

**Notice of Meeting
UNIVERSITY OF HAWAI'I**

BOARD OF REGENTS COMMITTEE ON PLANNING AND FACILITIES

Members: Regents Yuen (Chair), Acoba (Vice-Chair), Moore, Sullivan,
Tagorda, and Wilson

Date: Wednesday, May 1, 2019
Time: 8:45 a.m.
Place: University of Hawai'i at Mānoa
Information Technology Building
1st Floor Conference Room 105A/B
2520 Correa Road
Honolulu, Hawai'i 96822

AGENDA

I. Call Meeting to Order

II. Public Comment Period for Agenda Items: All written testimony on agenda items received after posting of this agenda and up to 24 hours in advance of the meeting will be distributed to the board. Late testimony on agenda items will be distributed to the board within 24 hours of receipt. Written testimony may be submitted via US mail, email at bor@hawaii.edu, or facsimile at 956-5156. Individuals submitting written testimony are not automatically signed up for oral testimony. Registration for oral testimony on agenda items will be provided at the meeting location 15 minutes prior to the meeting and closed once the meeting begins. Oral testimony is limited to three (3) minutes. All written testimony submitted are public documents. Therefore, any testimony that is submitted verbally or in writing, electronically or in person, for use in the public meeting process is public information and will be posted on the board's website.

III. Agenda Items

- A. Annual Report on Sustainability at the University of Hawai'i
- B. Atherton YMCA Project Status Update (Deferred from April 4, 2019)
- C. Waialeale Livestock Research Station Property Transfer Status Update (Deferred from April 4, 2019)
- D. Kauai Tropical Fruit Disinfestation Facility Property Transfer Status Update (Deferred from April 4, 2019)
- E. Fiscal Year 2019 Third Quarter Capital Improvement Project Status Report as of March 31, 2019
- F. Committee Annual Review

IV. Adjournment



UNIVERSITY of HAWAI'I®



Annual Report on Sustainability at the University of Hawai'i

presented to
Planning and Facilities Committee
May 1, 2019





Sustainability Initiatives

Worry & Hope: *Ecological Grief and Climate Anxiety*

“Its just like, some days you see the news, where it’s mostly bad, and it makes you worse. But other days you see someone making a small little change and you think, now I feel good, I can take over the world, I can do something. I feel like just having a little bit of hope **can** overpower the doubts.”

- *First year student, female* -

Image: National Weather Service, Honolulu Office, highest number of named storms recorded in the Pacific Ocean; <http://wxshift.com/news/this-map-shows-how-lucky-hawaii-has-been-this-hurricane-season>

Level of Concerns Among **Students** by Colleges

	Very concerned	Somewhat concerned	Neutral	Slightly concerned	Not at all concerned	N. of Responses
	100%	0%	0%	0%	0%	7
Ocean & Earth Sci & Tech	91%	9%	0%	0%	0%	43
Hawaiinuiakea	88%	13%	0%	0%	0%	8
Tropical Ag & Human Res	73%	26%	1%	0%	0%	110
Social Work	68%	28%	4%			
Lang, Ling & Lit	68%	31%	0%			
Social Sciences	68%	29%	4%			
Natural Sciences	63%	33%				
Law	61%	35%				
Arts & Humanities	60%	29%				
Education	60%	34%				
Major Undecided	55%	37%	3%			
Engineering	51%	38%	7%			
Nursing & Dental Hygiene	48%	45%	2%			
Business	48%	37%	6%			
Architecture	47%	42%	5%			
Travel Industry Management	47%	37%	11%	5%	0%	19
Medicine	47%	42%	8%	3%	0%	36

95%

of students surveyed in 2018 are "Concerned" or "Very Concerned" about Climate Change

Source: MIRO "2018 Earth Day Survey Results"

Embedding Sustainability Literacy Across the Curriculum

Equipping students with new ways of thinking, being & doing to navigate rapidly accelerating planetary instability.

Meet students where they are



SUSTAINABILITY HABITUS



COGNITIVE DISSONANCE

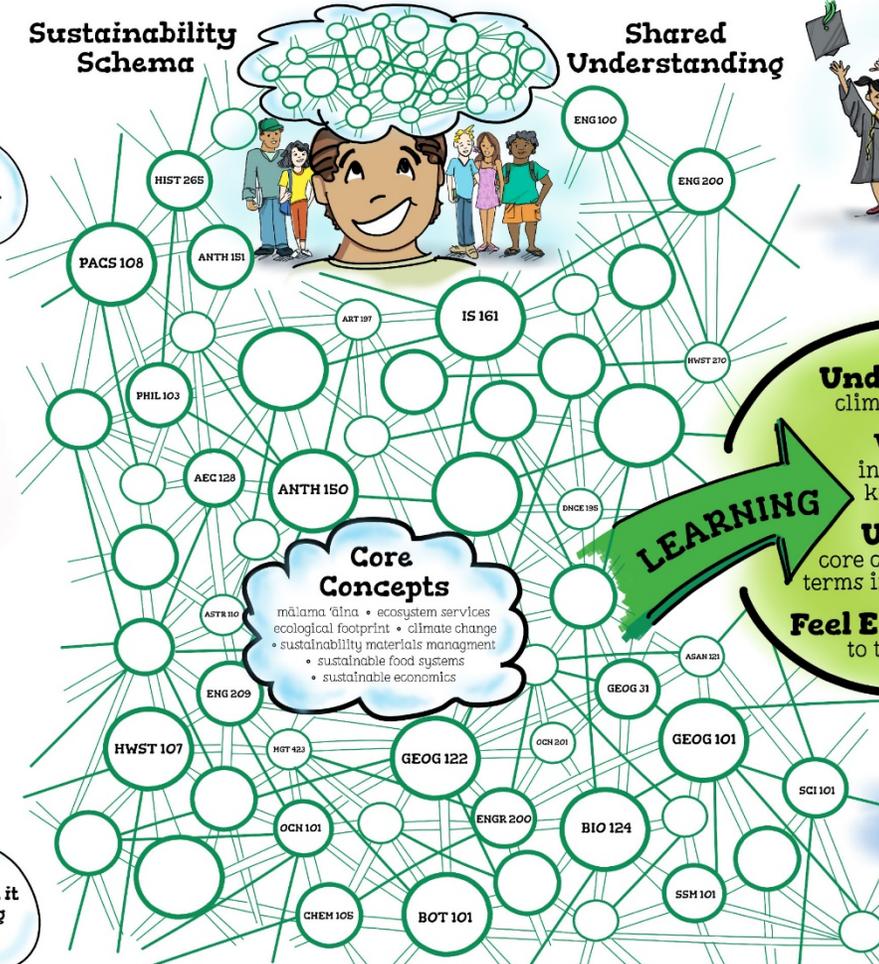


CULTURAL CONNECTIONS



KARMIC RETRIBUTION

Sustainability Schema



Core Concepts
 mālama 'āina • ecosystem services
 ecological footprint • climate change
 • sustainability materials management
 • sustainable food systems
 • sustainable economics

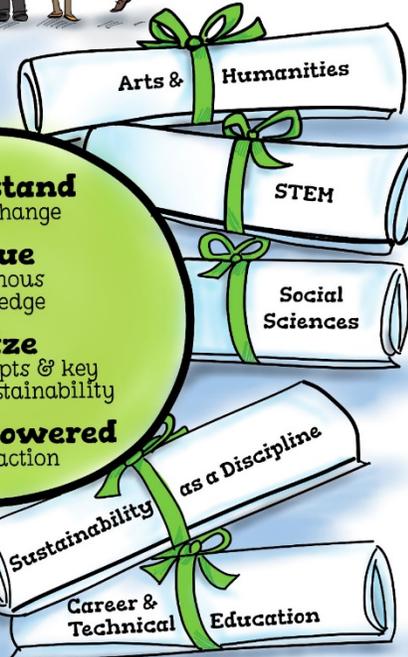
Shared Understanding



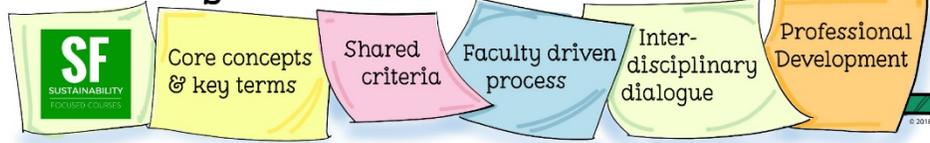
Undergraduate Education



Understand climate change
Value indigenous knowledge
Utilize core concepts & key terms in sustainability
Feel Empowered to take action



Sustainability Focused Courses



Contact Us:
 Krista Hiser, PhD
 Sustainability Curriculum Coordinator
 hiser@hawaii.edu
 Matthew K. Lynch
 Sustainability Coordinator
 mklynch@hawaii.edu
 Hawaii.edu/sustainability



the good juju eo. Graphic Storymap by C. Derosier, goodjujuco.com

reorestation
 shore line is getting smaller
 geoengineering
 glaciers melting
 aquaponics
CLIMATE CHANGE
 commodification of water
TRANSPORTATION
 reorestation
 shore line is getting smaller
 geoengineering
 glaciers melting
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CLIMATE CHANGE
 commodification of water
TRANSPORTATION
 microfibers
 rail
WATER
 meat requires water
 aquifers
 greenhouse gases
 Soon Waikiki will be underwater
CLEAN ENERGY
 PLASTIC
 INVASIVE SPECIES / biodiversity
 hurricanes
 low flow toilets & leaks
 water crisis
WATER
 meat requires water
 aquifers
 greenhouse gases
 plastic solutions
 carbon footprint
 quarks
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UH
 SUSTAINABILITY
 The University of Hawaii
 Office of Sustainability

Kapi'olani CC Sustainability Minor by the Numbers

Interest in a Major related to Sustainability:

Survey of Kapi'olani Community College students enrolled in Sustainability Minor-equivalent



Created with Datawrapper

Rebecca Tang
1st year Student
Kapi'olani Community College

TOP 20 CLIMATE SOLUTIONS

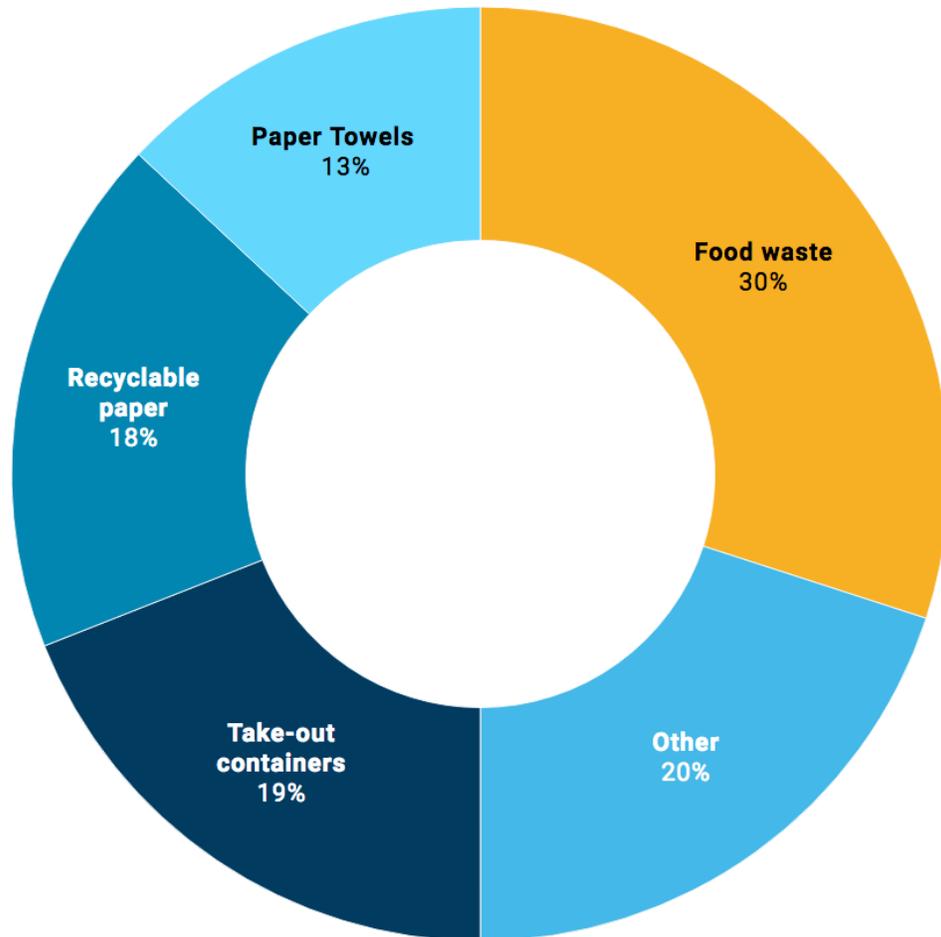
DRAWDOWN
THE MOST COMPREHENSIVE
PLAN EVER PROPOSED TO
REVERSE GLOBAL WARMING
EDITED BY PAUL HAWKEN

