Staff Qualifications, Supervision and Training

The applicant shall describe the proposed staffing pattern and proposed service capacity appropriate for the viability of the request. The applicant shall provide the qualifications and experience of personnel for the request and shall describe its ability to supervise, train and provide administrative direction relative to the request.

B. Organization Chart

The applicant shall illustrate the position of each staff and line of responsibility/supervision. If the request is part of a large, multi-purpose organization, include an organizational chart that illustrates the placement of this request.

VI. Other

A. Litigation

The applicant shall disclose any pending litigation to which they are a party, including the disclosure of any outstanding judgement. If applicable, please explain.

Not Applicable

B. Licensure or Accreditation

Specify any special qualifications, including but not limited to licensure or accreditation that applicant possesses relevant to this request.

BUDGET REQUEST BY SOURCE OF FUNDS
(Period: July 1, 2008 to June 30, 2009)

Applicant: National Tropical Botanical Garden, BOTANICAL RESEARCH CENTER

BUDGET CATEGORIES	Total State Funds Requested (a)	Federal Funding (b)	Corporate, Foundation (c)	Individuals (d)
A. PERSONNEL COST				
1. Salaries				
2. Payroll Taxes & Assessments				
3. Fringe Benefits				
TOTAL PERSONNEL COST				
B. OTHER CURRENT EXPENSES				
1. Airfare, Inter-Island				
2. Insurance				
3. Lease/Rental of Equipment				
4. Lease/Rental of Space				
5. Staff Training				
6. Supplies				
7. Telecommunication				
8. Utilities				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
TOTAL OTHER CURRENT EXPENSES				
C. EQUIPMENT PURCHASES				
D. MOTOR VEHICLE PURCHASES				
E. CAPITAL (SEE PAGE 7)	$1,500,000	$200,000	$1,824,613	$11,069,166
TOTAL (A+B+C+D+E)	$1,500,000	$200,000	$1,824,613	$11,069,166

SOURCES OF FUNDING	
(a) Total State Funds Requested	$1,500,000
(b) Federal Funding	200,000
(c) Corporate, Foundation	1,824,613
(d) Individuals	11,069,166
TOTAL REVENUE	$14,593,779

Budget Prepared By:

Janet L. Mayfield — 808-332-7324
Name (Please type or print) — Phone

Signature of Authorized Official — Date

Janet L. Mayfield, COO & CFO
Name and Title (Please type or print)

BUDGET JUSTIFICATION
PERSONNEL - SALARIES AND WAGES

Applicant: NOT APPLICABLE

Period: July 1, 2008 to June 30, 2009

POSITION TITLE	FULL TIME EQUIVALENT	ANNUAL SALARY A	% OF TIME BUDGETED TO REQUEST B	TOTAL SALARY BUDGETED IN REQUEST A x B
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
				$ -
TOTAL:				

JUSTIFICATION/COMMENTS:

BUDGET JUSTIFICATION - EQUIPMENT AND MOTOR VEHICLES

Applicant: NOT APPLICABLE Period: July 1, 2008 to June 30, 2009

DESCRIPTION EQUIPMENT	NO. OF ITEMS	COST PER ITEM	TOTAL COST	TOTAL BUDGETED
			$ -	
			$ -	
			$ -	
			$ -	
			$ -	
TOTAL:				

JUSTIFICATION/COMMENTS:

DESCRIPTION OF MOTOR VEHICLE	NO. OF VEHICLES	COST PER VEHICLE	TOTAL COST	TOTAL BUDGETED
			$ -	
			$ -	
			$ -	
			$ -	
			$ -	
TOTAL:				

JUSTIFICATION/COMMENTS:

BUDGET JUSTIFICATION
CAPITAL PROJECT DETAILS

Applicant: National Tropical Botanical Garden, BOTANICAL RESEARCH CENTER
Period: July 1, 2008 to June 30, 2009

FUNDING AMOUNT REQUESTED						
TOTAL PROJECT COST	ANY OTHER SOURCE OF FUNDS RECEIVED IN PRIOR YEARS		STATE FUNDS REQUESTED		FUNDING REQUIRED IN SUCCEEDING YEARS	
	FY: 2005-2006	FY: 2006-2007	FY:2007-2008	FY:2008-2009	FY:2009-2010	FY:2010-2011
PLANS	697,000	32,756				
LAND ACQUISITION	--	--				
DESIGN	487,500	--				
CONSTRUCTION	8,497,648	2,628,875		1,500,000		
EQUIPMENT	--	750,000				
TOTAL:	$9,682,148	$3,411,631		$1,500,000	NONE	NONE

JUSTIFICATION/COMMENTS: The total project cost for the Botanical Research Center is coming is approximately $14,593,779. In addition to the hard costs for the project, our goal is to raise a $2 million endowment. The state funds requested would complete the funding needed for the construction costs of the project.

DECLARATION STATEMENT
APPLICANTS FOR GRANTS AND SUBSIDIES
CHAPTER 42F, HAWAI'I REVISED STATUTES

The undersigned authorized representative of the applicant acknowledges that said applicant meets and will comply with all of the following standards for the award of grants and subsidies pursuant to section 42F-103, Hawai'i Revised Statutes:

(1) Is licensed or accredited, in accordance with federal, state, or county statutes, rules, or ordinances, to conduct the activities or provide the services for which a grant or subsidy is awarded;

(2) Comply with all applicable federal and state laws prohibiting discrimination against any person on the basis of race, color, national origin, religion, creed, sex, age, sexual orientation, or disability;

(3) Agree not to use state funds for entertainment or lobbying activities; and

(4) Allow the state agency to which funds for the grant or subsidy were appropriated for expenditure, legislative committees and their staff, and the auditor full access to their records, reports, files, and other related documents and information for purposes of monitoring, measuring the effectiveness, and assuring the proper expenditure of the grant or subsidy.

In addition, a grant or subsidy may be made to an organization only if the organization:

(1) Is incorporated under the laws of the State; and

(2) Has bylaws or policies that describe the manner in which the activities or services for which a grant or subsidy is awarded shall be conducted or provided.

Further, a grant or subsidy may be awarded to a non-profit organization only if the organization:

(1) Has been determined and designated to be a non-profit organization by the Internal Revenue Service; and

(2) Has a governing board whose members have no material conflict of interest and serve without compensation.

Further, the undersigned authorized representative certifies that this statement is true and correct to the best of the applicant's knowledge.

National Tropical Botanical Garden
(Typed Name of Individual or Organization)

[redacted]
(Signature)

1/31/08
(Date)

Guy M. Nakashima
(Typed Name)

Director of Foundation and Government Relations
(Title)

I. Background and Summary

1. A brief description of the applicant's background;

The National Tropical Botanical Garden (NTBG) stands as a preeminent institution on a world-scale poised to address the crisis in extinction of tropical plants in Hawai'i and the Pacific. Effective conservation relies on public understanding and participation, and it is our goal to engage and teach individuals of all ages that by investing in the preservation of our planet's biodiversity they are investing in their children's future. The education courses, the gardens' physical beauty, and opportunities to collaborate with NTBG conservationists, scientists, and education specialists draws people of all ages.

Formally recognizing the mission and efforts of the NTBG, in 1964, the United States Congress, under the leadership of Hawai'i's Senators Daniel K. Inouye, the late Senator Hiram L. Fong, and the late Representative Spark M. Matsunaga chartered the **Pacific Tropical Botanical Garden** as a non-profit organization dedicated to creating a national resource in tropical horticulture and botany through conservation, research and education. The NTBG is the only tropical botanical garden with a Congressional Charter. In 1988, twenty-four years after the granting of our Congressional Charter, the organization's name was changed by an Act of Congress to the **National Tropical Botanical Garden,** a name that gives effect to the agreement to transfer to NTBG title and operation of The Kampong Garden in Miami, Florida, and symbolizes the NTBG's scientific leadership well beyond Hawai'i and the Pacific.

