

Shoulder, Paved. FAC: 1165

CATCODE: 116642

OPR: AFCEC/COS

OCR: N/A

1.1. **Description.** The shoulders of runways, aprons, taxiways, and airfield pads are paved to protect the shoulder areas against jet blast, water erosion, reduce maintenance of the unpaved shoulder area, support aircraft outrigger gear, or accommodate snow removal equipment, aircraft service vehicles, and emergency vehicles. Shoulders are not intended for use by aircraft and may be unable to carry the aircraft load. When shoulders are without vegetation and unprotected, continual exposure to jet blast will release soil, stones, and other debris (known as Foreign Object Damage [FOD]) that can be ingested by jet engines and cause engine damage. (AFH 32-1084). Taxiway shoulder markings are yellow lines perpendicular to taxiway edge, from taxiway edge to pavement edge, about 3 meters.

1.2. **Requirements Determination.** At minimum, pave shoulders to extend at least 0.6 m (2 ft) beyond the edge lights. For apron edges requiring fire hydrants, widen the paved shoulder to within 4.6 m (15 ft) of the hydrant to allow paved access for firefighting vehicles. See paragraph 1.4 below.

1.3. **Scope Determination.** Consult UFC 3-260-01 and ETL 07-3 for further guidance.

1.4. **Dimensions.** See paragraph 3-9 and Table 3-2 of UFC 3-260-01. Wider paved shoulders are authorized as follows:

1.4.1. **Runways and Helipads.** A minimum 3.1 m (10 ft) paved shoulder is necessary on all runways used by fighters, trainers, and B-52 aircraft. A 7.5 m (25 ft) paved shoulder is necessary for cargo mission runways, except where the runway width exceeds 45 m (150 ft). In these cases, pave shoulders to provide a combined hard surface width (runway and paved shoulders) of not less than 60 m (200 feet) with at least 0.6 m (2 ft) of paved surface beyond the edge lights. For rotary wing runways and helipads, provide 7.5 m (25 ft) paved shoulders.

1.4.2. **B-52s.** Provide paved shoulder 15.2 m (50 ft) wide along the apron perimeter taxi lanes.

1.4.3. **Jet Transport, Cargo, or Tankers.** Provide paved shoulders 7.6 m (25 ft) wide along the entire apron. Allow 15.2 m (50 ft) shoulders on aprons for C-5, E-4, and Boeing 747 aircraft.

1.4.4. **Dispersed Parking of B-52s, KC-135 - Stubs and Strips.** Provide paved shoulders 15.2 m (50 ft) around the perimeter of the aprons.

1.4.5. **Jet Blast Deflectors.** Where deflectors are installed off the apron, provide a paved shoulder between the deflector and the apron edge.

1.4.6. **Taxiways at B-52 Bases.** Provide paved shoulders 15.2 m (50 ft) wide on both sides of all 22.9 m (75 ft) wide taxiways throughout their length.

1.4.7. **Taxiways at Jet Cargo or Jet Tanker Bases.** Provide paved shoulders 7.6 m (25 ft) wide on both sides of all 22.9 m (75 ft) wide taxiways throughout their length. For C-5, E-4, and Boeing 747 aircraft, paved shoulders 15.2 m (50 ft) wide are permitted only when vegetation cannot be established to prevent erosion at those bases and on those taxiways designated for such traffic.

1.4.8. **Taxiways at Bases Supporting Aircraft Other Than B-52s, Jet Cargo or**

Jet Tankers. A paved shoulder 7.6 m (25 ft) wide is authorized on the outside of taxiway turns of 45 degrees or more.

1.5. **Design Considerations.** See paragraph 3-9 of UFC 3-260-01.