

# **STATEMENT OF QUALIFICATIONS**



ProShare Services, LLC 113 Hemlock Street Pittsburgh, PA 15212

412-532-9441 www.proshareservices.com

2024 - Property of ProShare Services LLC



## TABLE OF CONTENTS

PROFESSIONAL MANAGEMENT AND CONSULTING EXPERTS2
CERTIFICATIONS AND BUSINESS REGISTRATIONS2
QUALITY AND SAFETY
NAICS CODES
BONDING AND INSURANCE
INDUSTRIES4
PROFESSIONAL SERVICES
EQUIPMENT RENTALS
CONSTRUCTION MATERIAL SUPPLY4
OTHER SERVICES
DIVERSITY
SUSTAINABILITY AT PROSHARE SERVICES
VALUED CUSTOMERS7
COMPANY TRAININGS7
PAST PERFORMANCES
PROSHARE TEAM14
KEY PERSONNEL RESUMES15
PROJECT DETAIL DESIGN EXAMPLE DRAWINGS
PROCESS & INSTRUMENTATION DIAGRAM (P&ID)
BILL OF MATERIAL (BOM)40
EQUIPMENT LAYOUT DRAWING
EQUIPMENT DETAILS DRAWING44
COST REDUCTION PROCESS
CASE STUDIES



# PROFESSIONAL MANAGEMENT AND CONSULTING EXPERTS

**Proshare Services, LLC**, a certified woman-owned engineering, procurement, and construction (EPC) consulting firm, is dedicated to enhancing safety, efficiency, and cost-effectiveness for businesses. Our approach is distinct and strategic, leveraging real-world scenarios and the daily challenges faced by Operations and Maintenance teams. By engaging all stakeholders from the outset, we deliver customized solutions designed to meet the unique needs of your business. Our mission is to help businesses in the government, energy, oil and gas, utilities, renewables, and commercial construction sectors to achieve efficiency and reduce project costs in construction, operations, maintenance, and finance. Through our strategic planning and innovative solutions from planning through execution, we can take your organization to the next level.

**9** 

113 Hemlock Street, Pittsburgh, PA 15212

412-532-9441

info@proshareservices.com

- www.proshareservices.com
- h Linkedin



🗿 Instagram

YouTube



KEY MANAGEMENT CONTACT Danielle Baughman, President danielle.baughman@proshareservices.com 412-532-9441

# **CERTIFICATIONS AND BUSINESS REGISTRATIONS**

- SBA 8(a)
- SBA HUBZone
- U.S. SBA ED WOSB
- WBENC WBE
- PA DGS Small Diverse Business (SDB and SB)

UEI: UKJ4C3LERNL5 DUNS: 117661638

- NY DOT DBE
- PA UCP DBE
- NY EMPIRE STATE WBE
- VA DOT DBE
- WV DOT DBE
- ODOT DBE

CAGE CODE: 8QD35 EIN: 85-2471745



# **QUALITY AND SAFETY**

At Proshare Services, we prioritize the highest standards of quality and safety in every project we undertake. Our commitment to excellence is reflected in our rigorous quality control processes and our unwavering dedication to maintaining a safe work environment. We adhere to industry standards and continually invest in training and

technology to ensure that our team is equipped to deliver superior results while safeguarding the wellbeing of our employees, clients, and the communities we serve. Employees are certified in both OSHA 10 and OSHA 30, demonstrating their commitment to workplace safety and compliance. By fostering a culture of safety and quality, we aim to exceed client expectations and contribute to the long-term success and sustainability of every project.



# NAICS CODES

- 541330 Engineering Services
- 541611 Administrative Management and General Management Consulting Services
- 541340 Drafting
- 541990 All Other Technical Services
- 541618 Other Management Consulting Services
- 541690 Other Scientific and Consulting Services
- 532490 Other Commercial and Industrial Machinery and Equipment Rental and Leasing
- 541614 Process, Physical Distribution, and Logistics Consulting Services
- 562991 Septic Tank and Related Services

Primary NAICS – 541611 – Administrative Management and General Management Consulting Services

# **BONDING AND INSURANCE**

Proshare Services is fully bonded and insured, and we can provide bonds and insurance certificates for projects upon request.



*I recommend Danielle's service support on engineering project assignments. I have known her for over 10 years. She has excellent technical skills, well organized, effective communicator and exudes professional integrity.* 

Mark Gannon,

# 



# **PROFESSIONAL SERVICES**

Our team at Proshare Services boasts years of invaluable experience in managing both projects and people. We take a holistic approach to every project, collaborating with each division of your business to implement an effective project management system that everyone can follow. Additionally, we engage with your stakeholders to ensure all safety and environmental needs are addressed. Our consultants have the flexibility to quickly scale project needs up or down, enabling us to optimize your company's strategies and reduce project costs effectively.

- Project Management
- Construction Management
- Engineering & Design
- Drafting
- Process Modeling
- Project Scope Development & Planning

# **EQUIPMENT RENTALS**

- Office Trailers & Services
- Portable Toilets
- Restroom Trailers
- Traffic Control Fencing
- Compressors
- Generators
- Pumps
- Frac Tanks
- Matting
- Manlifts
- Skid Steers

- Technical Services
- Vendor Management
- Trading House Services
- Contracting & Procurement
- Budget Management & Finance

# CONSTRUCTION MATERIAL SUPPLY

- Mechanical Materials
- Electrical Materials
- Large and Small Diameter Piping, Valves, & Fittings
- Control & Safety Valves

# **OTHER SERVICES**

- Janitorial Services
- Logistics, Trucking, & Warehousing



# **DIVERSITY**

## CHAMPIONING DIVERSITY AT PROSHARE SERVICES

As a women-owned organization, Proshare Services is deeply committed to advancing diversity within our company, industry, and society. Our mission is to foster an inclusive workplace that attracts diverse talent, celebrates individual differences, and encourages growth and creativity.

### OUR APPROACH TO DIVERSITY

- We hire the most qualified individuals for each role, regardless of race, gender, or orientation.
- We collaborate with diverse firms that help our clients achieve their goals, further promoting inclusivity in our partnerships.

### **OUR DIVERSITY CERTIFICATIONS**

Proshare Services is proud to hold a range of diversity certifications that demonstrate our commitment to inclusion:

- WBENC Certified Woman Business Enterprise (WBE)
- U.S. SBA Certified Economically Disadvantaged Women-Owned Small Business (ED WOSB)
- SBA Certified 8(a) Business Development Program
- SBA HUBZone Certified
- PA DGS Certified Small Diverse Business (SDB)
- Disadvantaged Business Enterprise (DBE) certified across various states and agencies including:
  - o Pennsylvania UCP
  - Maryland DOT
  - New York DOT
  - NY Empire State Development
  - Virginia DOT
  - West Virginia DOT
  - Ohio ODOT





# SUSTAINABILITY AT PROSHARE SERVICES

At Proshare Services, sustainability is a guiding principle. We meticulously design each project to minimize environmental impact, ensuring that our solutions benefit the environment, economy, and people alike. Our mission is to create a positive and lasting impact on all fronts.

### PEOPLE FIRST

At Proshare Services, our primary focus is on people. We cultivate a team-oriented environment that empowers both customers and employees to make meaningful, positive decisions in their work. We carefully select talent that values safety and hospitality on every project site.

### ENVIRONMENTAL COMMITMENT

By leveraging our technical expertise, we assist clients in achieving their Environmental, Social, and Governance (ESG) goals. We help reduce emissions and identify areas of waste, enabling businesses to significantly lower their carbon footprint and contribute to a healthier planet.

### ECONOMIC SUSTAINABILITY

Our solutions not only safeguard the environment but also offer economic benefits. Through meticulous cost tracking and comprehensive economic analysis, we enable businesses to cut expenses and reduce emissions concurrently. Each phase of your project is meticulously optimized to guarantee long-term profitability while upholding environmental stewardship.



We had a very good experience with Proshare Services. Danielle was pleasant, patient and thorough while working out the details for a variety of specified materials to meet our clients' requirements. Her quick response and follow through really helped to keep us on track. I would recommend Proshare Services to anyone looking for a reliable partner in otherwise uncertain times.

Derek Dijkerman 84 Lumber

# VALUED CUSTOMERS

- Aqua Essential Utilities
- BMS Cat
- Caliber Contracting Company
- Danville State Hospital
- Dept of Human Services|Clark Summit State Hospital
- Dept of Military & Veterans Affairs
- Lighthouse Electric Company
- Michael Facchiano Contracting Company
- PA Dept of Corrections
- Philadelphia Gas Works
- PA Game Commission
- PA Apartment Association

# **COMPANY TRAININGS**

- WBENC Energy Executive Program
- WBENC Chemical Industry Accelerator
- University of Pittsburgh/RCI Biz Fit 1 Construction Training
- Philadelphia Gas Works Diverse Business Development Program

# ßß

I have worked with Danielle and Tonia for several years in the past. This is a high performing team! Danielle is hard working, creative, willing to take on just about anything and has a relentless focus on costs and value. Tonia is well organized, drives action and progress across a team and communicates very well. This is an experienced team that will find and drive value!

John Roble Shell

- McKamish Inc.
- Mosites Construction Company
- Rycon Construction, Inc.
- Pittsburgh Hispanic Development Corporation
- SCI Benner
- SCI Cambridge Springs
- Schultheis Electric, Inc.
- The Whiting Turner Contracting Company
- Valve 48
- W.G. Tomko Inc.
- Wyatt Inc.
- Well Versed Oilfield Services
- WBENC WeIGNITE Executive Program
- DBE Bonding Series
- Turner/UPMC/University of Pittsburgh School of Construction
- BizFit Tier II Construction Training





# PAST PERFORMANCES

We consistently exceed performance goals on our projects and deliver high-quality services. Example projects and drawings for example work can be found at the end of this SOQ under Project Information Sheets.

At Proshare Services, we are honored to work with a diverse range of clients. Our valued clients trust us to deliver exceptional results on their projects. We pride ourselves on our commitment to excellence, ensuring that every project is completed to the highest standards of quality and safety. Our collaborative approach, combined with our industry expertise, allows us to meet and exceed the unique needs of each client. At Proshare Services, we are dedicated to building lasting relationships and delivering sustainable, innovative solutions that drive success in the construction sector.

Below are several examples of our past performances that demonstrate our commitment to quality, innovation, and client satisfaction.



	-			
Title	Pittsburgh International Airport TMP Retrofit			
	Project – Office Trailer Rentals, Janitorial			
	Services, Project Management, Temporary			
	Restroom Services, Safety Professional Services,			
	Procurement of Construction Materials, Traffic			
	Control			
Client	Lighthouse Electric Company			
	Michael Facchiano Contracting Company			
	Rycon Construction, Inc.			
	W.G. Tomko Inc.			
	Wyatt Incorporated			
Location	Western Pennsylvania			
Industry	Commercial Construction			
Period of Performance	01/01/2022 - Present			
Award Amount	Estimated ~\$1M			

#### **Detailed Description of Project:**

Deliver equipment rental, construction materials, project management services, office trailer procurement, portable toilets, and janitorial services, along with safety professional services and traffic control, to various contractors involved in the \$1.57B Terminal Modernization Program Retrofit Project at Pittsburgh International Airport.

- The projects were completed on schedule and within the allocated budget.
- The quality of work met the client's expectations, leading to the acquisition of additional contracts with the end user.





