

## Chapter 10: Site Activities

On a YouthBuild site, construction trainers are involved with a variety of activities beyond those that take place on a regular construction site. Those activities include:

- Work site safety
- Leadership development on the construction site
- Using each construction phase as a learning opportunity
- Teaching effectively
- Linking participants with sub- contractors
- Running an open house
- Evaluating learning on the work site



### Work Site Safety

Work site safety must be a primary concern for both construction trainers and participants. It must be remembered that participants will be undertaking work they have never done before, using tools they are unfamiliar with, and engaging in physical activities that could easily lead to injury if not done properly. Safety is not just about accidents; it is about how to recognize and eliminate hazards, how to identify possible solutions for hazards (including ensuring that engineering and administrative controls are in place first before allowing any PPE on site), how to lift, how to work, and how to work together as a team. As discussed earlier, staff and participants should be provided with formal training in OSHA safety requirements, CPR, and first aid procedures.

### Training at the Start of Construction

The best way to teach participants safe construction techniques is through hands- on demonstrations, modeling, and practice. This can be done in orientation, as part of morning meeting demonstrations, or in vocational education classes. A schedule should be created to ensure that participants receive safety instruction in each of the following areas:

- Use of hand tools
- Lifting heavy materials
- Carrying large materials
- Climbing ladders and scaffolding free of tripping hazards
- Fall prevention
- Use of power tools (several sessions)
- Working around electricity
- First aid
- General workplace safety

## Safety Meetings and Rules

Safety meetings should consist of brief weekly meetings as part of the morning or afternoon meeting on the construction site. Safety meetings don't have to be long, and they can be done daily or weekly. OSHA prefers to use the term "Job Safety Analysis" (JSA) rather than "safety meetings" when working with young participants. The JSA is a procedure which helps integrate accepted safety and health principles and practices into a particular task or job operation and is a good learning tool for youth who are on their first work sites. JSAs are used to describe how to perform a task step-by-step, identify any hazards associated with a task, and determine the necessary controls to mitigate these hazards. In the work site context, safety meetings or JSAs are designed to:

- Review and reinforce safety practices on the site
- Discuss any new safety concerns that have emerged
- Teach specific safety techniques related to a new part of the job
- Point out any unsafe practices or problems with keeping the site safe and clean

Construction staff should prepare a list of construction site rules that will be made available to all participants as well as posted around the site. Some programs have participants make posters illustrating each of the rules to post around the site. The following is a sample list of construction site rules:

### Sample Site Safety Rules

- Everyone, including visitors, must wear hard hats—no exceptions
- Safety equipment must be kept in good repair and broken items reported immediately
- Proper work boots must be worn at all times
- Approved safety glasses must be worn when using power tools or when exposed to eye hazards. In general, it is an accepted safety practice to wear safety glasses throughout the workday.
- Smoking is not allowed on the site
- Alcohol and drugs are prohibited on the site
- People under the influence of drugs and alcohol are prohibited on the site
- The site must be kept well-lit and neat, free of tripping hazards
- Tools cannot be touched until participants are trained in how to use them
- All tools must be in good condition
- Throwing items out of windows is prohibited
- Horseplay on the site is prohibited

### Safety Monitoring

At least one member of the construction staff should be assigned to conduct regular safety inspections and provide reports to the construction manager. Many sites include participants as safety monitors in addition to staff. A sample [YouthBuild Safety Program](#) policy statement describes the roles of staff and participants in monitoring site safety and can be found in Appendix B.

A cluttered work environment promotes cluttered thinking and haphazard teaching; it is therefore essential that tools be returned immediately after their use, dropped nails and screws be picked up, materials be stacked properly and that work stop fifteen minutes early each day to ensure that the floors are swept and that everything is put in its proper place. Participants should be assigned responsibility for their particular work areas and for the equipment they have used. This responsibility should be monitored diligently by staff, and safety concerns should be brought up and discussed at safety meetings.

