



**Training Proposal for:**

**Pipe Trades Joint Apprenticeship and Training Committee of  
Santa Clara and San Benito Counties**

**Agreement Number: ET16-0901**

**Panel Meeting of:** July 24, 2015

**ETP Regional Office:** San Francisco Bay Area      **Analyst:** D. Woodside

**PROJECT PROFILE**

Contract Attributes:	Retrainee Apprenticeship Priority Rate	Industry Sector(s):	Construction  Priority Industry: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
County Served:	Santa Clara, San Benito	Repeat Contractor:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Union:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada (UA Local 393)		
Turnover Rate:	≤20%		
Managers/Supervisors: (% of total trainees)	N/A		

**FUNDING DETAIL:**

<b>Program Costs</b>	+	<b>Support Costs</b>	=	<b>Total ETP Funding</b>
\$600,800		\$41,610 8%		\$642,410

**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 Journeyman Priority Rate	Commercial Skills, Computer Skills OSHA 10/30	210	8-200	0	\$941	\$36.05
				Weighted Avg: 40			
2	Retrainee Apprentice	Commercial Skills, Computer Skills OSHA 10	160	8-210	0	\$2,780	\$20.55
				Weighted Avg: 200			

**Minimum Wage by County:** SET/Priority Industry: \$20.55 per hour

**Health Benefits:**  Yes  No This is employer share of cost for healthcare premiums – medical, dental, vision.

**Used to meet the Post-Retention Wage?:**  Yes  No  Maybe

Up to \$0.92 per hour may be used to meet the Post-Retention wage in Job Number 2

**Wage Range by Occupation**

Occupation Titles	Wage Range	Estimated # of Trainees
Journeymen Plumber, Steamfitter/Pipefitter, Air Conditioning Equipment Service, Maintenance Mechanic		210
Apprentice Plumber, Steamfitter/Pipefitter, Air Conditioning Equipment Service, Maintenance Mechanic		160

\*This is the lowest base wage among the four Journeyman occupations.

\*\*Apprentice wages vary proportionate to the Journeymen by occupation. This is the low end of the range (Starting at Year 2).

**INTRODUCTION**

The Pipe Trades Joint Apprenticeship and Training Committee of Santa Clara and San Benito Counties (The Pipe Trades JATC Santa Clara or JATC) <http://www.pipetradetraining.org/> opened the Lloyd E. Williams Pipe Trades Training Center (Training Center) in 1961. Located in San Jose, the training center serves 1,900 union members represented by the Plumbers, United Association Local Union 393. The JATC was created in collective bargaining between Local 393 management represented by the South Bay Piping Industry and the Santa Clara Valley Contractors Association. The signatory employers are located throughout Northern California (primarily in Silicon Valley and the Bay Area).

The Training Center provides Apprentice and Journeymen classes to all the pipe trades involved in commercial, industrial, and residential plumbing. The courses are designed to provide Commercial, Computer and OSHA10/30 training with an emphasis on green technology. The Training Center is a modern, 100,000-square-foot facility which has 48

classrooms, and welding and computer laboratories. This will be the Panel's third Agreement with this JATC.

Affiliated with Foothill Community College, the Training Center apprentice program is accredited through the Division of Apprenticeship Standards (DAS) to offer apprenticeship opportunities in Residential Plumbing, Commercial Plumbing, Steamfitting, and Refrigeration/heating, ventilation, air-conditioning (HVAC). The significant number of retiring workers and the recent upswing in construction generate continued demand for skilled pipe trades workers in Santa Clara and San Benito Counties. By assisting with training funds, ETP will help create a stable, flexible and well-skilled workforce for participating employers in the local construction industry.

### **Employer Demand for Training**

According to the JATC, demand for Apprentices has been accelerating, with 347 Apprentices currently registered. The JATC graduated 23 Apprentices last year and anticipates 26 graduates this year. It's anticipated that an estimated 80% of the 140 signatory employers will participate in this project, of which approximately three-fourths are small business. Construction projects generating demand for skilled pipe trades Apprentices and Journeymen Include:

- Google Campus
- San Jose Earthquakes Soccer Stadium
- Samsung and Facebook campuses (San Jose and Palo Alto)
- Apple Campus (San Jose)
- New buildings and renovation of area hospitals
- Improvements to the Stanford University campus
- California Infrastructures Projects: BART, etc.

