

Mastering Maintenance

The Framework for a Successful Maintenance Apprenticeship Program





Welcome

Welcome to the Maintenance Apprenticeship Training Guide.

Here you'll learn how to develop, support, and enhance a program tailored specifically to your company, properties, and teams.

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Texas Apartment Association Education Foundation

Maintenance Apprenticeship Guide

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An *apprenticeship* is a system for training a new generation of trade or professionals with on-the-job training, which may or may not require additional studying. The multifamily industry in Texas currently faces challenges in recruiting, hiring, and retaining maintenance team members, especially as more seasoned personnel retire, and replacements lack the same level of training. To address this gap, implementing an apprenticeship-type program will help to intentionally grow and develop maintenance and service professionals, providing them with the skills and expertise needed to build a successful career in the rental housing industry.

The purpose of this guide is to assist Texas Apartment Association (TAA) member companies in creating a customized maintenance apprenticeship program.

With help from this guide, organizations can train and cultivate a new generation of service team members.

Program Background

The TAA Education Foundation **(TAAEF)** is dedicated to attracting new talent to the Texas rental housing industry by raising awareness about careers in multifamily, helping to support training programs for those new to the industry and supporting TAA members to recruit and retain their most valuable resource: their people.

One key initiative is the **Apartment Maintenance Professionals program**, which offers training in the nationally recognized CAMT (Certificate for Apartment Maintenance Technician) curriculum. This program has seen success by partnering with workforce development organizations and community colleges. Notably, the partnership with Goodwill Industries, specifically Goodwill Houston, led to the launch of local courses in 2016, with strong support from the Houston Apartment Association.

In 2022, **Goodwill Houston** added an apprenticeship component to the Apartment Maintenance Professionals course, allowing students to gain hands-on experience while obtaining their Certificate of Apartment Maintenance Technician or CAMT designation (provisional with one year of work experience). This model proved highly beneficial to both the employer, **Camden Property Trust**, and apprentices. While this partnership-based setup is effective and ideal, not all companies have access to such workforce development partners.

Understanding Value

The success of the program in Houston demonstrates the potential of apprenticeship programs. **Engaged** apprentices become valuable team members, leading to a pipeline of talent and, in some cases, an absence of open entry-level positions available – an unprecedented scenario.

The goal is to *replicate this success* for other individuals, companies, and geographic locations. Although not everyone can partner with a workforce development organization, every company can develop an effective program tailored for their specific requirements.

While this guide is focused on apprenticeships, its **principles can be adapted** for other training opportunities, such as internships or onboarding. Investing in employee development builds loyalty and helps shape professionals who are hard to find in the job market.

This guide aims to provide a maintenance apprenticeship program framework that is customizable, catering to companies of all sizes and needs.



This Guide is Customizable

This Guide is Divided into 3 Sections:

- 1 Getting Started
- 2 Program Cirriculum
- 3 Supporting Your Program

It is intended to be:



Flexible – for the realities of property management and that the days do not always go as planned.



For organizations of any size, big or small



A resource, providing tips and tools to make the program a success for the apprentices and your company.

Getting Started

The key to a successful program is clear communication with all involved parties. Setting expectations for apprentices and team members alike is crucial. Securing buy-in and involvement from all stakeholders strengthens the program and ensures active participation, making a meaningful initiative for everyone involved.



Culture Fit - Determine if this type of program aligns with your organization's culture and whether stakeholders are willing to invest the necessary time and resources to train and support the apprentices and the program. Addressing this question beforehand is essential for the program's success.



Budget - While the program can be affordable, planning and budgeting are vital. Consider financial-related aspects. Refer to the appendix for a budgeting worksheet..



Finding Your Apprentices – For the purposes of this guide, your apprentices can be new hires, interns, or other individuals. Refer to page 25 for more information on recruiting and eligibility.



Finding the Right Service Teams and Properties – Choosing suitable apprenticeship properties is vital. Make sure the maintenance supervisor or trainer has time for dedicated guidance without compromising property or resident success.

Communications & Engagement

Our experiences with apprenticeship programs show that the #1 most important thing is communication.

12 Apprentices

13 Service Teams

13 Onsite Teams

14 Human Resources

15 Leadership

Apprentices

For the apprentice, be clear with timelines, expectations, and tasks.

Key items to consider:



Pre-start Zoom Call - Consider a pre-start zoom call with the maintenance supervisor, program manager, HR and whomever else you feel appropriate to outline expectations, daily routines, and evaluation procedures. This also provides the opportunity to share your excitement about having them with your team and to start to get to know them.



Information Sheet - Provide apprentices with an information sheet detailing essential property details, contacts, and other key information.



Welcome Lunch – For the purposes of this guide, your apprentices can be new hires, interns, or other individuals.



Evaluations - Offer consistent and constructive feedback to apprentices, scheduling regular check-ins and evaluations.



Career Paths – Share what happens after the apprenticeship and discuss potential career paths and opportunities within the company following the program.





Service Teams



Engage maintenance supervisors and teams early in the apprenticeship program development process to discuss goals and expectations.



Clearly communicate time and management expectations, considering how their daily responsibilities might change or increase during the program.



Consider mentors or a buddy on the property for the apprentices to facilitate knowledge transfer and foster a supportive learning environment.