Title	Utilities Pipeline Replacement Inspections		
Client	Aqua/Essential Utilities		
Location	Philadelphia, PA		
Industry	Utilities		
Period of Performance	03/01/2023 - Present		
Contract Award Amount	\$180,000		

### **Detailed Description of Project:**

Provided a highly experienced QA/QC inspector to oversee and validate asphalt patchwork inspections. The inspector ensured that the general contractor adhered to all relevant state and federal regulations, industry standards, and the specific requirements outlined in the contract.

- By ensuring strict compliance with state and federal regulations, this approach reduces the risk of non-compliance, which helps prevent potential penalties and costly delays, ultimately resulting in significant cost savings for the company.
- The project was completed on schedule and within the allocated budget.
- The quality of work met the client's expectations, leading to the acquisition of additional contracts with the end user.

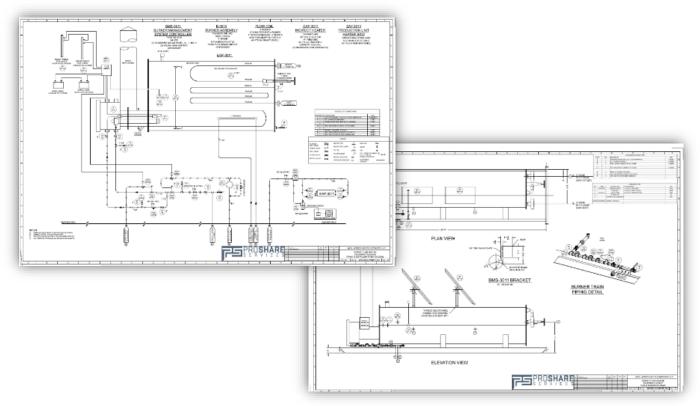


Title	Engineering/Design/Drafting Services - Indirect		
	Line Heater		
Client	Well Versed Oilfield Services, LLC		
Location	Pennsylvania		
Type of Project	Oil & Gas/Energy		
Period of Performance	2023		
Award Amount	\$1,500		

### **Detailed Description of Project:**

Delivered technical and professional services, including the development of a Process & Instrumentation Diagram (P&ID), Bill of Materials (BOM), detailed equipment design drawings, and equipment layout plans.

- By ensuring strict compliance with state and federal regulations, this approach reduces the risk of non-compliance, which helps prevent potential penalties and costly delays, ultimately resulting in significant cost savings for the company.
- The project was completed on schedule and within the allocated budget.



Title	Natural Gas and Processing Utilities Plant &		
	Equipment Calibration		
Client	Philadelphia Gas Works		
Location	Philadelphia, PA		
Industry	Utilities		
Period of Performance	09/01/2021 - Present		
Award Amount	\$100,000		

### **Detailed Description of Project:**

ProShare was required to provide labor, supervision and project management for the scope of work described herein. The contractor shall furnish all material not supplied by the company, labor, tools, equipment and services for providing maintenance, repair and calibration of portable calibration equipment located in the Richmond and Passyunk plants, as detailed herein and on the spec.

- By ensuring strict compliance with state and federal regulations, this approach reduces the risk of non-compliance, which helps prevent potential penalties and costly delays, ultimately resulting in significant cost savings for the company.
- The project was completed on schedule and within the allocated budget.
- The quality of work met the client's expectations, leading to the acquisition of additional contracts with the end user.



Title	Utilities Grease Trap Inspections Study/Report		
Client	Aqua/Essential Utilities		
Location	Richmond, VA		
Industry	Utilities		
Period of Performance	08/01/2023 - 03/01/2024		
Contract Award Amount	\$15,500		

### **Detailed Description of Project:**

Partnered with a highly experienced MBE engineering firm to conduct site visits, assess the condition of grease traps at restaurants, and deliver a comprehensive report detailing findings and recommended next steps.

- By ensuring strict compliance with state and federal regulations, this approach reduces the risk of non-compliance, which helps prevent potential penalties and costly delays, ultimately resulting in significant cost savings for the company.
- The project was completed on schedule and within the allocated budget.
- The quality of work met the client's expectations, leading to the acquisition of additional contracts with the end user.





## PROSHARE TEAM

We pride ourselves on having a team of dedicated personnel who bring a wealth of experience and education to every project. Our professionals possess diverse expertise in various engineering disciplines, coupled with advanced degrees and certifications. This blend of hands-on experience and academic knowledge ensures that our team is equipped to tackle complex challenges with innovative solutions. By continuously investing in professional development and staying updated with industry advancements, our team remains at the forefront of construction and engineering excellence, delivering projects that exceed client expectations and contribute to the success of our partners.

The following resumes are found at the end of this Statement of Qualifications in Key Personnel Resumes.

Danielle Baughman – President / Engineer (Page 16) Tonia Metala – Senior Contracting, Procurement, and Finance (Page 21) Jim Sullivan – Senior Project Manager (Construction) (Page 25) Jim Okeson – Senior Designer/Drafter (Page 27) Peter Ryan – Senior Chemical Engineer (Page 29) Dustin Nash – Senior Engineer (Page 32) Matthew Gueguen – Project Manager (Page 34)



# **KEY PERSONNEL RESUMES**



# DANIELLE BAUGHMAN, E.I.T. PRESIDENT/CHEMICAL ENGINEER

#### EDUCATION

- Bachelor of Science in Chemical Engineering/Minor in Bioengineering, University of Pittsburgh, PA 2009

#### PROFESSIONAL REGISTRATIONS/CERTIFICATIONS

- Engineering in Training (E.I.T.)
- Six Sigma Lean Black Belt Professional (LBBP)
- Marathon Green Belt Certification
- OSHA 10

- OSHA 30
- Master Builder's Association of Western Pennsylvania
- Women's Energy Network (Programming Chair)

#### EXPERIENCE

- President, 2020-Present, ProShare Services, LLC
- Technical Services Engineer III/Process Engineer, 2016-2022, MPLX/Marathon Petroleum
- Integrity Pipeline Replacement Project Leader/Process Improvement Lead, 2018-2019, Marathon Petroleum
- Facilities Engineer/Project Manager, 2012-2016, Shell Oil Company
- Chemical Engineer, 2009-2012, TetraTech
- Engineering Intern, 2006-2006, PA Department of Environmental Protection

#### RELEVENT EXPERIENCE

#### ProShare Services LLC Pittsburgh, PA

#### President 02/2020 - Present

Proshare Services, a certified woman-owned engineering, procurement, and construction (EPC) consulting firm, is dedicated to enhancing safety, efficiency, and cost-effectiveness for businesses. Our approach is distinct and strategic, leveraging real-world scenarios and the daily challenges faced by Operations and Maintenance teams. By engaging all stakeholders from the outset, we deliver customized solutions designed to meet the unique needs of your business.

Our approach to project planning, design, and execution allows companies to save on costs, and create a win, win, win scenario for the team working on these projects. We have experience in Process and Facilities Engineering, Project Management, Business Development, and Environmental & Regulatory in the Utilities, Oil and Gas, Energy, Commercial Construction, and Government industries.

#### **Diversity Certifications**

_	WBENC – WBE	_	PA UCP – DBE
_	U.S. SBA – ED WOSB	_	NY DOT – DBE
_	PA DGS Small Diverse	_	NY EMPIRE STATE –
	Business		WBE
_	SBA – 8(a)	_	VA DOT – DBE
_	SBA- HUBZone	_	ODOT – DBE

- WV DOT DBE
- MDOT-DBE
- CA Supplier
   Clearinghouse

#### MPLX/Marathon Petroleum PA, OH, WV

#### Technical Services Engineer III/Process Engineer III 03/2016 – 09/2022

- Developed and reviewed process flow diagrams, P&IDs, C&Es, and plot plans for gas processing, lng, compressor station, and pipeline facilities.
- Worked closely with Operations to identify, plan, and implement improvement opportunities, both proactively and in response to changes in the business environment. Provides leadership with justification for advancing proposed initiatives.
- Delivered process engineering Technical Assurance approvals for Management of Change (MOC) requirements and offers guidance on necessary MOC documentation, including P&IDs, relief calculations, and C&Es.
- Acted as the company's technical representative in Process Hazard Analyses (PHAs), Hazard and Operability Studies (HAZOPs), and incident investigations.
- Lead efforts in standardizing alarm management and rationalization across all gas processing plants for a major oil company, currently being trialed at a natural gas facility in Pennsylvania. Assists in monitoring plant technical performance and provides operational guidance on unit optimization, alarm management, and cost-effective technical solutions for constraints and emerging issues.
- Lead multidisciplinary teams in addressing cross-organizational challenges and opportunities.
- Ensured daily operations focus on plant functionality and that work priorities align with operational and maintenance needs.
- Provided SME support to ensure that process engineering activities comply with Process Safety Management Standards.
- Created processing models utilizing Hysys, VMG, and other software tools to address technical issues.
- Training courses included Practical Distillation Technology, with a focus on troubleshooting, and Delta V Implementation Training.

#### Marathon Petroleum Findlay, OH

#### Integrity Pipeline Replacement Project Leader/Process Improvement Lead 06/2018 – 01/2019

Project management Subject Matter Expert (SME) on reducing costs and schedule for pipeline replacement projects. Mentored Project Engineers and Operators on LEAN principles to reduce cost, reduce schedule, increase quality, and increase morale in the pipeline replacement construction and maintenance group. First round reduced project costs by 56% and schedule by 58%. Estimated projected savings of \$10MM- \$15MM in 2019.

- Lead efforts in managing day-to-day mechanical integrity issues, as well as investigating systemic integrity concerns associated with the in-line inspection (ILI) of Marathon Pipeline's pipeline systems.
- Assessed vendor performance and communicated overall metrics with pipeline integrity leadership team.
- Developed and followed MPL's standards and guidelines that meet applicable regulatory and stakeholder requirements for anomaly investigation activities based on ILI vendor reports.
- Developed, documented, and maintained a working knowledge of integrity threats related to specific pipeline systems and assessment data to be used in the development of short term and long-term pipeline system rehabilitation activities and plans.
- Developed assessment program performance metrics that are pipeline system specific, vendor specific, technology specific, and process specific to drive continuous improvement and knowledge transfer.
- Ensured regulatory and process compliance of pipeline integrity assessment and rehabilitation documentation for all MPL operated systems.
- Effectively communicated results of in-line assessment, rehabilitation process and joint industry projects.

- Interfaced with program leaders, project leaders, region integrity engineers, region personnel and process
  departmental personnel to ensure that anomaly investigation activities are performed in accordance with
  applicable regulatory and industry codes/practices and company standards/processes.
- Provided quality assurance and control of engineering calculations to ensure the proper maintenance of pipeline integrity. Review regulatory required documentation to ensure compliance and technical adequacy. Monitor developments within the ILI industry and participate in industry forums on new technologies and vendor performance.
- Ensured underground facilities projects followed state and federal environmental and safety regulations.
- Assisted in the development and maintenance of system-specific long term integrity plans required by the Integrity Management Rule (IMP). Assist in ensuring data associated with pipelines, appurtenances, and repairs installed on the pipeline are properly recorded and maintained.
- Provided continuous improvement feedback and subject matter expertise for pipeline integrity processes (design, construction, maintenance, repair, inspection, etc.)
- Worked closely with 3rd party vendors on existing & emerging ILI technology developments

# MPLX/Marathon Petroleum/MarkWest Southpointe, PA (Supported Nationwide)

#### Process Engineer III 03/2016 - 06/2018

Provided subject matter expert/technical support for gas processing, LNG, and treating plant operations as well as new capital projects. Process simulation/modeling of plants and gas-liquid streams, equipment sizing, and hazard analysis. Provided cost estimates to leadership, bid package development, and AFE preparation.

