



**Training Proposal for:
Senga Engineering, Inc.**

Small Business ≤ \$50,000

ET15-0434

Approval Date: April 7, 2015

ETP Regional Office: San Diego

Analyst: S. Godin

CONTRACTOR

- Type of Industry: Manufacturing
- Priority Industry: Yes No
- Number of Full-Time Employees
 - California: 44
 - Worldwide: 44
 - Number to be trained: 18
 - Owner Yes No
- Out-of-State Competition: Customers Outside CA
- Special Employment Training (SET): Yes No
- High Unemployment Area (HUA): Yes No
- Turnover Rate: 15%
- Repeat Contractor: Yes No

FUNDING

- Requested Amount: \$14,040
- In-Kind Contribution: \$11,000

TRAINING PLAN TABLE

Job No.	Job Description	Type of Training	Estimated No. of Trainees	Range of Hours		Average Cost per Trainee	Post-Retention Wage
				Class / Lab	CBT		
1	Retrainee Priority Rate SB <100	Business Skills, Computer Skills, Cont. Imp., Mfg. Skills, PL-Mfg. Skills	18	8-60	0	\$780	\$16.02
				Weighted Avg: 30			

- Reimbursement Rate: \$26 SB Priority
- County(ies): Orange
- Occupations to be Trained: Technical/Engineering Staff, Production Personnel, Administrative Support, Supervisor/Manager, Owner
- Union Representation: Yes
 No
- Health Benefits: \$1.44 per hour

SUBCONTRACTORS

- Development Services: N/A
- Administrative Services: N/A
- Training Vendors: To Be Determined

OVERVIEW

Founded in 1979 and located in Santa Ana, Senga Engineering, Inc. (Senga), manufacturers precision-machined components for a broad range of companies and industries, with a focus on aerospace, connector and medical industries.

This will be the second Agreement between Senga and ETP within the last five years. The Company completed its first ETP-funded project in December 2013, in which 17 workers received training. Employees were introduced to the basic concepts of process improvement and Lean manufacturing. Standard operating procedures were developed for each piece of manufacturing equipment and the Company began cross-training Lead Production Staff. This training included the Productive Laboratory (PL) delivery method. Selected trainees were introduced to International Standards Organization (ISO) and other certification training, which has helped Senga remain competitive.

Since then, orders for machined components have decreased in size and increased in frequency. The Company must continue to refine its manufacturing and business processes and services, to retain and acquire customers. The customer inspection criteria have also become more stringent, and zero defective parts per-million is standard for the industry.

To meet these requirements, Senga recently purchased new equipment: four coordinate measuring machines, a high powered computer numerical control (CNC) lathe, and a 24 Pallet Pool system. The Company began training Lead Production Staff on this equipment during the latter half of the previous Agreement and now plans to train the remaining Production Personnel.

In addition, Lean Manufacturing principles will be further incorporated across all occupations to improve production processes, product quality and frontline leadership. Continued training in AS9100/ISO900 updates will allow Senga to maintain its certifications. All occupations will receive skills training in the most recent updates in the Company's E2 ShopTech ERP system.

Employees hired subsequent to the previous Agreement will be introduced to Continuous Improvement and Lean Manufacturing principles. Advanced topics will be delivered to those trainees who participated in the first Agreement as the company continues to focus on streamlining workflow processes, eliminating waste, and reducing rework. Training will be delivered by in-house experts and contract administration will also be in-house.

Training Plan

No trainee will receive training topics they received in the prior agreement.

Business Skills - Training will be provided to all occupations in communication, product knowledge, customer relations, marketing and business development, financial accounting systems, project management and leadership. These skills will give employees the acumen to effectively implement customer solutions to increase customer satisfaction.

Computer Skills - All occupations will receive training in recent updates to the Company's ERP system (E2 Shop Tech) needed to streamline processes and improve internal/external customer responsiveness. Technical Staff, Administrative Support and Managers/Supervisors will be trained in computer software such as advanced Microsoft Word, Crystal Reports and Master Accounting Series. MasterCam, Pro-Engineer, SolidWorks and Veri-Cut design software will be offered to select Technical/Engineering and Production Personnel.

Continuous Improvement - All occupations will receive skills sets in a variety of continuous improvement topics. Employees who were introduced to Lean manufacturing in the first agreement will receive continued training needed to further improve processes and reduce waste. Topics such as scrap reduction techniques, zero waste methodologies, set-up minimization, inventory control, and continued training in AS9100/ISO9001 will provide important tools needed to maintain zero defective parts per million in the manufacturing process.

Manufacturing Skills - Production leads who were trained on the new machinery in the previous agreement will deliver equipment training to the rest of the Production workforce. Continued equipment cross-training, with expectations of achieving higher competency levels, will be offered to workers who participated in the first ETP Agreement. Training topics such as Good Manufacturing Processes, preventive maintenance, tool making and material requirements planning will provide workers with the skills needed to improve product quality and the Company's overall manufacturing processes.