### **Apprenticeship Program**

The Panel is authorized to fund apprentice training that does not displace any other source of government funds, or replace an existing apprenticeship program approved by the DAS. The Panel provides reimbursement for the Related and Supplemental Instruction (RSI) portion of an apprenticeship training program. RSI is delivered as class/lab training and developed with a Local Educational Agency (in this proposal, Foothill College). The program provides reimbursement for up to 200 hours of RSI plus OSHA 10. All RSI will be delivered at the Training Center.

For the building trades, where it is not customary for workers to be employed for 90 consecutive days with one employer, the Panel may substitute hours worked for retention. The modified retention period must be no less than 500 hours within 272 days with more than one employer. The Plumbers JATC is requesting this modified retention period.

To ensure ETP does not displace Montoya Funds, Apprenticeship Pilot reimbursement is reduced by \$5.00, reducing the priority industry rate from \$18.00 to \$13.00 per hour. The ETP minimum wage requirement for Apprentices is \$20.55 per hour. This is the Special Employment Training Statewide wage as modified for priority industries, which may be used as the minimum for all apprentice occupations, for ease of administration.

### **DAS Completion Rates**

The completion rate for this DAS-approved program for 2009-2013 is 75.79% and exceeds the industry completion percentage of 48.01%. This meets Panel standards.

## **PROJECT DETAILS**

Training is scheduled to begin in September 2015. The JATC reports that it employs 50-70 full and part-time credentialed instructors with vast field experience. Instructors attend special courses provided by the international union's Instructor Training Program to stay current with changes in the industry. The instructors create many of their own teaching materials, providing students with the most up-to-the-minute, customized information on codes, new materials, and processes not found in traditional textbooks.

Plumbers are responsible for providing pure water to residential, commercial or industrial buildings, and for removing waste water. Plumbing and plumbing fixtures must be installed in accordance with plumbing codes and health and safety regulations. Plumbers also work as plumbing service and repair mechanics responsible for the service, repair and remodeling of existing plumbing systems in residential, commercial and industrial buildings.

Pipefitters/steamfitters are responsible for designing and installing complex heating systems, and specialty piping for acid, gas, oil, air, oxygen, nitrogen, ultra-high-purity water and gas systems, and other substances. HVAC refrigeration fitters serve as mechanics providing service, repair, installation and retrofit of all types of refrigeration equipment.

The Apprentice RSI and Journeyman upgrade training funded under this proposal will include:

- Pipe Trades HVACR 13 Course Certification;
- Energy Management Classification (pending);
- CAD Detailing; and
- Accelerating Green Initiatives and LEED certification.

### **Journeyman Training**

**Commercial Skills (90%):** Training for all trades will focus on new construction, service, and repair techniques and equipment. Advanced skills training will expand the availability of employer-driven certification classes such as welding, and will also focus on new materials and the modernization of the industry, including the shift to green materials. Because plumbing, pipefitting, and refrigeration work revolves around energy management, many commercial and industrial businesses are seeking LEED certification.

**Computer Skills (5%):** Training will include 3-Dimensional (3-D) software and automated computer-aided design (CAD) applications that provide trainees with the ability to utilize software to verify project requirements, and install and adjust computerized control systems.

**OSHA 10/30 Skills (5%):** Training is a series of courses "bundled" by industry sector and occupation. Typically, it is delivered to workers in the building trades. Under this proposal, OSHA 10 will be funded for Apprentices and OSHA 10/30 will be funded for Journeymen. This training is not required as a condition of doing business in California. However, the coursework must be approved by, and the instructors must be certified by Cal-OSHA. Completion of the training results in a certificate that expands employment opportunities. To ensure that each trainee receives certification, ETP will only consider payment earned upon completion of the full 10-hour or 30-hour course. OSHA 10/30 is not included in the 10% limitation on safety training.

### **Apprentice Training**

**Commercial Skills (90%):** Training will include topics such as trade math, blueprint reading, and all plumbing and mechanical systems in use, in addition to basic skills required across all pipe trades. Training will help apprentices gain the skills needed to work safely and productively

across industries. Training will also cover courses in green construction compliance, practices and materials; new equipment, welding and industry certifications; and more safety competency, as opposed to just safety awareness. Because this JATC operates in a highly competitive construction and service market, all training must meet the demands of San Francisco's construction industry.