RANK	SOLUTION	SECTOR	REDUCED CO2
1	Refrigeration	Materials	89.74 GT
2	Wind Turbines (Onshore)	Energy	84.60 GT
3	Reduced Food Waste	Food	70.53 GT
4	Plant-Rich Diet	Food	66.11 GT
5	Tropical Forests	Land Use	61.23 GT
6	Educating Girls	Women and Girls	59.60 GT
7	Family Planning	Women and Girls	59.60 GT
8	Solar Farms	Energy	36.90 GT
9	Silvopasture	Food	31.19 GT
10	Rooftop Solar	Energy	24.60 GT
11	Regenerative Agriculture	Food	23.15 GT
12	Temperate Forest	Land Use	22.61 GT
13	Peatlands	Land Use	21.57 GT
14	Tropical Staple Tree Crops	Food	20.19 GT
15	Afforestation	Land Use	18.06 GT
16	Conservation Agriculture	Food	17.35 GT
17	Tree Intercropping	Food	17.20 GT
18	Geothermal	Energy	16.60 GT
19	Managed Grazing	Food	16.34 GT
20	Nuclear	Energy	16.09 GT

Zero Food Waste initiatives across UH campuses

Materials in UH campus' waste stream

Food waste Other Take-out containers Recyclable paper Paper Towels



2,239+ lbs waste audited

800+ students engaged

6 campuses

#UHGLYMUGS

Feb – April 2019

1,558 transactions

~21% reduction in single-use cups



How Do You Solve a Problem Like Albizia?

The fast-growing invasive tree is a major hazard—and potentially a major resource

*Remove.
Innovate.
Regenerate.*



Featured in:

HawaiiBusiness
magazine

HAWAII
NEWS NOW
KFVE KGMB KHNL

CB HONOLULU
CIVIL BEAT

Hana Hou!

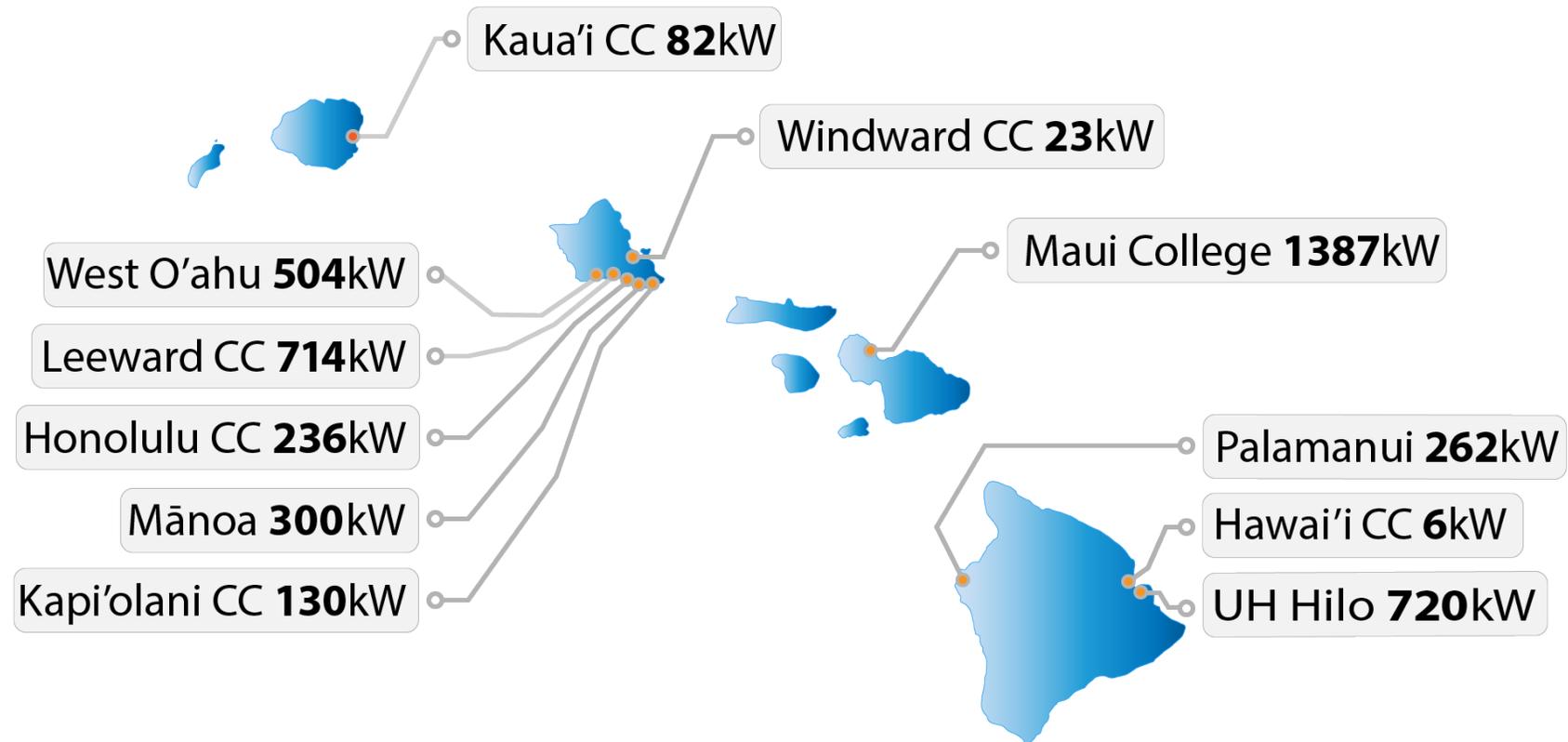
HONOLULU
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Office of Sustainability



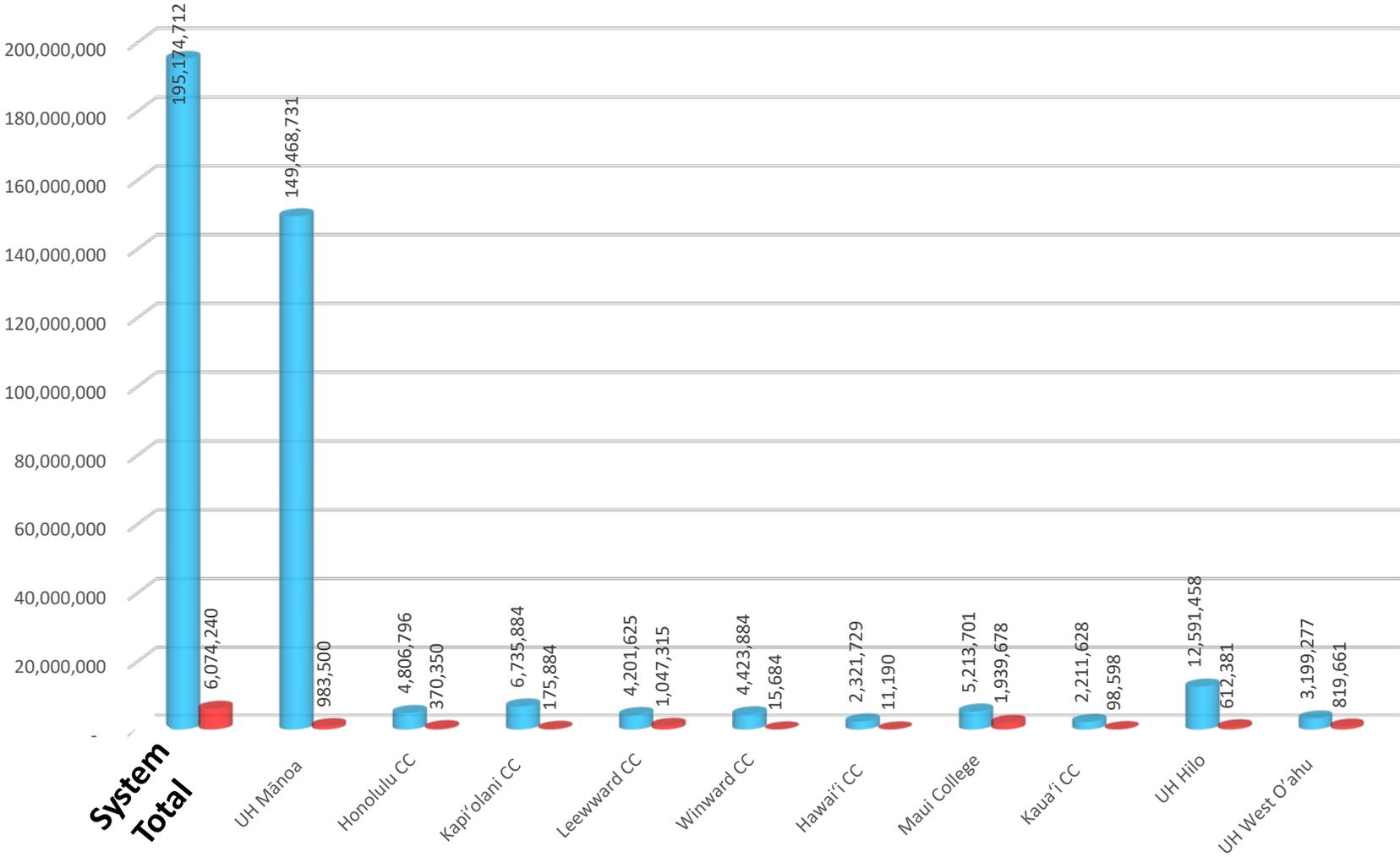
Net-Zero Update

Existing PV - Systems



Total Installed PV as of 2018 = 4.3MW DC

FY2018 Consumption & Production by Campus



Hawai'i Community College

	Consumption	Production	Total PV Size
FY2018	2,321,729 kWh	11,190 kWh	6 kW DC
FY2020 (Estimated)		393,710 kWh	268 kW DC



Pāalamanui

Honolulu Community College

	Consumption	Production	Total PV Size
FY2018	4,806,796 kWh	370,350 kWh	236 kW DC
FY2020 (Estimated)		2,906,637 kWh	2,136 kW DC



Kapi'olani Community College

	Consumption	Production	Total PV Size
FY2018	6,735,884 kWh	175,884 kWh	130 kW DC
FY2020 (Estimated)		3,319,612 kWh	1,890 kW DC



Kaua'i Community College

	Consumption	Production	Total PV Size
FY2018	2,211,628 kWh	98,598 kWh	82 kW DC
FY2020 (Estimated)		828,598 kWh	582 kW DC



Leeward Community College

	Consumption	Production	Total PV Size
FY2018	4,201,625 kWh	1,047,315 kWh	714 kW DC
FY2020 (Estimated)		3,886,722 kWh	2,364 kW DC



Maui College

	Consumption	Production	Total PV Size
FY2018	5,213,701 kWh	1,939,678 kWh	1,387 kW DC
FY2020 (Estimated)		4,322,196 kWh	2,967 kW DC



Windward Community College

	Consumption	Production	Total PV Size
FY2018	4,423,884 kWh	15,684 kWh	23 kW DC
FY2020 (Estimated)		3,886,722 kWh	2,364 kW DC



UH West O'ahu

	Consumption	Production	Total PV Size
FY2018	3,199,277 kWh	819,661 kWh	504 kW DC
FY2020 (Estimated)		819,661 kWh	504 kW DC



UH Hilo

	Consumption	Production	Total PV Size
FY2018	12,591,498 kWh	612,318 kWh	720 kW DC
FY2020 (Estimated)		1,037,499 kWh	1,220 kW DC

