Training Preview:
‘Top 10 Best Practices for Today’s Homebuilder’

1. **Design for Efficiency**
   - **Code**
   - **Good:** Continuous thermal boundary
   - **Better:** Add right sizing design & systems
   - **Best:** Add optimization with energy modeling

2. **Superior Air Sealing**
   - **Good:** Air Sealing (basic caulking and foaming)
   - **Code/Better:** Fully continuous air barrier + blower door test (advanced caulking and foaming)
   - **Best:** Exterior sheathing sealed (fluid applied, taped or glued sheathing)

3. **High Performance Wall Systems**
   - **Code**
   - **Good:** Intermediate or advanced framing with blown-in insulation
   - **Better:** Single plate with staggered studs + blown (≤ R-27)
   - **Better:** 2x6 with exterior continuous insulation
   - **Best:** R-27 + Insulated sheathing or double stud with blown-in insulation

4. **High R-Value Ceilings**
   - **Code**
   - **Good:** Standard truss, R-21 high density batts or rigid insulation + 1” vent channel at eaves
   - **Better:** Raised heel truss, parallel chord cantilevered truss
   - **Best:** True vaulted ceiling (I-joist)
   - **Best:** Insulated roof above attic

5. **Windows**
   - **Code**
   - **Good:** Proper U-Value and Solar Heat Gain Coefficient (SHGC) for applications
   - **Better:** Window design (avoid too much glazing)
   - **Best:** Daylighting + high performance low U-Value

6. **Ducts and Distribution**
   - **Good:** Seal ducts with mastic
   - **Code/Better:** Seal ducts with mastic and test
   - **Best:** Ducts inside
   - **Best:** Ductless HVAC system
7. Fresh Air Ventilation
   - Code/Good: Exhaust only
   - Code/Better: Supply + exhaust (w/ ECM blower motor)
   - Code/Best: Heat Recovery Ventilator (HRV) or Energy Recovery Ventilator (ERV)

8. Lighting and Appliances
   - Code
     - Good: Energy Star appliances
     - Better: Add heat pump dryer
     - Best: Add induction cooktop

9. Mechanical Systems
   - Code
     - Good: High-efficiency ducted heat pump
     - Good: Condensing gas furnace
     - Better: Ductless heat pump (DHP)
     - Better: Highest efficiency condensing gas furnace
     - Better: Inverter driven ducted heat pump
     - Best: Add heat pump water heater
     - Best: Condensing tankless gas water heater

10. Solar Energy
    - None
    - Good: PV Solar and Electric Vehicle Ready
    - Better: Zero Energy (or ZE Ready)
    - Best: Positive Energy with Electric Vehicle