- Provided technical assurance for all projects in the Northeast region and ensured PSV's and other designs were in compliance with API 520, API 521, API 526, etc. Sized PSV's and performed other engineering calculations necessary for project design.
- Subject Matter Expert/technical representative for HAZOPs and facility safety audits.
- Developed and reviewed process flow diagrams, P&IDs, C&Es, and plot plans for gas processing, LNG, compressor station, and pipeline facilities.
- Performed line sizing calculations and static and dynamic plant simulations, utilizing HYSYS and VMG modeling
  programs, and prepared heat and material balances.
- Sized process equipment, including heat exchangers, pumps, distillation tower, and filtration equipment.
- Analyzed plant performance data for optimization and problem solving.
- Assisted Business Development in the preliminary design and cost estimates of proposed facilities
- Managed multiple projects and ensured tasks were completed on schedule and within budget.
- Performed air emissions calculations and provided support to the Environmental & Regulatory group on providing accurate information to the Pennsylvania Department of Environmental Protection.

#### Shell Oil Company Pittsburgh, PA

#### Facilities Engineer/Project Manager 06/2012 – 03/2016

- Developed design documentation and bid packages (P&ID's, PFD's, Plot Plans, Haz Class, C&E's, Bill of Material) for gas processing facilities including compressor stations, well pad facilities, and metering stations. Maintained accurate, thorough, and current project documentation.
- Collaborated with teams during phase gated AFE Front-End Loading (Conceptual, Feasibility, and Definition where projects are initiated, concepts selected and front-end definitions developed) to provide resource estimates, cost estimates, schedules, business benefits, environmental/health/safety impacts. Facilitated technical reviews to ensure detailed engineering meets corporate engineering standards. Developed project feasibility evaluations and supported economic analysis to determine viability. Prepared decision support packages for review and approval by management. Effectively worked with field Company supplied field Construction Managers and Project

Coordinators to ensure proper execution aligned with company directives of Safety, Quality, Environmental & Regulatory, and reliable operations, aligned with company culture.

- Effectively managed multiple stakeholder's feedback and drove clear alignment and communication across a multi-discipline project teams consisting of Operations, Business Development, Construction, Subject Matter Experts, and other ad hoc internal and external stakeholders.
- Monitored and controlled project performance during Project Execution phase to ensure project meets agreed quality, cost and time parameters in safe and environmentally sound manner.
- Coordinated with Procurement in the development of a contracting plan, including engineering and execution resources.
- Identified risk factors and ranked as of level of threat posed to project's success during technical and locationoriented risk assessment. Developed and implemented risk response plan to monitor and control risks throughout the project lifecycle. Lead project HAZOPS and PHAs as needed.
- Managed multiple projects simultaneously of varying magnitude and complexity from conception to commissioning and start-up.
- Managed surface facility projects (including compressor installs, plunger lift installs, compressor station retrofits, Underground Storage Tank Removals, etc.) for Shell Appalachia in both Tioga and Bradford Pennsylvania.
- Provided engineered solutions to Operations for day-to-day issues.
- Created hydraulic models utilizing PipeSIM, Hysys, Unisim, and Piper to provide solutions to both Engineering and Operations.

#### Tetra Tech Pittsburgh, PA

#### Chemical Engineer III 07/2009 – 06/2012

- Lead efforts supporting start-up for Shell's Environmental & Regulatory department. This included environmental waste and water reporting, pre-drill surveys, emergency response planning, and spill prevention, control, and countermeasure (SPCC) planning.
- Lead efforts for managing pre-drill surveys and waste processes for clients in the oil and gas industry
- Conducted data analysis and performed validation reviews to ensure accuracy.
- Supported field work activities in Pennsylvania, Ohio, and West Virginia, including water sampling, wetland delineation, cultural resource assessments, and pre-drill water sampling.
- Conducted engineering feasibility studies involving water intake pipelines, water sourcing, and brine disposal wells.
- Supported business development for Marcellus Shale projects including proposals, cost estimates, and marketing.

#### PA Department of Environmental Protection Ebensburg, PA

#### Engineering Intern 05/2006 – 08/2006

Worked as an intern for the PA Department of Environmental Protection- Bureau of District Mining Operations, performing the following tasks:

- Designed waterlines and conducted soil/water sampling for the PA Department of Environmental Protection.
- Assisted in PA tree study which involved collecting data and creating a tree identification report.
- Assisted in drafting/design tasks for the Bureau of District Mining Operations.

# **PERSERSHARE** S E R **S HARE** S E R S HARES

#### LEADERSHIP EXPERIENCE

- Women in Energy (WEN): Participates in WEN Pittsburgh networking group to stay current with what other companies are doing in the Industry.
- Shell Appalachia Focal Point for SurfNet: Promoted SurfNet by communicating with upper management throughout various teams in Shell. Organized and coordinated monthly meetings by working with facility engineers from other assets.
- HSSE- Leader Standard Work: Conducted monthly field visits, observed morning meetings, and audited shift handovers while serving as piloting leader for engineers.
- Marathon Petroleum/Shell Campus Ambassador Program Penn State University: Led focal point for Society of Women Engineers and Women in Engineering Program Orientation (WEPO). Attended the WEPO Networking Reception and Career Dinner with incoming freshman students. Attended the fall career fair and various networking events to recruit potential candidates for internships and full-time positions.
- Shell New Professionals Network President: Organized events to increase collaboration of young professionals within the office.
- Catalyst Connects Event: Nominated to attend the Catalyst Connects Event on behalf of Shell; this networking
  discussion intended to bring high potential women together with speakers considered to be role models.
- WAVE Leadership Team: Attended monthly meetings to coordinate various community service events.

#### **PREVIOUS TRAINING**

- Petroskills Relief and Flare Systems Design
- Petroskills Operator Training for Field Operations and Maintenance Personnel
- Petroskills Oil Production and Processing Facilities
- Upstream Economics
- Leadership Course: Influencing Skills
- Piper IPS Modeling Training
- Causal Learning Basic Training
- Exterran Stabilizer Training
- UB 01 Developing Petroleum Business Skills
- WRFM Advanced
- Campbells Gas Course
- FreemanHughes Presentation Skills Training
- Petroleum Economics, Risk Analysis
- Development of Production Systems
- Mechanical Static Engineering and Heat Transfer
- Safety in Process Design
- Artificial Lift for Unconventionals
- Condition and Performance
   Monitoring/Surveillance

- Gas Dehydration through the TEG Regenerative Method
- Detection Reciprocating & Rotary Compressors
- Pump Fundamentals
- DEP Regulatory Training for the Oil and Gas Industry
- VMG Process Modeling Training
- VMG Dynamics Training
- ASPEN Hysys Process Modeling Training
- Rigging Awareness
- Fire Extinguisher/Fire Watch Awareness
- Flagger Awareness
- LOTO Awareness
- Heat Stress Awareness
- Hydrogen Sulfide Awareness
- Bloodborne Pathogens Awareness
- PPE Awareness
- Emergency Response Plan
- Gas Monitor Awareness
- Incident Investigation



# TONIA METALA FINANCIAL/ACCOUNTING PROFESSIONAL

#### **EDUCATION**

- Bachelor of Business Administration Management and Operations, Point Park College

#### CERTIFICATIONS

- Notary Public
- Certified CPR Instructor
- Certified CPI Instructor

#### EXPERIENCE

- Financial & Accounting Professional, 2020-2024, ProShare Services, LLC
- Government Accountant, 2023, RJ Lee Group, Inc.
- Financial Controller, 2022-2023, First Link, LLC
- Financial Controller, 2021-2022, A.J. Demor & Sons, Inc.
- Program Manager Security Division, 2019-2021, UPMC
- Director of Finance and Administration, 2016-2019, Magnum Midstream
- Cost Analyst Senior Buyer Contracts and Procurement, 2011-2016, Shell Americas
- Project Management Coordinator, 2006-2011, Westinghouse Electric Company
- Cost Analyst Lead, 2002-2006, Verizon
- District Accountant, 1998-2002, Penske Truck Leasing

#### **RELEVENT EXPERIENCE**

#### RJ Lee Group Inc., Monroeville, PA

#### Government Accountant, 2023

Manage and support the current portfolio of government contracts and projects, overseeing all phases of Contract Administration from proposal to closeout. Administer invoicing and reporting processes, ensuring budget analysis and project deliverables comply with government guidelines. Oversee annual incurred cost submissions and Government rate development (ICP Audit). Develop, implement, and maintain accurate contract briefs and records, and prepare project authorization and management plan documentation. Support and coordinate ongoing business development efforts with project leads and business development staff, reviewing new business opportunities for bid/no-bid decisions. Maintain company registrations with Federal and State Regulatory Agencies via PIEE Award Management and Small Business Administration Systems. Coordinate, review, and submit proposals, including SBIR's, and assist in the preparation of standard teaming agreements, memoranda of understanding, and confidentiality agreements. Provide contract-related assistance for informational requests and proposals, advising management on contractual rights and obligations, and interpreting terms and conditions and federal acquisition regulations.

#### First Link, LLC, Pittsburgh, PA

#### Financial Controller, 2022-2023

Managed financial reporting, accounts payable (AP) and receivable (AR), accruals, variance analysis, pro-rata share CAM reconciliations, and budgets. Reviewed and approved vendor invoices, weekly check runs, and manual billings. Prepared journal entries, balance sheet, and bank account reconciliations for 28 entities. Recorded loan modifications and prepared

lender draw packages. Assisted with the rollout of proper accounting policies and procedures at the property level. Collaborated with clients, cash management, and a third-party lockbox group, preventing undesirable tenant security deposits from posting to the bank account, saving thousands in legal fees. Segregated bank accounts during reconciliations, allowing each entity to carry individual cash balances and tie back to receivable ledgers. Reconciled seller and purchaser pro-rated leasing capital, revenue, and expenses for six months after closing, ensuring proper allocations. Directed day-to-day property accounting for developed and undeveloped land. Streamlined the budgeting process by converting to Excel (from Lotus) and linking expense spreadsheets to a master file, eliminating duplication and increasing accuracy. Incorporated year-end client general ledgers into property-level books and created full sets of PBCs, enabling thorough audits. I combined client and property-level vendor information and manually created a 1099 template, allowing entities with the same FEI to print on one form. Directed the accounting transition after the sale of buildings, revising forecasts and budgets, coding payables, and preparing reports. Created a method for recording and tracking tenant receivables incurred before the sale of buildings, tracking tenant delinquencies. Utilized Sage Intacct, Procore, and PNC Bank's Pinnacle software.

#### A.J. Demor & Sons, Inc., Monroeville, PA

#### Financial Controller, 2021-2022

Oversaw the timely and accurate preparation of accounts receivable progress billings based on specific contract terms. Reviewed accounts receivable, aging reports, and assist direct reports with collections. Supervised the payment process to vendors and subcontractors, confirming that lien waivers are properly collected. Monitored daily cash balances to ensure requirements are met. Reviewed and oversaw the preparation of weekly payroll for union and non-union employees, including the timely submission of monthly union reports. Managed IT-related issues and mentor direct reports to grow in their roles as the company expands. Performed special assignments as directed by the Ownership and Advisory Board, including the preparation and review of monthly financial statements. Reviewed financial statements with ownership, created budgets, and managed budgets to ensure fiscal health and responsibility. Prepared construction contract schedules and oversaw the monthly job cost report process with the President and project managers for creating and updating contract schedules and work-in-progress reports for internal and external use. As needed, met with the company's bankers and bonding company to review financial results and forecasts. Responsible for the review and procurement of business and health insurance programs for all entities, as well as the maintenance of the insurance/risk protection program. Assisted in the development, implementation, and administration of the 401(k) plan and other employee benefits. Participated in ongoing strategic planning with the leadership team, perform due diligence, and create projections with different scenarios on growth opportunities as needed. Prepared the annual financial budget and updated forecasts on a quarterly basis.