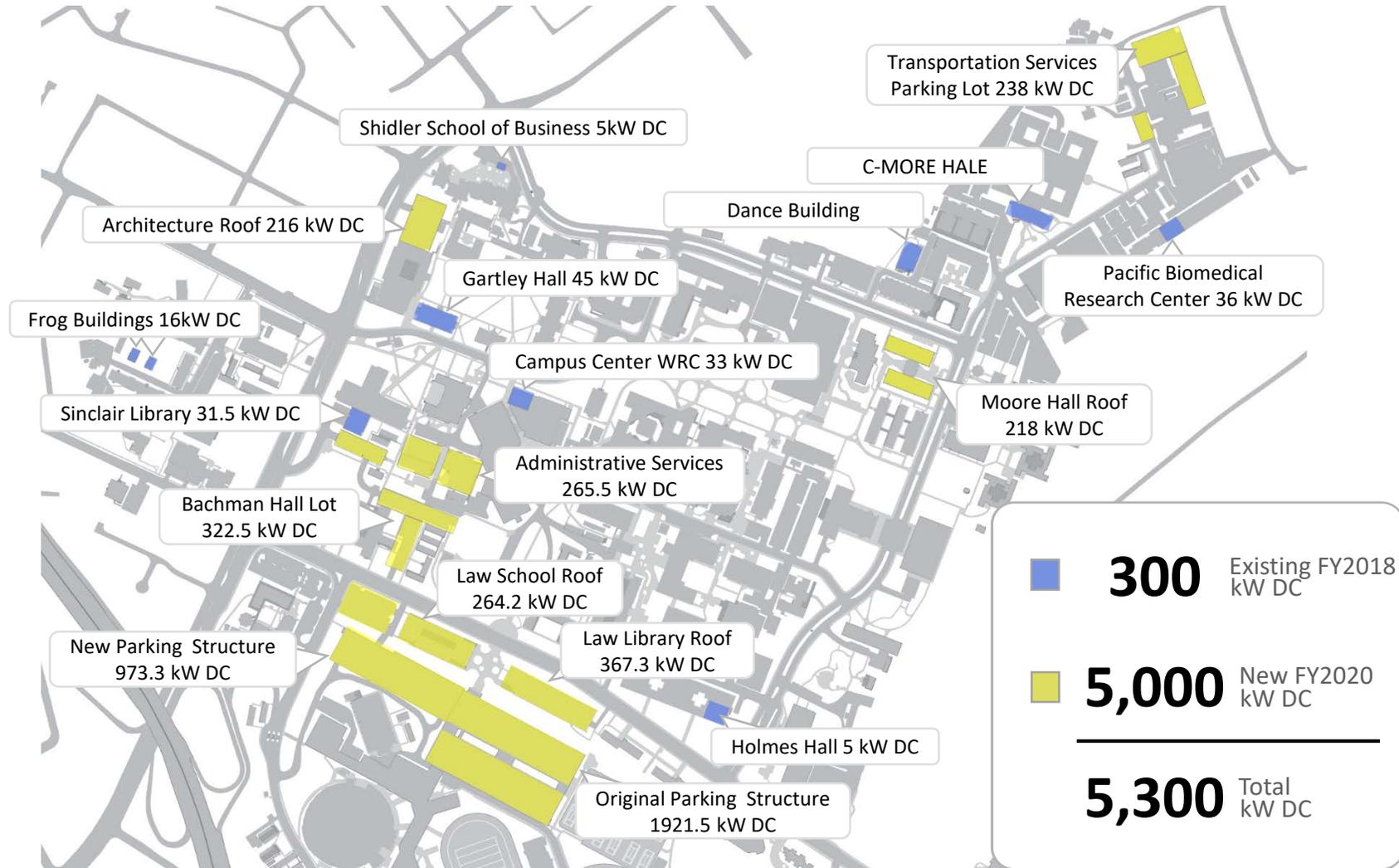


UH Mānoa (On and Off Site)

	Consumption	Production	Total PV Size
FY2018	149,468,731 kWh	819,661 kWh	802 kW DC
FY2020 (Estimated)		8,628,828 kWh	5,960 kW DC



UH Mānoa Campus Current and Future PV



Selected PV highlights

Location	PV Size	Storage
Marine Center	156 kW DC	210 kWh
Hilo Tesla Storage		522 kWh
Pāalamanui Hawai'i CC	262 kW DC	
UH Cancer Center	128 kW DC	120 kWh
UH Mānoa Parking Structure (PV PPA)	1 MW DC	
LCC Parking Lot	1.65 MW DC	9 MWh
TOTAL =	3.2 MW DC	9.8 MWh

UH Marine Center PV



156.360 kW DC

TESLA Powerpack
53 kW / 210 kWh

Offsets ~70% on a sunny day

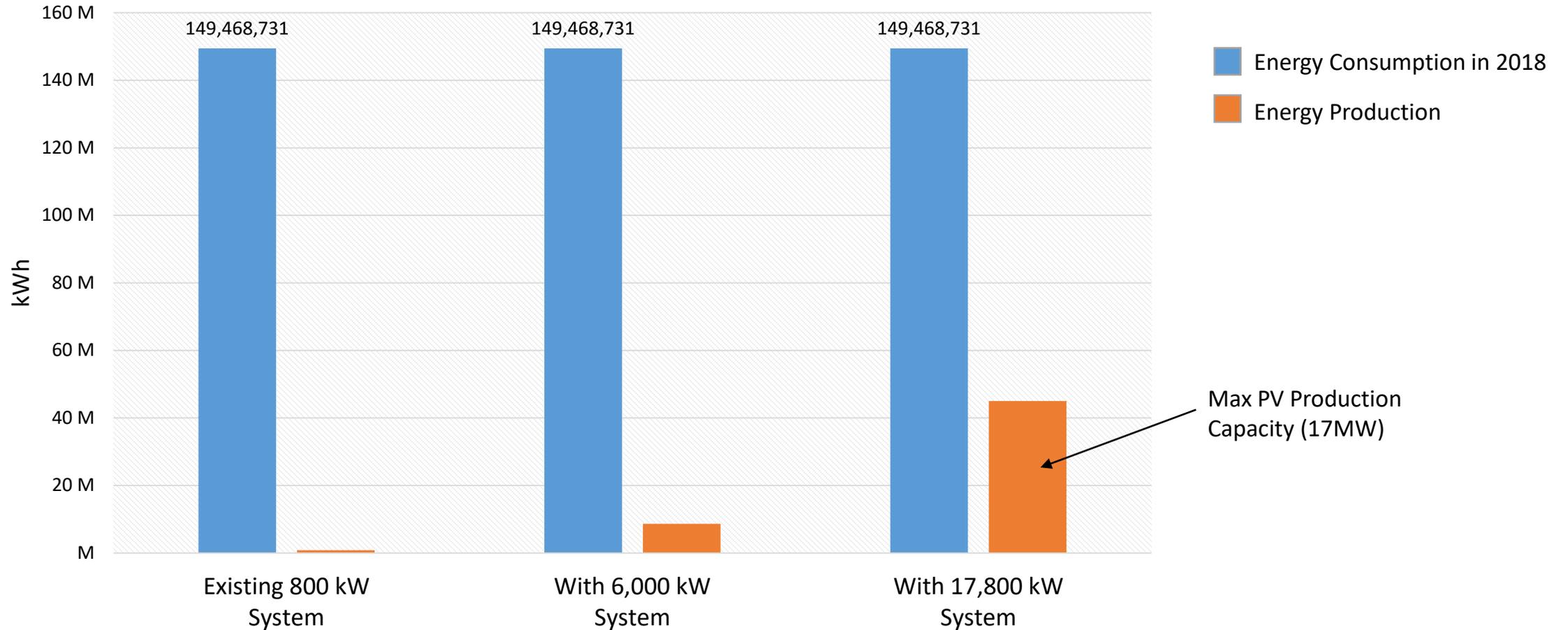
UH Mānoa Parking Structure



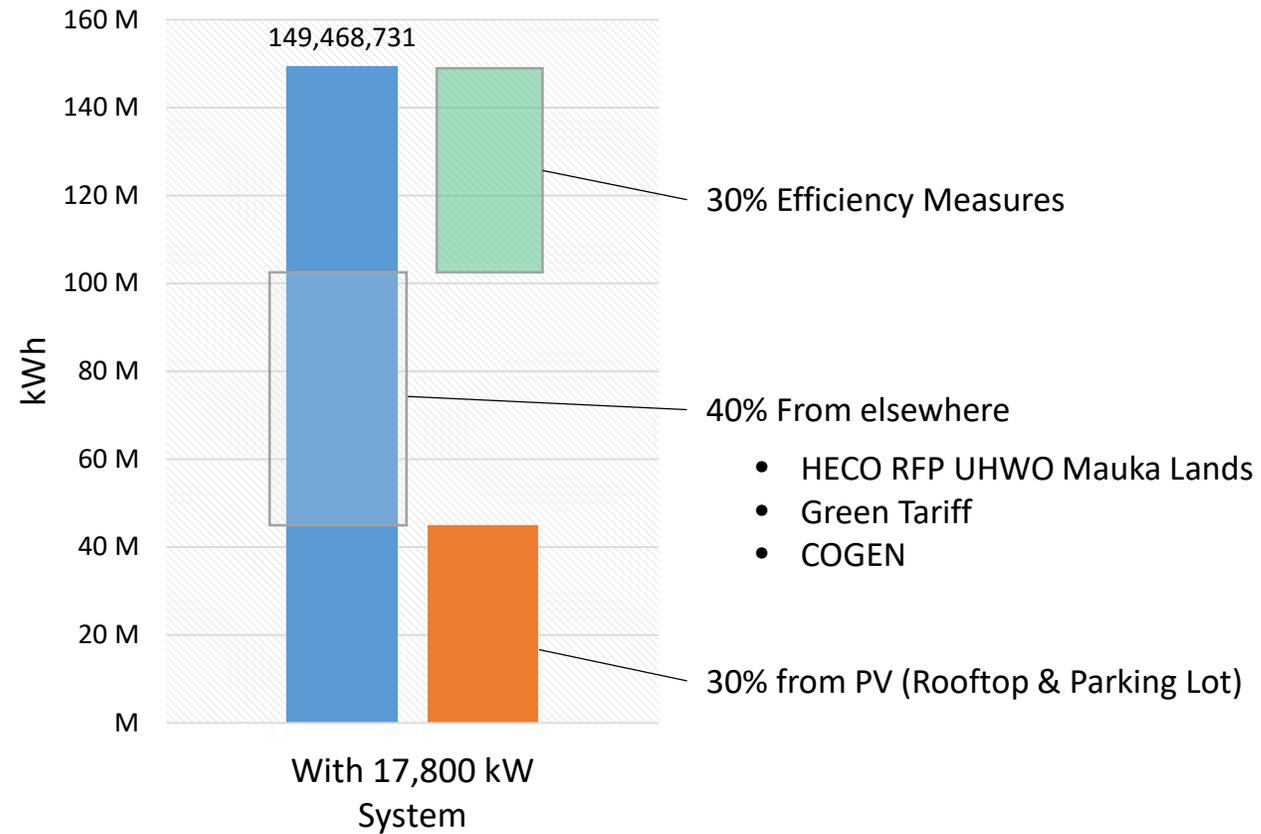
Construction Near Complete



UH Mānoa – PV Scenarios

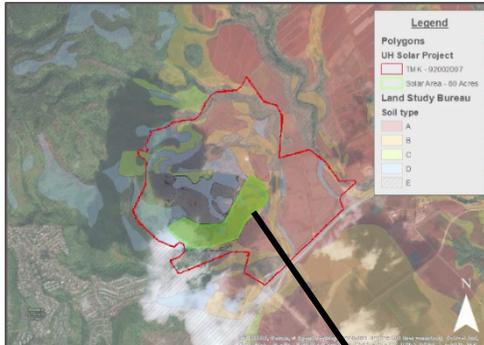


UH Mānoa – Best Case Scenario

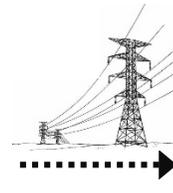
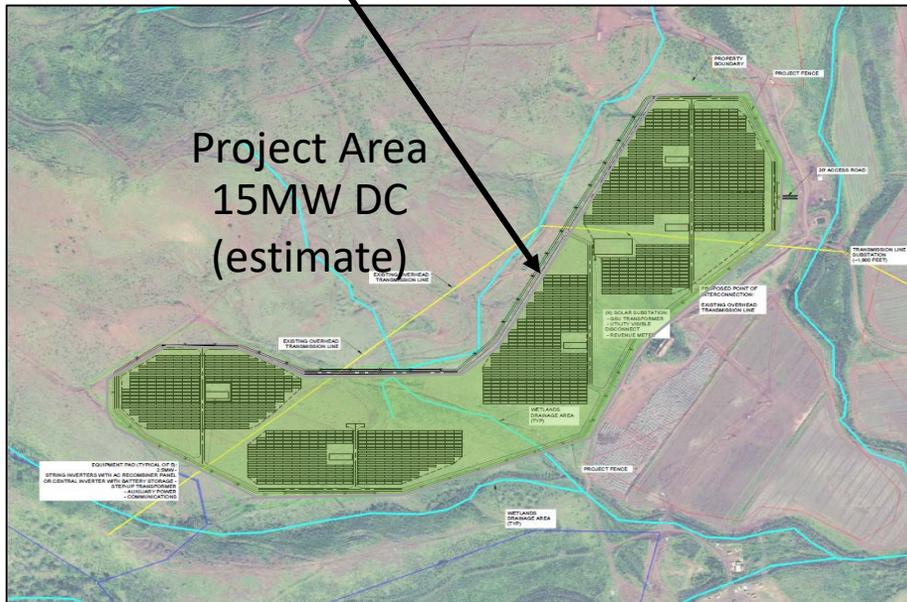


