



POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
COLLEGE OF ENGINEERING
COMPUTER ENGINEERING DEPARTMENT



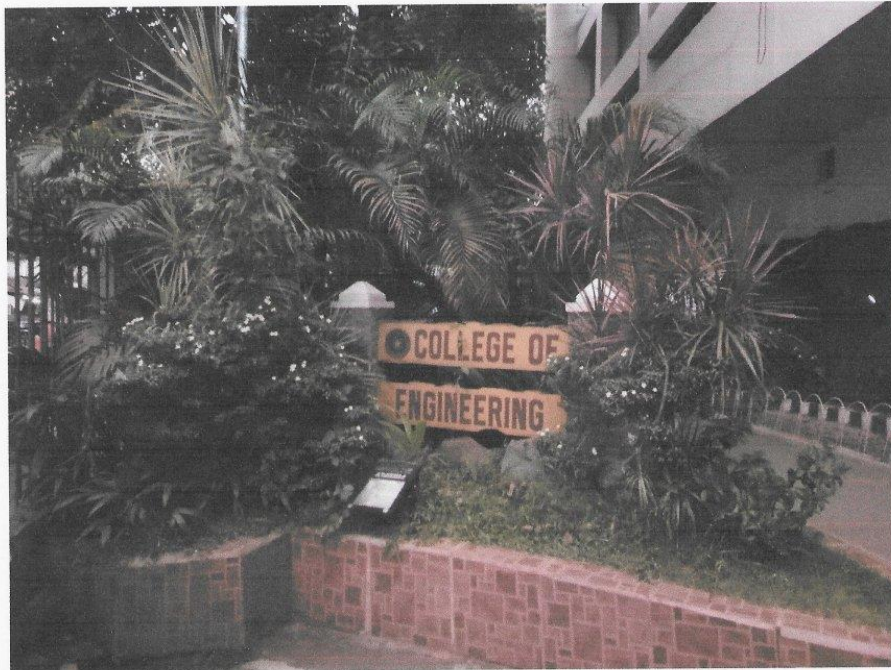
LANDSCAPING AT PARKING AREA



LANDSCAPING AT PARKING AREA



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LANDSCAPING AT ENTRANCE



LANDSCAPING AT PARKING AREA



Preventive Maintenance Plan

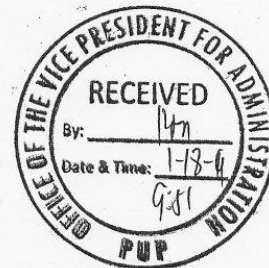
Facility Management Office

2019-2020

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The primary purpose of this preventive maintenance program is to ensure that our University will properly maintain its facility systems and equipment so that they are fully operational so that our instructional programs and activities can be effectively supported. It incorporates the diverse facility requirements of our entire facility and grounds at our school. As needed, it will be periodically updated to incorporate facility and equipment changes, resource adjustments, and new maintenance technologies. We will endeavor to fully execute this program, thereby enhancing the learning environment by reducing classroom disruptions and minimizing long-term investment in equipment repairs.



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I. Maintenance Mission Statement and Maintenance Goals

The purpose of PUP's Facility Preventive Maintenance Program is to develop a consistent, on-going system of maintenance procedures and guidelines to use as a basis and reference to ensure the highest quality and the most cost-effective facility maintenance program.

The Facility Preventive Maintenance Program shall include scheduled inspections of the facility, both interior and exterior and all related equipment and elements of the facility. Maintenance staff shall conduct such scheduled maintenance with the necessary frequency to ensure a safe work environment, maximize the useful life of the facility in the most cost effective and safe manner.

Facility Maintenance includes overall environmental regulatory record keeping and oversight; hazardous waste disposal and manifest timely and reliable maintenance, preventive maintenance, inspections, repair and servicing of administration buildings, maintenance facilities and equipment's, classrooms, venue areas and the like.

The Facilities Management Office will provide a clean, orderly, safe, cost-effective, and instructionally supportive learning environment that contributes to the University's statement of education to meet the intellectual, physical and emotional demands of the 21st Century.