Onsite Teams



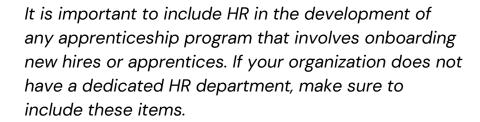
Involve all property team members and leadership in welcoming the apprentices and making them feel part of the team.



Keep everyone informed about schedules and expectations for both apprentices and onsite team members.



HR



Additional information about roles for HR can be found on page 27.

As they relate to apprentices and the apprenticeship program, the HR department should:



Ensure compliance with legal and regulatory requirements.



Define recruiting and selection criteria for candidates.



Work with program managers and Maintenance Supervisors to establish a comprehensive evaluation system.



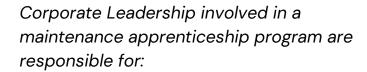
Provide clarity on compensation, benefits, and company DE&I (Diversity, Equity & Inclusion) policies.



Establish key performance indicators (KPIs) to measure the program's success and regularly assess effectiveness.



Leadership





Ensuring the maintenance apprenticeship program aligns with the company's overall goals and mission.



Allocating the necessary financial, logistical and HR resources to establish and maintain the program. Please see section on budgeting for an apprenticeship program on page 21.



Demonstrating continuous and visible support for the program among senior leaders and executives.



Exploring partnerships with external stakeholders, such as supplier partners and local apartment associations, to support and engage your apprentices.



Incorporating the program into your company's long-term workforce planning strategy.



Committing to continuous improvement and supporting ongoing evaluations of the program.

Program Curriculum

This maintenance apprenticeship program is specifically designed to equip individuals with the fundamental skills and knowledge needed for maintenance in the multifamily rental housing industry. The program is structured to gradually build the skill set of entry-level service team members over a period of approximately 10 weeks. It's important to note that some apprenticeship programs may have coursework or shadowing experiences during part of the day, allowing apprentices to gain a more comprehensive understanding of the industry.

During the 10 weeks, the learning process is broken down into clear categories and tasks, enabling the apprentice to build on their knowledge progressively. Each week is dedicated to a specific focus area, and it is important to involve the apprentice in basic service requests to help reinforce these newly acquired skills. At the end of each week, an evaluation should be conducted to assess the apprentice's progress and identify any areas requiring additional training or support.

While the recommended duration is 10 weeks, the program can be adjusted to suit the specific needs of the apprentice, service team, property, or company. The goal is to ensure that by the end of the program, the apprentice has learned essential skills, showcased their abilities and is ready to become a valuable member of the maintenance team.

The apprenticeship program's training will be primarily conducted by the current maintenance team and supervisor.

We believe that once the apprentice has successfully completed the program and can demonstrate their new skills, they will have become a valuable member of the team and will contribute more as such.



Program Structure

For a successful program, it is essential to clearly outline its structure and components. Before starting the program, ensure that the apprentices understand what is expected of them and provide the following information:

See page 56 for a sample document to share with participants.



Start and end dates



Hours per week, Total Number of hours required.



Skills to be learned



Evaluations schedule

Week-by-Week Training Outline

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Getting to know your Company & Property



Safety Procedures



Painting & Make Ready



Common Area Maintenance



Pool Maintenance



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Plumbing



Electrical



Appliances



HVAC



Evaluation & Review







Funding & Progam Support

As you undertake the development and management of an apprenticeship program, it's crucial to have the necessary resources to ensure the best outcomes. Here are some considerations and opportunities for support:



Budgeting and Offsetting Costs



Recruiting Talent



Program Promotion

Budgeting & Offsetting Costs

HOW THE STATE CAN HELP

The program budget needs to be able to support program-related training and development, as well as provide a bonus or incentive for team members who actively teach and mentor apprentices. To do this, you need to **ensure you have sufficient funds within your budget to accomplish these initiatives.** There may be additional available funds from the State, through the Department of Labor (DOL) Texas Workforce Commission and Workforce Solutions, to help offset these costs.

The state works with employers and provides incentives to companies that provide opportunities to individuals who are ready to work, helping companies upgrade the skills of current employees or new hires. Your local Workforce Solution Career Office is also a resource for recruiting and hiring (See page 25 for more information). These offices are governed by local workforce boards with funding provided by the states. There are a variety of tax and monetary incentives available, and a Workforce Solutions representative, likely in the Employer Relations Department, will be able to discuss the opportunities that best suit your company.

When speaking with the Workforce Solution representative, be sure to discuss opportunities for both apprentices and new hires, as your business could qualify for one or both. Depending on whether you utilize an "apprenticeship" or "non-apprenticeship" source, funding may be attached to different programs and easier to obtain, one way or another. For example, in some cases, an employer can receive reimbursement for a percentage of the new hire's salary for a specified number of hours during the training period. This is why it's important to discuss your options thoroughly with the Workforce Solution representative ahead of the launch of any program to clearly understand the responsibilities and opportunities as an employer.

Incentives & Benefits for Employers

There are a variety of ways to partner with the state to receive incentives and benefits related to hiring and mentoring apprentices and new employees who seek job opportunities and growth. As outlined above, it's important to work directly with a representative from the Workforce Solutions department who can help you navigate the inventive opportunities and funding programs.

Is My Company Eligible?

You must discuss eligibility directly with your local workforce development board representative. Typically, an organization is eligible for these kinds of incentives if the employer can answer yes to all the following questions:



DOES THE EMPLOYER HAVE AT LEAST 3 W-2 EMPLOYEES?



DOES THE POSITION PAY AT LEAST \$12.00/HOUR?



