

## APPENDIX A – WAP UNDERTAKINGS EXEMPT FROM SECTION 106 REVIEW

All undertakings will be done in accordance with applicable local building codes or the International Building Code, where applicable. In accordance with 36 CFR 800.3(a)(1), the following undertakings have been determined to have no potential to cause effects on historic properties:

### I. Exterior Work

- A. Air sealing of the building shell, including caulking, weather-stripping, window glazing and in-kind glass replacement on windows and doors, and installing thresholds in a manner that does not harm or obscure historic windows or trim, or prevent them from operating.
- B. Thermal insulation, such as non-toxic fiberglass and foil wrapped, in walls, floors, ceilings, attics, and foundations in a manner that does not harm or damage historic fabric.
- C. The installation of dense pack wall insulation when the following conditions are met:
  - 1. The installation is performed by a qualified contractor who follows the standards and guidelines that OHCS has implemented for dense pack insulation (dry installation) and must meet the maximum air permeance measured using BPI – 102 “Standard for Air Resistance of Thermal Insulation Used in Retrofit Cavity Applications”;
    - i. Cellulose: density of installed insulation must be 3.5 pounds/ cu ft.
    - ii. Fiberglass: density of installed insulation must be 2.5 pounds/cu ft or meet manufacturer’s specifications. Material must meet ASTM C522, E283, or E2178.
  - 2. The building does not display construction methods, techniques, and/or materials that are uniquely susceptible to damage that could be caused by the introduction of wall insulation (e.g., the siding does not appear to be able to withstand removal and replacement; the siding is masonry or stucco; there appear to be unique historic wall assemblies);
  - 3. Portions of the siding are carefully removed before blowing dense pack cellulose into the walls, and then replaced;
  - 4. The exterior wall surface is free from areas where water can leak into the wall cavity (caulking around window openings and other wall penetrations has occurred or is part of the project);
  - 5. There are no untreated wood members in direct contact with the ground, and the distance from the ground to the sill plate is more than 6 inches to keep water from wicking up into the wall cavity;

6. The potential for splash back from rain dripping from roofs is minimized with functioning gutters and/or other water diversion features;
7. There are overhanging eaves, and/or other protection is in place to protect the wall surface from the elements (rain and wind);
8. Post diagnostic testing (blower door tests) results must meet the ASHRAE 62.2-2016 Standard;
9. Number of occupants and use is considered in evaluating expected interior moisture levels; and
10. Exhaust Fans are installed according to ASHRAE 62.2-2016 Standard.

- D. Removable film on windows (if the film is transparent), solar screens, or window louvers, in a manner that does not harm or obscure historic windows or trim.
- E. Reflective roof coating in a manner that matches the historic materials and form, or with materials that restore the original feature based on historic evidence, and in a manner that does not alter the roofline, or where not on a primary roof elevation or visible from the public right-of-way.
- F. Storm windows or doors, and wood screen doors in a manner that does not harm or obscure historic windows or trim.
- G. In-kind replacement or repair of primary windows, doors and door frames. In-kind is defined as an exact replacement of existing material type, design, dimensions, texture, detailing, finish and exterior appearances.
- H. Repair of minor roof and wall leaks prior to insulating attics or walls, provided repairs closely resemble existing surface composite.
- I. Weatherization of mobile homes and trailers.

## II. Interior Work

**Special Note:** Undertakings to interior spaces where the work will not be visible from the public right of way; no structural alterations are made; no demolition of walls, ceilings or floors occurs; no drop ceilings are added; no character defining interior features will be impacted, or no walls are leveled with furring or moved, will be automatically excluded from **SHPO** review. This work includes:

### A. Energy efficiency work within the building shell:

1. Thermal insulation in walls, floors, ceilings, attics, crawl spaces, ducts and foundations

2. Blown in wall insulation installed from the interior where no decorative plaster or character defining features are damaged.
3. Plumbing work, including installation of water heaters
4. Electrical work, including improving lamp efficiency
5. Sealing air leaks using weather stripping, door sweeps, and caulk and sealing major air leaks associated with bypasses, ducts, air conditioning units, etc.
6. Repair or replace water heaters
7. Adding adjustable speed drives such as fans on air handling units, cooling tower fans, and pumps
8. Install insulation on water heater tanks and water heating pipes
9. Install solar water heating systems, provided the structure is not visible from the public right of way
10. Install waste heat recovery devices, including desuperheater water heaters, condensing heat exchangers, heat pump and water heating heat recovery systems, and other energy recovery equipment
11. Repair or replace electric motors and motor controls like variable speed drives
12. Incorporate other lighting technologies such as dimmable ballasts, day lighting controls, and occupant controlled dimming

**B. Work on heating and cooling systems:**

1. Clean, tune, repair or replace heating systems, including furnaces, oilers, heat pumps, vented space heaters, and wood stoves
2. Clean, tune repair or replace cooling systems, including central air conditioners, window air conditioners, heat pumps, and evaporative coolers
3. Install insulation on ducts and heating pipes
4. Conduct other efficiency improvements on heating and cooling systems, including replacing standing pilot lights with electronic ignition devices and installing vent dampers
5. Modify duct and pipe systems so heating and cooling systems operate efficiently and effectively, including adding return ducts, replace diffusers and registers, replace air filters, install thermostatic radiator controls on steam and hot water heating systems
6. Install programmable thermostats, outdoor reset controls, UL listed energy management systems or building automation systems and other HVAC control systems

**C. Energy efficiency work affecting the electric base load of the property:**

1. Convert incandescent lighting to fluorescent
2. Add reflectors, LED exit signs, efficient HID fixtures, and occupancy (motion) sensors
3. Replace refrigerators and other appliances

**D. Health and safety measures**

1. Installing fire, smoke or carbon dioxide detectors / alarms
2. Repair or replace vent systems on fossil-fuel-fired heating systems and water heaters to ensure that combustion gasses draft safely to outside
3. Install mechanical ventilation, in a manner not visible from the public right of way, to ensure adequate indoor air quality if house is air-sealed to building tightness limit