



GBCA SAFETY TOOLBOX TALK

SCAFFOLD ELECTRICAL SAFETY

Scaffolds, an important tool in construction, sometimes pose potential hazards to workers. Electrical hazards are often overlooked when setting up and working on scaffolds. Overhead, powerlines are usually safe from contact because of their distance: they are usually 18.5 to 35 feet above the ground.

Scaffolds, however, increase our height of work, bringing workers closer to the energized powerlines. This toolbox talk covers how to prevent electrocutions and injuries resulting from contact between overhead power lines and conductive tools, materials, or scaffolds.

REMINDERS FOR WORKING ON SCAFFOLDS NEAR POWER LINES

- **LOOK UP!** Be aware of overhead power lines in your work area. Most overhead power lines are NOT insulated.
- Recognize the hazards of moving, erecting, or working from scaffolds near overhead power lines. Review GBCA’s Toolbox Talk on Working Around Overhead Power Lines.
- Conduct initial and daily surveys of the worksite. Implement control measures and training to address hazards at the site.
- Remember that just because a wire has a plastic covering does NOT necessarily mean that it’s insulated.
- Never assume that any wire is below 300V. Contact your local utility company to verify wires’ voltages or to insulate wires.
- Restrict the use of electrically conductive tools or materials where they may contact overhead power lines.
- Be trained in cardiopulmonary resuscitation (CPR). Make sure that someone on the team is trained in CPR.

Scaffolds should not be used or moved within the following minimum clearance distances from overhead power lines (29 CFR 1926.451(f)(6)):

- 3 feet for insulated power lines of less than 300 volts.
- **10 feet for insulated power lines of 300 volts or more.**
- **10 feet for uninsulated power lines of less than 50,000 volts.**

If scaffolds must be used or moved near overhead power lines, appoint a **Competent Person (Spotter)** to observe the clearance between the power lines and the scaffold. This person’s only responsibility is to observe and warn others if the minimum distance is not maintained.