In just over four decades, the NTBG has grown to include: Five spectacular gardens and three preserves totaling over 1,800 acres of land; over 100 employees; an operating budget of $8.7 million; and an endowment (including beneficial trusts) of over $30 million. From our official launch date until today, the NTBG has been supported almost exclusively by contributions from generous individuals and foundations. In fact, operating support of nearly $100 million has been contributed from private sources during this period, and additional $50 million in assets, including endowments, trusts, land, buildings, and rare books.

The mission of the NTBG is to enrich life through discovery, scientific research, conservation, and education by perpetuating the survival of plants, ecosystems, and cultural knowledge of tropical regions. This mission is achieved through a network of diverse gardens and preserves on three of the major Hawaiian Islands and in the Coconut Grove Section of Miami, each with unique and significant biological, cultural, and historical natural resources. These include:

McBryde- Situated on the south shore of Kaua'i, the McBryde Garden in the picturesque Lāwa'i Valley is over 250 acres of garden and preserve. The site of the first garden of the National Tropical Botanical Garden, the Lāwa'i Valley was chosen for its diversity of climate and topography. The area affords a kaleidoscope of distinct micro-environments which are cool, hot, wet, dry, lake, cliff or meadow.

Over the years, the McBryde Garden has become a veritable botanical ark of tropical flora comprised of nearly 4,000 plant species from around the world. It is home to the largest *ex situ*

collection of native Hawaiian flora in existence, as well as extensive plantings of palms, flowering trees, heliconias, orchids and many other plants that have been collected from the tropical regions of the world. NTBG's Conservation Program is based at this site and this garden contains a state-of-the-art horticulture and micropropagation facility that was dedicated in 2005.

NTBG's administrative headquarters is located on a ten-acre campus overlooking this magnificent garden oasis. Also located on this 10-acre site are major research and education facilities.

Allerton- Visitors to the NTBG on Kaua'i's south side typically begin their tropical tour in the nearly 80-acre Allerton Garden, located in the Lāwa'i Valley adjacent to McBryde Garden. This historic garden was artistically designed in 1938 by Robert and John Allerton and is internationally recognized as a masterwork of landscape architecture. Noted for its lush landscape design, gravity-fed fountains and pools, statuary, and other surprise features hidden among tropical foliage, Allerton displays the once-private estate's tropical flora with an elegant grace. The historic Allerton Estate and the adjacent Allerton Garden is home to nearly 2,000 tropical plant species as well as one of the largest endangered Green Sea turtle nesting site in the main Hawaiian Islands.

Limahuli- Set in a narrow valley framed by soaring cliffs, Limahuli Garden and Preserve evokes the history of Kaua'i, and of the Hawaiian Islands. Located on Kaua'i's wet north shore in Hā'ena, Limahuli Garden and Preserve extends over 1,000 acres in a verdant tropical valley covering three distinct ecological zones. Ongoing programs in watershed protection and studies in plant and animal stream life are conducted at this site. Archaeological evidence substantiates that the Limahuli Valley on Kaua'i was one of Hawai'i's earliest settlements.

In 1997, Limahuli Garden was selected by the American Horticultural Society as the best natural botanical garden in the United States, noting that its research, teaching and educational programs have demonstrated the best sound environmental practices of water, soil, and rare plant conservation in an overall garden design. In choosing Limahuli Garden, the AHS researched the various programs being conducted by the Garden and specifically noted that Limahuli Garden's use of the *ahupua'a* system as a holistic management tool was one of the many reasons for the award.

In 2007, Limahuli Garden and Preserve received the coveted Koa Award at the Hawai'i Tourism Authority's 16th Annual *Keep It Hawai'i* Awards Program, recognizing our exemplary commitment in helping preserve and perpetuate Hawai'i's host culture.

Kahanu- On the Hāna coast, along the far eastern shores of the Hawaiian island of Maui, Kahanu grows amid black lava flows in splendid isolation. Its 294 expansive acres encompass plant collections from the Pacific Islands, concentrating on plants of value to the people of Polynesia, Micronesia, and Melanesia.

Fringed by a vast native pandanus forest, Kahanu Garden contains the world's largest and diverse collection of breadfruit cultivars. This collection serves as a germplasm repository for this important South Pacific food crop, housing cultivars from over 20 different island groups.

Kahanu Garden is also home to the Hale O Pi'ilani Heiau, one of the largest and most culturally significant archaeological structures in Hawai'i. Designated as a National Historic Landmark in 1965, this 15th century structure was painstakingly restored by the NTBG over a 20-year period. In 1999, the State House of Representatives passed a resolution honoring the NTBG for its restoration and stewardship of this national treasure.

In 2007, the Legacy Land Conservation Program awarded the NTBG and Kahanu Garden $1,500,000 to acquire the 170 acres immediately adjacent to Kahanu Garden. This undisturbed parcel is critical for the conservation of native hala forests and cultural resources, as well as protecting the uninterrupted view planes from the Hale O Pi'ilani Heiau.

The Kampong- Located on Biscayne Bay in Coconut Grove, Florida, The Kampong contains a fascinating array of flowering trees and tropical fruit cultivars. In the early 1900's, noted plant explorer David Fairchild searched the world for plants of economic and aesthetic value that could be cultivated in the United States. He and his wife Marian (daughter of Alexander Graham Bell) took up residence here amid some of his collections, borrowing the Malaysian word *kampong* for his home in a garden.

Catherine Hauberg Sweeney, who had also traveled extensively in Indonesia and Malaysia, purchased The Kampong from the Fairchilds in the 1960's. She later gifted this then nine-acre property to the NTBG to continue in the tradition of promoting work in horticulture, of providing a valuable germplasm resource, and of preserving the property for posterity. The Kampong is listed on the National Register of Historic Places.

As an environmental non-profit organization, the NTBG is ideally-positioned and poised to address the crisis in extinction of tropical plants in Hawai'i and the Pacific. Located within the Gardens are world-renowned research, conservation, and education departments, all specializing in their respected segments of botanical and related sciences.

2. The goals and objectives related to the request;

The fundamental goal of the **Botanical Research Center Campaign**[1] **(BRC)** is to establish a centralized scientific information repository which further enables the NTBG to fulfill its stated mission. Since it was established over four decades ago, NTBG's herbarium, library, and living collections have been indispensable assets to the scientific research, conservation, and education communities here in Hawai'i and throughout the world. The resources that these collections provide, not only to researchers and students in Hawai'i, but also worldwide, are incomparable.

The immediate proximity of our comprehensive living collections of tropical flora to our extensive herbarium and extraordinary botanical library is rare. **Building the BRC upon the headquarters campus of the NTBG in Kalāheo, Kaua'i, Hawai'i is central to providing and facilitating intensive conservation, research, and education programming and collaboration.**

[1] Appendix 1

The primary objective of our BRC Campaign is to consolidate our disjointed reference collections into one centralized resource repository that has sufficient space to house our complete resource collection and facilitate comprehensive intellectual exchange. The BRC will bring these resource collections of world significance together with research labs and offices and educational spaces within a single U.S. Green Building Council LEED certified "green" structure.[2] The proposed Campaign involves constructing a 20,894 square feet complex that will include a herbarium, library, rare book room, specimen processing room, common work/education area, seminar room and five lab offices for students and researchers.

3. State the public purpose and need to be served;

Public Resources

Ninety percent of all biodiversity on the planet exists in the tropics- the warm moist belt that circles the earth, bordered by the Tropic of Cancer on the north and by the Tropic of Capricorn on the south. Within the borders of the United States, Hawai'i is the only state that falls within the tropics, and because of its high biodiversity, it is also home to more endangered plants and animals than almost all the other states combined. These priceless resources are dwindling in numbers to the point of extinction before the scientific community has discovered their relationship to other plant species and animals and what benefits they could yield. Effective conservation relies on public understanding and participation and the NTBG is an active partner in educating the public about tropical diversity.

The NTBG Herbarium is the most active herbarium in the Pacific focusing on extensive collections from Hawai'i and the South Pacific. It currently houses more than 55,000 specimens and is growing rapidly. Our extensive herbarium collect consists of preserved, dried and pressed plant specimens (vouchers) that serves as a considerable resource for scientific research, including floristic and systematic studies.