2019-2020 Maintenance Goals

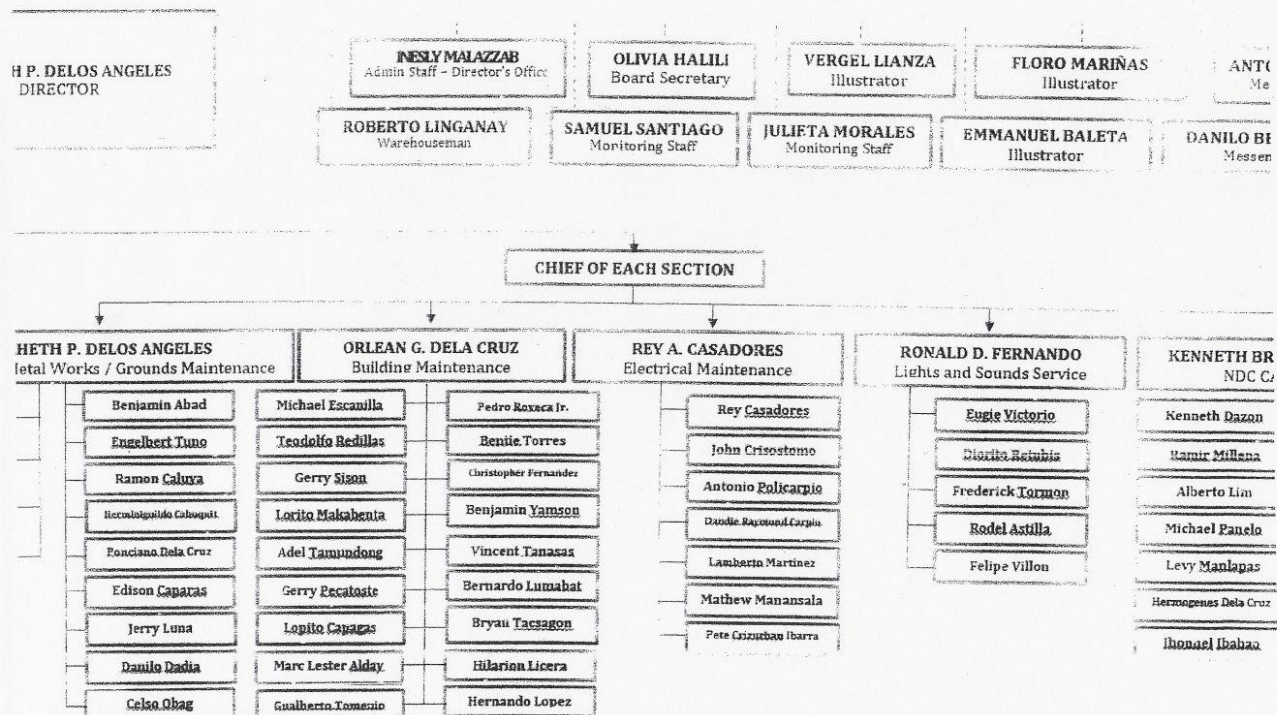
1. To commit at least 50% of our maintenance resources to scheduled preventive maintenance tasks
2. To send administrative/concerned staff to needed training during the 2017 and 2018 calendar year.
3. To provide the Personal Protective Equipment for skilled workers under Facility Management Office
4. To start the awareness of Safety and Health in the Office for its personnel and administrative staff
5. To implement the first in, first out work program -- produced and acquired request are implemented first.
6. To commit at least 80% of the total structure inside the Mabini Campus repainted and maintained.
7. To assure that 70% of common restrooms are functioning and working properly.
8. To replace continuous pipe flush to standard push button flush to conserve water/utilities.
9. To preserve the beauty and functionality of three main big venues in the University.
10. To develop the campus environment mainly grounds -- trimmed and maintained plants
11. To develop a systematic tagging of repair and maintained equipment of the University catered by Facility Management Office



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POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
VICE PRESIDENT FOR ADMINISTRATION
FACILITY MANAGEMENT OFFICE

Maintenance Organization





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The Facility Management Office has established the following priorities in response to requested work:

Emergency

- Eminent life safety threat or operational disruption that could cause closure of University

Safety/Health/Security

- Identified problem that could result in injury if not corrected in a timely manner (Includes fire marshal identified deficiencies, equipment hazards etc.)

Preventive Maintenance

- Scheduled inspection or routine maintenance task that if not completed could result in premature failure of a facility system or equipment item.

Unscheduled Repair Actions

- Action required in repairing a facility system, equipment item or building component that is not functioning properly or was damaged.

Support Services

- Upon request, the maintenance office can assist the school with special events and programs. As much advance notice as possible is requested so that this support can be de-conflicted with other work requirements.

Procedure

The Facility Management Office currently processes work orders manually, with requests from faculty and staff called into or personally directed to the Office and based on priority, the Director of the office assigns work orders to the appropriate Chief of sections or custodians. If a custodian identifies a facility problem at the University function room, they either remedy the problem themselves or if they need assistance in completing, report the problem to the Director of the office. Requested repair and

III. Preventive Maintenance Tasks and Schedules

The accomplishment of scheduled inspection and Preventive Maintenance Task (PMT) is critical to the successful operation of the University. Prescribed inspection and maintenance schedules have been developed for the entire University as shown below.