DOES THE EMPLOYER OFFER TRAINING?



IS THE OPENING FOR 30 HOURS OR MORE A WEEK?



IS THE POSITION A NON-SEASONAL/PERMANENT POSITION?

If yes to all, you could be eligible.

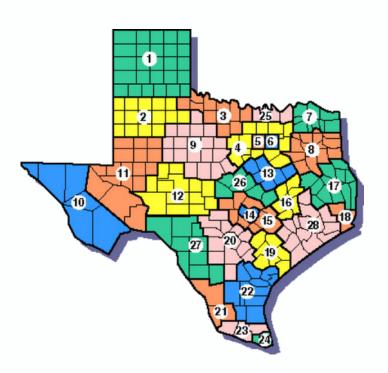
Who to Contact?

If you'd like to learn more about opportunities for incentives that may be available for your company, contact your workforce development board.

In most cases, you'll reach out to "Employer Services."

See the following page to find your area Workforce Development Board website.

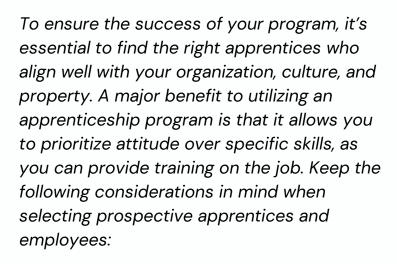
Texas Workforce Development Board Websites



- 1. Workforce Solutions Panhandle
- 2. Workforce Solutions South Plains
- 3. Workforce Solutions North Texas
- 4. Workforce Solutions for North Central Texas
- 5. Workforce Solutions for Tarrant County
- 6. Workforce Solutions Greater Dallas
- 7. Workforce Solutions Northeast Texas
- 8. Workforce Solutions East Texas
- 9. Workforce Solutions of West Central Texas
- 10. Workforce Solutions Borderplex
- 11. Workforce Solutions Permian Basin
- 12. Workforce Solutions Concho Valley
- 13. Workforce Solutions for the Heart of Texas
- 14. Workforce Solutions Capital Area
- 15. Workforce Solutions Rural Capital Area
- 16. Workforce Solutions Brazos Valley
- 17. Workforce Solutions Deep East Texas
- 18. Workforce Solutions Southeast Texas
- 19. Workforce Solutions Golden Crescent
- 20. Workforce Solutions Alamo
- 21. Workforce Solutions for South Texas
- 22. Workforce Solutions of the Coastal Bend
- 23. Workforce Solutions Lower Rio Grande Valley
- 24. Workforce Solutions Cameron
- 25. Workforce Solutions Texoma
- 26. Workforce Solutions of Central Texas
- 27. Workforce Solutions Middle Rio Grande
- 28. Workforce Solutions Gulf Coast



Recruiting Talent





Look for individuals who demonstrate a genuine interest in the opportunity and show enthusiasm for learning.



Seek candidates who have a natural inclination for problem- solving, troubleshooting, and hands-on work.



Prioritize candidates with a strong work ethic and reliability. Dependability is crucial in the multifamily maintenance industry, as it ensures timely and effective completion of tasks.



Communication skills are important, so look for candidates who can articulate clearly and are comfortable seeking guidance or asking questions when needed.



Fit matters. Will the candidate be a good fit for the property and team?



Ensure that candidate background checks align with company policies.

By carefully selecting apprentices who possess these qualities, you can enhance the the overall success of your program, and build a skilled and committed maintenance team.



Recruiting Resources





WORKFORCE DEVELOPMENT BOARDS

Workforce Development Boards can help find program participants. They have recruiting and hiring services to aid in your search for prospective apprentices or trainees. Some Workforce Development Boards will host information sessions or put on hiring events on your behalf. Visit their jobs website:

WWW.WORKINTEXAS.COM







TEXAS APARTMENT ASSOCIATION CAREER CENTER

TAA's Career Center allows employers to post job openings throughout Texas and reach job seekers with an expanded network that includes LinkedIn, ZipRecruiter, Google for Jobs, and more. TAA members receive discounted rates, which 100% support the local apartment associations. Employers can screen and manage potential candidates end to end, and you can set alerts for new resumes and search resumes uploaded in the database.

TAA Education Foundation's Room to Grow awareness-raising campaign directs all job seekers to the TAA Career Center. Post opportunities and view resumes at TAA's Career Center.

WWW.TAA.ORG/CAREERS



Recruiting Resources



WORKFORCE DEVELOPMENT NON-PROFIT ORGANIZATIONS

Connect with local workforce development nonprofit organizations in your area, like Goodwill Industries, who may have clients who are eligible for your available opportunities.



YOUR EMPLOYEES & YOUR RESIDENTS

Engage your current employees in recruiting and consider referral bonuses for this type of program as well. Reach out to your residents, you may have your next great employee onsite. Utilize resources from TAAEF to promote opportunties.

Program Promotion

It is important to outline strategies to promote the apprenticeship program to potential applicants and to your workforce development board, educational institutions, and community organizations who may have students or clients interested in the opportunity.

After running the program, highlight success stories or testimonials from past apprentices using online platform, social media, and industry related networks to increase program visibility.

Please share your success stories with TAAEF and let us share . Reach out to taaef@taa.org

HR Support & Role

Building this type of program often falls to the HR department. Here, you'll find a more in-depth explanation of the role that the HR department can play in the development and implementation of an apprenticeship program.