Our library collection, also located at NTBG's research headquarters in Hawai'i, is a natural complement to the adjacent herbarium and living collections, extending the available sources of information to the collective knowledge of generations contained in books, as well as unpublished documents and illustrations. The library is one of the most focused botanical/horticultural collections in Hawai'i, with more than 44,000 books, prints, and botanical images. The collections include botanical literature, early herbals, and floras dating back to the 1500s, many of which are rare volumes. More recently published books and papers are also included in our library collection, including those published by the NTBG, or other botanical institutions and individual authors; containing results of modern research discoveries related to tropical plants. In addition to original botanical art, there is a significant collection of slides and photographic prints with images of Hawaiian and Pacific island plants and people.

Currently, our library and herbarium collections are overflowing, even after taking temporary measures by using environmentally-controlled shipping containers to house substantial portions of the collections. The growing number of herbarium specimens resulting from increased plant

[2] Appendices 2

collecting by NTBG scientists provides continued storage challenges. With the delicate nature of the herbarium collection, these important specimens of rare and endangered plant species must be housed in an environment conducive to preservation.

The BRC will further enable the NTBG staff to promote public understanding of tropical plants and their ecosystems, as well as traditional knowledge and practices. As an organization, we find it difficult to turn away inquisitive minds simply because we lack the physical space needed to properly accommodate them. With the establishment of the BRC, we will finally have an adequate facility which will allow us to accommodate and enlighten the greatest number of inquisitive individuals.

Educating the Public

Over four decades, the Garden has developed a full spectrum of high-leverage educational offerings that provide opportunities for tropical plant enthusiasts for many backgrounds. Through NTBG education and outreach programs, students are presented with unique opportunities to learn first-hand about tropical botany, horticulture, and ethnobotany as well as the importance of traditional knowledge and natural and cultural resource management. **Once completed, the BRC will certainly provide the local community of Kaua'i with an unprecedented resource that will help engage and train future generations of stewards of the nation's tropical ecosystems, one of the world's greatest natural resources.**

Our education programs are designed to engage both Teachers and Students. Science Teachers who instruct at our local public and private schools have also attended education offerings at our Garden. The BRC will become a critical component of the teacher training taking place at NTBG each year. The BRC will certainly enhance future visits by Teachers and Students, allowing them to interact with an abundance of reference materials and plant specimens. From learning about bio-diversity to witnessing first hand the benefits to the community by building "green", the benefits that the BRC will provide to the communities will be astounding.

Closest to home, NTBG education programs for Hawai'i's schoolchildren endeavor to promote interest in science through an appreciation of the plants that surround them and the importance of these plants to their cultural heritage. The programs are designed to interface with the established school curriculum standards. The *Garden As Classroom*[3] program is provided to every school on the island of Kaua'i at no cost and involves students in experiential learning. In 2007, 2,758 students from local head-start, elementary, middle, and high schools all participated in NTBG education programs. The *Junior Restoration Team* program introduces conservation education to middle and high school students. Through their hands-on participation in restoration projects, students develop a compelling understanding of the threats posed to endemic plants and their habitats while promoting positive environmental stewardship. The hope is that in addition to the contribution these students make, some of them will be inspired to pursue careers in horticulture or conservation. The BRC will become the first stop for all NTBG

[3] *Garden As Classroom*, an inquiry-based program for children three-year olds and older, connects the youngest students to the natural world around them.

Education Programs as it will serve as the primary resource and education facility, housing information not duplicated anywhere else in the State of Hawai'i.

According to the Superintendent's 17th Annual Report developed by the State of Hawai'i Department of Education, nearly 42% of Kaua'i's Waimea Complex students belong to economically disadvantaged families. Many families that make up our community often lack the financial capacity to offer their children opportunities with monetary commitments. For NTBG to be able to develop facilities and programs right in this disadvantaged community which will help them to develop career paths is an unprecedented opportunity.

NTBG continues to work with the high schools to develop career tracking programs in collaboration with Kaua'i Community College that creates pathways to better jobs and higher education for our local children on Kaua'i. The BRC will serve as an information repository for Kaua'i Community College, allowing students to interact with rare botanical information sources.

A core component of the education focus over the years has been *the Horticultural Internship Program,* which provides a work/study experience for students interested in horticulture, botany, ethnobotany, conservation and science-related fields. The *Tropical Ethnobotany Course* provides hands-on experience and course work in ethnobotany field techniques. Also key among NTBG's educational opportunities is the *Environmental Journalism Course* for professionals in print and broad cast media. Public lectures and workshops, such as The *Science in the Garden Lectures* offer Hawai'i local residents and visitors an opportunity to interact with scientists and specialist in a myriad of disciplines. Lectures are usually focused on a single topic, such as a research discovery or the flora of a particular tropical region. Speakers regularly include Garden staff as well as visiting scientists and environmental specialist. Hands-on workshops teach participants a particular skill or art, from pruning to traditional weaving with plant materials.

Tours of NTBG's gardens offer another opportunity to reach out with information on tropical plants and their threatened state. While providing an enjoyable experience in a beautiful setting is always a distinct objective, education forms the basis of our public tour offerings. Interpretive materials facilitate individual understanding of plants, ecosystems, and cultural or modern uses, with the intended outcome being a deeper appreciation for plant life overall. From 2007, the Hawai'i Tourism Authority has supported our tour offerings at all of our Hawai'i garden venues through various competitive grants. We are proud of our affiliation with the Hawai'i Tourism Authority and will continue to provide exemplary services to our visitor industry.

Public lectures and workshops held at NTBG headquarters will allow our staff to reach a large cross-section of the local Kaua'i community, as well as visitors to the area. With our library holding the largest botanical/horticultural collection in Hawai'i with more than 44,000 books, prints, and images, our information resources will allow our community the ability to retrieve plant-based resources from one centralized location. Experts in the fields of botany and horticulture will be made available to the public once the BRC officially opens its door in 2008.

These education and conservation programs offered by the NTBG illustrate our commitment to improving and providing for our community. We currently have a tremendous response from our local community and once the BRC is completed, we will have an improved conduit to serve even more interested individuals.

Career Development

The NTBG continues to work with our local high schools to develop career track programs in collaboration with Kaua'i Community College that creates pathways to better jobs and higher education opportunities for our local children on Kaua'i. Consistent with recent findings by the Kaua'i Economic Development Board, the knowledge and skills acquired by students and young adults who participate in education and apprenticeship programs offered by the NTBG are directly applicable to one of Kaua'i's most promising industries, Food and Agriculture.[4] Employees who work in the Food and Agriculture Industry earn living wages, allowing families the opportunity to break the cycle of poverty through skilled and gainful employment. Again the BRC will play an important role in this program as it will house resource materials and a computer lab that will be used to enrich the lives of these students and adults and provide them with the basic tools for understanding and conducting scientific research which opens up tremendous new employment possibilities for them.

A very promising new job-training initiative is the Apprenticeship Program, which focuses squarely on career development at the local level. Apprentices work two days per week as an assistant to one of our highly skilled employees. The apprentice is expected to use the balance of his/her time to take college or technical courses offered at Kaua'i Community College, or to pursue part-time employment with other employers who will provide additional career building skills and support.

In our entry-level Conservation Technician positions, and indeed in all our Conservation and Horticulture positions, every effort is made to provide not just valuable on-the-job training, but also high-quality educational opportunities, in the form of training workshops in topics such as Horticultural Techniques, Worker and Helicopter Safety, Employee Management and Mapping Techniques, taught by NTBG professionals or outside instructors.

Greater opportunities are also being created for full-time employment in our programs and gardens. It is hoped that our high school programs and apprenticeships will also help by creating a virtually seamless "pipeline" for attracting and training young people in our community.

In 2007, recognizing our steadfast commitment to our low-income community members, The Department of Housing and Urban Development (HUD) granted the NTBG $200,000 in support of our soon-to-be completed Botanical Research Center, earmarking the funds to assist economically disadvantaged families living on the west side of Kaua'i. This unprecedented Federal appropriation from HUD certainly validates our initiatives aimed at breaking the cycle of poverty through skilled and gainful employment.

