

Homer S. Castillo PME, LEED Green Assoc
Professional Mechanical Engineer

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Availability: October 2017



LICENSE – CERTIFICATION:

License / Certification	License/Cert No.	Licensure Date:
Professional Mechanical Engineer	0005093	August 10, 2016(Philippines – PRC)
Mechanical Engineer	0056889	May 02, 2000 (Philippines – PRC)
LEED® Green Associate	10846301	September 01, 2013 (USA - USGBC)
Saudi Council of Engineers	72456	August 18, 2011 (Saudi Arabia – SCE)

QUALIFICATIONS & SKILLS

HVAC Expertise	Heat load analysis manual calculations using ASHRAE GRP-152. Heat-load analysis using Computer software Elite, E20ii, HAP programs. District-cooling design & calculations. Chilled water pump & Cooling tower pumps calculations. Air Handling unit and Fan-coil units sizing. Heat recovery + Fresh-air Handling unit sizing Chilled-water (air-cooled & water-cooled) & Cooling tower sizing. Plate heat exchanger sizing. DX-Air conditioning equipment (Package unit, Ducted splits and mini splits) sizing & Installation. Ventilation requirements using ASHRAE 62.1 Chilled water pipes sizing. Chilled water system flushing & water chemical treatment. Air ductworks sizing using SMACNA standard Air terminal sizing & selections. Testing, Air & Water Balancing & commissioning. BMS integration
Fire-protection Expertise	Classification of Occupancies. As per NFPA-13 std 2010 edition Sprinkler Head selections, Distance & Operating pressure Hose stream allowance & Landing valves Fire hydrant design and locations Maximum area coverage (hydraulically Most Demanding) Water flow rate and system pressure manual calculations. Water flow rate and system pressure Elite computer software calculations. Fire pump sizing (Main pumps & Jockey pump) Fire pipes material selection & sizing. Testing & commissioning. BMS integration
Escalators & Elevators Expertise	Building tenants traffic management design. Supervision and inspection of Installation as per approved specialized third party approved equipment method of Statement. Testing & Commissioning
Plumbing system Expertise	Domestic water system Hot & Cold design & calculations as per UPC DWS Pipe sizing and Day tank, Overhead Tanks sizing, and installations. Transfer, hot water circulation and pressurization pumps sizing and installation. Gray water design calculations and installations as per UPC Storm water design calculations and installations as per UPC Waste water & vents design calculations and installations as per UPC

	Swimming pool design & Installations. Irrigation design & Installations Testing & Commissioning.
Computer Literacy	Applied Computer software knowledge on Windows 8 / Vista / XP Operating system (and its previous versions); AutoCAD2014; Microstation; Elite CHVAC Heat load Analysis; Elite REFRIG Heat Load Analysis; Carrier E20ii Block Load Analysis; HAP (Hourly Analysis Program); ZAMILAC Heat Load Calculation; Microsoft Office: Word, Excel, Access and Power Point; Primavera
Administrative works / Business Correspondence	Carry-out ADMINISTRATIVE WORKS, business correspondence, quotations, bidding proposals and suppliers inquiries; Projects evaluation, Manpower evaluation and yearly appraisals, work schedule, manpower deployment, forecasting future developments of the company.
Technical Evaluations	Carry out TECHNICAL EVALUATIONS; Site surveys inspections and interface with other disciplines review of Shop Drawings and As-built Drawings; Project Cost Estimates; Bill of Quantities and Materials Take-off; Contract reviews and Mechanical engineering review specifications.
Engineering Codes	Applied knowledge in SAUDI ARAMCO ENGINEERING STANDARDS (SAES-K-001; SAES-K-002; SAES-K-003) SAUDI ARAMCO MECHANICAL CODE (SAES-M-100; SAES-S-01; SAES-S-060; SAES-S-070); UNIFORM PLUMBING CODE; AMERICAN WELDING SOCIETY; NFPA90A; SHEET METAL AIRDUCT CONSTRUCTION (SMACNA); ASHRAE; API; ASME; LEED® CERTIFICATION.
Driving	Ability to drive 4-wheeled vehicle. Philippine license and Saudi Arabia valid driving license.
Preventive & Corrective Maintenance	Carry out and interpret schematic diagrams for electronics and electrical wirings; maintenance and troubleshooting of air conditioners mechanical, electrical systems and preventive maintenance.