If you do not have an HR department, make sure these items are addressed.

Eligibility – Define the qualifications and prerequisites for potential applicants that align with your company's current guidelines. This ensures that candidates who complete the program are eligible for potential employment within the organization.

Recruitment & Selection – HR is typically responsible for attracting and selecting candidates for the apprenticeship program. Encourage HR to utilize the recruiting resources mentioned earlier to find suitable candidates.

Program Coordination – If suitable, HR can take on the role of overseeing or assisting in the coordination of the program. This involves ensuring that all logistical aspects, such as scheduling, resources, and training materials, are well-organized and implemented smoothly.

HR Support & Role

Risk & Compliance – HR is essential in ensuring that the program adheres to relevant laws, regulations, and internal policies. They should ensure that proper documentation, contracts, and agreements are in place for the apprenticeship program, especially if the company is receiving incentives from a Workforce Development Board.

Mentorship - If your program includes mentorship, HR may be best suited to facilitate the selection and assignment of mentors. They can also provide ongoing support to mentors throughout the training process.

Evaluations – Performance evaluations of both the apprentices and the program itself are crucial for continuous improvement. HR can collaborate with key leaders to conduct evaluations and gather valuable feedback.

Additionally, HR's involvement can extend to developing training materials and processes, arranging supplemental training sessions, assisting with career planning for apprentices, and resolving any issues that may arise during the program.

By integrating HR into the apprenticeship program at various stages, you can ensure its effective implementation, compliance with regulations, and the overall success of both the apprentices and your organization.



Evaluation

Evaluating your program is important to the long-term effectiveness and ongoing program improvements. In evaluating your program, consider the following:

Clear Goals and Objectives - It's essential to have clear and measurable goals and objectives at the start of the program. These should align with the organization's needs. The evaluation should assess the ability to meet the defined goals and objectives.

Key Performance Indicators - What are the specific KPIs that will be used to measure the success of the program. These could include completion rates, skills gained, retention rates and more.

Regular Assessment – It is important to have regular assessments throughout the program. These can be ongoing through the program and at the end of the program for an apprentice or cohort. Ongoing assessments allow for timely intervention if needed.

Provide Feedback Mechanisms – Establish opportunities for all involved to give feedback regarding their involvement in the program. Collecting feedback, especially from not only the apprentices, provides valuable insights into the program's strengths and weaknesses and helps in ongoing improvements.

Tracking Career Progression - Monitor the success and career progression of former apprentices to determine if and how the program prepared them for their current and possible future roles.

Return on Investment - Assess the program's ROI by comparing the costs incurred to run the program against the benefits and people it brings to the organization. Consider factors such as reduced recruitment costs, higher retention rates, and improved productivity.

Continuous Improvement – Regularly review and adjust the apprenticeship program to meet the changing needs of the industry and technological advances. A flexible program stays relevant. Use evaluation findings to continue to make improvements to enhance the overall quality and effectiveness of the program.

Conclusion: Commitment to Excellence in Maintenance Apprenticeship

THE MAINTENANCE APPRENTICESHIP GUIDE FOR MULTIFAMILY OFFERS A WELL-STRUCTURED AND COMPREHENSIVE PROGRAM TO DEVELOP SKILLED AND KNOWLEDGEABLE MAINTENANCE PROFESSIONALS IN THE MULTIFAMILY RENTAL HOUSING INDUSTRY.

BY FOCUSING ON SAFETY, HANDS-ON TRAINING, AND WORKING WITH MORE SEASONED PROFESSIONALS OR MENTORS, THIS GUIDE AIMS TO CREATE VALUABLE TEAM MEMBERS WHO CAN CONTRIBUTE SIGNIFICANTLY TO THEIR ORGANIZATIONS.

AS WE CONTINUE TO EVALUATE AND IMPROVE THE PROGRAM, WE ARE COMMITTED TO PROVIDING THE BEST RESOURCES AND OPPORTUNITIES FOR ASPIRING APPRENTICES, ENSURING THEIR SUCCESS AND GROWTH.



Thank You!

Thank you to the following individuals and organizations for their assistance in the development of this guide.





Thomas Marmolejo, Camden Property Trust
Lorena Martinez, El Paso Apartment Association
Jimmy McClung, Luma Residential
Vanessa Rankin, Organized Kaos Media
Melissa Rhoades, Greystar
Floyd Smith, The Dinerstein Companies
Lauren Turner, Houston Apartment Association
Richard Whatcott, Camden Property Trust
Helen Whitcher, Whitcher Consulting

Appendices



Week-by-Week Training Outline

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Getting to know your Company & Property



Safety Procedure



Painting & Make Ready



Common Area Maintenance



Pool Maintenance



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Plumbing



Electrical



Appliances



HVAC



Evaluation & Review



Getting to Know Your Company & Property

This will focus on company onboarding and familiarizing the apprentice with the property. It involves:



At the end of the week, conduct a review to assess observed strengths and identify areas for improvement.

Walking the property and understanding its layout.
Meeting with all members of the onsite team.
Sharing contact information for team members.
Shadowing the maintenance

Ш	related to work orders.
	Learning about company values and culture.
	Review of employee handbook/procedures
	Meeting with the mentor if a part of program.

Safety Procedures

videos from company or other sources.