Other Options: AES/HECO PV Farm & Green Tariff

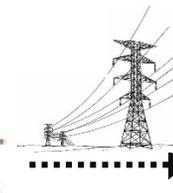
UH West O'ahu Mauka Lands



Update: Grant of Easement with AES scheduled to be executed in August 2019



Hawaiian Electric Grid



- HECO signs PPA with PV Developer
- UH provides land at nominal cost
- 10MW DC (estimate)

- UH Mānoa receives monthly HECO bill
- Only the “Energy Charge” is replaced with Green Tariff rate (PPA rate)



Mahalo!



Atherton YMCA Project Status (April 2019)

Project Name: Atherton – Innovation Space / Student Housing

Historical:

- November 2016: Regents approved UH Foundation/University Master Lease (of Atherton YMCA property)
- 2017: UHM/UHF project to renovate Atherton for UHM Student Housing (“Project 1.0”)
- Early 2018: Project 1.0, Suspended
- April 2018: UH/UHF project restart, establish student housing and innovation center (“Project 2.0”)
- April 2018: UHF Consultant Hired
- Dec. 2018: Developer RFP, Issued
- March 15: RFP closed

Current:

- April 2 + 3: RFP respondent interviews
- April 23: Selection (negotiation) of single developer

Next Milestones:

- End of May: Exclusive Negotiation Agreement
- June 2019: Design/Build Kick-off
- June/July 2019: UHF-Developer Lease Agreement
- Before end of 2019: (Negotiated) Developer Agreement

Waialeale Research Station Property Transfer Status (March 2019)

Project Name: Waialeale Land Transfer
(to Agribusiness Development Corporation (ADC))

Historical:

- March 2018: BOR approved authorizing the President to negotiate, finalize, and execute documents to transfer to ADC in fee simple the College of Tropical Agriculture and Human Resources (CTAHR) Waialeale Livestock Research Station property (Waialeale Property).
- Late 2018: ADC Board deliberates accepting the transfer of the Waialeale Property from UH.

Current:

- UH waiting for ADC Board to accept the UH transfer of the Waialeale Property (property + conditions).
- March 15: ADC Board site visit of the Waialeale Property.
- March 19: Began trespass enforcement (warning) - HPD, UH-DPS, CTAHR.

Next Milestones:

- April 2019: Continued trespass enforcement (citation) - HPD, City, State, UH.
- April 2019 forward: Enforcement patrol, UH-DPS.
- June 2019 (end): ADC acceptance of UH transfer of the Waialeale Property or UH evaluates other alternatives.

Kauai Tropical Fruit Disinfestation Facility Property Transfer Status (March 2019)

Project Name: Kauai Fruit Disinfestation Facility Property Transfer
(to State Department of Transportation (HDOT) for its Airports Division)

Historical:

- March 2018: BOR approved authorizing the President to negotiate, finalize and execute documents to transfer to HDOT in fee simple the Kauai Fruit Disinfestation facility property (KDF Property).

Current:

- December 2018: Expiration of effective period for the 2nd priority mortgage in favor of the Economic Development Administration, U.S. Department of Commerce (EDA).
- March 2019: Ongoing negotiations to obtain EDA release of 2nd priority mortgage.
- March 2019: Continue discussions with the HDOT regarding the transfer to HDOT of the KDF Property by forwarding the initial draft of the quitclaim deed under which UH conveys KDF Property to HDOT.

Next Milestones:

- Obtain and record the EDA release of 2nd priority mortgage.
- Obtain BOR approval to record additional EDA covenants required to meet EDA conditions for release of the 2nd priority mortgage (e.g., non-discrimination covenant and religious use restriction covenant).
- Negotiate, finalize, execute, and record the quitclaim deed between the University and HDOT to transfer the KDF Property to HDOT, anticipate early-2020.



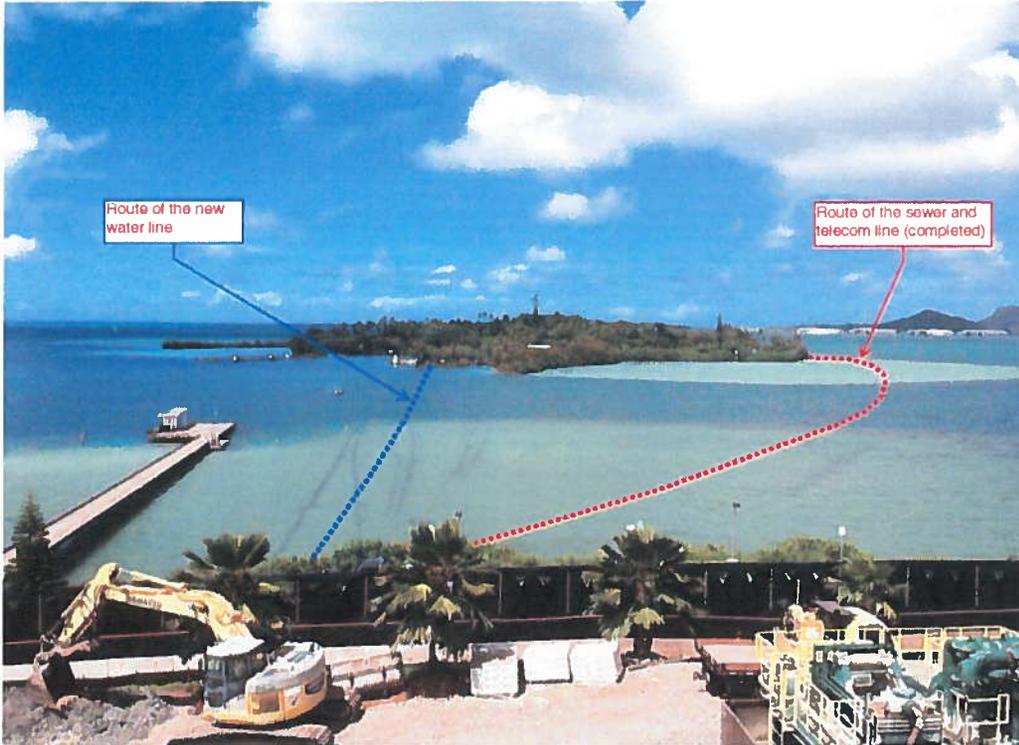
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**FY 2019 Third Quarter CIP Status Update
(as of 03/31/19)**

**Planning & Facilities Committee
May 1, 2019**



Mānoa – Coconut Island Utility Rehabilitation/Replacement



Coconut Island in Kane'ohē Bay, showing the route and placement of the planned water line and completed sewer and telecom line



New Water Line Pipe



Compacting Backfill

Mānoa – Coconut Island Marine Laboratory Buildings 1 & 2 Interior Renovation and General Repairs



Mechanical Rough-In



Electrical Rough-In



Drywall Taping & Mud

Hilo – Daniel K. Inouye College of Pharmacy



Exterior Wall



Interior of Compound Lab

Mānoa - Law School Renovation & Addition: Community Legal Outreach Center



***First Floor, Facing West –
Gypsum Walls have been Installed***



***Ground Floor – Reception Desk
and Mango Screen***



***Second Floor, Facing East –
Gypsum Walls have been Installed***

Leeward CC – Repair and Refurbish Theater



***New Signage and Canopy/Lighting
for the Theater***



Main Entry to Theater



Auditorium and Stage

West O'ahu – Administration & Allied Health Facility



Exterior View from Great Lawn



Health Sciences Wing

Mānoa – Life Sciences Building



View of Life Sciences Building from East-West Road

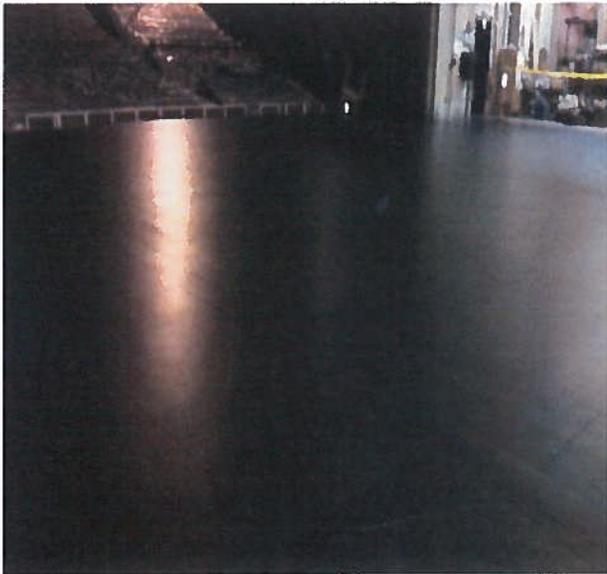


Second Floor Lab Space - Mechanical Rough-In



Second Floor Corridor Facing West (Towards Hamilton Library)

Mānoa – Kennedy Theater General Repairs and Code Compliance



New Paint on New Stage Floor Covering



New Safety Rail at Main Stage Lighting Perch



New Lighting at Scene Shop

Mānoa – Saunders Hall Exterior Repairs and Reroof



Installing New FRP Doors



Fluid Applied Coating on East Elevation Ledges



Painting Building Exterior at East Elevation

Mānoa – Hamilton Library Addition, Phase III – Mechanical Repairs



***Contractor's Conduction Pull Test
on Traffic Coating Mockup***



New Cooling Tower



***Scaffold Removal After Cooling
Tower Built***

West O'ahu – Creative Media



***Start of Clearing and Grubbing
of Existing Vegetation***

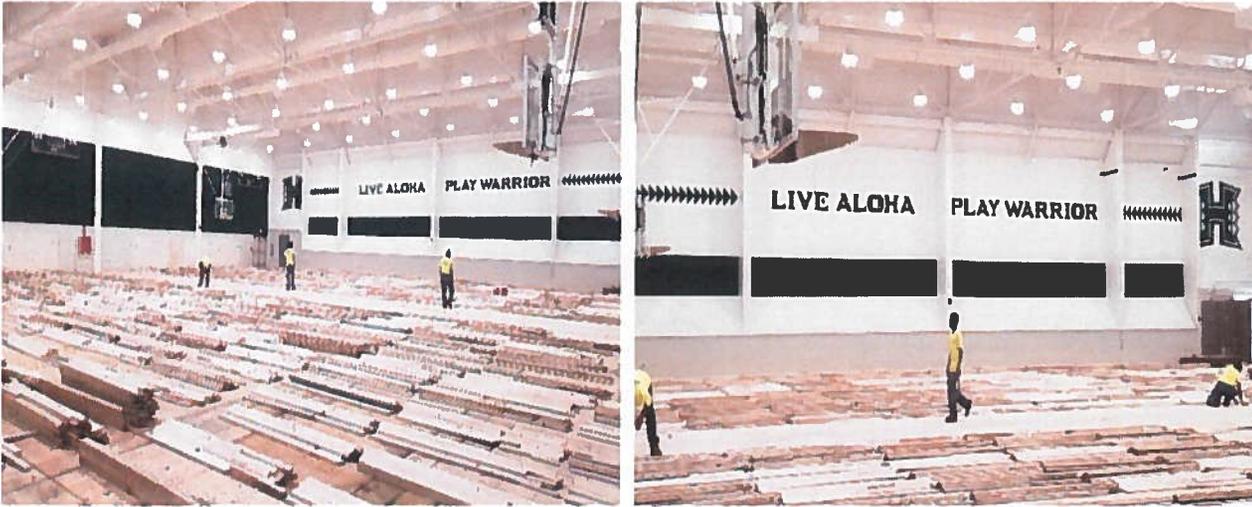


Mass Grading of Site



***Excavation of Building Wall
Footings and Compaction of
Select Coral Fill Material***

Mānoa – Athletic Gym 1 & 2



Gym 1 - Flooring Acclimation, New Equipment, and Wall Graphics



Gym 1 - Exterior Duct Work, Earthwork

Maui College – Renovate Kitchen & Accessory Spaces in Pilina Building



Mechanical Piping on Site



Truss Strengthening Work for Extra Bracing was Welded and Completed



Rough-In of Electrical Conduits

Leeward CC – 7881 DA Native Hawaiian Center for Excellence



Erection of the structural columns, plumbing piping and rough-ins for the new Dance Studio addition



Preparation of the 2nd floor - new exterior deck infill, drains and expansion joint for the application of the new deck coating system



Ground floor interior utilities rough-ins and stud wall framing

A large, stylized yellow hibiscus flower graphic with white outlines, centered on the page. The word "Mahalo!" is written in a bold, black, sans-serif font across the middle of the flower.

