


XXVII.G. Fire Detection and Alarm System

- a. All electrical works shall comply with the provisions of the Philippine Electrical Code (PEC) 2017 Edition with rules and regulation of the national and local authorities concerned in the enforcement of electrical laws and regulations of the utility companies concerned.
- b. All electrical works shall be performed by a Registered Master Electrician (RME) or a non-licensed electrical practitioner under the immediate supervision of a Registered Electrical Engineer (REE).
- c. Fire Detection & Alarm System installation shall be in compliance with the Fire Code of the Philippines 2019 Edition. All installations shall be supervised by persons who are qualified and experienced in the installation, inspection and testing of fire alarm systems. Examples of qualified personnel shall include, but not be limited to the following:
 - (1) Factory trained and certified personnel
 - (2) National Institute of Certification in Engineering Technologies (NICET) fire alarm level II certified personnel.
 - (3) Personnel licensed or certified by a state or local authority.
- d. All materials & equipment shall be new and approved type for the purpose and location. The contractor shall verify site conditions and dimensions prior to ordering of equipment or performing work to avoid conflicts and ensure the compatibility of all equipment before installation. All materials & equipment shall be installed as per manufacturer's specifications and instructions.
- e. All components, parts and assemblies supplied by the manufacturer and installed by the contractor shall be warranted against defects in material and workmanship for a period of at least 12 months (parts and labor), commencing upon date of acceptance by the university. A qualified factory-trained service representative shall provide warranty service.
- f. This scope includes provision and installation of functionally complete Fire Detection and Alarm System (FDAS).
System components:
 - Fire alarm control panel (FACP)
 - Smoke detector / Heat Detector
 - Manual call point
 - Fire alarm bell
 - Wirings
- g. Smoke detectors shall not be installed until after construction is completed and the subject area has been cleaned.
- h. All conduit runs shall be concealed from view.
- i. All devices shall be hard wired.
- j. All wires shall be continuous all throughout the circuit.
- k. Operational testing in coordination with PMC: Upon completion of installation, the contractor shall perform thorough operational testing and verify that all system components are fully operational.

XXVII.H. Appliances

- a. All appliances shall be brand new and approved type for the purpose and location.
- b. All appliances shall be installed in accordance with the manufacturer's recommendations.
- c. All appliances shall be warranted against defects in material and workmanship for a period of at least 12 months (parts and labor), commencing upon date of acceptance by the university. A qualified factory-trained service representative shall provide warranty service.
- d. During the warranty period, the contractor shall be responsible for maintenance and repair of the appliances including the repair of workmanship defects, free of charge (parts and labor).
- e. The contractor shall verify site conditions and dimensions prior to ordering of appliances or performing work to avoid conflicts.
- f. This scope includes provision and installation of 2 units Standard industrial exhaust fan (EX - 16): 16" metal blade, 290W, 230V, 60Hz w/ thermal fuse protection and switch included.
- g. This scope includes provision and installation of Air Conditioning Units including mounting support.
- h. All ACCU drain pipes shall be connected to nearest downspout.
- i. All condensate/drain/refrigerant pipes shall be concealed from view where applicable.
- j. Provide and install air-conditioning units specified as follows:

HP rating	1.0HP
No. of units	2
Type	Wall mounted, split
Power supply	1Φ - 230v - 60Hz
Cooling capacity	9,495 kJ/Hr
Input power	790W
EER	12kJ/W-Hr
Running current	3.6A

Dimension (W x D x H)	Indoor: 722 x 187 x 290mm Outdoor: 681 x 285 x 434mm
Weight	Indoor: 7.7kg Outdoor: 22.2kg
Reference Image	