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BUILDING, ELECTRICAL and GROUNDS MAINTENANCE													
Classrooms / Laboratories													
Main Academic Building													
M	3rd Floor - North Wing	X											
M	3rd Floor - East Wing		X										
M	3rd Floor - West Wing			X									
M	3rd Floor - South Wing				X								
M	4th Floor - North Wing					X							
M	4th Floor - East Wing						X						
M	4th Floor - West Wing							X					
M	4th Floor - South Wing								X				
M	5th Floor - North Wing									X			
M	5th Floor - East Wing										X		
M	5th Floor - West Wing											X	
M	5th Floor - South Wing												X
M	6th Floor - North Wing	X											
M	6th Floor - East Wing		X										
M	6th Floor - West Wing			X									
M	6th Floor - South Wing				X								
SA	P.E. Building - Classrooms						X						X
Q	Nutrition Building			X		X			X				X
M	Laboratory High School	X	X	X	X	X	X	X	X	X	X	X	X
Health and Safety													
M	Exit Signs	X	X	X	X	X	X	X	X	X	X	X	X
M	Fire Exit	X	X	X	X	X	X	X	X	X	X	X	X
Comfort rooms													
M	Main Academic Building - Common CR	X	X	X	X	X	X	X	X	X	X	X	X
Offices/ Faculty Room													
Main Academic Building													
Q	Ground Floor	X	X	X									
Q	Second Floor	X	X	X									
Q	Third Floor							X	X	X			
Q	Fourth Floor							X	X	X			
Q	Fifth Floor										X	X	X
Q	Sixth Floor										X	X	X
Q	Ninoy Aquino Library and Learning Center				X	X	X						
Q	Charlie Del Rosario Building				X	X	X						
Q	Sampaguita Building				X	X	X						
Campus Environment/Grounds													
M	Grounds (open area)	X	X	X	X	X	X	X	X	X	X	X	X



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F	Venue Name	J	F	M	A	M	J	J	A	S	O	N	D
D/M	Bulwagan Balagtas	X	X	X	X	X	X	X	X	X	X	X	X
D/M	Bulawagan Bonifacio	X	X	X	X	X	X	X	X	X	X	X	X
D/M	Claro M. Recto Hall	X	X	X	X	X	X	X	X	X	X	X	X

F	Venue Name	J	F	M	A	M	J	J	A	S	O	N	D
AIRCON AND REPAIR WORKS													
Offices / Laboratories / Faculty rooms / Venue Hall													
	Main Academic Building												
SA	Ground Floor (North and South wing)	X						X					
SA	Ground Floor (East Wing and West Wing)		X						X				
SA	Second Floor (North and South wing)			X						X			
SA	Second Floor (East Wing and West Wing)				X						X		
SA	Third Floor (North and South wing)					X						X	
SA	Third Floor (East Wing and West Wing)						X						X
SA	Fourth Floor (North and South wing)	X						X					
SA	Fourth Floor (East Wing and West Wing)		X						X				
SA	Fifth Floor (North and South wing)			X						X			
SA	Fifth Floor (East Wing and West Wing)				X						X		
SA	Sixth Floor (North and South wing)					X						X	
SA	Sixth Floor (East Wing and West Wing)						X						X
SA	Ninoy Aquino Library and Learning Center				X						X		
SA	Gabriela Silang Building				X						X		
SA	Sampaguita Building				X						X		
SA	Nutrition Building				X						X		
SA	Venue area, halls, AVR					X						X	
Y	Branches and Campuses						X						

F	Building/Room	J	F	M	A	M	J	J	A	S	O	N	D
BUILDING MAINTENANCE - NDC COMPOUND													
Classrooms / Laboratories													
	College of Engineering												
Q	1 st Floor	X			X			X			X		
Q	2 nd Floor	X			X			X			X		
Q	3 rd Floor	X			X			X			X		
Q	4 th Floor	X			X			X			X		
	College of Communication												



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Q	2 nd Floor		X			X			X			X	
	Condotel Building												
Q	1 st Floor			X		X			X			X	
Q	2 nd Floor			X		X			X			X	
Q	3 rd Floor			X		X			X			X	
Q	4 th Floor			X		X			X			X	
Q	5 th Floor			X		X			X			X	
	Institute of Technology												
Q	1 st Floor		X			X			X			X	
Q	2 nd Floor		X			X			X			X	
Q	3 rd Floor		X			X			X			X	
SA	BPO Center Building					X						X	
	Health and Safety												
	NDC Compound												
M	Exit Signs	X	X	X	X	X	X	X	X	X	X	X	X
M	Fire Exit	X	X	X	X	X	X	X	X	X	X	X	X
	Comfort rooms												
M	NDC Compound Buildings - Common CR	X	X	X	X	X	X	X	X	X	X	X	X
	Offices/ Faculty Room												
	NDC Compound Buildings												
Q	College of Engineering	X			X			X				X	
Q	College of Communication		X			X			X				X
Q	Condotel Building			X			X			X			X
Q	Institute of Technology		X			X			X				X
SA	BPO Center Building					X						X	
	Campus Environment/Grounds												
M	Grounds (open area)	X	X	X	X	X	X	X	X	X	X	X	X
M	Trimming of plants	X	X	X	X	X	X	X	X	X	X	X	X
	ELECTRICAL MAINTENANCE - NDC COMPOUND												
	Classrooms / Laboratories / Offices/ Faculty Room												
	College of Engineering												
Q	1 st Floor	X	X		X	X		X	X		X	X	
Q	2 nd Floor	X	X		X	X		X	X		X	X	
Q	3 rd Floor	X	X		X	X		X	X		X	X	
Q	4 th Floor	X	X		X	X		X	X		X	X	
	College of Communication												
Q	1 st Floor		X	X		X	X		X	X		X	X
Q	2 nd Floor		X	X		X	X		X	X		X	X
	Condotel Building												