[4] *Kaua'i Economic Development Plan*

Once completed, the BRC will be the hub of botanical education and plant-based career development in our community and our state. An abundance of reference materials will be made available to the public with the opening of the BRC in mid 2008 and it will serve as an essential component of all of the NTBG educational programs. Kaua'i residents will have access to the most active herbarium collections and focused botanical library in the Pacific as well as designated learning areas to learn about and interact with these rare materials. Staff of the NTBG will be available daily to help guide inquisitive minds, teaching our residents about the importance of bio-diversity and ways in which they can be involved. From learning about bio-diversity to developing marketable skills, the NTBG and its new Center will truly improve our island community through education, career and social development initiatives.

The Garden continues to be the largest private career provider on Kaua'i's west side. Members of our west side community make up 42.5% of our botanical garden staff at our Lawai Valley gardens. In addition to our significant employment numbers of west side residents, our initiatives have created career-tracks for 34 economically disadvantaged members of our community.

Green Building

As a statement to our institutional commitment to conservation and our environment, the BRC project has been registered with the U.S. Green Building Council's LEED (Leadership in Energy and Environmental Design) Program with Gold Level LEED certification[5] being pursued as part of its sustainable design. LEED certification establishes the national standard for "green" building design and construction. The NTBG and our design and construction associates are prepared and committed to meeting these stringent environmentally-friendly standards, simply because it is the right thing to do.

Consistent with Lawmakers push for a greener Hawai'i, the NTBG is doing its part to keep Hawai'i green. The BRC will be the first building on the island of Kaua'i to receive LEED certification, establishing the benchmark which future construction projects will be measured against. Construction firms associated with the BRC project have retooled their operations to comply with LEED standards. As a result, these firms have discovered and implemented new ways of recycling waste products, meaning less construction waste in our landfills. We believe that eco-sensitive construction is not only possible, but that it will become the direction that the construction industry will pursue in the near future. The BRC project has allowed our construction associates an opportunity to retool their operations and discover new eco-sensitive construction practices.

The design of the BRC is high-performance and eco-sensitive. Structures that meet LEED-certification are designed in such a way to minimize its fossil-fuel energy reliance as well as municipal water resources. The roof of the BRC has been designed to capture sunlight to generate electricity through photovoltaic technology and to provide natural lighting through

[5] Appendices 3

clerestories as well as rainwater that will be transferred to a cistern and used to irrigate the living collections in the garden located adjacent to the structure.[6]

4. Describe the target population to be served; and

The NTBG currently serves an extraordinarily diverse population, including those belonging to local, national and international scientific research, education, botanical enthusiasts, and conservation communities. Communities that continue to visit our facilities and utilize our reference resources included:

- Kaua'i Head Start, elementary, middle, and high school students;
- Kaua'i Community College;
- Students from prestigious institutions including the University of Hawai'i, University of Portland, California Polytechnic State University, North Lake College, University of Zurich, Okinawa Christian University, and Chiba Keizai College;
- Kaua'i community members; and,
- Members of academia including educators and researchers from prestigious institutions including the University of Hawai'i, University of California, Berkeley, Harvard University, and University of Vienna, Smithsonian Institution, The Institute for Economic Botany, Délégation à la Recherche (Tahiti, French Polynesia).

5. Describe the geographic coverage.

The site dedicated for the construction of Kaua'i's first Botanical Research Center is located in Kalāheo, Kaua'i, Hawai'i. Geographically, the BRC will serve the entire island community of Kaua'i, all 552.59 sq mi. On a much broader scope, the BRC will have the reach to serve the entire Hawaiian Island chain. With the relatively close proximity of the islands, and the readily available air travel routes to and from the island of Kaua'i, the geographic coverage of the BRC reaches the entire 1,500 miles of the Hawaiian Archipelago.

II. Service Summary and Outcomes

1. Describe the scope of work, tasks, and responsibilities

Scope of Work

All of NTBG's programs in conservation, education, and scientific research have the common goal of ensuring the survival of tropical plants, their ecosystems, and cultural knowledge. The Botanical Research Center will equally serve all of our programs, providing the information needed to continue our efforts in a centralized resources repository.

Conservation initiatives include collecting expeditions throughout Hawai'i and the Pacific region to identify plant species that are at risk of extinction and to collect seeds and plant material for propagation and conservation in the living collections. Other projects focus on ecological

[6] Appendices 4

restoration of degraded habitats, protecting the endemic species that still exist, and reintroducing species which have not survived on their own.

Scientific Research underlies all of the NTBG programs. Its focus is on identifying, documenting, understanding, and conserving the rich diversity of tropical plants and their habitats. The collections -- living, herbarium, and library -- provide rich resources to NTBG staff, as well as to researchers and students around the world.

Education programs reach out to a wide audience -- from young children to adults; from college, university, or graduate students to teachers and college professors; from professionals in medicine or environmental journalism to the general public. Through a combination of targeted courses, work-study programs, public presentations, and visits to the gardens, the NTBG promotes understanding of tropical plants and their ecosystems, which is the first step in protecting them.

Once completed, the Botanical Research Center will be the hub of botanical conservation, research and education in the Pacific. For over 43 years, NTBG's herbarium, library, and living collections have been indispensable to its scientific research and conservation programs. The NTBG Herbarium is the most active herbarium in Hawai'i and the South Pacific, with more than 55,000 specimens. The library is one of the most focused botanical/horticultural collections in Hawai'i, with more than 44,000 rare books, prints, and images. The BRC will serve as the conduit, allowing the NTBG to reach a much larger audience, enlightening them on the significance of the botanical world that surrounds them.

Tasks and Responsibilities

Since its inception, NTBG has envisioned a building specifically designed to house the Garden's significant botanical research and rare book libraries, and its unique and ever-growing herbarium collection. For the first time in its 43-year history, the collective research, rare book libraries, and herbarium collections will be brought together under one roof on NTBG's headquarter campus in Kalāheo, Kaua'i.

With the completion of the BRC, many of our education, research, and conservation components will be consolidated under one roof. Each department will continue to be directed by their current respective Directors. Proposed BRC staffing includes NTBG Librarian Richard E. Hanna who will continue to direct all library-related affairs including more than 20,000 books, journals, botanical prints, and archival materials. NTBG Herbarium Manager Timothy Flynn will continue to manage the Garden's ever-growing herbarium collection of over 55,000 specimens of flowering plants, gymnosperms, ferns and fern allies, fungi, and bryophytes, documenting various floras from across the Pacific. NTBG Director of Education Dr. Namulau'ulu Tavana will continue to direct education-related affairs. Dr. David Lorence will continue to direct science affairs at the Garden. CEO and Director Chipper Wichman and CFO and COO Janet Mayfield will continue to provide direction and guidance to the Department Directors.

2. Projected Timeline for Accomplishing Results;

We have developed a working timeline to both indicate construction stages and measure our progress on a single chart. Each stage of the project will be measured against the proposed construction timeline offered to the NTBG by the Unlimited Construction Services, Inc. at the finalization of the construction contract phase. The timeline presented to the NTBG by the Unlimited Construction Services, Inc. will be used to establish project benchmarks used to measure progress during the construction phase of the BRC.

Construction Timeline

The construction phase of the Botanical Research Center Campaign has been scheduled to commence on January 29, 2007 and conclude within 425 business days. Early project stages, such as project development, architectural design, and construction documents have all been finalized as of November 2006. To ensure that the BRC will be completed on time, within specifications and within budget, AAC & Associates, LLC has been contracted to manage the construction phase of the BRC Campaign.

Operations Timeline

Post construction, transporting current operations to the new location has been tentatively scheduled to commence in June 2008 and continue until November 2008. Operations of the departments that will relocate to the BRC are anticipated to be operating at full capacity by December 2008. All other departments not relocating to the BRC will continue daily operations with little or no disruption.

3. Quality Assurance and Evaluation Plans;

The LEED certification process will also act as an independent quality assurance agent. The LEED Commissioner assigned to the BRC project will inspect certain aspects of the construction and operation to ensure compliance with LEED standards. This process, as well as the self-documentation component that is part of the LEED process will help to evaluate the quality of the construction process and to ensure the building operates as designed.