Safety is of the utmost importance in At the end of the week, conduct a maintenance work. This week's training review to assess observed strengths and covers: identify areas for improvement. Demonstrating the proper use of **Emergency procedures and policies** personal protective equipment (PPE) including the emergency evaluation plan. and safety equipment. Assessing the apprentice's base Familiarizing the apprentice with knowledge of safety protocols and emergency contact list/vendors/who to reinforcing any unclear aspects. contact in case of emergency. Discuss any permits or licenses to be Watching training and safety education

aware of.

Painting/ Make Ready

This week concentrates on preparing At the end of the week, conduct a apartments for new residents and basic review to assess observed strengths and painting skills. The training includes: identify areas for improvement. Teaching the apprentice how to touch up Walking the apprentice through a paint and use paint sprayers. This includes vacant unit to identify what needs to be talking about the specific PPE for using done for turnover. (Teaching them to sprayers and related OSHA requirements. walk right to left.) Practicing caulking and discussing its Time management for make-ready importance. tasks. Introducing painting techniques, types of Allowing the apprentice to paint a unit and brushes, rollers, paints, and sheens. make necessary repairs to assess their skills. **Introduction to Smart Home Technology** (if applicable to the property).

Common Area Maintenance



This week's focus is on maintaining and inspecting common areas throughout the property, such as fitness centers, garages, business centers, clubhouses, car and dog wash areas, dog parks, and elevators. The training involves:



- Walking through all common area spaces and identifying maintenance requirements.
- Understanding the maintenance requirements of a dog or car wash area:
 - Knowing water shut off locations.
 - Cleaning filtration systems on vacuums and schedules for cleaning.
 - Inspecting drains and hose systems and learning how to make repairs.



 Teaching the importance of keeping the heaters operational and the closets clean and dry



At the end of the week, conduct a review to assess observed strengths and identify areas for improvement.

Proper maintenance for golf carts:

 Keeping distilled water in the batteries and that the terminals are clean and that the brakes, lights, and horns work.

Learning RTU's (if applicable):

- Sharing their functions, areas of service, locations of thermostats, filters, and compressors.
- Testing the system.
- Reviewing importance of inspecting elevators (if applicable).
 - Inspecting the track for debris
 - Inspecting the cab for damages and for proper operation
 - Testing the emergency phone, bell and alarm.
 - Checking the elevator machine room for oil leaks, HVAC functionality, lights are operating, or any abnormal sounds or metal shavings on the floor.
 - Sharing contact information in case of an emergency.

Pool Maintenance



Week 5 is dedicated to pool maintenance which requires knowledge and attention to pool chemistry. This training includes:



At the end of the week, conduct a review to assess observed strengths and identify areas for improvement.



Share certification and advancement opportunities: **Certified Pool Operator**

Ш	explaining the pool filtration process and the significance of water chemistry.
	Demonstrating water testing and its importance for safety reasons. Discussing pH, chlorine, calcium hardness and alkalinity.
	Teaching the apprentice how to maintain and repair pool pumps and other pool equipment including:

- Identify PPE equipment such as face shields, gloves, and aprons and outline the importance of always utilizing them.
- Discussing suction entrapment and how to protect against it.
- Explaining VGBS 2008 and compliance.
- Testing all pool gates and other related safety items related to the pool.

- Maintaining the pool pump, pump strainer, filter, chlorinator, skimmer basket, and heater.
- Using cleaning tools such as the vacuum, dolphin self-cleaning tool, and brushes.

Plumbing

At the end of the week, conduct a This week is all about plumbing fundamentals. The training should include: review to assess observed strengths and identify areas for improvement. Review plumbing specific safety items. Explaining the setup of bathroom sinks and kitchen sinks with garbage disposal. • Taking apart a bathroom sink to reassemble the drain Introducing plumbing systems in the and p-trap, discussing the importance of proper flow property and their components. away from the sink to get adequate drainage. Teaching how to install garbage disposal as well as the Describing how water travels through the pipes and p-traps. building and into the apartment. Showing shut off locations for the unit and the Discussing shower valves, diverters, shower entire building and discussing what to do in an cartridges and CPVC and copper pipes. emergency. Demonstrating how to replace angle Familiarizing the apprentice with water stops and compression fittings. heaters and their basic functions and safety related issues.

Electrical

Electrical knowledge is essential for maintenance work. This week focuses on basic electrical concepts, safety protocols and hands-on practice. This training includes:



At the end of the week, conduct a review to assess observed strengths and identify areas for improvement.

Discuss electrical specific safety items.
Review Outlining the basics of electrical circuits, multimeters, and breaker panels.
Walking through the lockout tag out kit and showing them how to use it.

1	Demonstrating how to test receptacles
_	and work with GFCI (Ground Fault Circuit
	Interrupter) receptacles.

Teaching the apprentice how to wire
receptacles and troubleshoot electrical
issues.

Allowing the apprentice to perform electrica
repairs under supervision. Including if they
have some experience, how to wire up a light
fixture or ceiling fan.

Appliances

to hook up to the drain on the kitchen sink

and the hot water supply line.