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Q	2 nd Floor	X	X	X	X	X	X	X	X		
Q	3 rd Floor	X	X	X	X	X	X	X	X		
Q	4 th Floor	X	X	X	X	X	X	X	X		
Q	5 th Floor	X	X	X	X	X	X	X	X		
Institute of Technology											
Q	1 st Floor	X	X	X	X	X	X	X	X		
Q	2 nd Floor	X	X	X	X	X	X	X	X		
Q	3 rd Floor	X	X	X	X	X	X	X	X		
Q	BPO Center Building	X	X	X	X	X	X	X	X		
Mechanical Maintenance - NDC Compound											
Classrooms / Laboratories / Offices / Faculty Room											
College of Engineering											
Q	1 st Floor	X		X		X		X			
Q	2 nd Floor	X		X		X		X			
Q	3 rd Floor	X		X		X		X			
Q	4 th Floor	X		X		X		X			
College of Communication											
Q	1 st Floor	X		X		X		X			
Q	2 nd Floor	X		X		X		X			
Condotel Building											
Q	1 st Floor		X		X		X		X		
Q	2 nd Floor		X		X		X		X		
Q	3 rd Floor		X		X		X		X		
Q	4 th Floor		X		X		X		X		
Q	5 th Floor		X		X		X		X		
Institute of Technology											
Q	1 st Floor	X		X		X		X			
Q	2 nd Floor	X		X		X		X			
Q	3 rd Floor	X		X		X		X			
Q	BPO Center Building	X		X		X		X			
Light and Sounds System and Equipment Maintenance - NDC Compound											
M	College of Engineering	X	X	X	X	X	X	X	X	X	X
M	College of Communication	X	X	X	X	X	X	X	X	X	X



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The Preventive maintenance of electrical facilities is about:

- Resource management
- Providing a safe environment for students and staff
- Creating a sustainable physical environment that is energy supply efficient and Flexible.
- Reducing accidents
- Avoiding costly breakdowns & Work stoppages

Planned Maintenance:

Routine inspection to assess condition, report any problems, decide what contingency, and work action is necessary.

Electrical maintenance staffs are responsible for the following:

- Strict checking and inspection of all electrical facilities, equipment and installed devices
- Supply and repair of lighting fixtures, ballast and switches necessary for efficient lighting system
- Replacement of defective convenience outlets and power outlets
- Inspection and maintenance of Air-conditioning unit power supply but limited only to feeder, outlet and over-current protections
- Inspection and maintenance of electrical motor supply limited only to feeder, outlet and over-current protections
- Inspection, testing and maintenance of Panel boards and over-current protections
- Pull-out, and replacement of orbit fans from classrooms and offices
- Repair and rehabilitation of existing feeder lines and electrical lay-outs
- Recording and documentation using work order system.
- Monthly reading and recording of meters and sub-meters from campus concessionaires

Preventative Maintenance:

Protection of the school's assets and safety of school staff and students requires a regular cycle of upkeep of school buildings, electrical facilities and equipment.

- Daily visual inspection and checking of Lighting fixtures and Electrical Devices.
- Monthly visual inspection and checking of electrical rooms, low voltage switchgears and panel boards.
- Quarterly visual inspection, cleaning, and checking of Orbit and electric fans.
- Quarterly Inspection of ACU Supply Feeders and outlet and over-current protection.
- Semi-Annual preventive maintenance, inspection, cleaning and re-tightening of bus bars, branch circuit breakers at low voltage switchgears and switchboards



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work of the utility power transformers and disconnect protective electrical equipment.

- Three year preventive maintenance of Safety boxes, Junction boxes and Utility boxes.
- Three year preventive maintenance of Electric Lights.
- Three year preventive maintenance of Post Top Luminaires.

Lighting Fixtures and Electrical Devices

- 1) This preventive maintenance procedure is used to clean, inspect and re-lamp the Lighting Fixtures and Electrical Devices.
- 2) This procedure shall be completed once every day.
- 3) As per safety standards, lock-out procedure shall be implemented if required.
- 4) Check: Inspect the equipment, then record problems for corrective maintenance at the end of the checklist.
- 5) Make sure: Inspect the equipment, then repair or replace it as required to meet the standard indicated in the check.
- 6) Procedures:
 - a) Lighting Fixtures:
 - Inspect at regular intervals, with group re-lamping when lamps begin to fail.
 - Routinely check any luminaries that have transformers, control gear or accessories, such as spread lenses, glare baffles, or color filters
 - Check exterior lights to make sure cables are not torn; all screws and hardware should be in place and working, and gaskets can be replaced to provide a better watertight seal.
 - Replace any burned out lamps and consider group relamping. To create your Re-lamping schedule, calculate lamp life and how often lamps are used.
 - Ensure that each lamp has the same color temperature.
 - Re-aim adjustable lighting as necessary
 - Dust lamps and clean lens surfaces to enhance lighting performance.
 - Safely store used bulbs until they can be removed by a certified vendor. Ask for documentation to verify your waste went to a recycling facility and not the dump.
 - b) Electrical Devices:
 - Verify that all switching is done in the ungrounded conductors
 - Verify that any switches in wet locations are properly installed in weather proof enclosures.
 - Verify that switches are located not over 6 ft 7 in (2.0m) high and that they can be operated from readily accessible places unless otherwise permitted.
 - Verify that the voltage between adjacent group or ganged devices is not over 300 volts or that barriers are installed.