To ensure that the BRC will be completed on time, within specifications and within budget, AAC & Associates, LLC has been contracted to manage the construction phase of the BRC Campaign. Armand A. Cote, Manager of AAC & Associates, LLC has successfully managed and administered many large-scale construction projects including the $200 Million design/build Hawai'i Convention Center and other notable construction projects through out Hawai'i and the Pacific.

With major facilities construction campaigns such as the one that we are currently undertaking, budget concerns are of the highest importance. The NTBG has defined its budget related success as it relates to the BRC Campaign as completing the Campaign within budget and without hindering our normal daily operations budget. Professional budget estimates will serve as

budgetary benchmarks for the BRC Campaign. NTBG Finance Department under the direction of CFO and COO Janet L. Mayfield will administer the campaign budget.

4. Measure(s) of Effectiveness;

Construction Measures

With the initial phase of the BRC essentially being a facilities construction campaign, our measure of effectiveness is based on the standard measures associated with facilities construction including such measures as start/completion dates, project completion on time, and project completion within budget. *See Construction Timeline and Budget for detailed information*

Our mission to build a structure that meets silver LEED certification also serves as a measure of effectiveness. LEED certification is based on a standard point system, where points are earned by meeting or exceeding established standards set forth by the U.S. Green Building Council. **Projections show that our initial goal to meet silver certification standards will be exceeded by project end and the BRC on schedule to receive gold LEED certification due to its sustainable design and eco-sensitive construction practices.**

III. Financial

1. Budget – See attached budget

2. Quarterly Funding Requirement – See attached budget

IV. Experience and Capability

A. Necessary Skills and Expertise

As an organization, the 43 year-old NTBG is well-qualified and prepared to achieve our stated goal. Over the past 43 years, the NTBG has evolved from a simple single garden in its infancy into the world-renowned non-profit organization dedicated to fostering horticultural research, education, and plant preservation. The NTBG currently administers over 1,800 acres of land divided between five gardens and three preserves. A Hawai'i-based Research Center has always been the dream of our founding members, which has since been realized through the dedication and hard work of those individuals who have taken on the responsibility to carry the torch forward.

B. Facilities

The $14,593,779 Botanical Research Center Campaign has been structured in a classic inside-out, top-down format designed to solicit trustees and close friends first and finish up with a broad-based campaign designed to encourage existing donors to make stretch gifts and reach out to those who have never contributed to our organization in the past. NTBG Trustees have shown

their endorsement of the BRC by making exceptional leadership gifts to the campaign. Several of these gifts represent the some of the largest cash gifts each has ever made to the garden. These include a gift of $2,070,000, a gift of $1,500,000 and a gift of $1,000,000 respectively. In addition to the generous contributions made by our Trustees, Foundations with direct ties to Hawai'i have also made substantial contributions to the BRC Campaign totaling over $1,800,000. Federal support has been provided via the aforementioned HUD grant totaling $200,000 and we have received a favorable review from The National Science Foundation (NSF), who is slated to contribute $250,000 towards the BRC Campaign. Also lending Federal support to the BRC Campaign is the United States Department of Agriculture (USDA) Rural Economic Development Loan and Grant Program via a ten-year, zero percent interest loan totaling $300,000. Since the official inauguration of the Botanical Research Center Campaign in October 2005, the NTBG has successfully raised $13,093,779 through private and public philanthropic contributions. **The $1,500,000 Grant-in-aid request represents a significant commitment from the State of Hawai'i, a ten percent investment (10%) in a worthy project that will positively impact the environment, employment, education, and the economy in the State of Hawai'i.**

Under the direction of Director and CEO Chipper Wichman, CFO/COO Janet L. Mayfield, and Director of Development Donna Howard, the NTBG has developed a future funding strategic plan which involves utilizing the contributions from major public and private contributors to influence future philanthropic contributions. As part of the current campaign, the NTBG has developed a strategic plan with the aim of increasing the existing membership base from approximately 500 to over 3,000. **A Grant-in-aid awarded to the NTBG by the Hawai'i State Legislature would further validate the NTBG as an organization, allowing us to garner additional support locally, nationally, and internationally.**

During the planning stage of the BRC Campaign, Trustee leadership has emphasized the need to expand the donor base of the NTBG. While the Trustees and Fellows represent a core of support that would be the envy of most nonprofit organizations, the future growth and financial stability of the Garden is dependent on bringing new donors to the table during the campaign process. Toward this end, the Board has structured a campaign that will raise the funds needed to construct the BRC, show fiscal responsibility by providing for a building maintenance endowment, and still raise the annual operating support needed to run the Garden in 2006 and 2007.

To protect the invaluable herbarium and library collections housed within its wall, the BRC is designed to withstand category 5 hurricane-force winds. With nearly 20,000 square feet of interior and exterior space, the BRC will house our complete herbarium and library collections as well as accommodate 50-years of planned growth. Mechanical and electrical systems will provide multiple levels for backup operation during an emergency. Consistent with NTBG's commitment to conservation and the environment, the building is designed to be environmentally sustainable. **The BRC project is registered with the U.S. Green Building Council's LEED Program (Leadership in Energy and Environmental Design) and is designed to comply with their standards for Gold LEED certification.**

V. Personnel: Project Organization and Staffing

A. Proposed Staffing, Staff Qualifications, Supervision and Training

Charles R. "Chipper" Wichman, Jr. - Chipper Wichman is NTBG's Chief Executive Officer and serves as Director of the organization, beginning in January 2005. Prior to serving as the organization's Acting Director for nearly 1-1/2 years, Mr. Wichman served as Director of NTBG's Limahuli Garden on Kaua'i since 1994 and also as Director of NTBG's Kahanu Garden on Maui from 1997 through early 2002.

Mr. Wichman joined the organization in 1976, graduating from its Horticultural Internship program. He spent his early career developing Limahuli Garden. During this time, he obtained a Special Subzone designation in the Conservation District for the entire Limahuli Valley, restored ancient taro terraces, developed a collection of rare and endangered native Hawaiian plants, opened the garden to educational tours, and added the 989-acre Limahuli Preserve. Subsequently, Limahuli was named the Best Natural Botanical Garden in the United States by the American Horticultural Society.

Through numerous grants, Mr. Wichman was able to fund extensive native habitat restoration work in the Limahuli Preserve, which continues today. In addition to his work in conservation and education, he has lead efforts to perpetuate and preserve native Hawaiian culture. Recently he spearheaded a four-year Indigenous Communities Mapping Initiative Project at Limahuli. This collaborative project focused on researching and documenting traditional cultural knowledge and land use relationships and perpetuating traditional practices within the native community.

Janet Mayfield- Janet Mayfield is Chief Operating Officer and Chief Financial Officer for the NTBG organization. She assumed dual responsibilities in 2004, having served as CFO since 2003. Mrs. Mayfield had previously worked as NTBG Controller from 1997 through 1999.

In addition to overseeing all the financial aspects of the institution, Mrs. Mayfield oversees human resources and volunteer services, information technology, the publications office, and office services for the headquarters facility, as well as visitor services for the south shore gardens.

Mrs. Mayfield has B.S. in Accounting and has been a CPA for over twenty years. She has extensive experience in management and finances of non-profit organizations and continues to serve on the boards and advisory committees of other non-profit organizations in the community. Mrs. Mayfield has also been an instructor and lecturer at the local campus of the University of Hawai'i.

Donna Howard- Ms. Howard has been involved in institutional advancement since 1975 and currently serves as NTBG's Director of Development. As Vice President of Development at Mills College in Oakland, California (1983-1990), Ms. Howard led a comprehensive campaign that included successful completion of a Kresge challenge

grant. Under her leadership, the University of Hawai'i completed its first ever campaign by raising over $100 million. At Hawai'i Pacific Health Foundation, she directed the team which successfully met the terms of a Kresge challenge grant awarded to Wilcox Health. Among her many fundraising accolades, In 2006 Ms. Howard was recognized as the Outstanding Fundraising Professional by the Association of Fundraising Professionals, Hawai'i Chapter.