At the end of the week, conduct a This week centers around major household appliances review to assess observed strengths commonly found in rental properties. The training includes: and identify areas for improvement. **Explaining the components of repairs** Review specific safety items and how to of ranges, stoves, ovens. safely move appliances. How to pull out and repair an electric coil, as well as the burner on a gas stove. Discuss refrigerators and their components, • Opening the oven and demonstrating the thermostat's location and electric heating elements. including the refrigerant cycle, defrost cycle For a gas stove, walk through the glow ignitor and and the evaporator the burner. • Discussing checking the gas orifices. Cleaning the condenser coils on the bottom or backside of the fridge. **Explaining the components on a washer** and dryer. Teaching microwave repairs, understanding Showing the timer and lid switch, as well as the motor, float, transmission, and pump. components and cost-effective solutions. Opening the dryer and discussing the limit switches and heating elements as well as the importance of ensuring the dryer vent is clean and Covering dishwasher motor, solenoid, and clear. pump motor repairs. Make sure to show how

HVAC



At the end of the week, conduct a HVAC systems are crucial in maintaining a comfortable living environment. This week's review to assess observed strengths training includes: and identify areas for improvement. Share certification and advancement opportunities: EPA 608 Certification Introducing HVAC systems and how they work. Discuss the electrical components of an HVAC system. Review basic safety related to HVAC • Describing the refrigeration cycle and a very basic overview of thermodynamics. Walking through some troubleshooting tips, such as taking temperature readings and Discussing the components of HVAC systems discussing the 20-degree split. and their functions Outlining the importance of proper and Working through super heat and subcooling with and without the utilization preventative maintenance including cleaning of digital gauges, if the tech has basic coils and changing air filters. knowledge and experience.

Review

This week the apprentice will demonstrate to the Maintenance Supervisor what they have learned by walking through the community and the vacant units, identifying different components of HVAC systems and common area mechanical equipment, and through a series of tests in the maintenance shop. This demonstration may also include soldering pipes, constructing PVC drainpipes under a spare sink, installing garbage disposal, and installing a compression angle stop on a piece of pipe. During this review period, any items that were unclear to the apprentice should be re-tested, and additional training may be necessary. Depending on the nature of the additional training, the apprentice may need to complete this work in the shop, a vacant apartment, or a service request.





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WELCOME

LEARN ABOUT YOUR COMPANY SHADOW THE TEAM

SHADOW THE TEAM

REVIEW DAYS 1-4

Day 1 - Welcome

• Assume that onboarding processes and welcoming the individuals to the team may take the first full day.

Day 2 – Learn About Your Company

- Learn about the company's values and culture.
- Meet with a mentor if part of the apprenticeship program.

Day 3 & 4 - Shadow the Team

- Walk the property.
- Discuss apps and technologies required for their work, especially related to work orders.
- Have them meet with not only the service team members but leasing and office staff as well.

Day 5 – Review days 1-4.

Look for opportunities to have them show off what they've learned during turns or service requests.

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SHARE BASIC EMERGENCY PROCEDURES AND REVIEW KNOWLEDGE

KNOWING THE PROPERTY

REVIEW DAYS 1-4

Day 1 – 3 – Share Basic Emergency Procedures and Review Knowledge.

- Discuss general safety procedures and supplement with videos and other resources. Topics such as: slip and fall and injury prevention, chemical hazards, ladder procedures and more.
- Walk through vacant units and the shops to review knowledge of:
 - AC unit and understanding of freon. If the tech does not have their certification, consider time for them to study and take the CFC test.
 - Identify where the breaker panel is and discuss lock out tag out kits and safety issues
 - Discuss domestic hot water setup and outline shutoffs for emergencies/repairs (utilize large site map/shutoff location posted in shops where applicable).
 - Walk through the shop and discuss how to find parts and what to do in case they need parts.
 - Cut off valves (electrical and plumbing)
- Discuss company-owned tools versus personally-owned tools. Organizations are encouraged to have a set of tools that the apprentice can utilize or to gift them some basic tools. Consider partnering with a Supplier Partner for these basic tool kits.

Day 4 - Knowing the Property

- Identify all shut-off map locations and walk the technician through how to shut off the water and electricity in the event of an emergency.
- Discuss any permits or licenses to be aware of.

Day 5 – Review days 1-4.

Look for opportunities to have them show off what they've learned this week.

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LEARN TO WALK VACANT UNIT

INTRO TO PAINTING

INTRO TO PAINT SPRAYERS

CAULKING

REVIEW DAYS 1-4

Day 1 - Learning to Walk a Vacant Unit

- Show how to determine what needs to be done to turn the apartment, teaching them to walk right to left.
- Emphasizing time management for make-ready and walk them through any turnover checklists.
- Introduction to Smart Home Technology (if applicable for the property)

Day 2 - Introduction to Painting

- Focus on the steps for a professional paint job.
- Discuss the types of brushes and rollers.
- Discuss different types of paint and sheens.
- How to perform touch-ups.

Day 3 - Introduction to Paint Sprayers

- Introduction to paint sprayers and different components.
- Importance of PPE for using sprayers and related OSHA requirements.
- Have them paint the unit and make repairs and evaluate their skills afterward.

Day 4 - Caulking

- The importance of how to remove and replace caulk and why we do this.
- Tips for caulking.
- Painting can continue if needed.

Day 5 - Review days 1-4.

Look for opportunities to have them show off what they've learned during turns or service requests.

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WALK COMMON AREAS DOG/CAR WASH AREAS GOLF CARTS & SPRINKLER CLOSETS

RTU & ELEVATORS

REVIEW DAYS 1-4

Day 1 - Walk the common area spaces.

- Visit fitness center, garages, clubhouse, business centers, dog wash areas, dog parks, elevators, etc. with an eye towards what to look for and how to make repairs.
- Review the importance of cleanliness of the spaces, lighting and hazards on the property. Work to have the apprentice develop an awareness for theses.