Mahalo!



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SYSTEM



UNIVERSITY *of* HAWAII®

FY 2019 THIRD QUARTER CIP STATUS REPORT **(as of 03/31/19)**

Planning & Facilities Committee
May 1, 2019



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Table Summary – Construction Projects Over \$5 Million

<i>Campus/Project</i>	<i>Original/ Revised Completion Date</i>	<i>Original Construction Amount</i>	<i>Change Orders & Percent Change to Date</i>	<i>Cost to Complete (Including Retention)</i>	<i>Change(s) from Last Quarterly Report</i>
Mānoa – Coconut Island Utility Rehabilitation/Replacement	Nov. '16 / Aug. '19	\$6,397,204	\$3,572,878 (55.9%)	\$1,239,078	None
Mānoa – Coconut Island Marine Laboratory Buildings 1 & 2 Interior Renovation and General Repairs	Feb. '18 / June '20	\$21,019,747	\$472,889 (2.2%)	\$6,714,594	\$388,939 change order due to changed field conditions that required new concrete flooring of 3 rooms, floor leveling, additional power receptacles and rust demo, relocation of exterior lighting, and HECO transformer infrastructure.
Hilo – Daniel K. Inouye College of Pharmacy	May '18 / Dec. '19	\$31,300,000	\$2,404,097 (7.7%)	\$8,926,309	5-month extension and \$114,631 change order to install a temporary handicapped stall at the Pharmacy Modular Building and install network switches for AV equipment.
Mānoa – Law School Renovation & Addition – Community Legal Outreach Center	Nov. '17 / Aug. '19	\$7,372,000	\$1,149,489 (15.6%)	\$1,227,148	\$32,470 change order for additional work to install marker boards on the interior walls and extension of landscape maintenance period.
LCC – Repair and Refurbish Theater	Sept. '17 / July '19	\$10,256,335	\$1,631,375 (15.9%)	\$974,859	2-month extension due to reorder/replacement of defective materials for the lighting system (long lead), extended testing and balancing of the HVAC system, replacement of the flooring transition cover piece at the practice Dance Room, and repairs to the stage lift gear/shaft.
West O‘ahu – Administration & Allied Health Facility	May '18 / Sep. '19	\$29,941,000	\$1,697,513 (5.7%)	\$686,434	\$49,714 change order for adjustments to rainwater recycling system, architectural revisions, additional AV system network monitoring, laboratory AC improvements, and elevator inspector requirements.
Mānoa – Life Sciences Building	Spring '19 / Feb. '20	\$49,500,000	\$4,653,928 (9.4%)	\$30,202,797	None
Mānoa – Kennedy Theater General Repairs and Code Compliance	July '17 / Oct. '19	\$5,491,500	\$630,485 (11.5%)	\$62,693	\$698 change order due to Fire Safety request to install an exit sign in Ernst Lab Theater/back of Main Stage vestibule.
Mānoa – Saunders Hall Exterior Repairs and Reroof	Aug. '18 / Aug. '19	\$5,227,618	\$621,143 (12%)	\$1,381,654	3-month extension and \$90,023 change order due to addition of a Power over Ethernet (PoE) Access Control System and possibility that fiberglass reinforced plastic (FRP) doors do not pass inspection
Mānoa – Hamilton Library Addition, Phase III – Mechanical Repairs	Sep. '18 / May '19	\$6,018,387	\$510,491 (8.5%)	\$714,639	1-month extension and \$91,529 change order due to addition of GPS iMODS for existing air handler unit equipment, connection of existing Variable Air Volume (VAV) systems to new Direct Digital Control (DDC), and performing pre-functional testing.
West O‘ahu – Creative Media	June '20 / June '20	\$33,275,000	None	\$27,957,057	None
Mānoa – Athletic Gym 1 & 2	Mar. '19 / Mar. '20	\$8,000,000	\$1,310,959 (16.4%)	\$3,796,581	9-month extension due to installation of 343KW PV system on new roofs on Gym 1 & 2.

Maui College – Renovate Kitchen & Accessory Spaces in Pilina Building	June '19 / Aug. '19	\$7,222,511	None	\$4,981,339	2-month extension due to unforeseen field conditions within ceilings/walls prior to demolition and obstructed access to the locations of the new drains, sewer pipes, and steel beams.
Leeward CC – 7881 DA Native Hawaiian Center for Excellence	Oct. '19 / Oct. '19	\$6,400,821	None	\$4,948,080	None

Table Summary - Design Projects Over \$1 Million

<i>Campus/Project</i>	<i>Original/ Revised Completion Date</i>	<i>Original Design Amount</i>	<i>Change Orders & Percent Change to Date</i>	<i>Cost to Complete</i>	<i>Change(s) from Last Quarterly Report</i>
Mānoa – Holmes Hall Renovation	Feb. '17 / Pending Future Funding	\$1,514,992	\$301,445 (20%)	\$757,596	Completion date pending request for additional design and construction funds.
CTAHR Due Diligence for Various Deferred Maintenance Improvements	Sep. '17 / Sep. '19	\$1,231,316	None	\$496,001	None
Mānoa – Elevator Modernization, Phase IV	Dec. '18 / Dec. '19	\$1,077,157	\$406,316 (38%)	\$987,294	None
Mānoa – Mini Master Plan, Phase 2 (Formerly New Classroom Building)	June '20 / June '20	\$275,913	\$3,689,677 (1337%)	\$2,624,555	\$640,913 change order to add architectural, mechanical, electrical and LEED research of existing site conditions and complete charrettes for future scope; site selection evaluation and analysis; programming communication and outreach through in-person and website updates; and space planning analysis.

Table Summary - Upcoming Capital Improvement Projects

<i>Campus/Project</i>	<i>Estimated Construction Amount</i>	<i>Current Phase</i>
Hilo – Hale 'Alahonua Air Conditioning Improvements	\$5m - \$10m	Consultant contract executed. Finalizing project documents.
Leeward CC – Product Development Center Renovation	\$5m - \$10m	Fee negotiations in progress.

Coconut Island Utility Rehabilitation/Replacement – Mānoa

Contractor:	Frank Coluccio Construction Company
Estimated Date of Project Completion:	August 2019
Original Estimated Date of Project Completion:	November 2016
Completion Level:	97%
Original Construction Amount:	\$6,397,204
Change Orders & Percent Change to Date:	\$3,572,878 (55.9%) (No change from Quarter 2)
Current Phase:	Backfilling behind the poured sections of the walls is ongoing. The last section of the retaining wall is scheduled to be poured mid-April. Installation of the new waterline/backflow preventer is nearly complete. Cutover to the new waterline scheduled for May.
Next Phase:	After the wall and waterline work is complete, Hawaiian Telcom will install the new high-speed fiber optic line to Coconut Island; subsequently, grass pavers will be installed to provide an overflow parking area in the Lilipuna Parking Lot.

Project Scope: Coconut Island, located in Kāneʻohe Bay, is the home to the Hawaiʻi Institute of Marine Biology, a world-renown marine research institute of the School of Ocean and Earth Science and Technology at UH Mānoa. This project involves (1) horizontal directional drilling of a bore through rock roughly 40' below Kāneʻohe Bay for the installation of new sewer and telecommunications lines between Coconut Island and Lilipuna Pier, and (2) replacing an existing sewer pump station and selected sewer pipes on Coconut Island. Approximately 2,000 cubic yards of soil and rock must be excavated and hauled from the site to create a level area for the drilling rig. Cost increase and time extension due to additional trenching and pull boxes for the telecom lines; changing geology conditions between basalt and extremely soft sand requiring a different drill; additional work to install the telecom system; addition of waterline replacement, second bore for the waterline, air release valve, and pressure gauge for the sewer line; drilling subcontractor delays; installation of a temporary sewer bypass line and an ARV on the sewer line on the island; upsizing of the waterline on the island and mainland to correspond with the new 8" waterline installation; emergency waterline repair; changes to Hawaiian Telcom duct-bank and manhole; erection of the retaining wall; grass paver parking lot at Lilipuna Pier; tie-in of waterline; new fiber optic conductors, new back-flow preventer on the fire hydrant water supply, and manual soil removal behind the retaining wall.



Back Filling Retaining Wall



New Water Line Pipe



Compacting Backfill



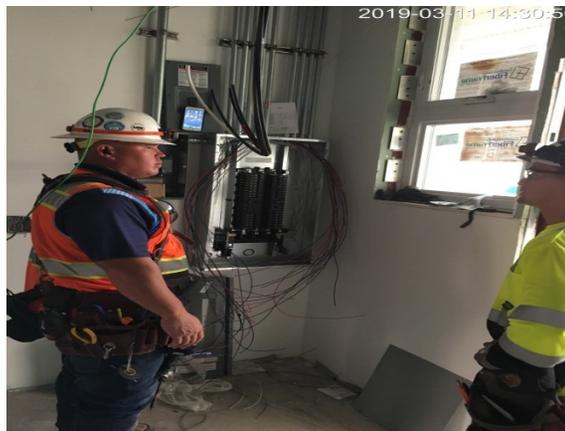
Coconut Island Marine Laboratory Buildings 1 & 2 Interior Renovation and General Repairs – Mānoa

Contractor:	Frank Coluccio Construction Company
Estimated Date of Project Completion:	June 2020
Original Estimated Date of Project Completion:	February 2018
Completion Level:	75%
Original Construction Amount:	\$21,019,747
Change Orders & Percent Change to Date:	\$472,889 (2.2%)
Current Phase:	Onsite work suspended as of March 20, 2019 due to recent discovery that contractor no longer possesses the necessary license; contractor is working on resolution so that work can resume. All payments to contractor have been suspended; administrative work (negotiation of change orders, submittals, etc.) is continuing.
Next Phase:	Delivery and installation of a new electrical transformer by HECO (currently delayed due to suspension of onsite work).

Project Scope: Coconut Island, located in Kāneʻohe Bay, is the home to the Hawaiʻi Institute of Marine Biology, a world-renown marine research institute of the School of Ocean and Earth Science and Technology at UH Mānoa. This project involves the renovation of the interior of Marine Laboratory Buildings 1 & 2 to provide state of the art research and teaching laboratories, provide general repairs of the buildings (including replacing and upgrading mechanical, electrical, and architectural systems and structures), and perform significant structural retrofitting. Cost increase and time extension due to replacement of sub-contractor, additional vacuum breakers to the plumbing system, rebar modifications to connect the new concrete pier to an existing concrete beam, repairs to 2nd floor corroded steel beams upgrading electrical panels/core materials based on “wet or damp” conditions, existing condition of concrete/chilled water system, mechanical piping/electrical component rough-ins, concrete floor leveling, window installation, framing with drywall on fiberglass doors, paint, carpentry finishes at windows, roofing membrane, adding electrical wiring and equipment, interior painting, flooring, finish carpentry, new transformer, HVAC commissioning, furniture installation, chiller lead time required for testing/shipping/installation at no additional, cost, water savers, and changed field conditions that required new concrete flooring of 3 rooms, floor leveling, additional power receptacles and rust demolition, relocation of exterior lighting, and HECO transformer infrastructure.