WORK EXPERIENCE:

- Position:** **Senior Mechanical Engineer**
Duration: Jul 09, 2011 – June 07, 2017 (6-years)
Company: Dar Al-Riyadh Consultants E&A <http://www.daralriyadh.com/>
Location Riyadh, Saudi Arabia
Department: Consulting Engineering & Architecture
Job Description:
 - In-charge in HVAC design, Installation and commissioning and assign in approvals of installations and all HVAC shop drawings for parcel 1.11.
 - In-charge in Chilled water system design, Installation and commissioning and assign in approvals of installations and all Chilled water shop drawings for parcel 1.11.
 - In-charge in Elevators & Escalators, Installation and commissioning and assign in approvals of installations and all Elevators & Escalators shop drawings for parcel 1.11.
 - In-charge in Fire-protection design, Installation and commissioning and assign in approvals of installations and all Fire-protection shop drawings for parcel 1.11.
 - In-charge in Plumbing (Domestic Hot & Cold; Grey Water; Storm; waste & vents) design, Installation and commissioning and assign in approvals of installations and all Plumbing shop drawings for parcel 1.11.
 - Reporting directly to Assistant Resident Engineer for monitoring work in-progress.
 - Assign in reviewing shop drawings as per tendered design drawings as references, making sure it complies with all the requirements as mentioned by the Client's Design criteria and Technical Specifications. Reviewing MEP coordination drawings and MEP Slab & Wall Builders works assuring that all

relevant MEP drawings will not conflict with each other prior to installation. If it so happen conflict will arise, shall issue Design Observation Notices to inform the designer to review and revise their drawings giving the best solutions (as per engineering codes / engineering standard practices) to the conflict without compensating the design requirements of each disciplines.

- Issuing Technical Reports to Main contractor as Design Observation Notices (DON) if tendered drawings where check irrelevant to all applicable codes and standard in mechanical engineering practices.
- In-charge of issuing Non-Conformance Reports (NCR) and Site observation Notices (SON) for all the works at site found to be sub-standard workmanship, against approved shop drawings, as per LEED® requirements, and most especially violation of safety (HSE) protocol.
- In-charge of Work and/or Material Inspection Request (IR's & MIR's), execution and approvals making sure it complies with all the requirements as mentioned by the Client's Design criteria, Technical Specifications and timelines

2. Position: **Senior Mechanical Engineer - HVAC**
- Duration: Jan 27, 2004 - Apr 26, 2011 (7.5 yrs)
- Company: Najem Air-Conditioning Company (Formerly A/C Star Company LTD.)
- Location: Dammam, Saudi Arabia
- Department: Electromechanical
- Job Description:
- Reporting directly to the General Manager for monitoring work in-progress.
 - Coordination with other discipline and provision of work schedules.
 - Review scope of works, specification as per Saudi Aramco, National Guard, Royal commission, Ministry of Interior Specifications.
 - Inquiries to equipments and materials suppliers for catalogues, material expected delivery time and special discounts.
 - Preparation of Material Submittals for project's consultant approvals.
 - Review and finalized shop drawings as per site requirements prior to fabrications.
 - Safety briefing for all personnel under my supervision to avoid accidents on site.
 - Distribution of daily work schedules for foremen, technicians and personnel involved.
 - Attend weekly progress meeting with other disciplines.
 - Review of Project assessment and preparation of Progress billing.
 - Inspection for installation of Fire-protection system, drainage & sanitary pipe lines, air-conditioning and ventilation ductworks, chilled water pipes and pumps, ventilation fans, Variable Air Volume boxes and DX-type, Chilled-water air conditioners.
 - Witnessed in third party Testing Adjusting and Air & Water Balancing.
 - Testing and Commissioning of control panel.
 - Start-up of Equipments, testing and commissioning.
 - Review As-built drawings, documentations prior to project hand-over.

3. Position: **HVAC Engineer**
- Duration: Jan 06, 2001 - Nov 20, 2003 (2.5 yrs)
- Company: Saleh Al-Mousa & Sons Company LTD
- Location: Al-Ahsa Mubarratz, Saudi Arabia
- Department: Electromechanical
- Job Description:
- Reporting to the Project Manager for work in-progress.
 - Review of Technical specifications and Design Criteria.
 - Site survey verifications and inspections.
 - Design calculations using Heat Load Calculation softwares (Elite and E20ii).
 - Preparation of Schedule of Equipment.
 - Preparation of shop drawings, revisions, and as-builts using AutoCad software

4. Position: **Mechanical Engineer**

Duration: May 1, 1999 - Nov 20, 2000 (1.5 yr)
Company: San Fernando Builders Engineers & Architects
Location: City of San Fernando, Pampanga, Philippines
Department: Mechanical
Job Description:

- Reporting to the Project Engineer for work in-progress.
- Site survey verifications and inspections.
- Assign in preparation of shop drawings, revisions, and as-builts using AutoCad Software and manual drafting.