Day 2 -Dog/Car Wash areas (if applicable)

- If you have dog and car wash areas, walk through the following:
 - Water shut off locations.
 - Any filtration system on the vacuum and when to clean it.
 - Drainage inspections

Day 3 -- Sprinkler Closets & Golf Carts (if applicable)

- Sprinkler Closets
 - Keeping the heaters operational.
 - Inspection of any hose systems and how to make repairs.
- · Golf carts
 - The importance of keeping distilled water in the batteries and that the terminals are clean and that the brakes, lights, and horns work.

Day 4 –Remote Terminal Units & Elevators (if applicable)

- If you have RTU's, walk them through the following:
 - What is their function & areas of service
 - Location of thermostats, filters & compressors
 - What to look for and how to test systems
- If you have elevators, make sure to cover:
 - Inspection of the track for debris
 - Inspection of the cab for damages and for proper operation
 - Testing the emergency phone, bell or alarm
 - Check the elevator machine room for oil leaks, HVAC functionality, lights are operating, or any abnormal sounds or metal shavings on the floor.
 - Share who to contact in the event of an emergency.

Day 5 – Review days 1–4.

Find opportunities to have them show off what they've learned this week. Also share opportunities for additional learning or opportunities for the Certified Pool Operator course.

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FILTRATION PROCESS & WATER CHEMISTRY

TEST COMPONENTS & REINFORCE DAY HOW TO USE CLEANING TOOLS TEST ON FILTRATION, PPE & SAFETY **REVIEW DAYS 1-4**

Day 1 – Discuss the filtration process and the importance of water chemistry.

- Walk through the important terms: PH, chlorine, water hardness, alkalinity.
- How we test for them
- How levels of one affect levels for all.
- Show them the pump room and identify the different components and how they work
 - Pool pump, pump strainer, filter, chlorinator, skimmer basket and heater
- Identify PPE equipment such as face shields, gloves, and aprons and the importance of always utilizing them.

Day 2 – Test on different components and reinforce items from day 1 that were not clear.

 Walk the apprentice through testing the water and logging the results.

Day 3 – Walk through different cleaning tools and how to use them.

- How to use the vacuum, dolphin self-cleaning tools, and bushes.
- How to brush the pool service

Day 4 – Test on the filtration process, PPE, and safety procedures

- Test on filtration procedures again
- How to test and log the results
- Ensure correct usage of PPE

Day 5 - Review days 1-4

Look for opportunities to have them show off what they've learned during turns or service requests.

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BASIC PLUMBING KNOWLEDGE

REPLACING PIPES & PARTS

THE KITCHEN SINK

SHOWERS & WATER HEATERS

REVIEW DAYS 1-4

Day 1 - Basic Plumbing Knowledge

- Review plumbing related safety items.
- Discuss how water travels through the building and into the apartment.
- Show them the shut-off locations for the unit and the entire building and discuss what to do in an emergency.

Day 2 - Replacing Pipes, Parts & Toilet Repair

- Open a cabinet and discuss what an angle stop is and how to replace it.
- Show them an angle stop in the maintenance shop and discuss what a compression fitting is and how to install a new one.
- Take apart a bathroom sink and have them assemble the drain and p-trap and outline the importance of proper flow away from the sink to get adequate drainage.
- Basic understanding of how the toilet works..
 Replacing flappers, general repair and troubleshooting.

Day 3 - The Kitchen Sink

- Discuss the components of a kitchen sink including how to install a garbage disposal.
- Have them install a drain and garbage disposal as well as the pipes and p-traps. Outline the importance of proper slope.

Day 4 - Showers & Water Heaters

- Walk through the shower valve and diverter.
- Show them how to change out a diverter and a shower cartridge.
- Discuss when to change out a shower cartridge and when to change out a diverter.
- Have them change them out as well.
- Cover basic functions and safety of water heaters.

Day 5 – Review days 1–4. Look for opportunities to have them show off what they've learned during turns or service requests.

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BASIC ELECTRICAL INTRO

RECEPTACLE & SWITCHES

GFCI

WIRING RECEPTACLES

REVIEW DAYS 1-4

Day 1 - Basic Electrical Introduction

- Review electrical related safety items. Outline the hot and neutral wires and how they flow through a circuit.
- Show them a multimeter and teach them how to use it. Test a receptacle for power.
- Cover the panel 120v vs 240v
- Walk through the lockout tag kit and show how to use it.
- Walk through the basics of how to use a multimeter.

Day 2 - Receptacle & Switches

- Have them shut down the power to an apartment and change a receptacle and a switch.
- Ensure that they know how to test for power first.

Day 3 - GFCI

- Show a GFCI (Ground Fault Circuit Interrupter) and how to test them.
- Walk through opening one up and replacing it.
- Remove the existing GFCI and have them reinstall it.

Day 4 - Wiring Receptacles

- Walk them through how to wire a receptacle so the two plugs work independently from each other. Explain that this can be used for dedicated circuits or switched receptacles.
- Remove the tab on the hot side to demonstrate.
- Make sure they understand how the tab moves power from the top terminal to the bottom until it is broken.

Day 5 – Review days 1–4. Look for opportunities to have them show off what they've learned during turns or service requests.