XXVII.I. CCTV Surveillance System

- a. This scope includes provision, installation and programming of functionally complete CCTV security and surveillance system:
 - One (1) Unit Hikvision DS-7608NI-Q2/8P 8CH 1U 8 PoE 4K NVR
Up to 8 channel IP camera can be connected, supports decoding H.265+/H.265/H.264+/H.264 video formats, up to 4K high-definition live view, storage and playback, Up to 8-ch @1080p decoding capacity, Up to 80 Mbps high incoming bandwidth, 1HDMI and 1 VGA interfaces, 2HDD slots, Plug & Play with 8 Power-over-Ethernet (PoE) interfaces
 - Four (4) sets Hikvision DS-2CD1123G0-I 2MP IR Dome PoE Camera
1/2.8" progressive scan CMOS, 1920 x 1080 @30fps, 2.8mm/ 4mm/ 6mm fixed lens, H.265+,H.265, H.264+, H.264, Dual stream, Digital WDR, 3D DNR, PoE, IP67, IK10
 - One (1) Set 27" FHD Display Monitor 1920x1080, IPS, Frameless, Flicker free w/ HDMI cable
 - One (1) 4TB SATA 3.5" Hard Disk Drive (HDD)
 - One (1) set wired USB mouse
- b. Programming of the system shall include programming system configuration parameters (hardware and software, camera location / number, communication parameters).
- c. This scope also includes roughing – ins for future expansion as per plan.
- d. All system wiring shall be concealed where possible.
- e. All camera mounting shall be aesthetically pleasing. The contractor shall adjust cameras (aim and focus) and verify with end user that the field of view is acceptable.
- f. Each camera must be named or numbered in accordance with the end user's requirements / standards.
- g. Use only Cat6 UTP 4-pairs Cable, 24AWG pure copper.
- h. Programming of the system shall include programming system configuration parameters (hardware and software, camera location / number, communication parameters).
- i. Documentation to be submitted to end user upon completion of system installation:
 - Operation and maintenance
 - NVR installation and operation manual
 - Hardware manuals, to include cameras and power supplies
- j. Upon completion of the installation, the contractor shall provide a maximum of 2-day training for the complete operation and maintenance of the system to university personnel representative.

PART IV – OTHER SPECIALTY WORKS

XXVIII. Stainless Steel Kitchen Equipment

1. This scope includes provision and supply of all necessary materials needed for the installation of stainless-steel kitchen equipment which includes stainless steel single/ double sink and stainless-steel preparation table as specified in the drawing.
2. All stainless-steel equipment to be procured/purchased by the Contractor shall conform with the following dimensions and specifications as follows:

sm

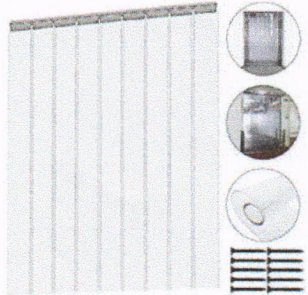
Material Description	Reference Image
<p>➤ Stainless Steel Preparation Table/ Countertop</p> <p>2 Layers; 3-Door Cabinet; and 15cm Backsplash</p> <p>Dimension: L150cm x W60cm x H80cm Material: SUS 202 Thickness: 1.2mm Required: 6 sets</p>	
<p>➤ Stainless Steel Single Sink with SS Faucet</p> <p>2 Layers; 2-Door Cabinet; and 15cm Backsplash</p> <p>Dimension: L80cm x W60cm x H80cm Material: SUS 202 Thickness: 1.2mm Required: 1 set</p>	
<p>➤ Stainless Steel Double Sink with SS Faucet</p> <p>2 Layers; 3 Door Cabinet; and 15cm Backsplash</p> <p>Dimension: L280cm x W60cm x H80cm Material: SUS 202 Thickness: 1.2mm Required: 1 set</p>	

3. Prior to procurement, Contractor shall submit the specification of materials to be purchased for review and approval by TPC/PMC.
4. The Contractor shall provide experienced and qualified manpower, tools, materials and equipment which are capable of producing the quality and quantity of work required to complete the project within the time as specified in the approved scope of work and specifications.

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XXIX. PVC Strip Door Curtain

This scope includes provision, supply and installation of PVC Strip Door Curtain for all door and entrance counter @ raw material storage per specification as summarized.

Specifications	Location/ Tag	Required Sets	Reference Image
2mm thk. x 150mmW x 2100mmH PVC Curtain Strips (Clear) with 50% Overlap complete with mounting accessories	o D1 - 1800mmW x 2100mmH - 10pcs PVC Strips	2 sets	
	o D2 - 700mmW x 2100mmH - 7pcs PVC Strips	3 sets	
	o D4 - 1000mmW x 2100mmH - 10pcs PVC Strips	3 set	
	o D5 - 2400mmW x 2100mmH - 24pcs PVC Strips	1 set	
	o Entrance Counter (Raw Material Storage) - 1500mmW x 2100mmH - 15pcs PVC Strips	1 set	

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