

DANIEL L. CHILTON, PE

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EDUCATION

Bachelor of Science Degree, Aeronautical/Mechanical Engineering
University of Arizona-1969

Western Electric Corporate Education Center, Hopewell, New Jersey – Management
Development Courses focusing on Sociology of Business, Electronic Switching Systems,
and Computer Programming(Fortran, Cobalt, Basic, C+, Assembly Language)

Arizona State University

Post graduate courses in Computer Science, Engineering, and Business Administration.

Computer Courses at San Diego State University

Accepted into Undergraduate degree in BioPhysics

Completed edX courses in Agile, Scrum, Mitochondria, Molecular Biology,
Nerve cells, College Algebra Review and Python
Completed Coursera Courses in Project Management(PMP) and Review of Excel
Completed 7 Part Google Program in PMP
Passed SIE (Security Industry Essentials) Exam

REGISTRATION

Registered Professional Mechanical Engineer in the State of Arizona (No. 11629)

State of Nevada (No. 021908)

State of New Mexico (No.20963)

State of South Dakota (No.11206)

State of Idaho (No. 15011)

State of California (No. M36214)

State of Washington (No. 56808)

Registered Land Surveyor in the State of Arizona (No. 17144)

Licensed Contractor – Mechanical K39-207041, Plumbing K37-206963,
Electrical K11-239336, General B02-180624

Certified in Backflow Prevention

Insurance License in Washington and Arizona states

MSHA Certification – Needs to be renewed

Current Passport

Security Clearance – Current SECRET Clearance

CAREER SUMMARY

Mechanical Engineering Expert and Manager with over 25 years of experience in the Engineering and Construction Industry. Background includes:

- Project Management
- Facility Management
- Project Engineering
- Conceptual Design
- Equipment and System Specification
- Major Equipment Bid Evaluation
- Major Contract Administration
- Construction Management
- Field Support and Start-up
- Retrofit Management
- Budgeting and Forecasting
- Central Plant Management
- Estimating and Cost Control
- Permitting
- Quality Control
- Vendor Expediting
- Sales Support
- Proposal Coordination
- Client Liaison
- Change Order Management

GOLD/SILVER/COPPER MINING EXPERIENCE

Senior Project Manager - Managed the design and implementation of complete facilities to support \$40,000,000.00 reconstruction of smelting facility. Organized the permitting of potable water and Onsite waste disposal systems. Coordinated extension of electrical utilities into construction site.

Supervised the work of designers in preparation of AutoCAD drawings to be used in the construction of this space.

Ruby Hill Gold Mine Central Maintenance Facility

Senior Project Engineer

Organized preliminary design of centralized facility for administration as well as maintenance of

vehicles including CAT 797's (Haul Trucks). Supervised the preparation of drawings to present

this to client. Most complicated features included enclosed Truck Wash and Concrete Apron

heating.

Gibellini Mine –American Vanadium – Solar & Wind Power

Mechanical Engineer

Participated in feasibility study aimed at development of supplemental power for this Vanadium

mining operation utilizing Solar Panels, Wind Turbines, and vanadium based storage batteries.

Originally was thought that water storage would be included in this mix, but this was eventually

deleted for lack of economic feasibility.

FOSSIL POWER PLANT EXPERIENCE

Four Corners Power Plant Flue Gas Desulfurization System

Project Engineer/Project Management

Implementation of in-house patented Environmental Process. Initially responsible for the mechanical design of this project, my responsibilities were expanded to include all engineering including electrical, chemical, structural, and instrumentation and control. At its peak, the design group included thirty engineers and designers. As Project Engineer, I had direct supervision of all mechanical design and engineering work. Personally took responsibility for the procurement of the major components of the system which was

based upon patents held by our company, Arizona Public Service (now part of Pinnacle West) for a wet scrubber utilizing lime slurry. Led the design project from preliminary design through release of construction documents. Responsibilities were expanded to include Project Management and Startup. The Four Corners, New Mexico Plants generated a large portion of APS power and were under EPA mandate to comply within a tight schedule. Ultimately, this schedule was met. In the capacity of Project manager I solicited all bids, evaluated and with my upper management's consent made awards to the three major contractors and half dozen vendors. I then managed these contractors and successfully maintained the schedule. Change Orders were carefully scrutinized and extra expenses were held to a minimum without impacting the schedule. Worked closely with the top management as well as their technical and operating personnel at the plants to satisfy their concerns and requirements. Attended monthly progress meetings with the plant's top management to maintain the progress of the project. Relationship with Plant Manager which had initially been challenging evolved into one of mutual respect with a proposition to join the Plant's staff. Cost came in under budget. Traveled between Phoenix and Four corners by company plane to attend all construction, startup, and plant interface meetings.

Cholla Power Plant, Holbrook, Arizona Flue Gas Desulfurization System

Project Engineer/Project Manager

Simultaneously with the Four Corners project, managed the design and construction of similar facility at this plant. Responsibilities included the development of all mechanical flow diagrams, equipment sizing calculations, equipment procurement and implementation of environmental requirements. The project was also based upon a wet flue gas scrubbing system to remove both SO₂ and particulates. Directed the work of eighteen engineers, designers and draftspersons and coordinated the Mechanical work with other design disciplines as well as ultimately managing construction and startup. Spent considerable time updating and correcting the plans for the existing plant.

Tempe Power Plant Reverse Osmosis Facility

Project Engineer

Responsible for the design of a Reverse Osmosis System to clean up the water for this plant. The project included providing evaporative pond for the waste water from the reverse osmosis process.