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REFRIGERATORS

MICROWAVES & RANGES

DISHWASHER

WASHER/DRYER

REVIEW DAYS 1-4

Day 1 - Refrigerators

- Review safety related items to appliances.
- Walk through the refrigerant cycle in a fridge and discuss how the evaporator is in the freezer section and moves air down to the fridge.
- Walk through the defrost cycle and show them the heating element on the coil.
- Discuss what will happen if the defrost cycle does not work and the coils freeze over.
- Talk about cleaning the condenser coils on the bottom or backside of the fridge.

Day 2 – Microwaves & Ranges

- Talk about the different components of a microwave.
- Show them how to replace a door, a control panel, and the magnetron.
- Outline the cost of a new microwave versus a control panel or a magnetron.
- Discuss why we replace entire microwaves when the cost of the part exceeds the cost to replace it and why we salvage the good parts and keep them for other apartments.
- Show them how to install the microwave and the location of the screws in the upper cabinet.
- Discuss the different components of the range.
- Pull an electric coil out and show them how to repair and replace the housing and the coil, as well as the burner on a gas stove.
- Open the oven and demonstrate where the thermostat is and electric heating elements, and on a gas stove walk through the glow ignitor and the burner.
- Discuss checking the gas orifices as well.

Day 3 - Dishwasher

- Show the motor, solenoid, and pump motor on the bottom of the dishwasher.
- Outline how to replace each part and show them how they hook up to the drain on the kitchen sink and the hot water supply line.
- Ensure they know about the knockout on the garbage disposal.

Day 4 - Washer/Dryer

- Share the components of the washer and the dryer
- Walk through the timer and lid switch, the motor, float, transmission and pump.
- Open the dryer and discuss the limit switches, heating elements as well as the importance of ensuring the dryer vent is clean and clear.

Day 5 – Review days 1–4. Look for opportunities to have them show off what they've learned during turns or service requests.

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BASIC INTRO TO HVAC COMPONENTS OF THE SYSTEM

ELECTRICAL COMPONENTS OF THE SYSTEM **TROUBLESHOOTING**

REVIEW DAYS 1-4

Day 1 - Basic Introduction to HVAC

- Review HVAC related items.
- Discuss how HVAC systems work.
- Describe the refrigeration cycle and a very basic overview of thermodynamics.
- Outline the fact that the process of conditioning a space is the removal of heat and that refrigerant is the engine that removes the heat from the apartment to the outside unit. It is then released into the atmosphere where the refrigerant then comes back to the apartment to start the cycle over again.

Day 2 - Components of the system

- Walk through the refrigerant cycle again and outline the different components of the system.
- Discuss how the air travels over the evaporator coils and back into the apartment.
- Identify the condenser unit and describe how the refrigerant travels through the compressor and then out of the condenser coils.
- Talk about the importance of a clean condenser and evaporator coil, as well as the air filter.
- Review the importance of HVAC preventative maintenance and what that schedule looks like.

Day 3 – Electrical components of the systems

 Discuss the electrical components of the HVAC system (thermostat monitors, capacitors, relays, transformers, fan motors, contractor) their purpose, and where they're located.

Day 3 - Cont.

- Discuss how the thermostat monitors the temperature in the space and will call for heat or cooling depending on the settings on the thermostat.
- Walk them through the role of the 24-volt components and how to test each one.

Day 4 - Troubleshooting

- Review the system and what you've covered in the first three days to determine what information has been retained and what needs additional clarification.
- Walk through some troubleshooting tips, such as taking temperature readings.
- Discuss the 20-degree split.
- Discuss the importance of testing versus random replacements.
- If the tech has basic knowledge and experience, work through superheat and subcooling, with and without the utilization of digital gauges.

Day 5 – Review days 1-4.

Look for opportunities to have them show off what they've learned during turns or service requests. Share opportunities for additional learning or opportunities for the EPA 608 Certification course.

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SAFETY PROCEDURES & MAKE READY/PAINTING COMMON AREA MAINTENANCE & POOL MAINTENANCE PLUMBING & ELECTRICAL

APPLIANCES & HVAC

PROGRAM WRAP UP

Budget Worksheet

It is important to plan for and budget for this program.

Here are a few items to consider:



Meals - We've found that sharing meals together with the teams and corporate staff (including maintenance and office) is a key component to engaging the apprentices. Consider budgeting at least three of these meals, one for the beginning, middle, and end of the program.



Bonuses - Consider a bonus for the service team members responsible for the training of the apprentices.



Swag - Outfit your apprentices with company "swag" to welcome them and make them feel part of the team.



Tools - If possible, it would be nice to supply an intro set of tools for each apprentice OR provide a set for each community where they may be placed.

Expenses

DATE	DESCRIPTION	AMOUNT	
TOTAL:			

PROPERTY	INFO
PROPERTY NAME	
PROPERTY ADDRESS	
9	
PROPERTY PHONE	
(B)	
Θ νεν 22··-	4.070
KEY CONT	ACIS
SUPERVISOR NAME	
SUPERVISOR NAME	
SUPERVISOR PHONE	
WHO TO CALL WHEN LATE/SICK	
OTHER KEY CONTACT/ROLE/NUI	MBER

ROGRAM OURS
ROGRAM LENGTH



WEEK	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
1- PROPERTY					REVIEW
2-SAFETY					
3- MAKE READY/PAINT					
4 -COMMON AREAS					
5-POOL					
6-PLUMBING					
7 -ELECTRICAL					
8 - APPLIANCES					
9- HVAC					
10- REVIEW					



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