## **Leadership Development on the Work Site**

The construction site provides tremendous opportunities to teach participants to take responsibility for themselves, for those around them, and for the project as a whole. This means giving participants opportunities to take responsibility and not just directions. Below are ten examples of ways to incorporate leadership development into the construction site:

1. Give all the participants an overview of the entire construction process and timetable, the sources of funding and costs, and the subcontracting process. Teach them how to read the plans and explain what will happen to the building when it's finished.
2. Create official jobs for participants to serve in leadership roles, such as:
  - Crew chiefs who help coordinate the work of a crew of participants (under professional supervision) and ensure that the work area is cleaned up at end of the day
  - A steward who is responsible for taking attendance, calling breaks, calling clean up, maintaining the water cooler, and running errands with staff
  - A first aid and safety coordinator who monitors work site safety and reports problems or violations, maintains the first aid kit, prepares for and helps run safety meetings, and may serve on a safety committee of the organization
  - An environmental impact assessor who ensures that the work site is managed in an environmentally responsible manner, such as coordinating waste management, recycling, and other green building practices that the program has committed to doing
  - A photographer who documents the work in progress
  - A journalist who reports on the work for use both internally and for program partners via the website, social media, blogs, public relations, press releases and other communications
  - A tool manager who signs out tools to participants and conducts tool inventory
  - Some programs rotate participant crew chiefs every week, giving all students an opportunity to lead the crew. At one YouthBuild program, after all participants have had the opportunity to serve as crew chief once, the crew elects a permanent crew chief.
3. Take a participant to construction meetings with the general contractor or developer or to contract negotiations.
4. Take a participant to City Hall when permits are being obtained or expose participants to other opportunities to learn how the system works.
5. Involve participants in planning, including purchasing materials or scheduling. Have them explain the process to other participants.
6. Have a participant help to run morning or afternoon meetings on the work site.

7. Ask participants to come up with a solution to a particular problem on the site (such as meeting a deadline, keeping the site cleaner, improving attendance, or improving teamwork).
8. Have participants give tours to visitors who come to the site.
9. Have participants work on estimating and doing take-offs on parts of the project. This can double as a math assignment.
10. Ask participants to evaluate the construction staff, the training process, and each other.

## Teaching Construction Skills Effectively

When teaching construction skills on the work site, many of the same techniques described in Chapter Seven: Vocational Education in a YouthBuild Program can be used. The following suggestions will help to ensure that the participants understand what is being taught:

1. **Explain the purpose of each lesson.** Always tell participants what will be taught and why it is important that they understand this information. Give examples from real work situations.
2. **Use and teach correct vocabulary.** Participants will learn construction terms by hearing them over and over again.
3. **Encourage information sharing.** Before teaching anything, find out what participants already know. Ask them questions about the topic, and ask them to describe other experiences they have had with the topic.
5. **Give clear, step-by-step instructions.** When explaining something new, use language that the participants will understand. Give the information a little at a time. Give step-by-step instructions, repeat them frequently, and ask participants to repeat them. Asking participants to explain how something is to be done is often a more effective way to ensure learning than just having them do the task.
6. **Demonstrate skills.** Demonstration is essential to teaching construction skills because it requires the participant to recall the instructions given verbally and/or visually in order to actively do the task. Reading, watching, and listening are passive forms of learning, while demonstration is an active application of knowledge. Participants are more likely to retain the information if they have engaged in demonstrating and practicing the skills that they have read about, heard through verbal instruction, and watched another person perform correctly. Chapter Seven: Vocational Education in a YouthBuild Program has a few specific suggestions and guidelines for implementing effective demonstrations.



