

## **Level II Advanced Building Science Thermography**

Individuals achieving course requirements for SWA Consulting's Level II Building Science Thermography Certification are considered qualified advanced Building Science Thermographers. This qualifies the Level II Building Science Thermographer to:

- a) understand the limitations and select the appropriate infrared thermography technique for building analysis
- b) apply thermography and building science, knowledge, theory and techniques, including measurement for the interpretation of survey results
- c) specify and use the appropriate hardware and software for building applications
- d) perform advanced diagnostics of thermal anomalies found during thermographic investigations
- e) understand and utilize accepted practices, standards, regulations and statutes for thermographic building investigations
- f) use generally recognized advanced techniques for infrared thermography of buildings and diagnosis of thermal anomalies in accordance with established procedures technique for building evaluations (Heat, Air and Moisture flow)
- g) prepare and provide reports on as-found building condition, faults, irregularities, diagnoses and recommend corrective actions for repair and remediation
- h) implement the use of alternative or supplementary technologies and tools that support or enhance the effectiveness of thermographic investigations of buildings
- i) perform building envelope fault detection and assessment of the thermal, air and moisture barriers
- j) provide guidance to and supervise level I personnel

### **Topics and Applications for Thermal Building Evaluations**

- Evaluating wall systems including; Thermal, Air and Moisture Performance of building systems
- Building Science concepts; Heat, Air and Moisture Flow, including damage functions
- Calculate damage due to heat and moisture conditions.
- Buildings thermal performance, energy audit or energy loss inspection evaluation, calculating heat loss using thermography
- Determine dew point, air temperature and surface temperatures using thermography
- Methodologies for air infiltration and exfiltration studies (Blower doors and mechanical systems)
- Understanding roof moisture thermal procedures
- Conditions and guidelines for thermographic inspections of masonry and concrete block structures
- Procedures, methodology, safety and reporting
- Electrical Wiring/Hot Spots Inspection
- The ability to identify and apply appropriate inspection techniques for building evaluations