#### UPMC, Pittsburgh, PA

#### Program Manager, 2019-2021

An \$8 million contract was negotiated, covering 48 UPMC locations within the tri-state area, accounting for 7,700 man-hours weekly. Security guards were managed and trained, new hires were onboarded, and the security guard staffing schedule was set. All security policies and procedures were created, regular security inspections were conducted, and security threats and breaches were investigated. Comprehensive security reports were written, and security improvement plans were presented to executives. The departmental budget was built and managed, and company emergency response trainings were led. Recommendations for new security technology were provided, maintaining the utmost confidentiality and discretion. The team ensured compliance with security and privacy laws and standards.

#### Magnum Midstream, Canonsburg, PA

#### Director of Finance and Administration, 2016-2019

Financial reports were analyzed and presented accurately and timely, with monthly and annual financial statements clearly communicated. Financial reporting materials for all donor segments were collated, overseeing all financial, project/program, and grants accounting. The annual audit process was coordinated and led, liaising with external auditors and the finance

committee of the board of directors, and assessing necessary changes. The annual budgeting and planning process was overseen and led in conjunction with the Executive Director, administering and reviewing all financial plans and budgets, monitoring progress and changes, and keeping the senior leadership team informed of the organization's financial status. Organizational cash flow and forecasting were managed. A robust contracts management and financial management/reporting system was implemented, ensuring adherence to the contract billing and collection schedule, and maintaining steady financial data and cash flow to support operational requirements. All necessary business policies and accounting practices were updated and implemented, improving the finance department's overall policy and procedure manual. Critical financial matters were effectively communicated and presented to the board of directors. Recruiting processes were ensured to be consistent and streamlined. A comprehensive training program was established and managed to educate employees regarding staff tools, policies, and procedures. External partners, including third-party vendors and consultants, were engaged with closely and transparently. Administrative functions and facilities were overseen to ensure efficient and consistent operations as the organization scaled. Administration was further developed, enhancing professional development and performance evaluations.

#### Shell Americas, Pittsburgh, PA

#### Cost Analyst – Senior Buyer Contracts and Procurement, 2011-2016

Monitored general ledger accounts and reviewed details in specific accounts to ensure appropriate processes and balances. Prepared various quarterly adjusting journal entries to ensure accurate reporting. Financial statements and related footnotes were prepared, and material fluctuations on the income statement and balance sheet were identified and researched for explanations. Supporting documentation was gathered for external auditors. Worked with business finance focal points to understand business performance and made continuous improvements to the reporting process. Defined and documented appropriate accounting for transactions based on internal policy and external guidance/regulations, ensuring that unique accounts were accurately accounted for and incorrect or unanalyzed balances were resolved. Special accounting projects were handled as they arose, with data and analysis obtained and formulated as input to existing Excel-based models, or new models built to produce insights, inputs to other projects, recommendations, and tracking signals. Output and communications were provided in the form of point-of-view presentations, reports, and analysis as required.

Developed term and contracting strategies, negotiated, and structured commercial contracts with vendors and third parties. Collaborated closely with other interfaces in Trading & Supply as well as the market to create and optimize value for Shell, establishing terms for buy/sell contracting strategies with optimization steering input from product and channel teams. Negotiated and developed spot and term buy/sell arrangements, processing and terminating deals with vendors and third parties to maximize enterprise value and enable supply chain robustness and contingency plans. Contributed to maximizing enterprise value by providing input on local vendors and third-party contract terms and optionalities to product and channel optimization teams, and executed effective risk management of pricing exposure on vendor and third-party deals. Analyzed and conducted third-party contract performance reviews, coordinated with supply operations, product quality excellence, and supply safety advisors to assure operational and safety contract compliance. Developed and maintained sound commercial relationships with vendors and third-party supply partners in compliance with Shell's business principles, seeking and developing new optimization opportunities.

#### Westinghouse Electric Company, Monroeville, PA

#### Project Management Coordinator, 2006-2011

Coordinated and integrated projects across multi-functional groups, monitoring and controlling metrics related to safety, quality, schedule, budget, and customer satisfaction. Managed engineering work, provided instruction, training, and guidance to personnel on projects, tasks, and activities. Periodic performance feedback was given to peers and project team members. Presentations were developed and delivered to communicate the status, problem resolution, and recommendations of work/projects to internal and external customers. Recommendations for business growth



opportunities were identified and presented to management. Expert knowledge within specific projects was provided to peers, vendors, and customers. Assisted with procedures, processes, and methods for implementing technical requirements.

#### Verizon, Monroeville, PA Cost Analyst Lead, 2002-2006

Analysis, strategic planning, and execution of team key deliverables were provided. Synergistic efficiencies were created in operations, work distribution, service intervention, quality and metrics reporting, and 1st call resolution. Expertise was applied to Service Fulfillment/Call Center systems such as CoFEE Ordering and Billing, SSP Order & Workflow, NRI Console, AMT, IGO, Order and Workflow, eTrac, and PATS Service Fulfillment Fallout Processes, as well as Microsoft productivity software and EAST collective bargaining agreements.

#### Penske Truck Leasing, Monroeville, PA

#### District Accountant, 1998-2002

Fiscal services were managed at multiple sites, assisting the CFO at the Central Business Office in overseeing the fiscal services department. Policies on finance, accounting, insurance, financial/accounting systems, internal controls, auditing, and planned future operations were developed, interpreted, coordinated, and administered. Departmental reports and records were maintained, and statistical data were collected for administrative and regulatory purposes. Functions of reimbursements, budget, accounting, and general accounting, including general ledger accounting, accounts payable, and cashiering, were coordinated. Monthly reports outlining the financial position in all areas of assets, liabilities, income, and expenses, based on past, present, and planned future operations, were prepared.

#### SKILLS/TRAINING

- QuickBooks, SAGE, SAP, Oracle, Peachtree
- Audits (Internal/External)
- Cost Analysis, Forecasting, Business Planning
- Financial Management
- Depreciation, Amortizations, Capital Expenditures
- Presentations
- GAAP

- Interaction Management
- Six Sigma Green Belt
- Project Management
- Accounting Principals
- Financial Reporting (Monthly, Quarterly, Yearly)
- Time Management
- Scheduling



### JIM SULLIVAN SENIOR PROJECT MANAGER- CONSTRUCTION

#### EDUCATION AND CERTIFICATIONS

- Accounting, Campbell University, Buies Creek, NC
- OSHA 30

#### **EXPERIENCE**

- Senior Project Manager (Construction), 2024-Present ProShare Services, LLC
- Project Manager, 2023-Present, BluSky Restoration Contractors
- Sr. Construction Project Manager, 2022-2023, First Link Real Estate Development
- Sr. Construction and Installation Project Manager, 2017-2022, J. Sullivan Associates
- Sales and Project Manager, 2014-2017, MAK Commercial Foodservice
- Sales, Installation and Project Manager, 1993-2014, J Sullivan Company

#### RELEVENT EXPERIENCE

# BluSky Restoration Contractors, LLC, National Role

# National Project Manager, 2023 – Present

Responsible for managing site personnel and subcontractors, driving safety, quality, and productivity in the field. Effectively handle buyout, submittal process, quality control, safety compliance, scheduling, and project closeout. Accurately project, record, and maintain all project costs while adhering to all OSHA and environmental regulations. Create, update, and present project schedules to internal and external stakeholders, and manage the project budget to meet or exceed revenue and profit margin goals.

# First Link – Real Estate Development, Fox Chapel, PA Senior Construction Project Manager, 2022-2023

Organized and facilitated the complete construction process for all managed developments, from planning through to delivery. Executed all pre-construction, construction, quality control, and post-construction responsibilities. Developed the construction budget and ensured adherence to financial plans, while maintaining conformity to building plans and design layouts. Supervised the completion of nine large commercial projects, achieving a total of \$1.6 million in under-budget cost savings while ensuring safe and productive construction sites.

#### J. Sullivan Associates, Oakmont, PA

#### Senior Construction and Installation Project Manager, 2017-2022

Responsible for the sales and project management of new or renovated food service outlets, providing concept design, interior design, and food service space design to customers. Handled construction documents, project management, and project installation. Sold and procured commercial cooking equipment, refrigeration, custom fabrication, furnishings, lighting, artwork, and accessories. Managed a team of four with full profit and loss responsibilities.

#### MAK Commercial Foodservice, Harmar Township, PA Sales & Project Manager, 2014-2017

Responsible for selling new business and construction project management of large commercial installations.



#### J. Sullivan Company, Oakmont, PA Sales, Installation & Project Manager, 1993-2014

As a sales and project manager, I oversaw a variety of establishments, including restaurants, cafes, hotels, country clubs, bakeries, bars, food courts, retirement and assisted living communities, and schools, both locally and nationally. My services encompassed concept design, project design, budget development, site selection, space planning, interior and exterior design, food service design, and AutoCAD drafting for all construction needs. I managed design documents, customer fabrication outsourcing, procurement, installation, and construction oversight. Additionally, I was responsible for the day-to-day operations of the business, alongside my sales and project management duties.



# JAMES OKESON DESIGN/DRAFTING

#### **EDUCATION**

- Associate's degree, Mechanical & Architectural Drafting, Butler County Community College, Butler, PA
- Bachelor of Arts, Business and Administration & Mathematics, Grove City College, Grove City, PA

#### EXPERIENCE

- Design/Drafting, 2020-Present, ProShare Services
- Mechanical Designer/Drafter/Purchasing, 2016-2020, JKLM Energy, LLC
- Mechanical Designer/Drafter, 2012-2016, Vavco, LLC
- Project Manager/Inspector/Drafter, 2007-2012, TRE Services, Inc.
- Designer/Drafter/Sales/Office Manager, 2000-2007, Jessi International, LLC
- Mechanical Designer/Purchasing, 1997-2000, WHEMCO Engineering
- Project Manager/Inspector/Drafter, 1991-1997, Schaming Control Systems

#### **RELEVENT EXPERIENCE**

#### JKLM Energy, LLC, Sewickley, PA

#### Mechanical Designer/Drafter/Purchasing, 2016-2020

Designed and drafted well pads, meter stations, tank farms, and pipeline layouts. Provided Bill of Materials along with purchasing, tracking, and inventory control on all projects. AutoCad Civil 3D 2017

#### Vavco LLC, Butler, PA

#### Mechanical Designer/Drafter, 2012-2016

Responsibilities included designing and drafting equipment along with piping routes for site layouts, processing areas, compressor station layouts and launcher and receiver sites. Involved with Bill of Materials preparation for purchasing. AutoCAD 2014.

#### TRE Services, Inc. Cranberry Township, PA

#### Project Manager/Inspector/Drafter, 2007-2012

Responsibilities included designing and detailing for taphole maintenance and repair. Project engineer for refractory inspections at manufacturer and onsite inspections during installation, including documentation of the refractory installation regarding quality, duration, and manpower. Involved in refractory technical analysis and engineering calculations. Microsoft Word, Microsoft excel and Architectural Desktop.