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- grounded.
- Verify that switches and receptacles in boxes have their plaster ears seated against the wall surface or the box.
- Verify that switches and receptacles are used within their ratings.
- Verify that general-use dimmers are installed only for control of permanently installed incandescent lighting.
- Check the listing and marking of any switches or receptacles used with aluminium conductors.
- Check the receptacles in wet or damp locations for proper covers and enclosures and weather resistant ratings.
- Verify that isolated ground receptacles are properly identified and connected to isolated grounding conductors.
- Check the receptacles project from metal faceplates or are flush with non-metallic faceplates and that the faceplates cover openings.
- Check receptacles for proper polarity and for grounding and bonding connections.
- Verify that receptacle rating and branch-circuit ratings are compatible.

Electrical Rooms, Low Voltage Switchgears and Panel Boards

- 1) This preventive maintenance procedure is used to visually check or inspect electrical rooms, low voltage switch gears and panel boards.
- 2) This procedure shall be completed monthly.
- 3) As per safety standards, lock-out procedure shall be implemented if required.
- 4) Check: Inspect the equipment, then record problems for corrective maintenance at the end of the checklist.
- 5) Make sure: Inspect the equipment, then repair or replace it as required to meet the standard indicated in the check.
- 6) Checklist Procedures:
 - a. Switchboards, circuit breakers and main switches.
 - No visible damage to impair safety.
 - Safe access provided.
 - Every circuit breaker, main switch and fuse holder(s) provided with up-to-date, legible and durable rating labels giving their ratings.
 - Every circuit breaker and main switch provided with a legible and durable identification label.
 - A means of isolation provided for every circuit.
 - Operation of circuit breakers and main switches checked.
 - All accessible live parts screened with insulating plate or earthed metal.
 - Control, indication and alarm functions checked.
 - b. Electrical room
 - Lighting provided in the power areas is adequate, and located in



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star wrens, over the power board, over the engine control panel and AC transfer switch, over the AC switchgear, and in the engine room.

- Emergency and task/stumble lighting works.
- Feeding fuse/breaker positions and emergency and task/stumble lighting fixtures are properly stenciled as to the equipment they feed or where they are fed from.

c. Panel boards.

- Verify proper return bus option.
- Verify proper load bus arrangements.
- Verify accuracy & proper operation of the digital or analog meters & current shunts.
- Test fuse alarms for proper operation and continuity to NROC (Note: BDFBs and other secondary fuse panels are not monitored by the Power NROC group, but by the groups who monitor the equipment served by these secondary protection devices)
- Ensure that all fuse/breaker assignments are properly marked/stenciled for the loads they feed, and that all incoming and outgoing cables are properly tagged.
- Verify proper connections of wires/cables to the fuse distribution, ground, and battery return busses/connections.
- Verify proper frame and central office grounding.

Electric fans - Orbit Fans

- 1) This preventive maintenance procedure is used to clean, inspect and repair orbit and electric fan
- 2) This procedure shall be completed quarterly
- 3) As per safety standards, lock-out procedure shall be implemented if required.
- 4) Check: Inspect its operation, then record problems for corrective maintenance at the end of the checklist.
- 5) Make sure:
 - Inspect the orbit and electric fans, then repair or replace it as required to meet the standard indicated in the check.
 - Inspect the blades of each fan.
 - Check if the motor is working.
 - Check if there is no missing part in the fan.
 - Clean the blades and covers.
 - Check if the controls of the motor are still working.
- 6) Checklist Procedures
 - Make safe all unsafe conditions identified through this checklist
 - Immediately report all unsafe conditions not remedied or affecting operations or public safeties that are not addressed in this checklist.
 - Record all corrective maintenance items at the end of the checklist

ACU SUPPLY FEEDERS, OUTLET AND OVER-CURRENT PROTECTION

- 1) This preventive maintenance procedure is used to clean, inspect and repair supply feeders and outlets for air-conditioning units



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4) Check: Inspect the equipment, then record problems for corrective maintenance at the end of the checklist.