Mechanical Rough-In



Electrical Rough-In



Drywall Taping & Mud



Daniel K. Inouye College of Pharmacy – Hilo

Contractor:	Isemoto Contracting Co., Ltd.
Estimated Date of Project Completion:	December 2019
Original Estimated Date of Project Completion:	May 2018
Completion Level:	86%
Original Construction Amount:	\$31,300,000
Change Orders & Percent Change to Date:	\$2,404,097 (7.7%)
Current Phase:	Ongoing installation of MEP rough-in work, light fixtures, acoustical ceiling tiles, cabinet work/laboratory casework, exterior wall panels, restroom ceramic tile walls/floors, second floor rubber flooring, and exterior sidewalks.
Next Phase:	Continue installation of exterior wall panels, sidewalks, metal soffits at exterior lanai, acoustical ceiling tiles, plumbing fixtures, cabinet tops, and interior/exterior doors.

Project Scope: This project involves a new pharmacy facility. Level 1 consists of lecture rooms, breakout rooms, a student lounge, and restrooms. Level 2 includes an administration suite with counsel offices, administrative offices, two biolabs, faculty offices, a Medication Therapy Management suite, a mock pharmacy, a resource center, two seminar rooms, consult rooms, a compound lab, two sim labs, an IV Institutional Pharmacy lab and restrooms. Site development includes new surface parking stalls, landscaping and site lighting. Cost increase and time extension due to structural steel changes, underground electrical line extension and pole relocation, extension of the paved area for emergency site access due to County Fire Department's comments, additional 2' of excavation and backfill under the building foundation, purchase, rough-in work, installation of AV system/equipment/network switches, and additional work for a temporary handicapped stall at the Pharmacy Modular Building.



Exterior Wall



Interior of Compound Lab



Law School Renovation & Addition: Community Legal Outreach Center – Mānoa

Contractor:	F&H Construction
Estimated Date of Project Completion:	August 2019
Original Estimated Date of Project Completion:	November 2017
Completion Level:	95%
Original Construction Amount:	\$7,372,000
Change Orders & Percent Change to Date:	\$1,149,489 (15.6%)
Current Phase:	Installation of gypsum walls is near completion, telecom cabling and rooftop PV system installation is ongoing and TV mounts were installed.
Next Phase:	Painting, installation of interior modular wall system and doors, electrical cabling within walls, fixtures, sensors, signage, etc. on walls/doors/associated hardware, and power over ethernet (PoE) lock system.

Project Scope: The Community Legal Outreach Center at the William S. Richardson School of Law on the UH Mānoa campus will serve as a space for the growing clinical service offered by law school students and faculty. Currently, students provide thousands of hours of free legal help to some of Hawai'i's most vulnerable people, including the elderly, troubled and incarcerated youth, veterans, and families living at or near poverty levels. The building will also provide much-needed space to develop practical trial and advocacy skills. The project includes partial demolition and reconfiguration of the existing parking and site features at the UH Mānoa Zone 17 parking lot outside of the Law School and construction of a new, 6,000 square foot, two-story precast concrete building and connecting bridge to the existing law school. Cost increase and time extension due to implementation of card access system in lieu of keys, addition of PV system, details for a gate and bollards, additional rebar, parking lot revisions, Disability and Communication Access Board and Hawai'i Fire Department comments, lengthy procurement process for the revision of the interior wall system and doors by the Law School, special inspections, ADA requirements, electrical revisions, additional interior doors (10 each), electrical work for the door on the existing building side of the bridge (card reader access), drain piping/downspouts for the bridge, contract inclusion of the Owner Furnished Owner Installed interior wall system, additional work for installation of marker boards on the interior walls, and extension of the landscape maintenance period.



*First Floor, Facing West –
Gypsum Walls have been Installed*



*Ground Floor – Reception Desk
and Mango Screen*



*Second Floor, Facing East –
Gypsum Walls have been Installed*



Repair and Refurbish Theater – Leeward CC

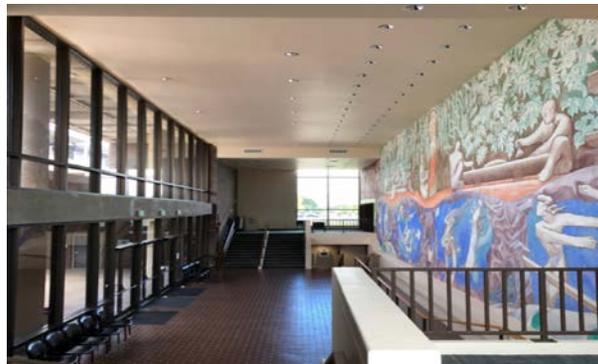
Contractor:	MEI Corporation
Estimated Date of Project Completion:	July 2019
Original Estimated Date of Project Completion:	September 2017
Completion Level:	99.9%
Original Construction Amount:	\$10,256,335
Change Orders & Percent Change to Date:	\$1,631,375 (15.9%) (No change from Quarter 2)
Current Phase:	Completing punchlist work, testing and balancing of the existing HVAC system, delivery of defective materials for the lighting system (long lead), replacement of the flooring transition cover piece at the practice Dance Room, and repairs to the stage lift gear/shaft.

Next Phase: Final inspection, additional modification, and project closeout/as-builts.

Project Scope: This project involves remedying the water intrusion into the building by improving the exterior drainage, doing landscaping improvements, installing continuous canopies to the side entries, creating an open and inviting exterior foyer to the main entry by relocating the ticket office, renovating the restrooms and including a concession area. It also involves upgrading the stage equipment (rigging and drapes, orchestra pit lift system, stage trap panel system and related items) and the main seating and stage area throughout the Theater. The auditorium seating, stage and dance rooms wood flooring, carpet and VCT flooring, painting, ceiling, and lighting, will also be replaced. The project will also retrofit the existing fire alarm system and mechanical system, abatement of hazardous materials at rooms/areas being renovated, meeting DCAB requirements, and making improvements to the theater lighting system and sound system. Cost increase and time extension due to additional labor to remove and relocate items left behind by LCC staff; asbestos abatement asbestos; additional electrical, concrete/seal/waterproof coating; relocation and redesign of accessibility-related items in the auditorium; replacement of the building's existing chilled water lines and chill water system; extended change order negotiations; repairs to the exterior brick face walls and spalling/rebar; new canopy structural conditions and waterproof coating at the exterior second floor concrete deck to resolve ongoing leaks; resolution of new leaks at the main entry exterior covered vestibule/waiting area, concession booth and ticket office; delivery delays of the new chill water pipes (long lead); testing of the new air conditioning equipment and devices; addressing flashing/gutter concerns by the roofing subcontractor; modification to exterior canopies and existing mechanical units due to balancing requirements; extension of 4" data conduit; new AC UV lights and exhaust for dryer at basement; reorder/replacement of defective materials for the lighting system (long lead item); extended testing and balancing of the HVAC system; replacement of the flooring transition cover piece at the practice Dance Room (basement level) due to injury to the dancers when practicing barefoot; and repairs to the stage lift gear/shaft.



*New Signage and Canopy/Lighting
for the Theater*



Main Entry to Theater



Auditorium and Stage



Administration & Allied Health Facility – West O‘ahu

Contractor:	Swinerton Builders Hawai‘i
Estimated Date of Project Completion:	September 2019
Original Estimated Date of Project Completion:	May 2018
Completion Level:	99%
Original Construction Amount:	\$29,941,000
Change Orders & Percent Change to Date:	\$1,697,513 (5.7%)
Current Phase:	Punch list, commissioning, and additional work.
Next Phase:	Complete commissioning and additional work including rooftop PV system.

Project Scope: The project consists of an approximately 43,442 square foot facility to house Administration and Allied Health programs at the University of Hawai‘i at West O‘ahu (UHWO) Campus. The new facility will include offices for UHWO administration and faculty, classrooms, laboratories, and other related spaces. Extension due to changes to the roof drainage design, which affected coordination with underground utilities. The changes involved replacing interior roof drains with exterior downspouts, to address campus concerns for long term maintenance. Cost increase and time extension due to demolition of existing site electrical, replacing and closing off existing non-functioning valves on chilled water loop, adjusting the location of the emergency power electrical duct, cutting and plugging existing utility lines, furniture revisions, revisions due to unavailability of specified products, replacing inoperable existing underground valves, replacing inoperable chilled water line valves and re-routing existing electrical ducts, AV equipment and room layout changes to accommodate program needs, increasing the depth of underground utilities to avoid penetrating foundation walls, addition of the rooftop PV system, revisions to roof drainage system exterior downspouts, extending the Creative Media Facility sidewalk, installing drainage connections to the emergency eyewash stations in labs, installing temporary electrical service for construction power, adding building identification signs, interior revisions to meet updated campus requirements, landscape irrigation revisions, added exterior concrete masonry unit water repellent, adjustments to the rainwater recycling system, architectural revisions, additional AV system network monitoring, laboratory AC improvements, and elevator inspector requirements.



Exterior View from Great Lawn



Health Sciences Wing



Life Sciences Building – Mānoa

Contractor:	Layton Construction
Estimated Date of Project Completion:	February 2020
Original Estimated Date of Project Completion:	Spring 2019
Completion Level:	49%
Original Construction Amount:	\$49,500,000
Change Orders & Percent Change to Date:	\$4,653,928 (9.4%) (No change from Quarter 2)
Current Phase:	Structural steel erection; interior mechanical, electrical, plumbing rough in; and interior and exterior wall framing is ongoing
Next Phase:	Building envelope construction (roofing, exterior metal wall paneling, glazing, and exterior insulated finish systems).

Project Scope: This design-build project for a new Life Sciences Building will be developed at the site of Henke Hall and will support multiple programs like botany, PBRC, biology and microbiology. As the first of a three-phase Mānoa Mini Master Plan, this project will also provide surge space to allow for the redevelopment of the Snyder Hall site and subsequent redevelopment of Kuykendall Hall. Cost increase and time extension due to the addition of a second elevator to the project, design enhancements, chlordane soil remediation, additional mechanical and electrical provisions to the 3rd floor shell space to accommodate a future virtual lab; soil interment under the Kennedy Theater Parking lot/pavement restoration; additional electrical metering; and lab casework design.



View of Life Sciences Building from East-West Road



Second Floor Lab Space - Mechanical Rough-In



Second Floor Corridor Facing West (Towards Hamilton Library)



Kennedy Theatre: General Repairs and Code Compliance – Mānoa

Contractor:	RSI Roofing and Building
Estimated Date of Project Completion:	October 2019
Original Estimated Date of Project Completion:	July 2017
Completion Level:	99%
Original Construction Amount:	\$5,491,500
Change Orders & Percent Change to Date:	\$630,485 (11.5%)
Current Phase:	Theater is operational.
Next Phase:	Re-roof the 2nd floor, air conditioning return air improvements to Ernst Lab Theater, rigging safety and stage fall prevention upgrades, installation of phone jacks for Scene Shop ADA lift.

Project Scope: Kennedy Theatre is the flagship performing arts center on the UH Mānoa Campus. The need for repairs and maintenance is long overdue as the theater was built in 1963 and no interior work has been done in over 50 years. Parts of the facility are OSHA, building code and ADA non-compliant – including the catwalk system over the Ernst Lab Theater. This project involves replacing the existing sand bag rigging system at the Lab Theater with a new system, Main Theater theatrical dimming system and Main Stage curtains, catwalk system at the Lab Theater to meet OSHA requirements and finished floor at the Lab Theater and Main Stage with a floor suitable for dance performances; and installing a pre-manufactured dust collection booth at the Scene shop and a safety cage around the existing 80-foot high spiral staircase for fall protection. Cost increase and extension due to storage container for theater items during construction; additions to the original contract including mold and efflorescence abatement; light fixture, dimmer rack, and electrical power installation; door frame replacement; conduit and circuit replacement; dye vat work; providing user storage to move items from work area; added changes for safety, re-roof and mold remediation of costumes and storage area; multiple areas of lighting/switches repairs/replacement, repairs to the outside storage containers to minimize moisture; repairs/upgrades to the in-house communication system for safety and the coordination of students/staff; moving stage/overhead equipment during classes, rehearsals, and performances; replacing the 12,000 BTUH split air conditioning unit in the costume storage container; adding a new outlet at the new welding station; scheduling roof work; additional exit signs; and installation of fall protection, communication conduits after the performance season ends, rigging system safety upgrades, data service to the new mezzanine offices, wireless access point location for the Scene Shop, and Fire Safety request to install an exit sign in Ernst Lab Theater/back of Main Stage vestibule.



