1. This information provides guidelines for asphalt shingles. Temporary facilities and controls are covered in other parts of these standards or are available from the Facilities Management (FM) project representative.

2. FM project representative shall approve selection of materials. Unless otherwise approved, design intent requires means and methods that provide minimal disruption to adjacent building activities and operations.

3. When working on or adjacent to existing buildings, match existing materials as closely as possible.

4. The University requires designer to produce a bid package specifying at least two products, not from the same manufacturer, that are pre-determined to be comparable and acceptable. For any product requiring manufacturer's certification of installer (to ensure warranty), installers may be required to submit certification prior to bid acceptance.

5. Designer shall review choices of proposed materials with FM project representative.

6. Design wind speed per current code and standards for area.

7. Specify products containing an algae-resistant component.

8. Provide each type of roofing from a single manufacturer and supplier.

9. Use of staples prohibited.

10. Nail length to penetrate at least ¾" into solid decking or at least ⅛" through concealed plywood sheathing. Size nail length should NOT penetrate roof sheathing at eaves, rakes, and other exposed areas or detail to be concealed. Use longer nails for hip and ridge applications. All nailing shall follow manufacturer’s recommendations in order to meet warranty and uplift ratings specified. Use 5-6 nails for high wind exposure.

11. Western requires emergency phone numbers of contractor’s personnel capable of responding to a roof-related emergency at all hours including non-working hours and non-working days. Answering service phone numbers are not acceptable for this purpose. Submit numbers to FM project representative.

12. Warranties: as offered by manufacturer of the product selected. Two or three year workmanship warranty applies to most products.
   a. The contractor shall guarantee their work from leakage and other defects for a period of three (3) years. Defects shall be considered, but not limited to, water leakage from the roof and flashing, curling or cupping of shingles, shingles which have blown off, loosening or dislodgement of metal flashing, or excessive loss of surface granules.
   b. The contractor, upon notice by the University, shall make emergency, temporary repairs within twelve (12) hours of notification. Contractor shall then complete permanent repairs within fifteen (15) days at no additional cost to the University.
13. At new buildings and major roof replacements provide laminate style shingles:
   a. Malarkey “Legacy” shingle carries a 50-year warranty and is warranted against 110 mph winds.
   b. Pabco “Premier Advantage” shingle carries a 50-year warranty and is warranted against 110 mph winds.
   c. If gravel stop is used up the outer edge of the roof (on the rake), roofing must be held back min. of a ½” to allow water flow.
   d. Provide metal flashing at the low eave to help keep the shingles from folding into the gutter.

14. All downspouts to be checked before and after each project to ensure free flowing.

15. Underlayment
   a. All underlayment installations are to comply with ASTM requirements. This includes new and re-roofing work.
   b. Slopes less than 4 to 12 – Provide Ice and Water Shield which self-seals around penetrations and fasteners (double layer 15# ASTM felt removed).
   c. Slopes 4 to 12 and higher – Provide single layer 30 # ASTM felt.
   d. Slopes less than 2 to 12 not permitted to use shingles as weather surface.
   e. All overhangs and valleys – Provide ice and water guard underlayment which self seals around penetrating fasteners. Install minimum of 12” over heated spaces.


17. Provide WISHA approved fall protection systems. See specific guidelines for these systems in the “DIVISION 11 Equipment” section of the University Campus Standards and Guidelines.

18. Field verify existing anchoring fall protection systems for soundness before using.

End