

University of Hawaii Maui College
Annual Program Review; Operations & Maintenance (O&M)
March 2020 to December 2021

Vision Statement:

“Enhance O&M’s Efficacy & Synergy to improve campus Safety & Health, Reliability, Aesthetics and efficiency...”

Mission Statement:

“We, Ohana of O&M will do what is right because it is our responsibility”

Core Values:

- TRUST
- RESPECT
- HONESTY
- FAITH
- BELIEVE IN OURSELVES & EACH OTHER
- HAVE FUN

O&M KOP:

- K: Kuleana
- O: Ohana
- P: Pono

O&M Process:

- Weigh Social, Environment and Economical Equities...
- Making the best balance decision...
- Root Cause Analytics
- Kaizen & 5 S’s
 - Continuous Improvement of Work Practices, personal efficiency, etc
 - 5 S
 - Sort (organization)
 - Set in Order (Orderliness)
 - Shine (Cleanliness)
 - Standardize (Adherence)
 - Sustain (Self Discipline)
- One Voice Methodology
- Synergy
- Balance

STAFFING (Present & see attachment):

- Building Maintenance (2)
 - New Covid era has impacted our campus... decisions are being made outside of our control... filling positions are on hold
 - Building maintenance are addressing emergencies and corrective repair that are essential to campus operations
 - Little to no Preventative and Predictive Maintenance programs
 - RACE to upkeep
 - Repairs and projects are being outsourced due to timing, skill and availability
 - Outdated & deteriorated equipment, buildings and utilities
 - We are utilizing Apprenticeship and student programs to address project normally done by building maintenance
- Janitorial (10)
 - New Covid era has impacted our campus... decisions are being made outside of our control... filling positions are on hold
 - Additional Covid Cleaning and Inventory tasks
 - Little to no Preventative and Predictive Maintenance programs
 - RACE to upkeep
 - Projects are being outsourced due to timing, skill and availability
 - We are utilizing student programs to support janitorial needs
 - We are a consolidated team: no upper and lower campus
- Landscaping & grounds (3)
 - New Covid era has impacted our campus... decisions are being made outside of our control... filling positions are on hold
 - Repairs and projects are being outsourced due to timing, skill and availability
 - Little to no Preventative and Predictive Maintenance programs are being implemented
 - RACE to upkeep
 - Outdated & deteriorated irrigation systems
 - Lack of defined landscaping, turf, tree, shrubs and ground cover maintenance plans
 - No herbicide and fertilizer management plans

Summary:

O&M staff are being cross trained and cross utilized to ensure tasks, assignments and emergencies are addressed safely and in a timely manner to support campus needs and requirements. Outsourcing is chosen method to primarily keep us afloat till vacancies can be refilled.

SWOT (STRENGTHS/WEAKNESS/OPPORTUNITY/THREATS):

SEE ATTACHMENT

STAFF (FUTURE):

SEE ATTACHMENT

MAINTENANCE ESTIMATED TASK HOURS:

SEE ATTACHMENT

WORK ORDER SUMMARY

SEE ATTACHMENT

- Notes;
 - Work orders reduced due to elimination of;
 - AC schedule changes
 - O&M is not involved with movement of offices and staff
 - Data based on some assumptions and estimations
 - Closed, Open and Cancel data are AIM system information
- AIM Work Order system is outdated, not user friendly and cannot integrate with other system programs to provide O&M a useful tool
 - Just input & outputs
 - Cannot auto-integrate with;
 - PO system
 - Labor
 - Inventory min/max
 - History information
 - Ranking & prioritization
 - Others
- Users are initiating WO to push their projects, wants and wishes...

CAMPUS CONDITIONS & RELIABILITY

- UTILITIES
 - MUNICIPAL WATER
 - Portion of system is used for irrigation system (potential savings)
 - Low pressure at lower campus
 - Causes water loss at backflow devices
 - Water closet and faucet issues
 - Excessive water pressure on some areas of upper campus
 - Causes failure on pipes and valves
 - Additional pressure reducers need to be added to system
 - Update Schematics and drawings

- WELL WATER SYSTEM (Irrigation)
 - No backup pump
 - No PM or PdM programs
 - Transmission lines are deteriorated and failing
 - Not enough pressure to irrigate parts of lower campus
 - Repair all leaks, failures and breakages i.e. 6 inch main at recycle center
 - Update Schematics and drawings
- ELECTRICAL TRANSFORMERS
 - Requirements
 - Load data acquisition test
 - Service
 - Oil analytics
 - Long range contingency plan
 - Update Schematics and drawings
- ELECTRICAL MOTORS (15 HP & UP)
 - Megger motors
 - Check continuity and load test
- ELECTRICAL LIGHTING
 - Remove Leviton system at Ikelea and convert to Lutron
 - JCI training for O&M Building Maintenance team on lighting system
 - Recommendation
 - Implement exterior light on Paina & IT emergency systems
 - Update Schematics and drawings
- ELECTRICAL SYSTEMS & MAIN VAULT
 - Update Schematics and drawings
 - Service all connections and terminations
 - Identify and categorize panels, distribution and controls
- BACKUP GENERATOR
 - Recommendations
 - Service and repair generator to acquire 85% efficiency. Presently at 45%
 - Add safety lighting to IT server & Paina refrigeration
 - New Above Ground Fuel Storage Tank
- PV FARMS & ACCESSORY OPS
 - Recommendations
 - Add switchgear to isolate campus from HECO
 - Off grid operations, full utilization of battery storage
 - Implement a program to consolidate all UH Maui College owned PV system with JCI PV systems;
 - One monitoring system
 - Implement Pm/PdM programs
- BUILDINGS
 - Recommendations
 - Develop long range repainting schedule & funding
 - New color codes
 - Develop long range water leak repair schedule & funding