#### Jessi International LLC, Butler, PA

#### Designer/Drafter/Sales/Office Manager, 2000-2007

Established and maintained business relationships by understanding specific needs of customers and determining best solution. Provided customer support through attentiveness and extensive product knowledge. Designed and sold equipment used on steel and aluminum mills. Responsible for invoices, purchase orders, shipping, finances, as well as part of installation and advisory services for equipment in mill locations. Microsoft word, Microsoft excel, and Auto CAD 2007.



#### WHEMCO Engineering, Pittsburgh, PA

Mechanical Designer/Purchasing, 1997-2000

Responsibilities were to research, design, detail, and issue drawings for fabrication, getting input from customers on specific needs and wants. Design a system that would be efficient, easy, and safe to use. In charge of ordering parts and materials needed to keep on time delivery of goods.

Schaming Control Systems, Evans City, PA

Project Manager/Inspector/Drafter, 1991-1997

Responsible for inventory of materials for fabrication, shop supervision needed to keep on time delivery of goods to customers.



# PETER RYAN, PH.D., P.E. CHEMICAL ENGINEER

#### EDUCATION

- Ph.D., Chemical Engineering, University of Massachusetts, Amherst, MA
- Master of Science, Paper Technology, Lawrence University (Institute of Paper Chemistry), Appleton, WI
- Bachelor of Science, Chemistry, University of Massachusetts, Lowell, MA

#### PROFESSIONAL REGISTRATIONS/CERTIFICATIONS/TRAINING

- Registered as Professional Engineer in the state of Texas, P.E. No. 93457

#### **EXPERIENCE**

- Chemical Engineer, 2020-present, ProShare Services
- Engineering Senior Design Program Manager, 2021 Present, Central Michigan University
- Associate Professor of Engineering Practice, 2016-2021, Missouri University of Science and Technology
- Principal Engineering Consultant/Process Control Inspector, 2011 Present, Response Process Consulting
- Process Engineering Consultant/Six Sigma Instructor, 2010-2011, Bayer Corporation
- Project Manager/Lead Process Engineer, 2008-2010, Virent Energy Systems
- Project Manager/Principal Process Engineer, 1999-2008, Bayer Corporation
- Process Engineer, 1996-1999, Bayer AG

#### RECENT PROJECT EXPERIENCE

#### Central Michigan University, Mt. Pleasant, MI

#### Engineering Senior Design Program Manager, 2021-Present

Teaching responsibilities include senior process capstone design courses 1 & 2. Developed the senior multidisciplinary capstone design course in collaboration with engineering faculty members at CMU.

#### Missouri University of Science and Technology, Rolla, MO

#### Associate Professor of Engineering Practice, Department of Chemical and Biochemical Engineering, 2016-2021

Courses taught include capstone process design, chemical engineering economics, process control, process control lab, thermodynamics, and unit operations, including Unit Ops 1 & 2 lab. Developed the senior capstone design course in collaboration with engineering faculty members at MS&T. Completed the construction and commissioning of Unit Ops Labs 1 & 2.

#### Response Process Consulting, LLC, Midland, MI

#### Principle Engineering Consultant/Process Control Instructor, 2011-Present

Applied advanced statistics and simulation results to process variability reduction and optimization, focusing on batch processes. Utilized Python, R, and Minitab to solve complex chemical engineering process optimization problems. Trained student technicians in field instrumentation and DCS configuration at Lee College in Baytown, TX.



#### Bayer Corporation, Baytown, TX

#### Process Engineering Consultant/Six Sigma Instructor, 2010-2011

Served as a Process Engineering Consultant for Bayer Technology Services in Baytown, TX, responsible for distillation system optimization projects. Additionally, managed Six Sigma optimization projects and acted as a Six Sigma Green Belt instructor for Bayer Crop Science in Kansas City, MO.

#### Virent Energy Systems, Madison, WI

#### Project Manager/Lead Process Engineer, 20008-2010

Project Manager for the Virent Bio-Jet-Fuel Program, collaborating with Research and Development to transition the Bio-Jet-Fuel program from R&D to the process development stage. Served as Lead Process Engineer for the Virent Bio-Gasoline Large-Scale Pilot Plant, developing electrical infrastructure and DCS package, leading HAZOP, Interlock LOPA, pressure relief header analysis, and Pressure Equipment and Mechanical Integrity program development efforts.

#### Bayer Corporation, Pittsburgh, PA/Baytown, TX

#### Project Manager/Principal Process Engineer, 1999-2008

Project Manager assigned to large capital projects with total estimates exceeding \$40MM, responsible for FEL development to AR approval. Served as Lead Process Engineer for several large capital projects, including the Sodium Borohydride fuel cell project, polycarbonate expansion project, Bayer Healthcare expansion projects, and distillation optimization projects. Completed the Six Sigma 2005 optimization project, resulting in a documented \$0.59MM/year return to the customer based on increased margins and energy savings, and received the Six Sigma Black Belt certificate from the University of Texas at Austin on November 27, 2006.

#### Bayer AG, Leverkusen, Germany

#### Process Engineer, 1996-1999

Experienced in process and control engineering, including steady-state and dynamic simulation using Aspen Plus, Speedup, Matlab, BJac, Fortran, and Excel packages. Developed dynamic simulations of polyurethane processes to optimize control and operability of units and supported large capital projects in Europe with process and control engineering expertise. Fluent in technical and conversational German.

#### PUBLICATIONS

Ryan, P.J., "Discrete Population Balance Methods for Modeling Batch Crystallization Processes with Aggregation and Agglomeration", Bayer Material Science, Uerdingen, Germany, November 1997.

Ryan, P. J., Becker, K, "Plant-Made-Pharmaceuticals (PMP) Technology Assessment, Preliminary Process Design and Economics", Bayer Crop Science, Research Triangle Park, N.C., August 2004.

Boonstra, E.F. and P.J. Ryan, "Technology Assessment of the Production of Fuels from Lignocellulosic Biomass, presented to Bayer Crop Science, Research Triangle Park, N.C., August 31, 2006.

#### PRESENTATIONS

Ryan, P.J., "Improving Data Analysis in Research and Development for New Drug Discovery", presented at the April 2005 Biomedical Technology Club Meeting, Houston.



Ryan, P.J., "PAT Implementation Pathways within the Biopharmaceutical Industry", presented at the March 2006 IQPC Lean Six Sigma for Pharmaceutical and Biotech Manufacturing Excellence Meeting, Philadelphia, PA.

Ryan, P.J., Misra, P., "Applied Process Optimization", presented at the Texas Industrial Energy Management Forum, Houston, TX, November 1, 2007.

Ryan, P.J., "Outlier Detection and Analysis in Batch and Continuous Processes", presented at the AIChE Southwest Process Technology Conference, Galveston, TX, October 2, 2015.



# DUSTIN NASH MECHANICAL ENGINEER

#### **EDUCATION**

- Bachelor of Science in Mechanical Engineering Technology, Fairmont State University, Fairmont, WV
- West Virginia Northern Community College, New Martinsville, WV

#### **EXPERIENCE**

- Mechanical Engineer, 2020-Present, ProShare Services
- Maintenance Manager, 2022-2024, Allnex
- Maintenance Engineer, 2018-2022, Allnex
- Technical Specialist, 2015-2018, Dominion Transmission Inc.
- Maintenance Engineer, 2013-2014, Axiall Corp.
- Generation Specialist, 2011-2013, First Energy
- Associate Engineer, 2008-2011, Allegheny Energy

#### **RELEVENT EXPERIENCE**

#### Allnex, Willow Island, WV

#### Maintenance Manager, 2022-2024

Reliability programs, preventative maintenance, and predictive maintenance programs were continuously developed and implemented. Maintenance budgets were established and met. A spare parts strategy was defined, and the inventory of maintenance equipment and spare parts was managed. Activities related to emergency equipment breakdowns and failures were planned and coordinated. Plant shutdowns were effectively managed with detailed plans. Outside contractors and vendors were evaluated.

#### Allnex, Willow Island, WV

#### Maintenance Engineer, 2018-2022

Investigated breakdowns of critical production equipment and made corrective maintenance recommendations. Evaluated equipment PM needs, writing and updating inspection and overhaul procedures. Ensured timely completion of all Mechanical Integrity Inspections.

#### Dominion Transmission Inc., Bridgeport, WV

#### Technical Specialist, 2015-2018

Analyzed, evaluated, and confirmed traceable records necessary to support Maximum Allowable Operating Pressures for natural gas-carrying pipelines and their appurtenances, ensuring compliance with Code of Federal Regulations Title 49, Part 192. Documented changes in class location and communicated class changes per Management of Change Processes.

#### Axiall Corporation, Natrium, WV

#### Maintenance Engineer, 2013-2014

Conducted breakdown analysis and maintenance engineering studies by investigating breakdowns of critical production equipment and making corrective maintenance recommendations. Provided direct technical support, troubleshooting problems associated with equipment operation, normal maintenance repairs, and preparing overhaul reports on major equipment. Evaluated materials, planned major outages, and ordered special components. Evaluated equipment preventative maintenance needs and wrote and updated inspection and overhaul procedures.



#### First Energy, Akron, OH

#### Generation Specialist, 2011-2013

Served as the QA/QC lead at Fort Martin Power Station, and led the welding program and boiler operations there. Additionally, acted as the lead for fuel unloading and processing equipment at Pleasants Power Station.

#### Allegheny Energy, Greensburg, PA

#### Associate Engineer, 2008-2011

Led the fuel unloading and processing equipment area at Pleasants Power Station. Managed the Associate Engineer training program at multiple power stations, ensuring effective training and development.

#### SOFTWARE SKILLS

- AutoCAD
- Excel
- Word
- Power Point
- SAP

# MATTHEW GUEGUEN PROJECT MANAGER

#### EDUCATION AND CERTIFICATIONS

- Master of Education, Saint Francis University, Loretto, PA
- Master of Science, Organizational Leadership; Concentration in Human Resources, Mercyhurst University, Erie, PA
- Bachelor of Science in Sports Management, Slippery Rock University, Slippery Rock, PA

#### EXPERIENCE

- Senior Project Manager (Construction), 2024-Present, ProShare Services, LLC
- Data Analyst | Analysis and Planning Consultant, 2022-Present, Penn State University
- Assistant Director of Multicultural Recruitment |Transfer Admissions | Data Analyst, 2020-2022, Penn State Altoona
- Assistant Director of Annual Giving, 2019-2020, Indiana University of Pennsylvania
- Admissions Counselor | International Recruitment, 2018-2019, University of Pittsburgh Johnstown
- Recruiting Coordinator | Assistant Football Coach, 2014-2017, Saint Francis University

#### RELEVENT EXPERIENCE

#### Penn State University, University Park, PA

#### Data Analyst | Analysis and Planning Consultant, 2022 - Present

Oversee successful execution of multiple projects, ensuring thorough data collection and delivering clear, timely communication of expectations and requirements to diverse stakeholders. Evaluate and enhance current processes and procedures, identifying opportunities to improve effectiveness across various projects. Analyze data, collaborate with stakeholders, and implement adjustments to boost organizational performance.