Productive Lab

PL in Manufacturing Skills will be offered to 10 Production and Technical Staff in addition to class/lab training. PL tasks for the CNC Operators and Machinists will focus on machine set-up, operation, maintenance & troubleshooting. The trainers are in-house subject matter experts who are exclusively dedicated to instruction for the entire reported training time.

Senga states that PL trainers will be qualified to instruct and deliver the course content and material. Trainers will demonstrate specific set-up, operation, documentation, and inspection processes for each piece of machinery. Trainers will certify workers on the tasks once the trainees are deemed competent. At the conclusion of PL, trainees will be competent in the various production processes and techniques included in the PL curriculum, and will be able to meet minimum productivity standards.

The Company anticipates production will be lower during PL as trainees will not be expected to produce at the same output level in order to focus on product quality and zero defects. PL will allow trainees to acquire the skills sets needed to become competent in the operation of the machinery without the pressure of normal production requirements. PL will be delivered in a 1:1 trainer-to-trainee ratio and trainees will receive up to a maximum of 24 PL hours in manufacturing processes detailed in the curriculum.

RECOMMENDATION

Staff recommends approval of this proposal.

PRIOR PROJECTS

The following table summarizes performance by Senga under an ETP Agreement that was completed within the last five years:

Agreement No.	Location (City)	Term	Approved Amount	Payment Earned	
				\$	%
ET12-0262	Santa Ana	12/31/11- 12/30/13	\$24,960	\$14,001	(56%)*

*Senga documented 599 eligible training hours and was paid \$14,001. Senga states that the low performance on the previous project was caused by the lack of a dedicated in-house manager, resulting in over-reliance on the administrative subcontractor; and failure by in-house trainers to adequately document the hours of ETP-funded training.

To ensure higher performance, the Company has hired a Human Resources Manager who will be responsible for coordinating the delivery and documentation of ETP training. The Company has also developed a strategic process to assure that all training is properly documented, as outlined below:

- The HR Manager will identify all ETP-eligible training.
- The HR Manager will schedule and track attendance for all class/lab and PL sessions. The HR Manager will provide in-house trainers with necessary training materials and resources.
- The HR Manager will hold trainers to monthly training delivery deadlines.
- The HR Manager will be responsible for entries in Online Tracking.
- The Company President will review the success or failure of contract administration in quarterly performance reviews, as applicable.

In addition, the proposed project has been right-sized to \$14,040 to mirror earnings in the prior Agreement. The weighted average number of training hours is 25% less than in the previous Agreement (30 hours versus 40 hours) and less than the average number of hours completed (35) in the first Agreement.

Exhibit B: Menu Curriculum**Class/Lab Hours**

8-60 Trainees may receive any of the following:

BUSINESS SKILLS

- Communication Skills
- Coaching/Facilitator Skills
- Conflict Resolution
- Customer Relations
- Financial Accounting Processes
- Goal Setting/Time Management
- Leadership and Team Cohesiveness
- Marketing & Business Development
- Product Knowledge
- Project Management
- Business Writing Skills

COMPUTER SKILLS

- ERP Software (E2 ShopTech)
- Solid Works/Master Cam/Part Maker
- Crystal Reports
- Hexagon Software
- MasterCam
- Master Accounting Series
- MS Office Suite
- MS Project
- VeriCut Software
- ProEngineer Design Software

CONTINUOUS IMPROVEMENT

- AS9100/ISO9001-2008 Skills Updates
- ISO 13485 Skills
- Lean Manufacturing Concepts
- Statistical Process Control
- Material Requirements Planning
- Inspection Techniques
- Inventory Control
- Scrap Reduction Techniques
- Zero Waste Methodologies
- Set-Up Minimization
- Process & Quality Improvement Skills
- Standard Operating Procedures

MANUFACTURING SKILLS

- Equipment Operation, Maintenance & Troubleshooting
- E2 Shop Tech ERP
- Inspection Techniques
- Preventive Maintenance
- Blueprint Reading
- Good Manufacturing Processes
- Tool Making
- Inventory Control
- Material Requirements Planning

Productive Lab

0-24

MANUFACTURING SKILLS (Ratio 1:1)

- Equipment Operation, Maintenance & Troubleshooting:
 - MoriSeiki Linear Pallet Pull System Setting, Operating, Troubleshooting and Maintenance
 - Centrifugal Barrel Tumbling Machine Setting, Operating, Troubleshooting and Maintenance
 - Lathe Setting, Operating, Troubleshooting and Maintenance
 - Mill Machines, Operating, Troubleshooting and Maintenance

Safety Training will be limited to 10% of total training hours per-trainee

Note: Reimbursement for retraining is capped at 60 total hours per-trainee, regardless of method of delivery PL is capped at 24 hours per-trainee.