7. **Encourage peer teaching.** Participants themselves are an excellent source of knowledge and experience. Participants are often most effective at explaining things to their peers. By asking participants to help each other, the learner gets extra help and the participant teacher has the chance to reinforce his or her skills through demonstration and explanation. Encourage peer teaching by having participants:
  - Demonstrate skills to each other as a review
  - Write instructions for others to follow
  - Make videotapes of demonstrations
8. **Rotate participant responsibilities.** Make sure that everyone has a chance to learn all aspects of the job.
9. **Rotate instructors.** Different instructors have different teaching styles and different strengths. Although participants may initially complain, they will learn more if they have the opportunity to experience different instructors.
10. **Incorporate reading and writing whenever possible.** Participants can be shown the relationship between construction and academics in a variety of subtle ways, both on the work site and in the vocational education class. Incorporate reading by having participants:
  - Read instructions
  - Read diagrams
  - Read ingredients
  - Refer to information on wall charts, posters, or reference books to get information
  - Write descriptions or instructions of construction techniques
  - Read the written descriptions or instructions of other participants
  - Read trade magazines such as *Fine Homebuilding*, select articles and present to the group for discussion
11. **Assign problem-solving activities.** Problem solving is an important skill in construction. The work site and vocational education class provide many opportunities for participants to learn this skill. Ask students to come up with solutions to real problems that the staff are grappling with (such as deadlines, materials shortages, inadequate workmanship, safety problems, etc.) Have a group of participants brainstorm possible solutions. When staff arrive at a final solution, explain to the participants how staff came to that solution.
12. **Regularly assess participant progress.** Do it informally every day as part of the supervision of students. Observe and make mental notes about who needs help with certain skills. Formally, ask participants to demonstrate skills that they learned that day, after they have had time to practice. When formally assessing participant skills, remember to:
  - Give participants adequate notice of assessment and time for review
  - Assess only skills that have been fully taught
  - Test for skill knowledge, not for reading ability, and use demonstrations more than written tests
  - Use the results to plan future teaching—continue to work with participants who need more help
  - Use the results to give participants feedback, not to grade them
  - Recognize even small achievements

- Make it fun and relevant
- Meet participants where they are

## Participants Working with Subcontractors

Many YouthBuild sites have been able to arrange for participants to work as assistants to electrical, plumbing, and other subcontractors on the YouthBuild project in order to gain additional experience beyond carpentry trades. Working with a subcontractor can be a reward for outstanding performance, motivating other participants to improve their attendance and initiative on the job. Arrangements for participants to be assigned in this manner must be made with the subcontractor at the time of contract execution. When the subcontractor arrives on the site, the participant(s) who will be assigned should be introduced by the construction staff. The construction staff and subcontractor should review the subcontracting work that will be done, the role the participant will play in assisting with the work, and the objective of creating a learning experience. Construction staff cannot just assume that a sub-contractor will take the time to provide training and information to the participant and must be sure to check in on this process regularly.

Successful experiences on the construction site will often make it possible to place a participant as an intern with a subcontractor before graduation or to line up jobs with subcontractors for participants after exit.

## Running an Open House

Holding an open house is a good way of introducing the YouthBuild program to funders, politicians, the media, the local community, and other potential supporters. It is also a good way to publicly acknowledge and celebrate participants' accomplishments. Open houses are terrific opportunities for leadership development with the young people. Open houses may be held at the beginning of a project, during the project, or upon completion of a project.

In preparing for an open house, consider the following steps:

- Make sure the site is completely clear and safe for visitors.
- Assign specific participants to serve as tour guides. Depending on the number of visitors and the size of the building, it may be necessary to have several different tour guides simultaneously take groups to different floors, since space may be cramped.
- Prepare participants for questions from visitors. Participants should know what the building will be used for once it is completed and should be able to identify each of the rooms. They should also be able to use proper vocabulary in explaining the work that they have done so far. They should be able to show architectural plans to the visitors and explain the plans to them.
- Television stations like to get visual pictures of the participants at work. It takes some thought and planning to figure out how to provide those visual images while protecting the visitors from the danger of work on a construction site. Some YouthBuild programs set aside a



specific time during the open house for a group of participants to work on a small project in a specific area of the building to provide television crews with photo opportunities. One YouthBuild site actually constructed a wall in advance and simply assembled it as part of the open house ceremony. Be creative, but most of all, be safe.

## **Evaluating Learning on the Work Site**

Regular times should be built into the schedule to observe and assess participant skills. Informal observation is often the best way to assess participant skills. In addition, during a morning meeting, demonstration time, or afternoon meeting, instructors can give participants opportunities to demonstrate their skills.

In collaboration with the vocational instructor, construction trainers can observe or test participants as they perform each skill, then use the Construction Competency Checklist to record the skill that has been learned. Only those skills that participants can repeatedly perform successfully should be checked.

Participant skills can be recognized in a visual way, such as by displaying a chart on the wall in which participants are given checks when they perform a skill correctly. Another way is to create merit stickers or badges that participants can put on their hardhats, signifying their ability to perform skills or certifying them to use power tools. Participants will eagerly anticipate assessments if they feel they will be recognized for real achievement, and they will develop a sense of confidence in their ability to learn new skills.

