



DIVISION 07 00 00 THERMAL AND MOISTURE PROTECTION

SECTION 07 24 00 EXTERIOR INSULATION AND FINISH SYSTEM

1. GENERAL.

- A. TTU prefers not to use Exterior Insulation and Finish System products.

SECTION 07 31 13 ASPHALT SHINGLES

1. GENERAL.

- A. Where shingles are approved for use, the granular color shall match existing shingles unless specifically directed otherwise.
- B. Final shingle color selection to be approved by TTU Representative.
- C. For roof replacements, remove roofing down to original decking and replace existing decking if damaged prior to installing new shingle roofing. All shingles shall be hand nailed into wood substrate. If the existing deck is not wood, a wood substrate must be added to the deck prior to shingle replacement.

2. PRODUCTS.

- A. Campus preference is to install architectural shingles with lifetime warranty.
 - 1. APPROVED MANUFACTURERS
 - a. GAF (Timberline Ultra HD)
 - b. CertainTeed (Landmark Pro)
- B. Typical Color for main-campus buildings is a variegated black. Final color selection to be made by TTU Representative.
 - 1. GAF color 'Charcoal'
 - 2. CertainTeed color 'Moire Black'
- C. ATTIC STOCK.
 - 1. Two bundles of shingles are to be provided through project.

3. EXECUTION.

- A. **ALL ROOFING NAILS ARE TO BE HAND DRIVEN.**
- B. Damaged materials or wet insulation will not be approved for installation and will be replaced at the contractor's expense.

4. WARRANTIES.

- A. Installer's Guarantee. Prior to acceptance of the work, the roofing applicator shall furnish a written guarantee for one year from the date of Substantial Completion which covers repairs required to maintain the new shingle roof including flashing in a watertight condition. Guarantee shall be limited to ordinary wear and tear by the



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elements or defects due to faulty materials and workmanship. Repairs shall be made at no expense to the Owner.

- B. Manufacturer's Guarantee. Shingle manufacturers standard labor and material warranty against defects for thirty years required minimum.
- C. 3-Year Roof Bond: provided by the contractor to the State of Tennessee. Refer to Designer's Manual 00 61 43 Three Year Roof Bond.

SECTION 07 46 46 FIBER CEMENT SIDING

1. GENERAL.

- A. Fiber cement siding is preferred over plywood or wood siding in exterior applications.

SECTION 07 50 00 MEMBRANE ROOFING

1. GENERAL.

- A. For roof replacements, remove roofing down to original decking and/or insulation and replace existing substrate if damaged prior to installing new membrane roofing. Attach new sheathing to existing structure.
- B. Inadequate slope issues shall be corrected at the time of re-roofing.
- C. Permanent walking mats are to be included in membrane roofing projects to allow access to roof-mounted equipment.
- D. Only factory-fabricated boots, corners and pipe penetrations shall be used where available. Any field-fabricated items must be preapproved by TTU.
- E. All roof penetrations shall be adhered and mechanically fastened.

2. PRODUCTS.

- A. Shall be fully adhered, FR, minimum thickness .090" Black, Non-reinforced EPDM Roof System (minimum FM 1-90 uplift rating.)
- B. TPO roofing membranes are not desired on the TTU campus.
- C. APPROVED MANUFACTURERS
 - 1. Carlisle
 - 2. Holcim Elevate (formerly Firestone)
 - 3. Versico
 - 4. Johns Manville



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3. EXECUTION.

- A. Uniform installation is expected and required. Substrates for membrane roofing shall be cleaned thoroughly with a blower prior to installation. If owner determines there is an excessive amount of debris under the membrane, replacement of the membrane will be required regardless of warranty coverage.
- B. No membrane over membrane installations or repairs shall be accepted.
- C. Installation of wet insulation will not be accepted and will be removed and replaced at the expense of the contractor. Any insulation which gets wet shall be removed from the jobsite at no cost to the owner.

4. WARRANTIES.

- A. Installer's warranty: 1-Year warranty
- B. 3-Year Roof Bond: provided by the contractor to the State of Tennessee. Refer to Designer's Manual 00 61 43 Three Year Roof Bond.
- C. Manufacturer's warranty: 30-Year, No Dollar Limit, Total System Warranty with 72 MPH wind speed with 2" diameter Hail Warranty. Refer to Designer's Manual 07 50 36 Total Roofing System Warranty.
 - 1. All manufacturer's warranties shall include language stating that when repairing roof leaks, wet insulation shall be cut out and replaced under the terms of the warranty. Only patching leaks shall not be acceptable.

SECTION 07 60 00 FLASHING AND SHEET METAL

1. GENERAL.

- A. Copper flashing and plumbing boots should be used for roofing installations. Lead will not be accepted.