**Computer Skills (5%):** Training for apprentices also covers CAD and 3-D software applications.

**OSHA 10 (5%)**

### **Curriculum Development**

The curriculum is employer-driven based on local industry needs. The JATC's instructors also work with the National Competency Testing Institute to create industry-driven curriculum. In addition, local projects and their hiring demands have resulted in a comprehensive and technically advanced curriculum. Feedback on all training comes directly from the employers and union representatives, based on workplace performance, requests of customers, and needs of the industry as well as student course evaluations completed at the end of each course held at the Training Center.

### **Impact/Outcome**

Certifications earned (Journeyman and/or Apprentice) include: OSHA 10, OSHA 30, HVAC Star, Medical Gas Installer, Medical Gas Brazer, Foreman's Certification, Industrial Rigging or Signal Person Certification, National Environmental Balancing Bureau Commissioning, Backflow, and various welding certifications.

### **Marketing and Support Costs**

Through direct mailings, personal contacts, telephone calls, public service announcements, emails, and its website, the JATC will disseminate class information throughout the year to all apprentice and journeyman within the local's jurisdictions, as well as to the contractors who employ them. The JATC is also active in the local workforce investment board in northern Santa Clara County (NOVA). The JATC representative serves as a board member, executive board member, youth subcommittee chairperson, and NOVA Youth Foundation board member.

Announcements for the apprenticeship program will be sent to local, state, and federal agencies as well as to local high schools, community colleges, and community-based organizations. The JATC Training Coordinator, along with two assistant coordinators and five administrative assistants, will be responsible for marketing, recruiting, conducting needs assessments, and for scheduling the training.

The JATC requests 8% support costs to assist staff in recruiting and qualifying additional participating employers for this program. While many participating employers have already been recruited, additional recruitment and assessment activities with employers must occur to support journeyman and apprenticeship training. Staff recommends the 8% support costs.

### **Commitment to Training**

Employers will continue to make contributions to the JATC training trust for every hour worked by Apprentices and Journeymen. General safety training is provided by the signatory employers in accordance with all pertinent requirements under state and federal law.

**RECOMMENDATION**

Staff recommends approval of this proposal.

**CURRENT CONTRACT PERFORMANCE**

The following table summarizes performance by Pipe Trades JATC Santa Clara under the current ETP Agreement:

Agreement No.	Approved Amount	Term	No. Trainees Estimated	No. Completed Training	No. Retained
ET13-0924	\$502,706	04/02/13 – 04/01/15	Apprentice – 143 Journeymen-210	Apprentice – 91 Journeymen - 69	112

Based on the ETP tracking system to date, 34,114 reimbursable hours have been tracked (100% of the Agreement amount). The Contractor projects 100% earnings when the closeout invoice is processed by ETP.

**PRIOR PROJECTS**

The following table summarizes performance by the Pipe Trades JATC Santa Clara under an ETP Agreement completed within the last five years:

Agreement No.	Location (City)	Term	Approved Amount	Payment Earned \$ %
ET11-0325	San Jose	06/30/11– 06/29/13	\$394,398	\$249,254 (63%)

ET11-0325 was approved by the Panel prior to the establishment of the Apprenticeship Pilot program and thus focused more on Journeymen retraining. Funds earned were lower than anticipated because journeymen pipe trades workers, who often are employed at later stages of construction, were still experiencing less than full-employment. Thus lower retention prevented the JATC from earning the full Agreement amount. Members are now experiencing full employment and retention should not be a challenge under the new proposal. Note: The subsequent Agreement ET13-0924 is on track to earn 100%.

**DEVELOPMENT SERVICES**

California Labor Federation in Sacramento and Strategy Workplace in Oakland assisted with the development of this proposal at no cost.

**ADMINISTRATIVE SERVICES**

Strategy Workplace will also perform administrative services in connection with this proposal for a fee not to exceed 13% of payment earned.