Dr. David Lorence- Dr. Lorence occupies the B. Evans Chair of Botany and came to the National Tropical Botanical Garden in 1987. He is the Senior Research Botanist for the organization. Research specialties are systematic studies of tropical plants, floristics, and invasive plant species. His systematic research focuses on Pacific and neotropical members of the large and diverse Rubiaceae family, which includes coffee, quinine, and gardenias. He also studies the Monimiaceae family of the Malagasy region and tropical America.

Dr. Lorence's floristic research includes a multi-institutional collaboration on a "Vascular Flora of the Marquesas Islands," contributing partial treatment of the Rubiaceae for "Flora Mesoamericana," and participating in a project to develop an annotated checklist of the plants of Pohnpei and Kosrae. His research on invasive species includes restoration efforts targeting Hawaiian dryland forest and exotic species invasion in Mauritius wet forest communities. He has carried out extensive fieldwork in Hawai'i, Samoa, the Marquesas, Micronesia, New Caledonia, Mexico, and the Malagasy region.

Dr. Lorence directs the research library and herbarium at headquarters, curates NTBG's collections of Rubiaceae and of Zingiberales, and serves on the board of the Heliconia Society International.

He is editor of Allertonia, NTBG's series of occasional papers.

Dr. David A. Burney- David A. Burney joined the NTBG as Director of Conservation in 2004. Dr. Burney's past research has focused on endangered species, paleoenvironmental studies, and causes of extinction. He has over 30 years of practical experience in conservation, including serving as a technical consultant for Wildlife Conservation Society, Conservation International, The Nature Conservancy, BBC Natural History Unit, National Museums of Kenya, United Nations Development Program, USDA, US Fish & Wildlife Service, and other organizations.

Dr. Burney previously held distinguished professional positions including Professor of Biological Sciences, at Fordham University, an associate scientist of the Louis Calder Conservation and Ecology Center and the Université d'Antananarivo (Madagascar), and an instructor in the Education Department of the New York Botanical Garden. He received a M.Sc. in conservation biology from the University of Nairobi (Kenya) and a Ph.D. in Zoology with a minor in Botany from Duke University. He is author of over 100 scientific articles and monographs, many concerning the processes of extinction and environmental change. He is a research affiliate of the University of Hawai'i, Université d'Antananarivo (Madagascar), University of Nairobi, and New York Botanical Garden.

His research has been featured on National Geographic Television, Discovery Channel, Hawai'i Public Television, NOVA, and National Public Radio.

Dr. Burney was awarded a John Simon Guggenheim Memorial Foundation Fellowship for 2005. This award will allow ongoing research on the Makauwahi Cave system at Mahaulepu and other fossil sites on Kaua'i and provide comprehensive data for his forthcoming book *"An Ecological History of Prehistoric Kaua'i"*.

Dr. Warren L. Wagner- Dr. Wagner occupies the McBryde Chair for Hawaiian Plant Studies at the NTBG as well as his position as Curator of Pacific Botany at the Smithsonian Institution, Washington, DC. Prior to his post at the Smithsonian, Dr. Wagner held posts at the Bishop Museum and Missouri Botanical Garden.

Dr. Wagner's research focuses on systematic, phylogenetic, and biogeographic studies, with primary specialization in Pacific island floras and in the evening primrose family (Onagraceae). He has worked extensively on plants of the Hawaiian Islands, the Marquesas, and Micronesia. He is co-author of the *Manual of the Flowering Plants of Hawai'i* and *Hawaiian Biogeography: Evolution on a Hot Spot Archipelago*, as well as numerous research papers, abstracts, and other publications. In recognition of his contributions to tropical botany, he received the Henry Allan Gleason Award from the New York Botanical Garden, the Engler Medal in Silver from the International Association for Plant Taxonomy, and the Robert Allerton Award from the NTBG.

In 1987, Dr. Wagner and Dr. David Lorence initiated the Flora of the Marquesas project, and over the years have conducted numerous field expeditions to this Pacific archipelago in preparation for the first comprehensive treatment of this flora.

The McBryde Chair, established in 1995 through an endowment, brings distinguished, senior level botanists to Garden headquarters to enhance conservation and research efforts with Hawai'i's native plant species.

Occupants of this post are prominent research scientists with outstanding academic and scholarly credentials; devoted teachers and mentors; and have dedicated their lives to the advancement of tropical botany and conservation.

Dr. Diane Ragone- Dr. Ragone is an authority on the conservation and use of breadfruit and has conducted horticultural and ethnobotanical studies on this important Pacific staple crop for 20 years in close to 50 islands in Micronesia, Polynesia, and Melanesia. Her extensive fieldwork enabled the NTBG to establish the world's largest collection of breadfruit at its Kahanu Garden in Hāna, Maui. This collection consists of 264 trees and 201 accessions from 18 Pacific Island groups, Indonesia, Philippines, and the Seychelles. In 2002, the NTBG created the Breadfruit Institute to promote the study and use of breadfruit for food and reforestation.

Current research projects include describing and documenting the NTBG's breadfruit collection; nutritional and fruit quality studies of elite cultivars; molecular studies to

understand taxonomic relationships, origin and distribution of breadfruit in the Pacific; developing in vitro methods to mass propagate breadfruit; ethnobotanical studies on traditional uses of breadfruit; and determining the conservation status of breadfruit cultivars in Polynesia and Micronesia.

Dr. Ragone holds a Ph.D. and a M.S. in Horticulture.

Dr. Gaugau Tavana- Dr. Tavana directs and develops educational programs at NTBG headquarters and its gardens in Hawai'i and Florida. Courses target national and international audiences -- introductory biology college professors, K-12 science teachers, graduate tropical ethnobotany students, college and university horticulture majors, environmental journalists, physicians and other healthcare professionals. Dr. Tavana also oversees NTBG's local Kaua'i programs, public lecture series, K-12 school programs, and university work-study programs.

In 1995, the American Education Research Association (AERA) honored Dr. Tavana with the most outstanding doctoral studies award. His research, entitled "Cultural Values and Education," analyzed the conflict in the attitude and perspective of indigenous people generated by early European colonialism and technological proliferation. His award-winning article based on that study was published in the International Journal of Education Reform.

Richard E. Hanna- Mr. Hanna has served as the National Tropical Botanical Garden's Librarian since 1991. Mr. Hanna holds an M.L.S. from the University of Hawai'i, Manoa and B.A. from the University of California, Berkeley in Molecular Biology. Before occupying the Librarian position at the Garden, Mr. Hanna held the Science Reference Librarian position at the University of Hawai'i, Manoa as well as other notable positions at other prestigious institutions of research and education. Under his direction, the library initiated digitization of selected rare botanical and horticultural prints and other images that have high scholarly value in order to make them available online to an international audience and extend access of NTBG's collections to researchers and students who are not able to travel to Hawai'i.

Timothy Flynn- Mr. Flynn serves as the National Tropical Botanical Garden's Herbarium Collections Manager. Mr. Flynn manages the Garden's herbarium collection of over 55,000 specimens of flowering plants, gymnosperms, ferns and fern allies, fungi, and bryophytes, documenting various floras across the Pacific and a few other select areas. NTBG is the only institution in Hawai'i with an active program to document these plants by the systematic collection of herbarium vouchers. Under the direction of Mr. Flynn, the NTBG is actively computerizing data from the herbarium collections to allow virtual access to the specimens from anywhere in the world.

B. Organization Chart

Governance

The Garden's Congressional Charter included the establishment of a Board of Trustees to govern the organization. The NTBG Board is dedicated to carrying out the mission and objectives of the organization. Members of the Board of Trustees meet two times per year to review progress, make policy decisions, and approve budgets and programs, based on the recommendations of the Director and his staff.

NTBG's Board consists of distinguished members from across the United States. While their backgrounds and interests are varied, they have a high interest in plant conservation, botanical research, and related education. In addition, a number of members of the Board are experienced and successful in financial management and fundraising.

Trustees are elected by the Board. Board service is voluntary and no compensation is received. *See included chart outlining the Board of Trustees.*

Faculty

Charles R. "Chipper" Wichman, Jr. - Chief Executive Officer and Director for the National Tropical Botanical Garden. Mr. Wichman oversees the entire NTBG organization. Mr. Wichman personally manages NTBG's largest project to date, the BRC Campaign, where he ensures that the project will be completed on time and within strict specifications.