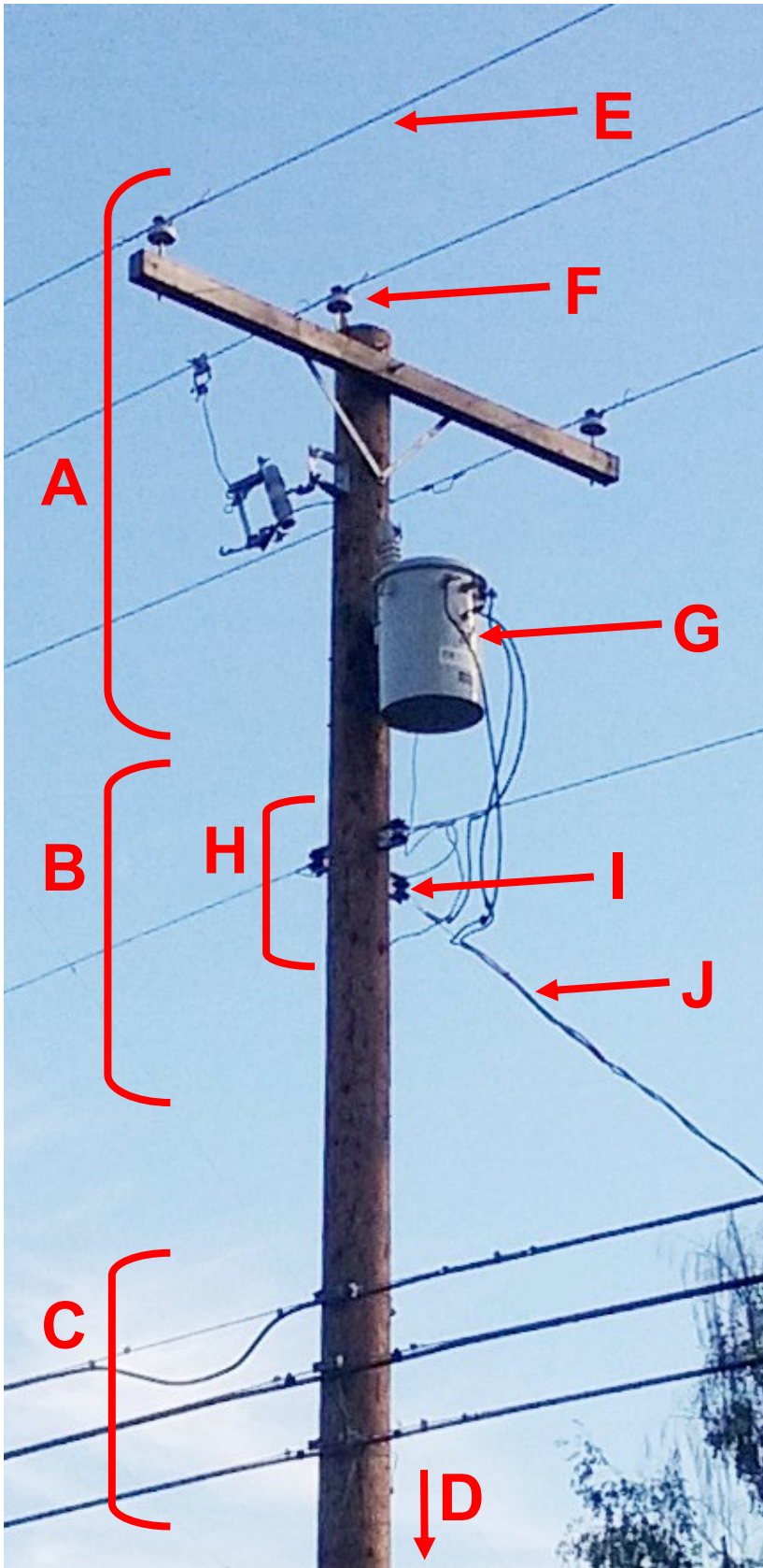
Best Practice: Keep scaffolds 10 feet away from overhead power lines. Even at the Secondary Level, maintain 10 feet unless you explicitly know that the wires are below 300V **AND** insulated.

If minimum clearance cannot be maintained when scaffolds must be erected or moved near overhead power lines, **notify the utility company to de-energize the power lines or provide adequate insulation before any work is initiated.**



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OVERVIEW OF ELECTRICAL POLES

- A. **Primary Level:** Location where primary wires (600V+) are attached.
- B. **Secondary Level:** Location where secondary wires (50-500V) are attached.
- C. **Communication Level:** Location where telecommunications wires (telephone, cable, TV and fiber optics) are attached.
- D. **Public Level:** Location where additional protective materials are used to ensure public safety.
- E. **Primary Wires:** Wires at this location on the pole are high voltage—anything over 600V.
- F. **Primary Insulator:** Device used to isolate the high-voltage wire from the wood (pole or crossarm).
- G. **Transformer:** Used to step down primary voltage power to secondary voltage power usable for residential (e.g. 120V/240V) and commercial customers (e.g. 120V/208V and 277V/480V).
- H. **Secondary Rack & Wires:** Used to support and isolate lower-voltage wires from the pole.
- I. **Secondary Insulator:** Device used to isolate the wire from the wood.
- J. **Secondary or Service Wires:** These wires carry electricity to consumers/homes. These wires can be up to 550V and may or may not be insulated.



GBCA SAFETY TOOLBOX TALK ■ SIGN-IN SHEET

TOOLBOX TALK TOPIC:

EMPLOYER:

PROJECT:

PRESENTER:

DATE:

NAME (PRINTED)

SIGNATURE

COMPANY (IF APPLICABLE)

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NOTES AND QUESTIONS:

<p>PRESENTER SIGNATURE (TO VERIFY ABOVE INFO):</p>