**TRAINING VENDORS**

To Be Determined

**Exhibit B: Menu Curriculum**

Trainees may receive any of the following:

**Class/Lab Hours**

8-200 (Job Number 1)

**Journeyman Training****COMMERCIAL SKILLS**

- ✚ Green Compliance:
  - Energy Efficiency in Existing Equipment and Materials
  - Design and Installation of New Energy Efficient Equipment and Materials
  - LEED Standards
- ✚ BACnet Programming
- ✚ Johnson Controls Courses
- ✚ Robotic Total Station
- ✚ Start Test and Balance
- ✚ Solar Installations
- ✚ Specialty Seminars for Service Work
- ✚ Johnson DX9100 (Brand of Digital Controller)
- ✚ Compressor Overhaul
- ✚ Direct Digital Controls – Principals of Operation, Calibration, Documentation, Shutdowns
- ✚ Orbital Welding
- ✚ Welding
- ✚ Brazing
- ✚ Safe Working Conditions (All training supplements Cal-OSHA required safety training):
  - Foreman and Worker Responsibility
  - Scaffolding
  - Fall Protection
  - Electrical Safety
  - Falling Objects
  - Working in Confined Spaces
  - Working Around Pipelines
- ✚ Certifications:
  - Industrial Rigging
  - Signalperson
  - National Environmental Balancing Bureau
  - Commissioning (Certification for Heating & Cooling Systems)
  - Medical Gas -- Installation, System Testing, Maintenance, Repair, Standards and Brazing
  - Foreman
  - Backflow
  - Orbital Welding
  - Tungsten Inert Gas Welding
  - Star Review

**COMPUTER SKILLS**

- ✚ Computer-Aided Drafting
- ✚ 3-D Drawings Software

**OSHA 10/30 (OSHA CERTIFIED INSTRUCTOR)**

- ✚ OSHA 10 (requires completion of 10 hours)
- ✚ OSHA 30 (requires completion of 30 hours)

**Class/Lab Hours**

8-210 (Job Number 2)

**Apprentice Training**

**COMMERCIAL SKILLS**

**Plumbing and Steamfitting**

- ✚ 2<sup>nd</sup> year
  - Code/Water Supply
  - Drawing I
- ✚ 3<sup>rd</sup> year
  - Drawing II
  - Welding
  - Oxygen / Acetylene Training
  - Pipe Fitting
- ✚ 4<sup>th</sup> year
  - Steam Systems
  - Rigging
  - Pipefitting and Service
  - Hydronics/ Steam
  - Medical Gas Certification
  - Signal Person Certification
- ✚ 5<sup>th</sup> year
  - Advanced Drawing/Layout
  - Code II
  - Junior Mechanics Review and Exam

**Refrigeration**

- ✚ 2<sup>nd</sup> year
  - Basic Electricity
  - Advanced Electricity
  - Pneumatic DDC Introduction
- ✚ 3<sup>rd</sup> year
  - Controls I
  - Electro Pneumatics
  - Controls II
  - Advanced Pneumatics
  - Calibration
  - Hydronics
- ✚ 4<sup>th</sup> year
  - Start, Test and Balance I
  - Start, Test and Balance II

- ✚ 5th year
  - Chillers
  - HVAC Star Certificate
  - Special Systems
  - Heating Ventilation Air Conditioning Refrigeration Star Review and Exit Exam
- ✚ Trade Math
- ✚ Industry Math
- ✚ Rigging
- ✚ Drawing
- ✚ Blueprint Reading
- ✚ Welding
- ✚ Cutting
- ✚ Industrial Safety
- ✚ Industrial Install
- ✚ Medical Gas Install
- ✚ Backflow Certification
- ✚ Foreman Certification
- ✚ Rigging Certification
- ✚ Direct Digital Controls
- ✚ Compressor Overhaul

### **COMPUTER SKILLS**

- ✚ Computer-Aided Drafting
- ✚ 3-D Drawings Software

### **OSHA 10/30 (OSHA CERTIFIED INSTRUCTOR)**

- ✚ OSHA 10 (requires completion of 10 hours)

Safety training cannot exceed 10% of total training hours for any individual trainee. This 10% safety training cap does not apply to Hazardous Materials or OSHA 10/30 training.

Note: Reimbursement for Job Number 1 Journeymen retraining is capped at 200 total training hours per trainee regardless of the method of training delivery. Reimbursement for Job Number 2 Apprenticeship training is capped at 200 total training hours per trainee in Commercial Skills and 10 hours of OSHA10 for a total of 210 hours regardless of the method of training delivery.