New Paint on New Stage Floor Covering



New Safety Rail at Main Stage Lighting Perch



New Lighting at Scene Shop

Saunders Hall Exterior Repairs and Reroof – Mānoa

Design Consultant:	WTN Architecture
Estimated Date of Project Completion:	August 2019
Original Estimated Date of Project Completion:	August 2018
Completion Level:	85%
Original Design Amount:	\$5,227,618
Change Orders & Percent Change to Date:	\$621,143 (12%)
Current Phase:	Spall patching on West elevation and rooftop, installing new FRP doors, applying fluid-applied coating to East elevation, and painting East elevation.
Next Phase:	Rough-in for new PoE Access Control System, install new entry doors in Atrium, apply fluid-applied coating on North elevation ledges and roof parapets, and apply traffic coating on Atrium hallways.

Project Scope: Saunders Hall (formerly known as Porteus Hall) was designed in the early 1970's. Due to inadequate concrete coverage over the reinforcing bars during the original construction of the building, corrosion of the rebar is causing the exterior of the building to crack and spall. This project involves the repair of all concrete delaminations, spalls and cracks. In order to seal the entire building envelope watertight, the project also includes reroofing, new traffic coating, glazing, and interior renovation work. Cost increase and extension due to the removal and disposal of an abandoned PV system; repair of additional unforeseen spalls and cracks on the North, East, Southwest and West exteriors of the building, relocation of classroom furniture from Saunders 342 to Kuykendall 401A and Crawford 114 to Saunders 342, asbestos abatement; new access control system installation, hearing protection for building occupants, replacement of a rusted door/frame, addition of a PoE Access Control System and concerns that the new FRP doors do not pass inspection (new doors may need to be fabricated).



Installing New FRP Doors



Fluid Applied Coating on East Elevation Ledges



Painting Building Exterior at East Elevation

Hamilton Library Addition, Phase III – Mechanical Repairs – Mānoa

Contractor:	Economy Plumbing & SheetMetal, Inc.
Estimated Date of Project Completion:	May 2019
Original Estimated Date of Project Completion:	September 2018
Completion Level:	97%
Original Construction Amount:	\$6,018,387
Change Orders & Percent Change to Date:	\$510,491 (8.5%)
Current Phase:	Addressing punch list deficiencies for physical and control component of project.
Next Phase:	Coat chiller plant flooring, perform final thermographic roof study, and conduct training for HVAC component.

Project Scope: Hamilton Library is the main library on the UH Mānoa campus. This project involves the replacement of existing mechanical equipment, ductwork, plumbing and piping, and partial ceiling replacement to upgrade the central chiller plant, air distribution system, reheat system and direct digital control systems. The project also involves replacement of electrical work, chemical abatement, a roof thermography study, structural steel work for cooling tower support, and miscellaneous painting. Cost increase and extension due to replacing cooling towers; removing condenser water piping at cooling towers, strip light ballasts, load from Loop D; removing/replacing control devices, existing ductwork installation in the mechanical rooms; additional/modified work for exterior reheat coils, motorized dampers, T-stats, replacement of existing 2-way valves, VAV controllers, and GPS ionizers; addition of GPS iMODs for existing air handler unit equipment; connection of existing VAV system to new DDC; performing pre-functional testing for controls; and final test/balance of new devices.



Contractor's Conduction Pull Test on Traffic Coating Mockup



New Cooling Tower



Scaffold Removal After Cooling Tower Built



Creative Media – UH West O‘ahu

Contractor:	Kiewit Building Group
Estimated Date of Project Completion:	June 2020
Original Estimated Date of Project Completion:	June 2020
Completion Level:	100% (Design) / 5% (Construction)
Original Construction Amount:	\$33,275,000
Change Orders & Percent Change to Date:	None
Current Phase:	Civil mass grading operations are complete, foundations have been excavated, select fill material has been imported and is currently being compacted in lifts to provide a firm sub-grade for the concrete foundations.
Next Phase:	Excavate and install underground utilities along with pouring concrete building foundations and slab on grade.

Project Scope: This design-build project is for a new, 33,000 sf facility to house the existing Academy of Creative Media (ACM) program. The building will be constructed on undeveloped land next to the new Allied Health Building. The function of the building will combine teaching facilities, production facilities, faculty offices, creative workspaces, and an incubator for emerging companies. It will be a professional environment focused on learning and creating a showcase for UH West O‘ahu and the UH System, as well as our entire state. The building expands the current UH West O‘ahu ACM program from approximately 110 student majors to an anticipated 500 majors.



Start of Clearing and Grubbing of Existing Vegetation



Mass Grading of Site



Excavation of Building Wall Footings and Compaction of Select Coral Fill Material



Athletic Gym 1 & 2 – Mānoa

Contractor:	Layton Construction Company, Inc.
Estimated Date of Project Completion:	March 2020
Original Estimated Date of Project Completion:	March 2019
Completion Level:	82%
Original Design Amount:	\$8,000,000
Change Orders & Percent Change to Date:	\$1,310,959 (16.4%) (No change from Quarter 2)
Current Phase:	Gym 1 – Flooring acclimation, exterior duct work, earthwork.
Next Phase:	Gym 1 – Install gym flooring, mechanical startup, finish HVAC/startup, tab report, electrical, security system, build out storage room, gym flooring, and install new 343KW PV system with new roofs.

Project Scope: Gymnasiums 1 and 2 are located in the Physical Education Athletic Complex on the lower campus of the University of Hawai‘i at Mānoa. Both gymnasiums were constructed as part of the addition to the Physical Education/Athletic Complex in 1982. There have been no major additions or renovations to the reinforced concrete structures since their original construction. The project will provide newly renovated gymnasium facilities for the University of Hawai‘i at Mānoa. Both gymnasiums will be used for Student Recreation Services (intramural sports) activities and educational instruction, primarily by the UH Kinesiology Department. In addition, the gymnasiums will be utilized by the Men’s and Women’s Basketball and Volleyball teams for intercollegiate activities. The project objective is to design and construct a facility for the University that are consistent with the design and construction practices used for intercollegiate athletics sector projects that perform similar functions. Project objectives include: Eliminating condensation on floors, eliminating noise, dust, debris, and providing thermal comfort for the occupants. Cost increase and extension due to additional work identified during the design development/construction process which included adding additional athletic basketball/volleyball fixtures/equipment/court striping, upgrading the building insulation to be more efficient, starting preparations to repave the areas around the ground floor air conditioning unit to reduce the amount of dust and debris, removal of asbestos discovered after construction started, paving the gravel parking lot, increase in PV system size, added logos, and installation of a new 343KW PV system with new roofs on both Gym 1 & 2.



Gym 1 - Flooring Acclimation, New Equipment, and Wall Graphics



Gym 1 - Exterior Duct Work, Earthwork



Renovate Kitchen & Accessory Spaces in Pilina Building – Maui College

Contractor:	Hawaiian Dredging Construction Company, Inc.
Estimated Date of Project Completion:	August 2019
Original Estimated Date of Project Completion:	June 2019
Completion Level:	40%
Original Construction Amount:	\$7,222,511
Change Orders & Percent Change to Date:	None
Current Phase:	Construction ongoing with heavy structural roof beams ordered and reinforcement to support the roof over large span rooms.
Next Phase:	Heavy structural roof beams to be installed in attic space with ongoing infrastructure installation.

Project Scope: This project involves a full renovation of an existing commercial kitchen space on the second floor and improvements to the associated loading dock on the first floor of UH Maui College's Pilina Building. The spaces will be programmed as Pilina's Food Manufacturing Facility (MFIC), which will collaboratively build food entrepreneurship and manufacturing assets to strengthen local food production and broaden community-based small business ownership and development. Toward this end, MFIC serves as a county-wide gathering place for food producers and consumers of locally manufactured foods. The physical build includes, but is not limited to: wet, dry and cold processing rooms; a walk-in refrigerator and freezer; a packaging room; a pot wash room; and a dry storage room. Time extension due to unforeseen field conditions within ceilings/walls prior to demolition and obstruction of access to the locations of the new drains, sewer pipes, and steel beams by existing conduits, pipes and air conditioning ducts.



Mechanical Piping on Site



Truss Strengthening Work for Extra Bracing was Welded and Completed



Rough-In of Electrical Conduits



7881 DA Native Hawaiian Center for Excellence – Leeward CC

Contractor:	Nan, Inc.
Estimated Date of Project Completion:	October 2019
Original Estimated Date of Project Completion:	October 2019
Completion Level:	30%
Original Design Amount:	\$6,400,821
Change Orders & Percent Change to Date:	None
Current Phase:	Second floor waterproofing coating system and drainage, electrical/plumbing/HVAC rough-ins, interior wall framing, site work, concrete columns, slab and plumbing and drainage piping is ongoing.
Next Phase:	Ground floor exterior walls, doors and glazing, electrical/plumbing/HVAC rough-ins, HVAC equipment and ducts, interior walls and exterior walls for the Dance Studio.

Project Scope: The project involves renovation of the ground floor and a new dance studio addition of Building 7881 DA for the Native Hawaiian Center for Excellence Program. The renovation includes improvements to the existing classrooms and addition of a new classroom, addition of a new Ethnobotany/Fiber Arts lab/classroom, addition of new offices, enlarging the social and study areas, addition of a new dance studio, improvements to the existing parking lot/loading and unloading area and addition of new restrooms. It also involves retrofit to the electrical/power/lighting, fire alarm system and AV/IT; and installation of a new exterior sun screen system on the South and West side faces and waterproofing of the second floor exterior deck. Flooring, ceiling, painting, interior window shades, signage, etc. will also be replaced.



Erection of the structural columns, plumbing piping and rough-ins for the new Dance Studio addition



Preparation of the 2nd floor - new exterior deck infill, drains and expansion joint for the application of the new deck coating system



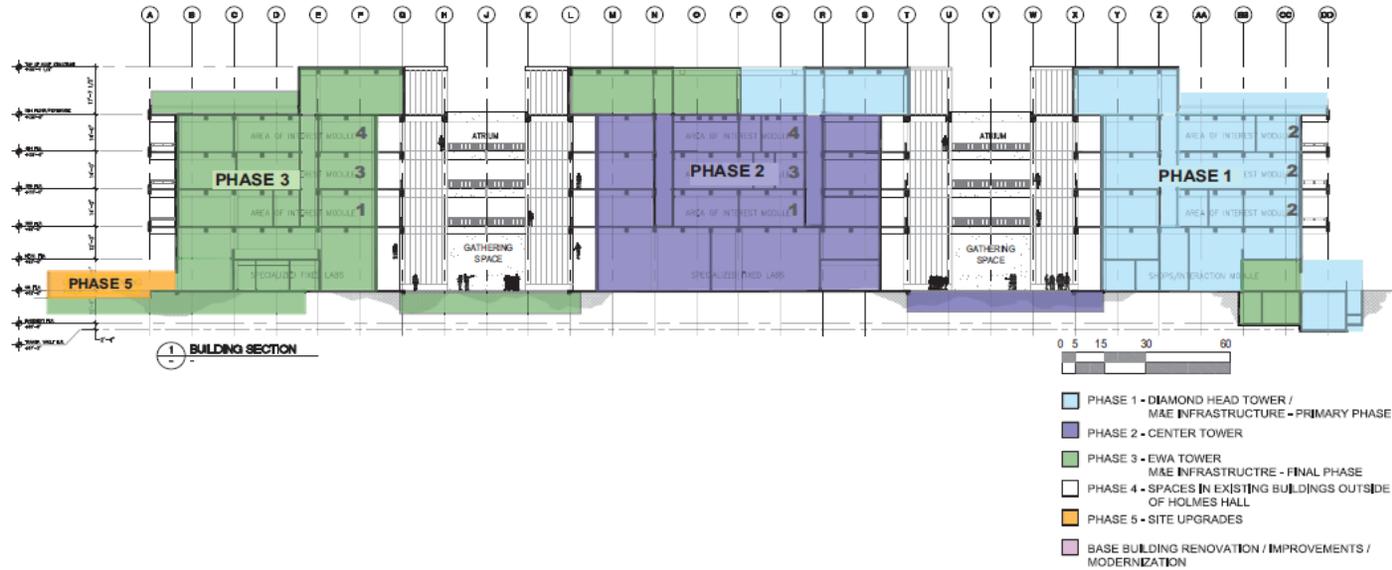
Ground floor interior utilities rough-ins and stud wall framing



Holmes Hall Renovation - Mānoa

Design Consultant:	John Hara Associates
Estimated Date of Project Completion:	Pending Future Funding
Original Estimated Date of Project Completion:	February 2017
Completion Level:	100%
Original Design Amount:	\$1,514,992
Change Orders & Percent Change to Date:	\$301,445 (20%) (No change from Quarter 2)
Current Phase:	Planning and programming.
Next Phase:	Concept Design is pending a legislative request for additional design funds.