5) Checklist Procedures

- Check for receptacles and adequate lighting for servicing of mechanical equipment
- Identify the applicable nameplate information for the equipment
- Verify that branch-circuit conductor sizes are adequate on the basis of the applicable nameplate information.
- Verify that conductors supplying several units are adequately sized.
- Verify that branch-circuit overload protection is provided and properly sized.
- Verify that branch-circuit short-circuits and ground-fault protection is provided and properly sized
- Verify that feeder short-circuits and ground-fault protection is provided and properly sized.
- Verify that controllers have adequate ratings, including short-circuit current ratings, where they are not part of listed multi-motor or combination-load equipment
- Verify that disconnecting means have ratings adequate for the equipment.
- Verify that disconnecting means are within sight and readily accessible from the equipment and that working spaces are adequate.
- Verify that conductors, receptacles, cords, and overcurrent devices for room air conditioners are properly sized and that LDCI devices or AFCI protection is provided for cords.

Bus Bars, Branch Circuit Breakers At Low Voltage Switchgears, And Switchboards

- 1) This preventive maintenance procedure is used to inspect, clean, and re-tighten bus bars, branch circuit breakers at low voltage switchgears and switchboards.
- 2) This procedure shall be completed semi-annually.
- 3) As per safety standards, lock-out procedure shall be strictly implemented.
- 4) Check: Inspect the equipment, then record problems for corrective maintenance at the end of the checklist.
- 5) Make sure: Inspect the equipment, then repair or replace it as required to meet the standard indicated in the check.
- 6) Checklist Procedures:
 - Switchboards, circuit breakers and main switches
 - No visible damage to impair safety Safe access provided
 - Every circuit breaker, main switch and fuse holder(s) provided with up-to-date legible and durable rating labels giving their ratings.
 - Every circuit breaker and main switch provided with a legible and durable identification label.
 - An up-to-date schematic diagram displayed to show the main distribution system. Link of adequate size installed in neutral circuit.



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breakers tested with secondary injection test instruments where appropriate. Lowest insulation resistance being not less than 0.5 M ohm measured between phases/neutral/earth.

- 7) Busbar trunking system including rising mains:
 - No visible damage to impair safety.
 - Phase identification marked on both ends of main cable/conductor, and at terminations.
 - All joints of metal conduit or trunking to be mechanically sound, electrically continuous and protected against corrosion.
 - All accessible live parts screened with an insulating plate or earthed metal.
 - Lowest insulation resistance being not less than 0.5 Mohm measured between phases/neutral/earth.

UTILITY POWER TRANSFORMERS (MERALCO COORDINATED)

- 1) This preventive maintenance procedure is used in Annual System shut-down for Meralco coordinated and preventive maintenance work of the utility power transformers and disconnect protective electrical equipment.
- 2) This procedure shall be completed annually.
- 3) As per safety standards, lock-out procedure shall be strictly implemented.
- 4) Check: Inspect the equipment, then record problems for corrective maintenance at the end of the checklist.
- 5) Make sure: Inspect the equipment, then repair or replace it as required to meet the standard indicated in the check.
- 6) Checklist Procedures

a. **Utility Power Transformers:**

- Identify transformers that are covered by Article 450.
- Verify that overcurrent protection for transformers over 1000 volts is provided and properly sized.
- Verify that overcurrent protection for transformers 1000 volts or less is provided and properly sized.
- Verify that overcurrent protection is provided for transformer primary conductors.
- Verify that overcurrent protection is provided for transformer secondary conductors.
- Check transformer installations for adequate ventilation and spacing from walls and obstructions.
- Check transformers for ready access or proper installation in the open or in hollow spaces.
- Verify that transformers are supplied with a disconnecting means.
- Check indoor dry-type transformers for separation from combustibles or, based on ratings, installation in fire-resistant rooms or vaults.
- Check outdoor dry-type transformers for weatherproof enclosures.
- Verify that liquid-insulated transformers are installed in accordance with the requirements for the location and type of insulating liquid.
- Check transformer vaults for adequate constructions, access, ventilation, and drainage and for foreign system in vaults.



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Safety Boxes, Junction Boxes and Utility Boxes

- 1) This preventive maintenance procedure is used to clean and inspect junction boxes. It is also used to verify the correctness of the installation with existing installation drawings.
- 2) This procedure shall be completed every three years.
- 3) As per safety standards, lock-out procedure shall be implemented if required.
- 4) Check: Inspect the equipment, then record problems for corrective maintenance at the end of the checklist.
- 5) Make sure: Inspect the equipment, then repair or replace it as required to meet the standard indicated in the checklist.
- 6) Checklist Procedure
 - Make safe all unsafe conditions identified through this checklist.
 - Report all conditions not remedied or unsafe conditions that are affecting operations or public safety that are not addressed in this checklist.
 - Record all corrective maintenance items at the end of the checklist.
- 7) Exterior
 - Clear grass, sand, and debris from the surface of the junction box.
 - Check if the junction box is level to grade.
 - Check if the concrete collar is free of damage.
- 8) Lids
 - Check if the lid fits well and is free of damage.
 - Lightly lubricate the hold down bolts.
 - Make sure that the hold down bolts are in place and the lid is secured.
 - Make sure that steel lids are bonded.
- 9) Interior
 - Check if the junction box section is free of damage.
 - Check if the top, mid, and bottom braces, or conductor support bar are correctly installed.
 - Remove salt, silt, and debris from the interior of the box.
 - Check the unused holes and the spaces between the walls and the conduit are plugged.
 - Check if the junction box has a bottom drain plate or brick base, and has drainage.
 - Check that empty conduits have full string and are capped.
 - Check that rigid metal conduits are bonded.
- 10) Wiring and Cabling
 - Check if the splices are mechanically secured and insulated. Repair minor problems.
 - Check if the conductors and cables are grouped, bundled, and clearly labelled.
 - Check if the wiring is free of all conditions:
 - Damage, wear, deterioration, and corrosion.
 - Evidence of overheating (over-loading).
 - Loose and untidy wirings.
 - Disconnect or redundant items.
 - Make sure that the wire is secured to the top brace or conductor support bar.
 - Note any solid conductors.