TRAININGS/SEMINARS

Date	Topic/Course Title
April 1 st , 8 th , 15 th , 2016	Revit Architecture Seminar (24-Hours) Association of Filipino Plumbing Engineers in KSA (AFPEK) White Palace Hotel, Riyadh, KSA
Nov 13 th , 21 st , 27 th , 2015	Revit MEP Seminar for Plumbing (24-Hours) PSME CRSA, White Palace Hotel, Riyadh, KSA
Aug 07 th , 14 th , 21 st , 2015	Design of Plumbing System & Equipment Sizing (16-Hours) Storage Tank Sizing & Testing Commissioning Guidelines (8-Hrs) PSME CRSA, White Palace Hotel, Riyadh, KSA
Apr 10, 2015 – Apr 17, 2015	Design of Automatic Sprinkler System & Hydraulic Calculation Manual Calculation Methods (8-hour) Design of Automatic Sprinkler System & Hydraulic Calculation Software Calculation Methods (8-hour) PSME CRSA, White Palace Hotel, Riyadh, KSA
Feb 20, 27 - Mar 06, 2015	Manual Cooling Load Calculation & using HAPS Program (8-hour) Chilled water pipe sizing, Hydraulic Calc., Pump sizing (8-hour) Ducts & Air Distribution System & Static Pressure Calc. (5-hour) Commercial Kitchen Hood & Ventilation System (3-hour) PSME CRSA, White Palace Hotel, Riyadh, KSA
Feb 06, 2015	Pressure Piping System Design (4-hour) Selection of Fire Fighting Materials & Equipment (4-hour) FGMM PSME CRSA, Hilton Garden Inn, Riyadh, KSA
Nov 28, 2014	Variable Refrigerant HVAC Systems (4-hour) Heat Recovery and UV Sterilization Systems (4-hour) AGMM PSME CRSA, Riyadh Palace Hotel, Riyadh, KSA
Nov 26, 2008- Nov 27, 2008	Daikin® "VRV-II®" New Concept Abbar & Zainy - Daikin Dealer Sheraton Hotel, Dammam, KSA
Mar 5, 2007- Mar 6, 2007	Carrier® "e20ii" Heat Load Calculation Program Carrier, Arabian Airconditioning Company Dammam, KSA
Aug 10, 2004- Sep 24, 2004	20 hour Refresher Course in Plumbing & Fire Protection System Philippine Society of Mechanical Engineers KSA Chapter Al-Andalus International School, Al-Khobar, KSA
Jul 15, 2004- Aug 10, 2004	60 hour Refresher Course in HVAC New Concepts Philippine Society of Mechanical Engineers KSA Chapter Al-Andalus International School, Al-Khobar, KSA
May 20, 1998	Introduction to Industrial Safety National Engineering Center University of the Philippines, Diliman Quezon City, Philippines
Jan 08, 1997 – Jan 11, 1997	Pneumatic Controls & Designs Festo Didactic Holy Angel University, Angeles City, Philippines
Feb 26, 1996 – Mar 27, 1996	AutoCAD® for Professionals 80-Hours AutoDesk – Crescent Technological Institute Sampaloc Manila, Philippines

HIGHEST EDUCATIONAL ATTAINMENT

Education Level: Bachelor's Degree (5-years)
Course: Bachelors of Science in Mechanical Engineering (BSME)
School/University: Mapua Institute Of Technology
Location: Intramuros, Manila, Philippines
Date: Jun 1991 - Apr 1999

PROFESSIONAL ORGANIZATIONS

Philippine Society of Mechanical Engineers (PSME)
PSME-Central Region Saudi Arabia (CRSA) Chapter
Membership No.: 102793

Saudi Council of Engineers (SCE)
Kingdom of Saudi Arabia
Membership No.: 72456

U. S. Green Building Council (USGBC)
LEED Green Associate
Membership No.: 10846301

LANGUAGES SPOKEN

English, Arabic, Malay, Pilipino (Tagalog, Kapampangan, Ilocano)

PERSONAL DATA

Age: 43 -years
Date of Birth: Mar 5, 1974
Gender: Male
Civil Status: Married with 3-children
Height: 168 cm (5'-6")
Weight: 160 lb
Nationality: Filipino
Religion: Roman Catholic

CHARACTER REFERENCES

Arch't Abdulfattah A. Al-Momen CEO / Director AFM Consultants & AFM Interiors KSA	Eng'r. Mohammad A. Al-Dajani EE CEO / Operations Manager ACSTAR Company LTD. - KSA
Mr. Pieter Louis Morris BA Project Manager Dar Al-Riyadh Consultants E&A – KSA	Eng'r. Fortunato Simbulan PME Past President PSME-CRSA – KSA
Eng'r. Franco Delator Miano ME/EE Assistant Resident Engineer KAFD Z1 Dar Al-Riyadh Consultants E&A – KSA	

I hereby certify all the above information's are true and correct.

Homer S. Castillo
PME, LEED Green Assoc
September 25, 2017

18-Years consecutive working experience in the practice of MECHANICAL ENGINEERING
Candidate for: SENIOR MECHANICAL ENGINEER

DEGREE CERTIFICATE - BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING



PROFESSIONAL REGULATION COMMISSION – PROFESSIONAL MECHANICAL ENGINEER



18-Years consecutive working experience in the practice of MECHANICAL ENGINEERING
Candidate for: SENIOR MECHANICAL ENGINEER

SAUDI COUNCIL OF ENGINEERS



USGBC – LEED GREEN ASSOCIATE