Solar Facilities in Stockton, California

Project Manager

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Manage all subcontractors and vendors engaged in the completion of Photovoltaic facilities

at twenty-one schools of Stockton Unified School District. Took over after original General

Contractor failed to complete project.

Solar Facility in Hawaii Project Manager

Managed contractors, engineers and vendors engaged in remodel of commercial solar facility on western slope of the big Island. Accomplished this under tight budgetary constraints.

Defense Industry Experience

Antiballistic Missile System/Langdon, North Dakota

Senior Engineer/Quality Assurance

Oversaw technicians engaged in the evaluation of installation and startup of the data processing, radar and missiles to ensure that the work was done in strict compliance with government and Bell Laboratories procedures.

Sprint and Spartan Missiles

ENGINEER

Developed systematic Maintenance procedures for the antiballistic missiles to be used in the Safeguard system. Acted as liaison for Western Electric Defense Division with the missile contractors Martin Marietta in Orlando and McDonnell Douglas in Los Angeles.

Arizona Air National Guard-Tucson Refueling Facility

Contractor

Oversaw and coordinated the installation of mechanical systems at site designed to consolidate the fueling of air national guard planes.

Army Corps of Engineers

Society of Military Engineers- Member

Society promotes interaction between the military and engineers and contractors experienced in military projects.

HVAC

University of Arizona Technical Park

Project Engineer Manager with Newmark Grubb Knight Frank

Responsible for achieving continuous delivery of power, chilled water, gas, and compressed air to major tenants (industrial and business) including IBM, Citi, and Raytheon as well as several dozen other business clients in this 2,000,000 square foot facility. Also managed the staff of the Waste Treatment Facility in this zero discharge operation. Primary responsibilities included apportioning the cost of the energy budget to each of the tenants based upon sophisticated software analysis of the several hundred metering devices onsite.

Arizona Department of Economic Development

Mechanical Contractor

Replaced over four thousand feet of ductwork in state office building without interrupting the state's employees. This is one of dozens of significant projects that involved coordination with government entities.

Tucson City Hall-Cooling Tower

Mechanical Contractor

Replaced the cooling towers on the top of Tucson City Hall while avoiding interference with the city workers and protecting many other roof mounted systems including a large piece of artwork which can still be viewed from the interstate highway.

Ductwork Estimating

Engineer

Managed six person Estimating department of Commercial Ductwork manufacturer fabricating and delivering ductwork for clients such as University Mechanical performing work in Arizona, California, New Mexico and Texas.

HVAC Design

Designed and managed the HVAC systems for over fifteen thousand houses in hundreds of subdivisions. Estimated, Bid, Negotiated and completed dozens of commercial projects.

OTHER SIGNIFICANT EXPERIENCE

Engineering Design

Designed and professionally sealed drawings for Aircraft Hanger, Church, Medical Facilities, Office Building and other projects in Tucson and surrounding area, Currently working on conversion of a 747 fuselage into combination restaurant and offices.

Forensic Engineering

Professional Engineer

Acting as intermediary between the city of Tucson and various clients who undertook construction projects without the benefit of permits, prepare documents and perform inspections to obtain Certificate of occupancy for these projects. Also provided expert opinion and rebuttal to insurance adjustor on a case of a house sinking into a hole in the ground in Benson Arizona.

Procore and BIM experience

Acquired experience in these software formats while engaged in project involving initial organization of multistory hotel construction. Also experienced COINS.

Engineering and Contracting

Developed and successfully applied marketing skills of abilities in both areas. Discovered untapped means of addressing key executives in Arizona and California companies which are applicable elsewhere.

Estimating and Cost Engineering Contracting and Engineering

Capable of quickly developing preliminary estimates for engineering feasibility studies and exacting Contractual pricing.

Custom Home Builder

Designed, financed, constructed and sold five medium sized custom houses.

Sheriff Auxiliary Volunteer

Trained and was accepted into team providing extra manpower to the Pima County Sheriff's Department. Assignments included a lot of Traffic Control and interaction with the public in

Events such as annual Air Force air Show and Tour de Tucson bicycle Race.

CONTINUING EDUCATION

Completed Computer and Accounting courses at Pima Community college and University of Arizona.

Currently training online in Python with codecademy.

EMPLOYMENT SUMMARY

<i>2024(Oct) - Present</i>	<i>Project Manager - Customs and Border Patrol Tucson Sector</i>
<i>2017(Jun)– 2024(Oct)</i>	<i>Owner of Universal Tectonics engaged in Engineering Project management of several unique. Projects as well as Construction contracting in HVAC installations in Tucson, Arizona</i>
<i>2015(Aug) – 2017 (Jun)</i>	<i>Project Manager with BAY4 in Tucson Arizona for Photovoltaic Facilities in Stockton CA and Hawaii</i>
<i>2013(Sept) – 2015(Aug)</i>	<i>Project Managing Engineer/Facility Manager Newmark Grubb Knight Frank</i>
<i>2011(Dec) – 2013(Sept)</i>	<i>Senior Mechanical Engineer and Project Manager Hanlon Engineering in Tucson, Arizona</i>
<i>2005(Jan) - 2011(Dec)</i>	<i>Manager of Mechanical Engineering Company</i>

2001(May)-2005(Jan)	Managing partner at Desert Builders Co. specializing in engineering consulting and commercial construction
1994(Feb)-2001(May).	Project Manager for Arizona Public Service Company engaged in Environmental upgrades at Coal Fired Power plants