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Responsive Maintenance:

There will always be maintenance emergencies that need to attend to. University staff must make requests for maintenance through phone calls or request letters.

Planned Maintenance:

Routine:

The University Grounds Personnel are responsible for the day-to-day cleaning of grounds. They are also employed to remove rubbish, cut grass, trim grass overhanging, tend gardens and assist with constant upgrading of school grounds including landscaping.

Maintenance staff are responsible for the following:

- Locks, excluding work that must be carried out by professional locksmith
- Supply and fitting of light tubes and globes
- Replacement of tablet chairs
- Regular inspections of gutters and down pipes
- Repainting of signs/blackboards
- Minor repairs to classrooms
- Minor wall, ceiling and door repairs
- Cleaning of graffiti immediately as it appears
- Minor landscape maintenance

Daily

1. Sweep sidewalks.
2. Remove trash from shrubs, bushes, sidewalks, parking lots and main road
3. Review night reports and respond appropriately
4. Review work orders
5. Replace damaged and soiled ceiling
6. Replace damaged floor tiles
7. Ensure doors, windows and roof accesses are secured

Monthly/Annually

1. Inspect and repair curbs, walks and paving
2. Inspect and restore signages
3. Inspect roof conditions, remove debris, ensure downspout and gutters are working and free from mud and soil sediments
4. Restore cracks and blemishes on building exterior
5. Inspect and restore pavement parkings
6. Inspect all restroom, shower rooms and water closets in common area
7. Supervise elevator maintenance services
8. Check all door operations and adjust hardware.
9. Inspect and repair all finished surfaces
10. Perform monthly fire extinguisher inspection
11. Annual pest control treatment
12. Inspect site:



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- c. Pavement
- d. Storm Drainage System
- 13. Building Exterior
 - a. Entrances
 - b. Landscaping
 - c. Storage Area
 - d. Parking Lot
 - e. Roof
 - f. Sidewalk
- 14. Building Interior
 - a. Classroom
 - b. Common Areas
 - c. Computer rooms / Laboratories
 - d. Conference rooms
 - e. Corridors/Hallways
 - f. Elevator
 - g. Electrical room
 - h. Gymnasium
 - i. Swimming Pool
 - j. Office
 - k. Restrooms
- 15. Annual inspection of ceilings, floors, paving, plumbing, internal painting, door hinges, hooks and locks

Every two to five years

1. Replacement of glass where necessary
2. Internal Painting

Every seven to ten years

1. External painting
2. Replacement of floor coverings – tiling works
3. Replacement of boards
4. Replacement of gutters

Every fifteen to twenty five years

1. Roof refurbishment/replacement

B. Lights and Sound System Services and Equipment Maintenance Section

Lights and Sounds personnel are responsible for the following task:

- Minor repair of defective amplifiers, mixers, equalizers and other sound system equipment
- Repair of defective LED PAR's and light controllers
- Replacement of defective Light Emitting Diodes LED PAR
- Regular calibration of lights and sounds equipment
- Maintenance and check-up of signal cable or microphone cable and extension cords



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Bulwagan Balagtas Hall

- a. Perform sweeping, mopping and arrangement of mono-block chairs prior to every event
- b. Clean thoroughly two comfort rooms at the back of the stage at least twice a day
- c. Clean thoroughly the dressing rooms at least twice a week
- d. Perform regular inventory, at least once a week of new (2,670) and old (1066) monoblock chairs and narra tables.
- e. Perform regular inspection/ checkup of lights, fixtures, switches, air conditioning units and fire extinguishers before and after every event.
- f. Perform regular inspection/checkup of lights and sound system equipment installed (main amplifiers, mixers, equalizers, microphones – both wires and wireless, speakers, etc.) before and after each event
- g. Check all connecting wires, signal cables, microphone wires and extension cord for workability before and after every event
- h. Clean follow spot and communication sets (headsets, belt pack and base or controller) at least once a week.
- i. Clean thoroughly the fire exit access (back of stage) at least twice a month
- j. Once in a month, inspection for presence of termites and use proper insecticide if necessary.