- Leveraged Excel and PowerBI to create institutional reports, enabling senior leadership for data-driven decisions.
- Submitted crucial data insights to senior leadership, empowering to make informed choices on university matters.
- Recognized, assessed, and communicated essential data sources within Penn State's complex data environment.
- Provided thorough support and training to university stakeholders, equipping with data-driven strategies to achieve goals.
- Liaised with external higher education agencies, including AAUDE, IPEDS, Common Data Set, and National Student Clearinghouse to guarantee accurate reporting and compliance.
- Participated in Penn State's First-Generation Student Success Group, demonstrating commitment to student support.

#### Penn State Altoona, Altoona, PA

#### Assistant Director of Multicultural Recruitment | Transfer Admissions | Data Analyst, 2020-2023

Led design and operation of recruitment, enrollment, and financial aid strategies, aligning efforts with institutional goals to penetrate new markets and attract diverse student demographics. Guided students through Penn State's academic offerings, presenting expert advice and personalized support for smooth path to degree completion. Adapted to needs of diverse student populations, including adult learners, international students, and transfer students.

- Steered 30%+ increase in out-of-state paid deposits to employ strategic initiatives and targeted outreach that delivered measurable results within 2 recruitment cycles.
- Launched email and text outreach campaigns using Slate CRM, gaining 1K+ new social media followers between 2020-2022.

- Partnered with Director of Enrollment Management to prospect potential opportunities for increasing out-of-state enrollment, resulting in 17% increase in 2020 and 31% increase in 2021.
- Recruited students from key areas, including Central Pennsylvania, New Jersey, Virginia, West Virginia, Maryland, Washington, D.C., and California, assisted in increasing out-of-state paid deposits by 20%+ from 2020 to 2021, and recorded highest number of out-of-state paid deposits in past 5 years.
- Pioneered cutting-edge SMS communication strategy, enhancing student interactions on social media and during key events.
- Utilized predictive analytics and CRM tools to build data-driven models targeting potential student populations and elevating recruitment efficacy and overall student experience.
- Fostered strong relationships with applicants, community partners, and university stakeholders, creating collaborative environment to support student success and retention.
- Partnered with senior leadership to shape inclusive student retention and enrollment strategies emphasizing boosting representation among underrepresented groups.

#### Indiana University of Pennsylvania, Indiana, PA Assistant Director of Annual Giving, 2019-2020

Developed and implemented fundraising strategies, applying best practices to maximize campaign effectiveness and achieve optimal results. Maintained relationships with campus partners and outside vendors to champion annual giving efforts.

- Raised \$40K+ in crowdfunding campaigns, surpassing annual fundraising targets and leading support for student initiatives.
- Secured 800 student donations through targeted solicitation efforts, heightening participation in student-giving projects.
- Directed fundraising initiatives with 100+ students annually, coordinating crowdfunding and student philanthropy efforts to generate sustenance for multiple student projects.

### University of Pittsburgh Johnstown, Johnstown, PA Admissions Counselor | International Recruitment, 2018-2019

Guided management of admissions counselor's Twitter account, engaging directly with prospective students and school districts. Designed weekly communication campaigns via email, mail, and text to sustain consistent engagement with prospective students. Generated weekly enrollment reports, providing insights on success of recruitment strategies and making data-driven adjustments to optimize outcomes. Monitored recruitment trends, instigating best practices to maximize enrollment numbers and enhance retention.

- Evaluated 700+ applications annually for Engineering, Natural Science, and Education divisions, guaranteeing candidates met academic standards and SAT/ACT criteria.
- Reviewed and approved international student applications, verifying compliance with GPA, SAT/ACT, and TOEFL requirements.
- Orchestrated over seven on-campus recruitment events each year, creating opportunities for prospective students to connect with university.
- Introduced "Become a Teacher" program for Education division, promoting Pitt-Johnstown's offerings and raising awareness of teaching profession in local schools across Pennsylvania.
- Crafted and executed multi-channel communication strategies, using print, social media, and digital content to
  effectively connect with prospective students.
- Advised international students on Visa application process to certify meeting all enrollment deadlines and requirements.
- Spearheaded targeted marketing and communication efforts with international prospects.



#### Saint Francis University, Loretto, PA Recruiting Coordinator | Assistant Football Coach – Defensive Line Coach

Devised and employed recruiting and marketing campaigns, leading successful recruitment of prospective students. Collaborated directly with admissions, financial aid, and registrar offices, guiding student-athletes through enrollment process and supporting academic progress. Targeted recruitment efforts across Pennsylvania and neighboring states, including New Jersey, Maryland, Ohio, Delaware, Virginia, and New York to identify and attract top student-athlete talent.

- Managed database of over 3K potential student-athletes using Jumpforward software.
- Planned and organized recruiting visits for over 75 prospective student-athletes annually, providing personalized experiences to strengthen recruitment outcomes.
- Coordinated daily operations for team of four to six student managers while ensuring smooth support for football program.
- Recruited over 20 student-athletes to Saint Francis in past 3 years, contributing to program's growth and competitive success.

#### CORE COMPETENCIES

- Team Leadership
- Strategic Planning
- Cross-Functional Collaboration
- Reporting and Compliance
- Project Management
- Process Involvement

- Recruitment Strategies
- Relationship Development
- Stakeholder Engagement

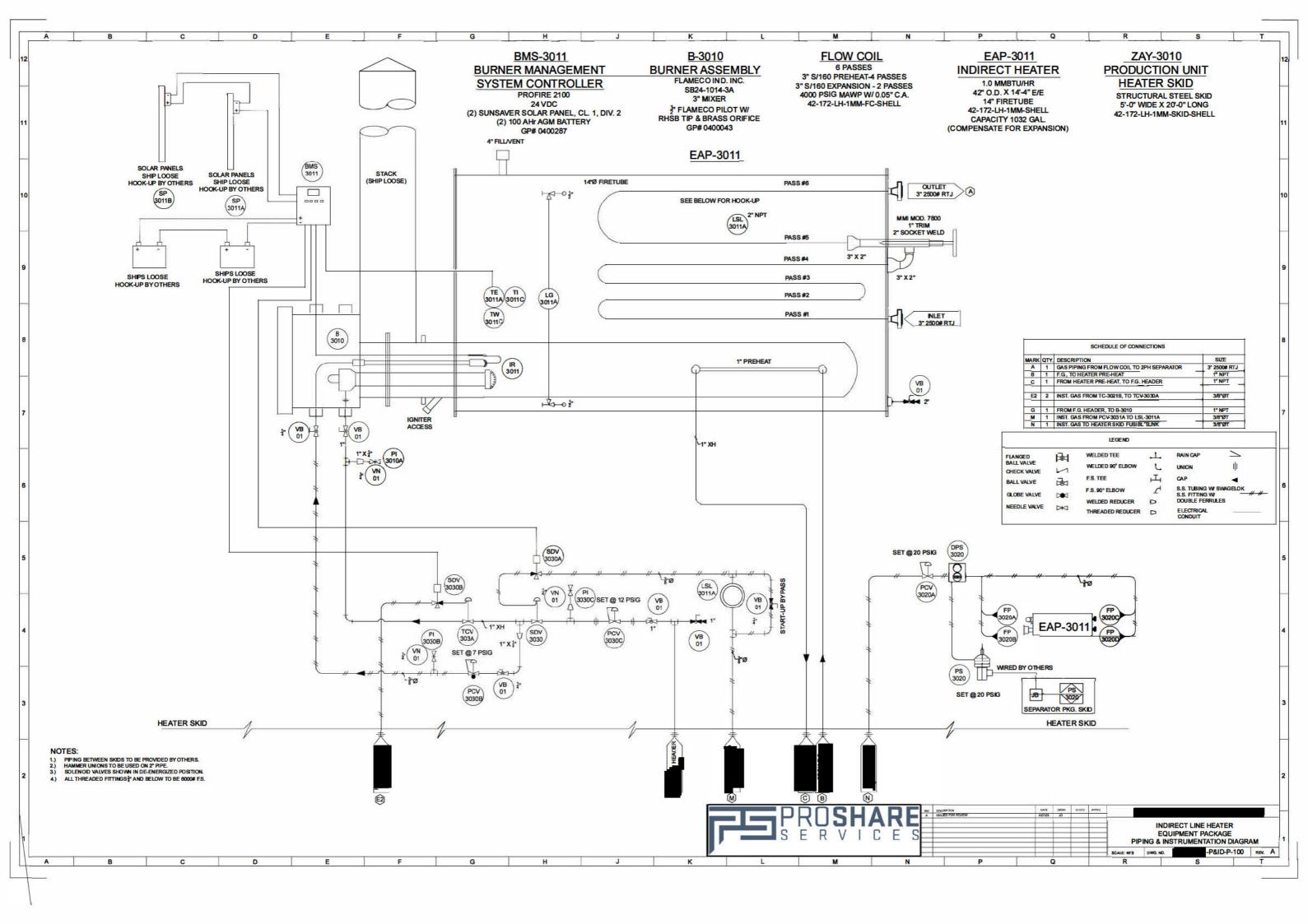


# PROJECT DETAIL DESIGN EXAMPLE DRAWINGS

Our design drawings are crafted with precision and a deep understanding of both industry standards and client needs. With a focus on clarity, accuracy, and functionality, our team produces comprehensive, detailed plans that serve as the foundation for successful project execution. We ensure that every drawing reflects meticulous attention to detail, aligns with regulatory requirements, and facilitates seamless communication between stakeholders. From initial concept sketches to final construction blueprints, our design drawings are an essential asset for bringing your vision to life efficiently and effectively.



## PROCESS & INSTRUMENTATION DIAGRAM (P&ID)





## **BILL OF MATERIAL (BOM)**

OTY	DESCRIPTION	CONTROLID
60'	TUBING, SMLS 3/8" x 0.035" WALL, 316 S.S.	3400531
2'	PIPE, 1" XH (0.179" WT), SMLS, SA-106B	2300018
4'	PIPE, 1/2"XH (0.147" WT), SMLS, SA-106B	2300010
2	ELBOW, 1/4", SCR, 6000#, 90 DEG., F.S., SA-105	1201029
1	ELBOW, 1/2", SCR, 6000#, 90 DEG., F.S., SA-105	1201028
2	ELBOW, 1", SCR, 3000#, 90 DEG., F.S., SA-105	1200074
2	TEE, 1/4", SCR, 6000#, F.S., SA-105	1201030
4	TEE, 1", SCR, 3000#, F.S., SA-105	1200080
1	HEX PLUG, 2", F.S., SA-105	12002112
4	HEX PLUG, 1", F.S., SA-105	1200069
3	NIPPLE, 1/4" x 4", XH, SMLS, SA-106B	2000014
1	NIPPLE, 2" x 4", XH, SMLS, SA-1068	2000054
2	NIPPLE, 1" x 4", XH, SMLS, SA-106B	2000041
8	NIPPLE, 1" x 3", XH, SMLS, SA-1068	2000039
1	NIPPLE, 1/2" x 3", XH, SMLS, SA-1068	2000023
2	BUSHING, 1" x 1/4", F.S., SA-105	1200076
1	FULL COUPLING, 1/2", 6000#, F.S., SA-105	0800015
1	SWAGE, 1"x 1/4", S/160TXT, SA-105	3100146
4	NIPPLE, 1/4" x 1-1/2", XH, SMLS, SA-106B	2000009
4	HAMMER UNION, 1", 3000#, F.S.	1500094
	** SHOP TO MAKE ACTUAL FITTINGS COUNT**	