- Develop long range roof repair schedule and funding
 - Develop long range drainage/gutter repair/replace schedule & funding
 - Develop long range spalling repair schedule and funding
- LANDSCAPING (GROUNDS, TREES & SHRUBS)
 - Requirements
 - Compost all compostable material
 - Develop long range Tree Trimming schedule and funding
 - Develop long range turf replacement program
 - Develop long range Hard-scape, Soft-scape & Native planting schedule
 - Implement tree planting County of Maui plan
 - Recommendations
 - Design & implement seashore turf planting inventory program
 - Update Schematics and drawings
- JANITORIAL
 - Continuous improvements to COVID Cleaning
 - Consolidated operations – no upper and lower campus designation
 - New inventory process to minimize to eliminate running out of supplies
 - Recommendations
 - Need new & new replacement equipment;
 - Floor polishers (7)
 - Floor Scrubber (7)
 - Covid sprayers and foggers
 - Remove all carpeting and reinstall laminate flooring
 - Remove all cloth type furniture and replace with plastic or similar
 - Update Schematics and drawings
- SEWER DISPOSAL SYSTEM
 - Service pumps, controls and floats (Pm)
 - Build contingency backup plans
 - Ensure policy is in place for what cannot be flushed in the toilets
 - Update Schematics and drawings
- WALKWAYS, RAMPS & LOADING ZONES
 - Complete ADA evaluation and action plan
 - Backfill all walk way edging with soil media to reduce potential falls and sprains
 - Level walkways to less than ¼ inch difference to reduce potential trips
 - Repair all cracks, breaks and failures
 - Update Schematics and drawings
- TWO WAY RADIOS
 - Replace O&M radios
 - Update and service campus repeater system
 - Add new channels to eliminate the one channel chatter
- FENCING
 - Recommendations
 - Develop a strategic plan to repair, replace and add new security & directional fencing
 - Replace O&M fencing

- ROADS, PARKING, SPEED BUMPS & SIGNAGE
 - Recommendations
 - Add signage
 - Flood area please drive slowly
 - Update signage that meets campus directive
 - Marc Antosch projects
 - Add photo sensing LED lights (caution, warning and advisement)
 - Paint reflective paint on all speed bumps
 - Level grade unpaved parking area (next to security office adjacent NOII)
 - Continuous and ongoing repainting of campus parking, ADA, load zones
 - Repair sinking area under PV canopy
- FIRE SYSTEMS/STANDPIPES/HYDRANTS
 - Repair standpipes (major)
 - Implement PdM for all standpipes/hydrants/Fire systems
 - Quarterly testing of “water gong’s”
 - Quarterly/Semi-annual “testing of all valves”
 - Annual testing of fire equipment and apparatus
 - Recommendation
 - Implement Central Fire monitoring system for entire campus
- AC SYSTEMS
 - Work with JCI to cleanup Metasys system
 - Alarms, warnings, update buildings, controls
 - Train O&M Building Maintenance team on HVAC systems and Metasys
 - Get Ikelea and Central Plant chiller systems and associated equipment function at optimal efficient levels
 - Recommendations;
 - Remove & Replace all Trane systems
 - Work with JCI performance team on optimal utilization at lowest cost
 - Replace all deteriorating insulation
 - Replace valves and transmission lines where applicable
 - Replace & update all AHU’s and install UV sanitizing equipment
 - Replace all deteriorated drip pans and associated discharge lines
 - Update control and hard wiring were applicable
 - Replace all ventilation fans & motors
 - Balance buildings & rooms

GENERAL OVERVIEW:

O&M (Operations & Maintenance) Department is a support function for UH Maui College and its Outreach operations...

This annual performance report provides a “bird’s eye view” of our campus from an O&M perspective. As shown, we have opportunities to implement for achieving a goal to become a campus of “first choice” for our potential students; Traditional, Non-traditional and foreign countries.

Our journey continues to be beneficial to our staff and leaders in all functions of O&M from both a personal and work practices growth. These O&M enhancements will provide the resources and support that is required to meet our campus directive for optimal student learning outcomes/results. This will allow for our Maui County community economic, environmental and social equities to progress forward in the ever-changing global mission & vision...