Bulwagan Bonifacio Hall

- a. Perform sweeping and vacuum cleaning of floor carpets daily
- b. Clean theater chair and side walls including web removal at least twice a week
- c. Perform regular inspection/checkup of lights, fixtures, switches, air conditioning units and fire extinguishers before and after every event
- d. Perform regular inspection/checkup of lights and sound system equipment installed (main amplifiers, mixers, equalizers, microphones – both wires and wireless, speakers, etc.) before and after each event
- e. Check all connecting wires, signal cables, microphone wires and extension cord for workability before and after every event
- f. Once in a month, inspection for presence of termites and use proper insecticide if necessary.

Claro M. Recto Hall

- a. Perform sweeping, mopping and arrangement of mono-block chairs prior to every event
- b. Clean thoroughly three (3) comfort rooms at least twice a day
- c. Perform regular inventory of mono block chairs, tables and podiums
- d. Clean mono block chairs and side walls including web removal sat least twice a week
- e. Perform regular inspection/ checkup of lights, fixtures, switches, air conditioning units and fire extinguishers before and after every event.
- f. Clean carpet at control room at least twice a month
- g. Perform regular inspection/checkup of lights and sound system equipment installed (main amplifiers, mixers, equalizers, microphones – both wires and wireless, speakers, etc.) before and after each event



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- for workability before and after every event
- i. Clean thoroughly the dressing rooms at least twice a week
 - j. Clean the fire exit access at least twice a month
 - k. Once in a month, inspection for presence of termites and use proper insecticide if necessary.
 - l. Perform General cleaning at least twice a year (repainting of walls, backdrop and signage)

CCTV / Repair Room

- a. Regular maintenance of Closed Circuit Television System (monitor, camera and its control system) at least twice a week
- b. Provide soft copy of captured or recorded data from CCTV unit
- c. Maintenance and repair of paging and information system
- d. Perform repair of maintenance of electronic equipment used in the university as requested
- e. General cleaning of the area.

V. University Facilities and Equipment

The Facility Management Office under Polytechnic University of the Philippines caters the main campus (Mabini Campus) and adjacent campus (NDC Compound). We also provide service for other branches and campus – PUP Taguig, PUP Quezon City, PUP Unisan, PUP Mulanay, PUP Lopez, PUP Ragay, PUP Maragondon and PUP Batangas but on annual basis.

Mabini Campus

- 11 hectares
- Structure inside the premises:
 - 6 Floors, 4 wings - Main academic building
 - Ninoy Aquino Library and Learning Center - 4 floors
 - Charlie Del Rosario Building - 2 floors
 - Sampaguita Building - 2 floors
 - Nutrition Building - 2 floors
 - Laboratory High School - Bungalow, 4 buildings
 - P.E. Building - 2 floors
 - Open Court - Basketball
 - Lawn Tennis Court
 - Lagoon - food concession
 - Chapel
 - Gabriela Silang Building - 3 floors
 - Materials Recovery Facility
 - Asset Management Office - Property area
 - Facility Management Office - Storage and workshop
- Facilities includes:
 - Big venue halls (Bulwagan Balagtas, Bulwagan Bonifacio, Claro M. Recto)
 - Open area (Amphitheater, Freedom Park, Popeye)
 - Exhibits area (Lobby - Main Academic Building)



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- College of Engineering and Architecture Building
 - 4 floors - lecture and laboratory rooms
 - Gabriela Silang Building
 - 1 Audio Visual Room
- College of Communications Building
 - 2 floors - lecture and laboratory rooms
 - PUP Theater
- PUP Condotel - Building A
 - 7 floors- lecture and laboratory rooms
- Institute of Technology
 - 4 floors - lecture and laboratory rooms

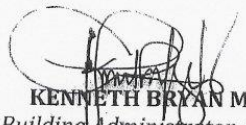
VI. Requested Major Maintenance and Repair Project

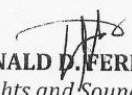
No.	Proposed Projects	2018	2019	2020
1	Planting of ornamental plants in all plant boxes	75,000.00	50,000.00	50,000.00
2	Rehabilitation of comfort room at Lagoon and rerouting of septic outflow on lagoon to catch basin of drainage including siphoning	350,000.00		
3	Termite control		350,000.00	
4	Repair/ Rehabilitation of PUP Tennis Court			
	- Repair of Comfort rooms and repainting of facility	600,000.00		
	- Repair of electrical lines		700,000.00	
	- Repair of court and drainage			700,000.00
5	Repair of welding machine	75,000.00		
6	Rehabilitation of Dump site - Land Development (Concrete Works)			350,000.00
	Grand Total	1,100,000.00	1,100,000.00	1,100,000.00

Prepared by:


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 Chief, Building Maintenance Section


REY A. CASADORES
 Acting Chief, Electrical Maintenance Section


KENNETH BRYAN M. TANA
 Chief Building Administrator, NDC Compound,


RONALD D. FERNANDO
 Chief, Lights and Sound System and Equipment Maintenance




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Noted by:


ARLHETH F. DELOS ANGELES
Director

Recommending Approval:


ADAM V. RAMILO, MIR
Vice President for Administration