Project Scope: The project involves the renovation of Holmes Hall (approximately 133,350 gross square feet) to transform it into an innovative, state-of-the-art facility to accommodate instructional, research, student and administrative workspaces for the College of Engineering and the related UHM engineering community. The project intended to add approximately 27,000 square feet of new research laboratories and supporting workspaces for graduate students and researchers. However, the estimated construction costs exceeded the justifiable benefit, and the proposed renovation would not meet academic facilities needs for growth. To address these issues, the scope of pre-design work was modified to analyze current and future academic program and facilities space needs, and develop a programming document for the renovation of Holmes Hall and the use of other existing facilities or new facilities. Extension due to deferred CIP budget request, additional time needed to develop the requirements analysis report and comments on the Executive Committee final report, infrastructure requirements for teaching and research laboratories.

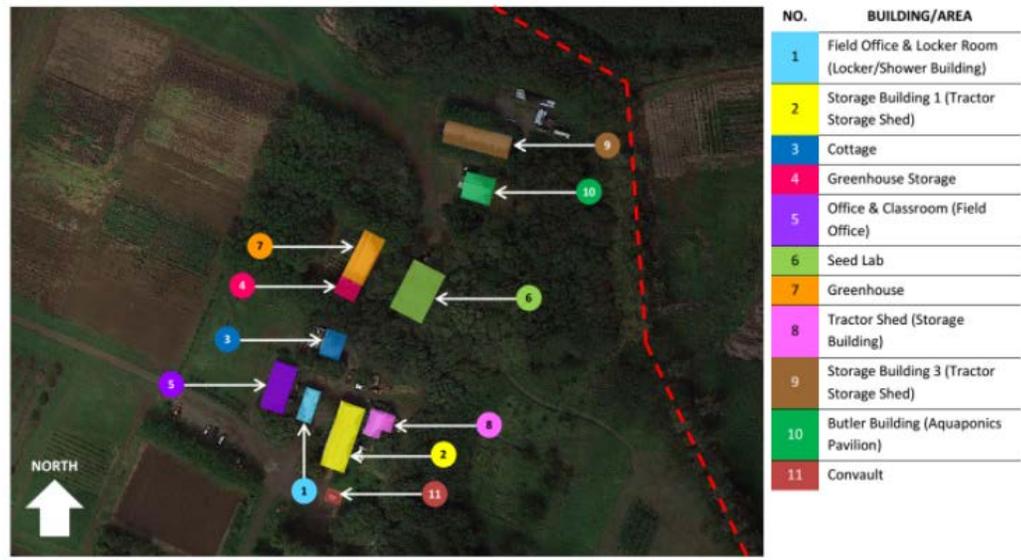


Phasing Plan – Building Section

CTAHR Due Diligence for Various Deferred Maintenance Improvements

Design Consultant: INK Architects
Estimated Date of Project Completion: September 2019
Original Estimated Date of Project Completion: September 2017
Completion Level: 70%
Original Design Amount: \$1,231,316
Change Orders & Percent Change to Date: None
Current Phase: Completed site investigations for Mealani Research Station, Lalamilo Research Station, Waiākea Research Station, Volcano Research Station, and Moloka'i Extension Office/Moloka'i Applied Research Farm.
Next Phase: Initiate site investigations for Hamakua Research Station. Initiate preparation of Due Diligence Reports for the completed sites.

Project Scope: The UH Mānoa's College of Tropical Agriculture and Human Resources (CTAHR) has twenty-seven sites statewide as part of its outreach, research, and experimentation programs. All of these sites have facilities that are currently in use by its occupants and are in various states of disrepair or require upgrades for improved functionality and/or life safety and accessibility code compliance. The goals of the due diligence study are as follows: Document general property information and code requirements, and document the existing conditions exhibited at each facility on the property, and provide recommendations for demolition, repair, maintenance, accessibility, life safety, and hazardous materials condition. Time extension due to numerous revisions to the reports, delay in the initiation of field work and the need to fully access the existing conditions of the remaining sites.



Waimanalo Research Center Due Diligence Study showing the areas and buildings. Each Due Diligence Study evaluates the condition of each of the buildings and provides detailed photos and a description.

Elevator Modernization, Various Buildings, Phase IV – Mānoa

Design Consultant:	
Estimated Date of Project Completion:	December 2019
Original Estimated Date of Project Completion:	December 2018
Completion Level:	65%
Original Construction Amount:	\$1,077,157
Change Orders & Percent Change to Date:	\$406,316 (38%) (No change from Quarter 2)
Current Phase:	Design consultant addressing comments from the Pre-Final design submittal, scheduling survey with elevator vendors to access machine rooms and evaluating the scope of work for security and access controls.
Next Phase:	Prefinal submittal comments were gathered and returned to the Consultants to address.

Project Scope: This project consists of the modernization of the existing elevator systems, machine rooms, possible replacement of the elevator cabs (if technically feasible), and the installation of access card readers and CCTV cameras in all elevator cabs and lobbies. The modernization shall comply with all current codes and accessibility standards. The buildings that are included in this project are St. Johns (2 elevators), Hamilton Library, Phases I and III (3 elevators/phase), Music Complex (1 elevator), Bilger Addition (1 elevator), Law School (1 elevator), Shidler Business School, Towers A, C and E (1 elevator/tower), and Astronomy Building B and C (1 elevator/building). Extension due to additional time needed for the design consultant to complete construction documents. Cost increase due to installation of new card readers associated equipment in elevator cabs, addition of Parking Structures I and II-A modernization, access of machine rooms for survey work/inspections, and the Astronomy Topo Survey.



Law School Elevator Cab Interior



Shidler Elevator Pit



Shidler Elevator Machine Room that will be Modernized



Mini Master Plan, Phase 2 (Formerly New Classroom Building) – Mānoa

Design Consultant:	Ushijima Architects Inc.
Estimated Date of Project Completion:	June 2020
Original Estimated Date of Project Completion:	June 2020
Completion Level:	35%
Original Design Amount:	\$275,913
Change Orders & Percent Change to Date:	\$3,689,677 (1337%)
Current Phase:	Perform design charrette and complete building program requirements.
Next Phase:	Design of the Mini Master Plan, Phase 2 (formerly New Classroom Building).

Project Scope: The Mini Master Plan, Phase 2 (new classroom building) will provide classrooms and offices as part of the 6-year mini capital improvement program/master plan and eventually permanent space for bringing off campus colleges onto the Mānoa Campus in the effort to reduce square footage and modernize classrooms to meet current needs for academic programs. The Mini Master Plan, Phase 2 will also add a parking deck over the existing parking lot located on Maile Way next to Spalding and Webster Hall. The parking deck will replace approximately 100 stalls from Varney Circle that will be eliminated. The funds for this project were appropriated in Act 213, Session Laws of Hawai‘i 2007, as amended and renumbered by Act 158, Session Laws of Hawaii 2008, Item G-117.05 and are still available for this effort with enough funds to deliver an updated Plan Review Use (PRU)/Campus Master Plan and Environmental Assessment (EA) and also provide a full design for this classroom building. The Board of Regents previously approved this project in 2008. Cost increase due to Master Planning efforts; PRU, Campus Master Plan and EA update; addition of architectural, mechanical, electrical and LEED research of existing site conditions; and completion of charrettes for future scope, site selection evaluation and analysis, programming communication and outreach through in-person and website updates, and space planning analysis.



Upcoming CIP: Hale ‘Alahonua Air Conditioning Improvements – Hilo

Estimated Construction Amount:	\$5m-\$10m
Current Phase	Finalizing Project Documents
Next Phase	Project will be bid out while awaiting comments from Hawai‘i County.

Project Scope: The Hale ‘Alahonua dormitory was completed in 2013. All dormitory units within this facility rely on natural ventilation; however, the building's configuration and location on the site obstructs access to natural airflow (cross ventilation) from the naturally ventilated central corridors into the dormitory units. The dormitory fire rated entry doors are the sole physical means available to facilitate the natural airflow from the corridors into the dormitory units; however, the doors must be self-closing and self-latching to comply with code requirements, eliminating the dormitory unit's sole access to natural airflow. Students residing at Hale ‘Alahonua raised major concerns regarding unacceptable living conditions, citing the extreme heat issues in the dormitory units. Portable fans in each dormitory unit did not mitigate the lack of natural cross ventilation and air movement and extreme heat conditions. This project consists of air conditioning for 152 apartment units (total of 304 bedrooms) and the addition of a photovoltaic system to support the air conditioning. In review of new estimated construction costs, the addition of air conditioning at the lounges will be an additive alternate. The project will also include additional photovoltaic panels and a battery storage system as another additive alternative. The design solution will be a multi-split air conditioning system. A power consumption monitoring and management system for the individual air conditioning units shall be provided for flexibility in comfort. Construction is anticipated to begin in September 2019 and the estimated completion date is December 2020.



Hale Alahonua dormitory at UH Hilo houses 300+ students in 2-bedroom suites

Upcoming CIP: Product Development Center Renovation – Leeward CC

Estimated Construction Amount: \$5m-\$10m
Current Phase Fee negotiations in progress.

Project Scope: This project will repurpose an existing metal warehouse building in downtown Wahiawā into a value-added Product Development Center that will be jointly managed by the University’s Community College System and the Hawai‘i Department of Agriculture Agribusiness Development Corporation. The center will support post-secondary education in the incubation and marketing of value-added food products through the recycling of nearby agricultural waste streams. The facility will also bridge the gap between food producers and consumers by providing small- to middle-scale cooperative food facilities to link food producers and consumers. The center shall include, but not be limited to, commercial grade kitchen spaces, a flexible classroom space, processing and manufacturing rooms, testing laboratories, cold storage rooms, and a public loft space.



Exterior View of Building from California Avenue



Interior View of First Floor Space



Interior View of Mezzanine Space

Projects Pending Close-Out

<i>Campus/Project</i>	<i>Original/ Revised Completion Date</i>	<i>Original Construction Amount</i>	<i>Change Orders & Percent Change</i>	<i>Reason for Extension/Increase</i>
Mānoa – Clarence T.C. Ching Complex, Construction of New Athletics Complex	July '13 / May '19	\$12,393,000	\$2,294,625 (18.5%)	Waiting on consultant's review and approval of closing documents.
Hawai'i CC – Hale Aloha Renovation	Oct. '16 / Litigation	\$7,629,500	\$308,436 (4.0%)	In litigation; change order total is for contract modifications #1 - #6; water leaks and the roof parapet remain key litigation issues. Round table expert discussions occurred in Feb. '19 and the mediation has been continued to June.
Hawai'i CC – Culinary Arts Building Phase 1A & Health Science and Student Services Building Phase 1B (Pālanui)	Mar. '16 / Apr. '19	\$22,670,172	\$5,962,084 (26.3%)	PV system has recently been turned on and the final work to finalize the system has begun - working on HELCO's communication with the system and troubleshooting 1 inverter. Project close-out process to follow.
Mānoa – Coconut Island Lilipuna Pier and Seawall Repair	Apr. '18 / Apr. '19	\$5,999,000	\$598,454 (10%)	None



Item III.F.

Committee Annual Review

**ITEM TO BE
DISCUSSED AT
MEETING**