			CONTROLS & ACCESSORIES	
SYMBOL	QTY.	SERVICE	DESCRIPTION	CONTROL I.D
B-3010	1	BURNER	BURNER ASSEMBLY, FLAMECO, 24" O.D. x FR-1014 W/3" MIZER, SB 24-1014-3A	0400043
B-3010	1	PILOT	PILOT ASSEMBLY, 1/2" FLAMECO PILOT W/ RHSB TIP & BRASS ORIFICE	0400075
BMS-3011	1	BURNER SYSTEM	BURNER SYSTEM, PROFIRE 2100, 1PS2100, W/ SOLAR PACKAGE	0400287
DPS-3020	1	FUSIBLE LINK	RUELCO, FUSIBLE LOOP RELAY ASSEMBLY, M/N 7003SA0005	0203065
FP-3020A-D	4	FUSIBLE LINK	FUSIBLE PLUG, 3/8", 0.25" OR IFICE SET @ 212 SS-3/8 FP212	0203078
IR-3011	1	PILOT	IGNITOR ROD, COMES W/ BMS-3011	. ×
LG-3011A	1	HEATER BATH	GAUGE VALVE, KENCO KTV-50-CS-B, (1 PAIR)	0200074
LG-3011A	1	HEATER BATH	GAUGE GLASS, 5/8", KENCO, EPG 5/8-27-8 RL-ATM-200-NS-KEN-KTV	0203134
PCV-3020A	1	PS-3020	PRESSURE REGULATOR, 1/4", FISHER 67CR-206, 0-35#	1000004
PCV-3080B	1	PILOT	PRESSURE REGULATOR, 1/4", FISHER 67CR-224, 0-35#	1000002
PCV-3030C	1	SDV-3030/TCV-3030A	PRESSURE REGULATOR, 1", FISHER 627-485, 5-20#, 1000# BODY, 3/16" ORIFICE	1000008
PI-3010A	1	BURNER	PRESSURE GAUGE, 2-1/2", 0-30#, 1/4" BTTM, WIKA TYPE 213.53 (LIQ FILLED)	2400202
PI- 3030B	1	PCV-3030B	PRESSURE GAUGE, 2-1/2", 0-30#, 1/4" BTTM, WIKA TY PE 213.53 (LIQ FILLED)	2400202
PI-3030C	1	PCV-3030C	PRESSURE GAUGE, 2-1/2", 0-30#, 1/4" BTTM, WIKA TY PE 213.53 (LIQ FILLED)	2400202
PS-3020	1	ENCLOSURE	PRESSURE SWITH, INVALCO CADMEX SPDT 10-27# MODEL 80001104	0202486
LSL-3011A	1	HEATER BATH	PNEUMATIC LEVEL SWITCH, SOR MOD. 1540C-G2AC-JO-PS, 2" NPT	0201027
SDV-3030	1	BURNER	CONTROL VALVE, 1", KIMRAY 112-SMT-DAB, (EMB3)	1800031
SDV-3030A	1	SDV-3030	SOLENOID VALVE, 1/4" 3-WAY, ASCO MOD. EF8314G301 24VDC, EXP. PROOF	0202945
SDV-3030B	1	TCV-3030A	SOLENOID VALVE, 1/4" 3-WAY, ASCO MOD. EF8314G301 24VDC, EXP. PROOF	0202945
SP-3011A/B	1	BURNER SYSTEM	SOLAR PACKAGE, (2) CL. 1 DIV. 2 PANELS, (1) SUN SAVER, (2) 100 Ahr AGM BATTERIES, (1) CABLE, COMES W/ BMS-3011	8
TCV-3080A	1	BURNER	CONTROL VALVE, 1", KIMRAY 112-SMT-DAB, (EMB3)	1800031
TE-3011A	1	HEATER BATH	THER MOCOUPLE, COMES W/BMS-3011	21
TI-3011C	1	HEATER BATH	TEMP. INDICATOR, 3" DIAL, 0-250°F, 6" STEM, TREND THERMOMETER	3300011
TW-3011C	1	TI-3011C	THER MOWELL, 3/4" x 1/2" x U-4.5", (0.260" BORE), 316 S.S.	3300098

	VALVE LIST				
SYMBOL	QTY.	DESCRIPTION	CONTROL I.D		
VB-01	3	BALL VALVE, 1/4" 2000#, KF SERIES HC-740, P# 05000-P11, C.S.	3500385		
VB-01	3	BALL VALVE, 1" 2000#, KF SERIES HC-740, KF U5004P11, C.S.	3500388		
VB-01	1	BALL VALVE, 2" 1500#, KF SERIES HC-740, P# U 5007-P11, C.S.	3500390		
VN-01	3	NEEDLE VALVE, 1/4" MXF, 6000#, KF 25-145, C.S.	3500088		

QTY.	UOFM	SERVICE	DESCRIPTION	CONTROL I.D.
2	EACH	FIRETU BE	GASKET, 17 1/2" O.D. x 13 3/4" I.D. x 1/8", FR-1014, N.A.	1400127
1	EACH	BATH FILL	FILL/VENT CAP, 4" FNPT	0100006

QTY.	TAG#	DESCRIPTION	ITEM NUMBER	WT
1	EAP-3011	INDIRECTHEATER	42-172-LH-1MM-SHELL	4742
1	38	FLOW COIL	42-172-LH-1MM-FC-SHELL	1678
1	ZAY-3010	HEATER SKID	42-172-LH-1MM-SKID-SHELL	600
1	- 12	FITTINGSLIST	2	50
1		CONTROLS & ACCESSORIES	-	500
PPRO	ASSEMBLE	D WEIGHT = 7570 LBS.		

	SWAGELOK (STAINLESS STEEL)	
QTY	DESCRIPTION	CONTROL I.D.
4	SWAGELOK BULKHEAD UNION, 3/8" x 3/8", SS-600-61, S.S.	3400108
1	SWAGELOK, 90* ELBOW, 3/8" TUBE x 1/4" NPT, SS-600-2-4, S.S.	3400059
1	SWAGELOK, 90° ELBOW, 3/8" TU BE x 1/8" NPT, SS-600-2-2, S.S.	3400058
8	SWAGELOK, STRAIGHT, 3/8" TUBE x 1/4" NPT, SS-600-1-4, S.S.	3400066
2	SWAGELOK, TEE, 3/8" x 3/8" x 3/8", SS-600-3, S.S.	3400107
		-
2	SWAGELOK, TEE, 3/8" x 3/8" x 3/8", S5-600-3, S.S.	3400

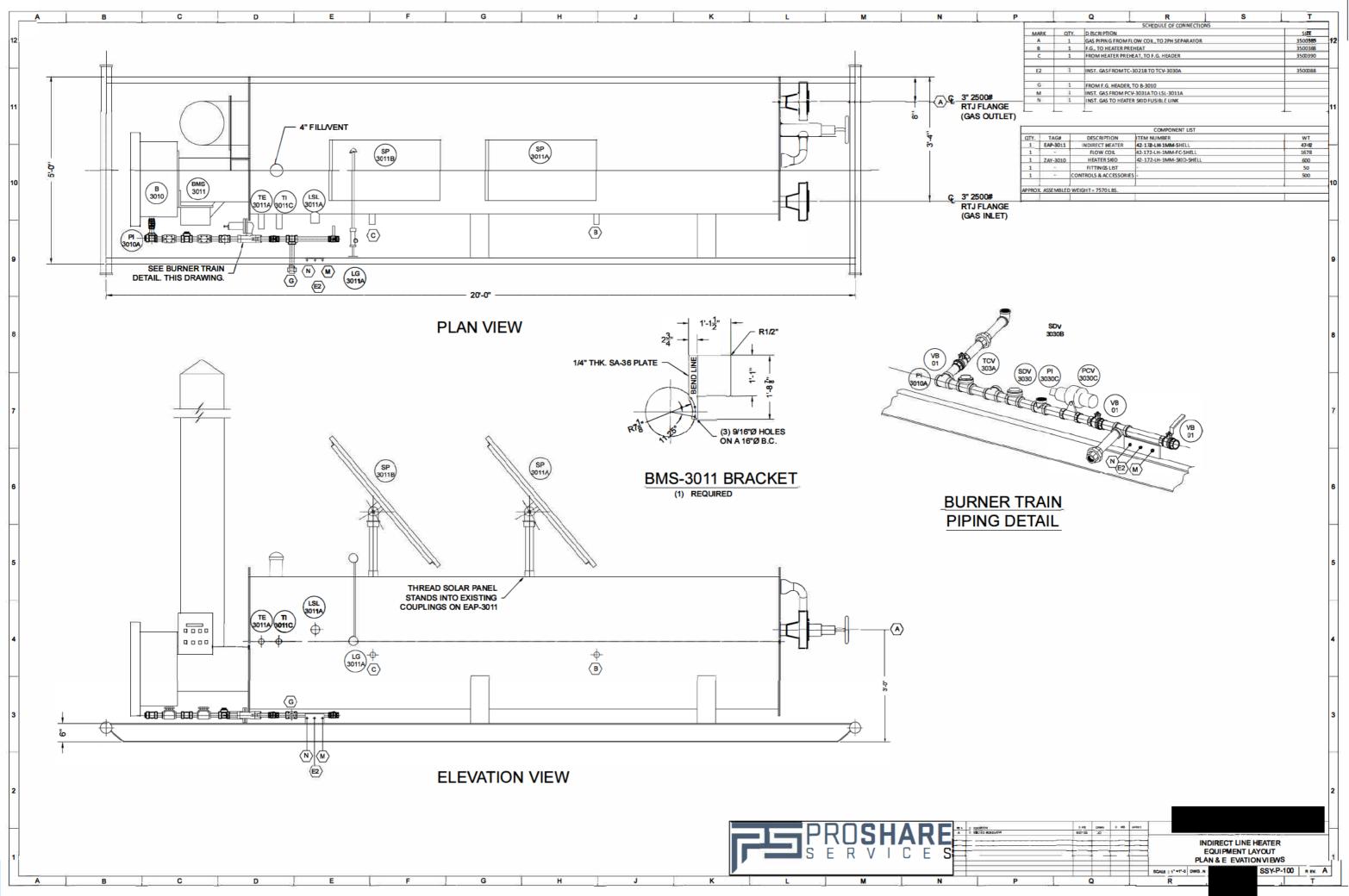
QTY	DESCRIPTION	CONTROL I.D.
30'	ANGLE IRON, 3/16" x 1-1/4" x 1-1/4", SA-36	2900027
20'	ANGLE IRON, 1/4" x 2" x 2", SA-36	2900034
14	U-BOLT, 3°, W/NUTS, Z.P., GR. 5	0300047
6'	CHANNEL, 4" x 5.4#, SA-36	2900057
12'	FLAT BAR, 1/4" x 2", SA-36	2900078



DATE	ORMN	CHORD	APPRID						-
6/27/28	30		£ 3						_
-			-			CT LINE HEA			
			5.			S & ACCESS			
 					BILL	OF MATERIAL	S		
				SCALE: NTS	DWG. NO	-BON	A-100	REV.	Α
	2			R	1	S		т	_