Janet Mayfield- Chief Operating Officer and Chief Financial Officer for the National Tropical Botanical Garden. In addition to overseeing all the financial aspects of the institution, Mrs. Mayfield also oversees human resources and volunteer services, information technology, the publications office, and office services for the headquarters facility, as well as visitor services for the south shore gardens.

Dr. David H. Lorence- Director of Science for the National Tropical Botanical Garden. Dr. Lorence is the Senior Research Botanist for the organization.
Dr. Lorence directs the research library and herbarium at headquarters, curates NTBG's collections of *Rubiaceae* and of *Zingiberales*, and serves as the editor of *Allertonia*, NTBG's series of occasional papers.

***Dr. Namulau`ulu Tavana***- Director of Education for the National Tropical Botanical Garden. Dr. Tavana directs and develops educational programs at NTBG headquarters and its gardens in Hawai`i and Florida. Dr. Tavana also oversees NTBG's local Kaua'i programs, public lecture series, K-12 school programs, and university work-study programs.

Dr. David A. Burney- Director of Conservation and Director of Living Collections and Horticulture for the National Tropical Botanical Garden. Dr. Burney joined the NTBG as Director of Conservation in 2004, and assumed leadership of its Living Collections and Horticulture Department in 2006.

Donna Howard- Director of Development for the National Tropical Botanical Garden. Ms. Howard administers all fundraising aspects of the organization. Ms. Howard leads the fundraising segment of the Botanical Research Center Campaign which will ensure that the NTBG will be able to adequate fund and complete all phases of the BRC Campaign.

VI. Other

A. Litigation

None Pending

B. Licensure or Accreditation

The National Tropical Botanical Garden maintains the following accreditation(s) and memorandum agreement(s):

1. **Florida Medical Association** (accreditation) - The Florida Medical Association is a professional association dedicated to the service and assistance of Doctors of Medicine and Doctors of Osteopathic Medicine in Florida. The FMA represents more than 16,000 physicians on issues of legislation and regulatory affairs, medical economics, public health, education, and ethical and legal issues. The FMA serves as an advocate for physicians and their patients to promote the public health, to ensure high standards in medical education and ethics, and to enhance the quality and availability of health care.

   The FMA is recognized to accredit CME providers in Florida. *The Physicians' Course* presented by the NTBG to medical professionals has received accreditation through the FMA. Participants are awarded with Continuing Medical Education (CME) credits.

2. **Kaua'i Community College, University of Hawai'i** (memorandum agreement) – Students receive college-level credits by participating in the High School Internship Program. Credit hours are awarded in the fields of biology and botany at a ratio of 1 credit per 15 hours committed by the student.

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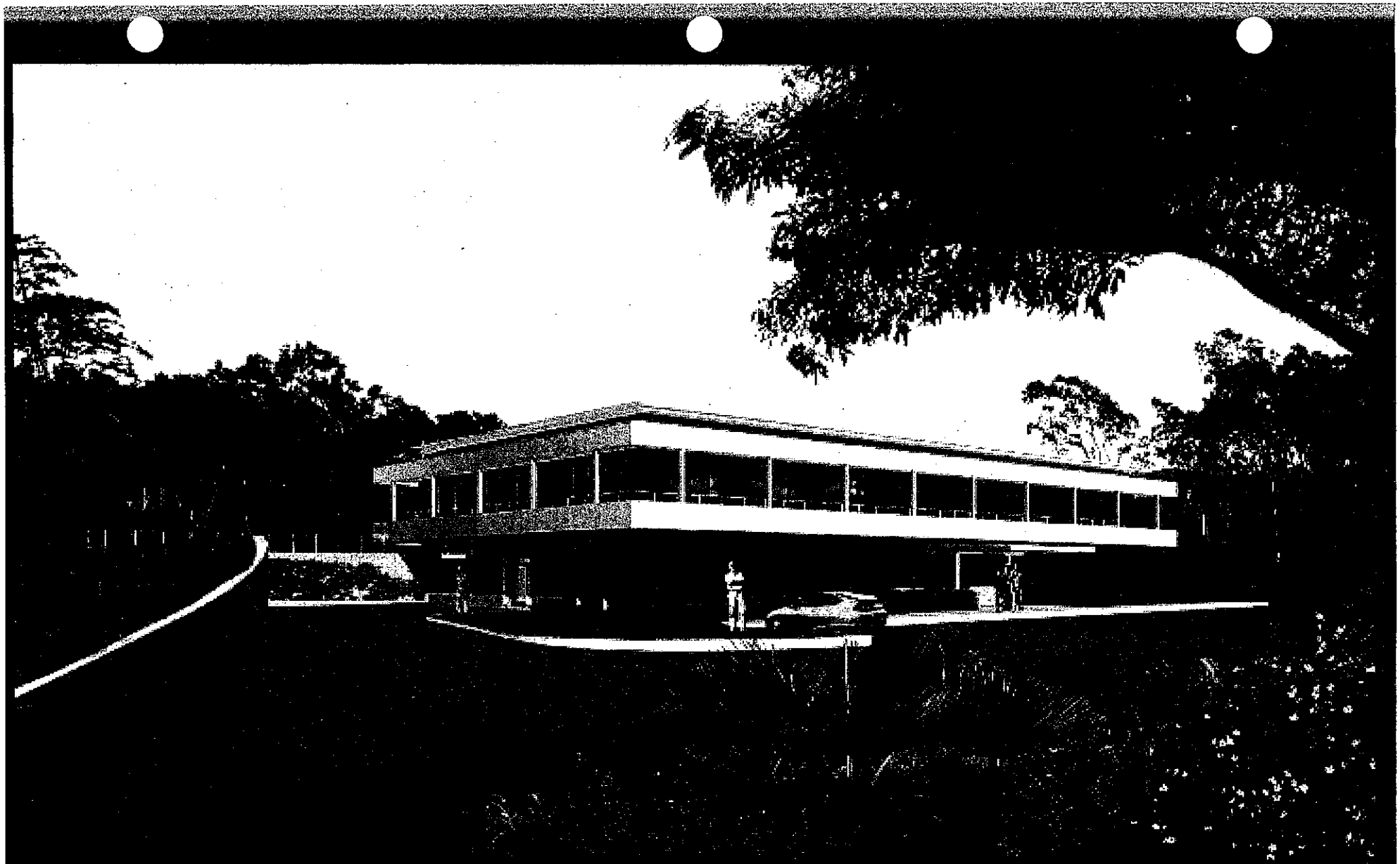
GENERAL COUNSEL
AND SECRETARY
Michael J. Shea, Esq.

JUNE 19, 2007



BOTANICAL RESEARCH CENTER

National Tropical Botanical Garden

3530 Papalina Road, Kalaheo, Kauai, Hawaii, 96741

Charles "Chipper" Wichman, Jr., Director & CEO

August 11, 2008

Consultants:

William Blakeney Inc., Structural Engineer

Steven Winter Design, Inc., Mechanical, Electrical, Plumbing & Fire Protection

Steven Winter Associates, Inc., LEED

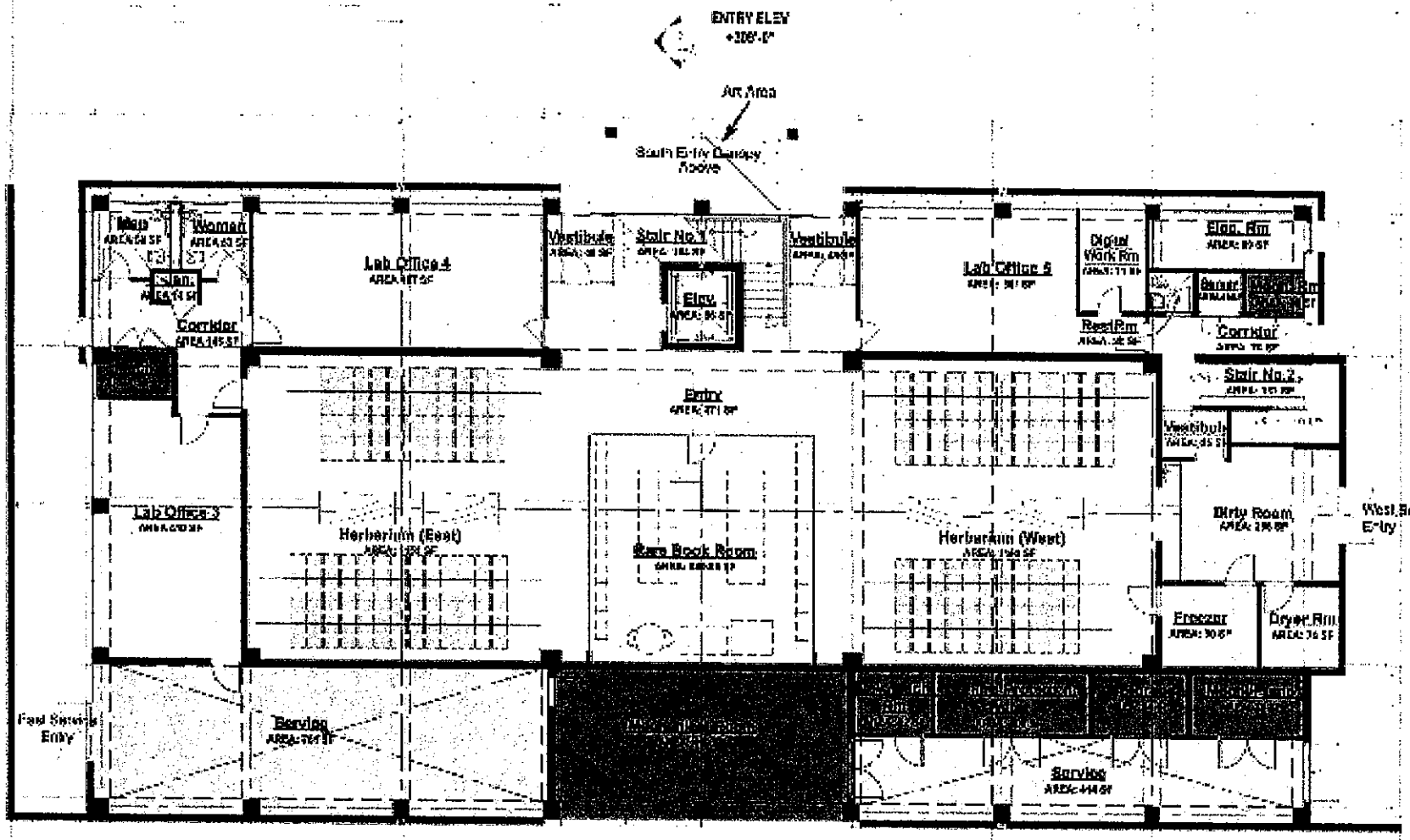
Wagner Engineering Services, Inc., Civil Engineer

Miles Fujioka & Associates, Geotechnical Engineer

Dean Sakamoto Architects LLC

Planning/design for real places over time.

www.dsarch.net



FIRST FLOOR PLAN

Total Interior Area: 5180.33 SF
Total Exterior Area: 2966.20 SF
Grand Area: 8871 SF

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BOTANICAL RESEARCH CENTER

National Tropical Botanical Garden

3530 Papalina Road, Kalaheo, Kauai, Hawaii, 96741
Charles "Chipper" Wichman, Jr. Director & CEO
100% Design Development
January 8, 2009

Consultants:

William Blakeney Inc., Structural Engineer
Steven Winter Design, Inc., LEED, Mechanical Electrical, Plumbing & Fire Protection
Wagner Engineering Services, Inc., Civil Engineer
Nishi Fujioka & Associates, Geotechnical Engineer

Dean Sakamoto Architects LLC

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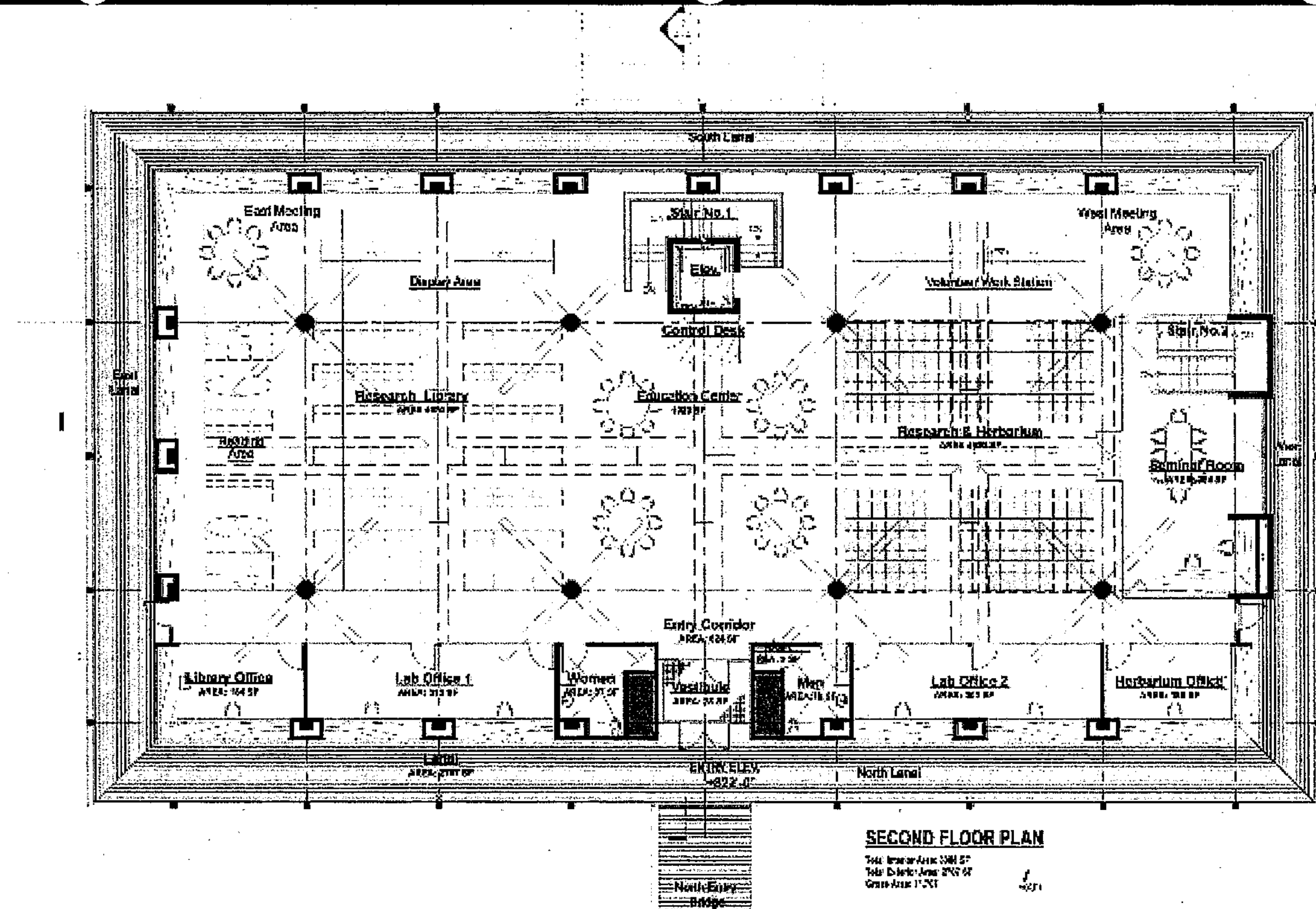

SECOND FLOOR PLAN

BOTANICAL RESEARCH CENTER

National Tropical Botanical Garden

Consultants:

William Blakeney Inc., Structural Engineer

Wagner Engineering Services, Inc., Civil Engineer

Masa Fujioka & Associates, Geotechnical Engineer

Dean Sakamoto Architects LLC

Planning/design for real places over time.