The program may want to conduct formal, bimonthly written evaluations of all participants, providing them with feedback about their work habits and their skills. Written evaluations should follow a consistent format for all participants, and trainers should coordinate their evaluations so that participants are evaluated by all staff on the same standards.

## **Conclusion**

Housing construction offers YouthBuild participants a rare opportunity to work in service to their communities while building their own skills, knowledge, and sense of self-worth. It is this dual purpose—the development of self and the development of the community—in YouthBuild construction that gives meaning to each participant's efforts on the building site and provides the entire program with a sense of purpose and tangible achievement.

On an individual level, the construction site is a place for participants to learn useful and marketable skills that will serve them throughout their lives. At the same time, while on a construction crew, participants learn the intricacies of teamwork and experience the thrill of group success, which is magnified throughout the program with the completion of the construction projects.

Underlying the construction process are powerful metaphors of tearing down the old and building the new, which can be applied easily to the processes of youth development. It is the role of the YouthBuild staff to facilitate these processes and then to identify and draw from the relevant metaphors provided by the construction process. This handbook offers YouthBuild staff the practical tools for planning and managing an authentic construction operation. However, it is the inspiration, compassion, creativity, and commitment of the staff that imbue the YouthBuild construction work with meaning and opportunities for training young people.

## Resources

### Apprenticeship and Pre-apprenticeship Resources

DOL/HUD Joint Letter on Apprenticeship:

[http://www.doleta.gov/Youth\\_services/pdf/YouthBuild\\_DOL-HUD\\_Joint\\_Letter.pdf](http://www.doleta.gov/Youth_services/pdf/YouthBuild_DOL-HUD_Joint_Letter.pdf)

HUD Section 3 Website: [www.hud.gov/section3](http://www.hud.gov/section3)

HUD-DOL Fact Sheet on Registered Apprenticeships for YouthBuild Graduates:

[http://portal.hud.gov/hudportal/documents/huddoc?id=HUD-DOL\\_Factsheet.pdf](http://portal.hud.gov/hudportal/documents/huddoc?id=HUD-DOL_Factsheet.pdf)

U.S. Department of Labor – Apprenticeship Program Website: <http://www.doleta.gov/oa/>

21st Century Apprenticeship Community of Practice:

<https://21stcenturyapprenticeship.workforce3one.org/>

American Apprenticeship Initiative: <http://doleta.gov/oa/aag.cfm>

New Apprenticeship Website: [www.dol.gov/apprenticeship](http://www.dol.gov/apprenticeship)

Apprenticeship Toolkit: [http://www.doleta.gov/oa/employers/apprenticeship\\_toolkit.pdf](http://www.doleta.gov/oa/employers/apprenticeship_toolkit.pdf)

### Construction Management

National Association of Home Builders (NAHB) Home Builder Contracts & Construction Management Forms: <https://www.nahbcontracts.com/contract.php>

American Institute of Architects (AIA) sample contracts: <https://www.aiacontracts.org/>

Consensus Docs: <http://www.consensusdocs.org/>

### DOL

YouthBuild Community of Practice: <https://youthbuild.workforcegps.org>

### Green Building and Renewable Energy

U.S. Bureau of Labor Statistics Careers in Green Construction:

<https://www.bls.gov/green/construction/construction.pdf>

ENERGY STAR for Affordable Housing and Low-income Housing Communities:

[https://www.energystar.gov/index.cfm?c=affordable\\_housing.affordable\\_housing\\_low\\_income](https://www.energystar.gov/index.cfm?c=affordable_housing.affordable_housing_low_income)

U.S. Department of Energy (DOE) Building America Program:

<https://energy.gov/eere/buildings/building-america-bringing-building-innovations-market>

U.S. Green Building Council (USGBC) Guiding Principles for Green Affordable Housing:

<http://www.usgbc.org/resources/guiding-principles-green-affordable-housing>

Enterprise Green Communities Program: <http://www.enterprisecommunity.org/solutions-and-innovation/green-communities>

The Impact of Green Affordable Housing; A Report by Southface and the Virginia Center for Housing Research: <http://www.southface.org/wp-content/uploads/2016/07/impact-of-green-affordable-housing-executive-summary-1.pdf>