# EQUIPMENT LAYOUT DRAWING

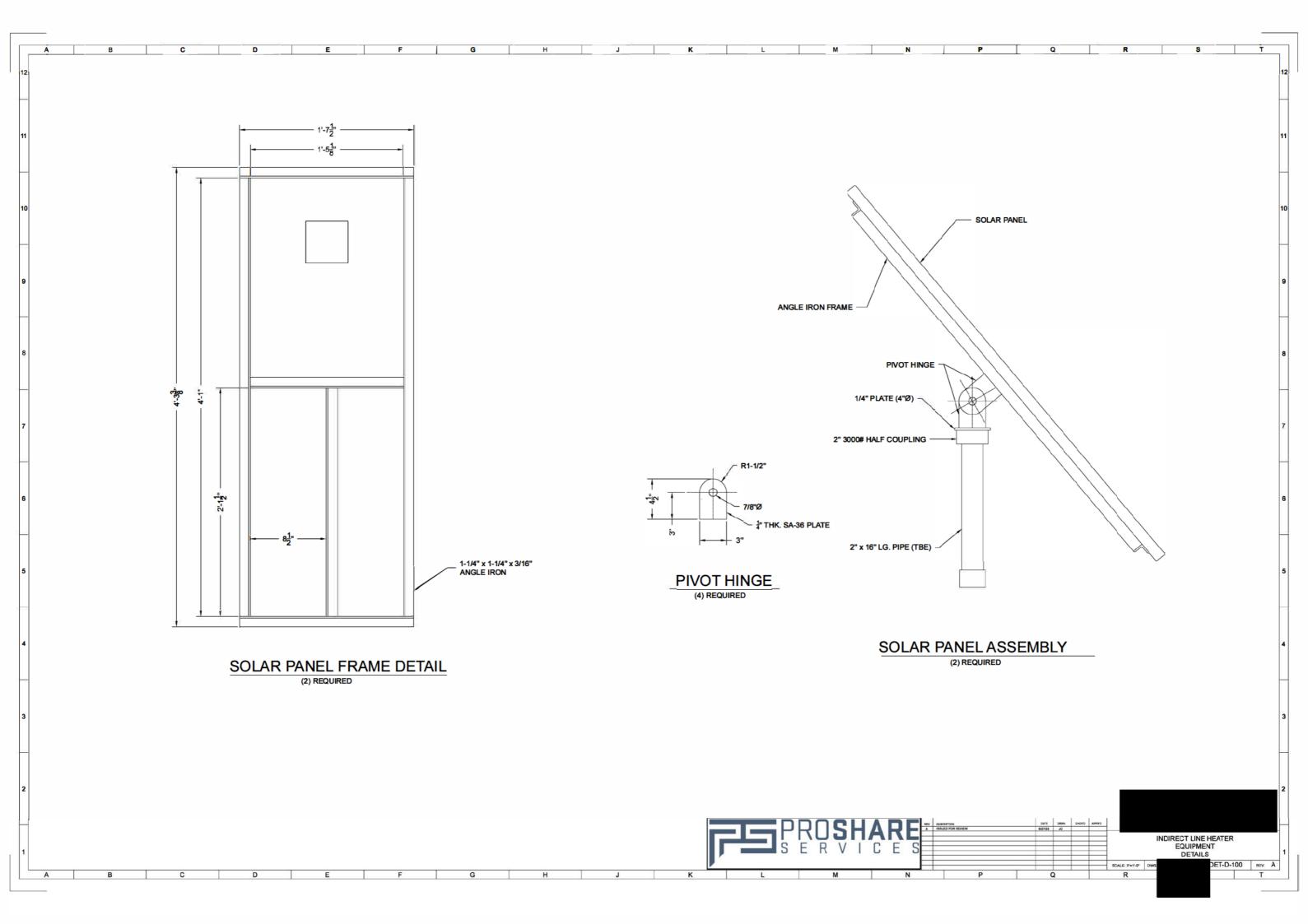


		Q	R	S	L T	
			SCHEDULE OF CONNECTION	NS		
MARK	QTY.	D ESCRIPTION			SIZE	
Α	1	GAS PIPING FROM FLO	N COIL, TO 2PH SEPARATOR		3500385	_1
B	1	F.G., TO HEATER PREHE	AT		3500388	
с	1	FROM HEATER PREHEA	T, TO F.G. HEADER		3500390	
E2	1	INST. GASFROMTC-30	21B TO TCV-3030A		3500088	-
G	1	FROM F.G. HEADER, TO	FROM F.G. HEADER, TO B-3010			
м	1	INST. GAS FROM PCV-3	031ATO LSL-3011A			
N	1	INST. GAS TO HEATER S	KID FUSIBLE LINK			
						1

			COMPONENT LIST		1.1
QTY.	TAG#	DESCRIPTION	ITEM NUMBER	WT	1
1	EAP-3011	INDIRECT HEATER	42-172-LH-1MM-SHELL	4742	1
1	. ×	FLOW COIL	42-172-LH-1MM-FC-SHELL	1678	
1	ZAY-3010	HEATER SKID	42-172-LH-1MM-SKID-SHELL	600	
1	× .	FITTIN GS LIST	5	50	11
1	12	CONTROLS & ACCESSORIES	-	500	] [
					10
APPRO)	ASSEMBLED	WEIGHT = 7570 LBS.			
					1 I



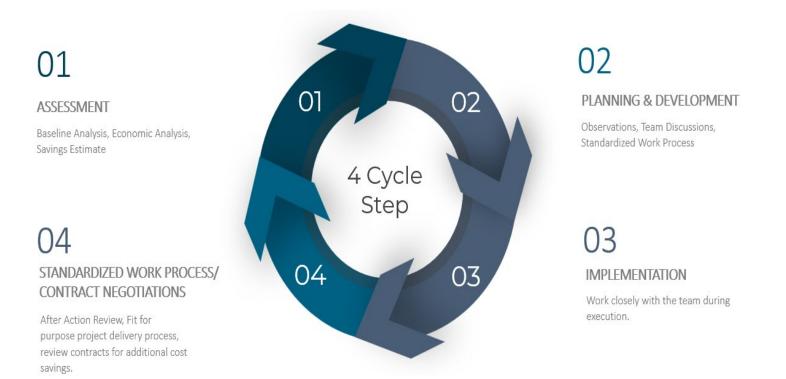
## EQUIPMENT DETAILS DRAWING





# **COST REDUCTION PROCESS**

Our business cost reduction process is a strategic approach designed to help organizations achieve significant, sustainable savings without compromising quality or operational effectiveness. By leveraging data-driven analysis, industry best practices, and innovative cost management techniques, we identify areas of inefficiency and implement tailored solutions that optimize resource allocation. Our process prioritizes long-term value by focusing not just on immediate savings but on building a resilient cost structure that supports growth and enhances competitive advantage. Partner with us to streamline operations, increase financial agility, and drive a stronger bottom line.





# CASE STUDIES

Case Study 1: Pipeline Integrity Digs - Cost Reduction Project

## Summary:

Companies were executing Section H and Integrity pipeline digs in accordance to CFR 192 and CFR 195 pipeline transmission regulations and ensure compliance with current state and federal regulations. Company A would be considered a "large" company (~44,000 employees) and Company B would be considered a "small" company (~1500 employees).

## **Company A Results**:

Company A was executing 13 digs in ~6 week timeframe. By utilizing LEAN principles, we reduced the AFE costs from the estimated \$672K to \$372K which was a cost reduction of 56%. The previous average dig cost across the program was \$72K/dig and the current based on that project was \$30K/dig, which would be around a 58% cost reduction on the first try. We also were able to reduce the schedule from 6 weeks to 2.5 weeks which is a 58% reduction. Note that this is based off of a 5 day work week/8 hrs per day.

Pipeline Integrity Digs Cost Reduction Project 1 – 13 Digs				
Projected AFE Costs	\$672K	Average Dig Cost	\$72K/Dig	
Actual Project Cost		Actual Cost/Dig	\$30K/Dig	
% Savings	56%	% Savings	58%	

Pipeline Integrity Digs Schedule Reduction Project 1-13 Digs			
Projected Schedule	6 weeks		
Actual Schedule	2.5 weeks		
Schedule Reduction	58%		



## **Company B Results**:

Company B was executing 5 digs in ~16 days timeframe. By utilizing LEAN principles, we reduced the AFE costs from the estimated \$137K to \$104K which was a cost reduction of 25%. The previous average dig cost across the program was \$27K/dig and the current based on that project was \$20K/dig, which would be a 25% cost reduction on the first try. We also were able to reduce the schedule from 16 days to 7 days which is a 56% reduction. Note that this is based off of a 5 day work week/8 hrs per day.

Pipeline Integrity Digs Cost Reduction Project 2 – 5 Digs				
Projected OPEX Costs	\$137K	Average Dig Cost	\$27K/Dig	
Actual Project Cost	\$104K	Actual Cost/Dig	\$20K/Dig	
% Savings	25%	% Savings	25%	

Pipeline Integrity Digs Schedule Reduction Project 2- 5 Digs		
Projected Schedule	16 Days	
Actual Schedule	7 Days	
Schedule Reduction	56%	



**Case Study 2:** Dehy and Compression Preventative Maintenance Projects – Cost Reduction Project

## Summary:

Standard glycol carryover from a dehydration system is 1 gallon/10 MMSCF. Excess carryover can cause additional safety issues as well as increased cost and reduced operability of the system. The tables below show what the yearly cost reduction could be by reducing excess glycol carryover by 25%, 50%, and 100%.

21 Dehydration Units with Minimal to No Maintenance Program					
Year	Excess Glycol Loss (Gal TEG/MMSCF)	Glycol Cost (\$/Gallon)	Glycol Excess Spend (\$/Year)	25% Glycol Excess Spend	50% Glycol Excess Spend
1	4.3	9	\$880K	\$221K	\$441K
2	3.8	9	\$1.20M	\$256K	\$511K

3 Dehydration Units with Preventative Maintenance Program			
Year	Excess Glycol Loss (Gal TEG/MMSCF)	Glycol Cost (\$/Gallon)	Glycol Excess Spend (\$/Year)
1	0	9	\$0
2	0	9	\$0

## **Results**:

The first graph shows the additional costs for new glycol and waste disposal of the carryover glycol. By implementing best practices and troubleshooting the dehydration and compression systems, the team was able to successfully implement a preventative maintenance program and achieve the 1 gallon/10 MMSCF glycol carryover rate. This also increases reliability and operability of equipment located downstream of the compressor stations. Not only did this program reduce costs from glycol carryover, but it helpd with keeping the dewpoint of the gas on spec on the discharge side of the system, which in turn would reduce freezing issues in the equipment downstream of the system. This effort has a positive impact on plants, pipelines, and compressor stations, as well as environmental impacts, safety, and overall revenue.



**Case Study 3:** Compressor 48K and Top End Engine Maintenace Jobs – Cost Reduction Project

## Summary:

The bottom line cost of Compressor 48K and Top End Engine maintenance jobs are some of the most expensive maintenance jobs that are executed based on the cost of the downtime of the system. The major factor of the cost per job is based off of the amount of time it takes to execute the work. Current site downtime for compressor station 48K and top end engine maintenance jobs is 4 days. By utilizing LEAN principles and working with maintenance crews, able to reduce downtime to 1-2 days. Below are the results.

Compressor 48K/Top End Engine Maintenance Jobs					
	Jobs Completed	Cost Savings	Downtime	Cost Reduction	
Top End Service	7	\$62K	10%-58%	10%-58%	
48K Service	2	\$20K	35%	35%	
Total Cos	t Savings		\$82K		

#### **Results**:

Depending on the scope of the job, there was a 10%-58% reduction in both costs and downtime for top end engine maintenance and 35% reduction in both costs and downtime for 48K maintenace. These results are based off of a normal working day and no shortcuts to safety were made during this process. If anything, the teams stopped and paused and discussed any safety concerns to ensure everyone went home the same way they came to work that day. These savings are based on a few jobs, and if executed over a yearly schedule would be significant based on the amount of projects.