



**DEVELOPMENTAL SPECIFICATIONS
FOR
AIRPORT SAFETY REQUIREMENTS**

Effective Date
August 17, 2004

THE STANDARD SPECIFICATIONS, SERIES OF 2001, ARE AMENDED BY THE FOLLOWING ADDITIONS. THESE ARE DEVELOPMENTAL SPECIFICATIONS AND SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

01050.01 EQUIPMENT RESTRICTIONS.

At all airport locations specified in the plans, the painting equipment used shall not exceed the following maximum axle weight configurations:

| | | |
|---------------------------------|---|-----------------|
| $\frac{V}{12,000 \text{ lbs.}}$ | $\frac{V}{12,000 \text{ lbs.}}$ | (Single/Single) |
| $\frac{V}{12,000 \text{ lbs.}}$ | $\frac{V \quad V}{16,000 \text{ lbs.}}$ | (Single/Tandem) |
| $\frac{V}{12,000 \text{ lbs.}}$ | $\frac{V \quad V \quad V}{36,000 \text{ lbs.}}$ | (Single/Tandem) |

01050.02 TRAFFIC CONTROL REQUIREMENTS.

Traffic control for the removal and placement of pavement marking shall be as shown in the contract documents, with the following additional requirements:

- Traffic control devices shall remain in place from the time removal operations have started through the completed curing time of the newly applied pavement markings.
- Traffic control devices shall not be removed until the newly applied pavement markings are track free.
- The Contractor shall not close any longer length of area than can be adequately removed and replaced in a single working day.
- At no time shall an unmarked section of the airport be opened to traffic.

01050.03 SAFETY REQUIREMENTS.

A. GENERAL.

The safety requirements specified herein shall be applicable to all airport locations specified in the plans.

During the construction project, the Airport Operator at each airport is responsible for full compliance with the requirements of Federal Aviation Regulations (FAR) Part 139 for certificated airports. The Engineer will review and forward to the Contractor any safety comments from the Airport Operator.

The Contractor shall pay particular attention to aircraft movements around the aprons and taxiways during work activities. During an emergency, the Contractor is responsible for the location and movement of their equipment and employees.

B. COORDINATION OF AIRPORT CONSTRUCTION ACTIVITIES.

1. A minimum of 2 weeks before the preconstruction meeting, the Contractor shall submit a written Temporary Runway/Airport Closure Plan. This Temporary Runway/Airport Closure Plan shall consist, as a minimum, of the following items:

- Notification of the Fixed Base Operator (FBO) and/or Airport Manager;
- Checking the sky for any approaching aircraft prior to entering airfield;
- Entering the airfield;
- During work activities, continuously checking the sky for approaching aircraft;
- Placing the crosses at the ends of the runway.

2. Prior to the preconstruction meeting, the Contractor shall submit the working schedule to the Engineer. The Engineer will submit the working schedule to the Federal Aviation Administration (FAA).

C. SAFETY CONSIDERATIONS.

The Contractor shall:

- Minimize disruption of standard operating procedures for aeronautical activity.
- Contact the Airport Operator before the painting operations, and the Airport Operator will initiate and cancel the Notice to Airmen (NOTAMS).
- Adequately light all construction equipment.
- Mark construction areas and closed airfield pavement areas.
- Identify all construction personnel and equipment.
- Phase the painting work as needed.

D. HAZARDOUS AND MARGINAL CONDITIONS.

Analysis of past accidents and incidents has identified many contributory hazards and conditions. The Contractor shall minimize the safety concerns identified below:

- Heavy equipment, stationary or mobile, operating or idle near airport operations areas or in safety areas.
- Proximity of equipment or material that may degrade radiated signals or impairs monitoring of navigational aids.
- Holes, obstacles, loose pavement, trash, and other debris on or near airport operation areas.

- Improper marking or lighting of runways, taxiways, and displaced thresholds.
- Attractions for birds such as trash, grass seeding, or ponded water on or near airports.
- Inadequate or improper methods of marking temporarily closed airport operations areas including improper and unsecured barricades.
- Obliterated markings on active operational areas.

E. ASSURING OPERATIONAL SAFETY.

The Airport Operator is responsible for establishing and using procedures for the immediate notification of airport users and the FAA of any conditions adversely affecting operational safety at the airport.

F. VEHICLES ON AIRPORTS.

Vehicular activity on airport movement areas shall be kept to a minimum. Where vehicular traffic on airport operation areas cannot be avoided, it shall be carefully controlled. A basic guiding principle is that the aircraft always has the right-of-way. Some aspects of vehicle control and identification are discussed below. It shall be recognized that every airport presents different vehicle requirements and problems and therefore needs individualized solutions so that vehicle traffic does not endanger aircraft operations.

1. Visibility.

Any vehicle operating on airport operations areas shall be equipped with a yellow (amber) identification beacon according to the Society of Automotive Engineers (SAE) Standard J578, Color Specifications for Electric Signal Lighting Devices.

2. Movement.

During painting operations, the control of vehicular activity on airport operation areas is of the highest importance. Airport management is responsible for vehicle operations to ensure aircraft safety during construction. This requires coordination with airport users and air traffic control. Consideration shall be given to the use of two-way radio, signal lights, traffic signs, flaggers, escorts, or other means suitable for the particular airport. The selection of a frequency for two-way radio communications between the Contractor's vehicles and the air traffic control (ATC) tower shall be coordinated with the ATC tower chief. At non-tower airports, two-way radio control between the Contractor's vehicles and fixed-base operators or other airport users shall avoid frequencies used by aircrafts. It shall be remembered that even with the most sophisticated procedures and equipment, systematic training of vehicle operators is necessary to achieve safety. Special consideration shall be given to training intermittent operators, such as construction workers, even if escort service is being provided.

G. INSPECTION.

During painting operations, frequent inspections will be made by the Airport Operator or a representative during critical phases of the work to ensure that the Contractor is following the prescribed safety procedures. All comments by the Airport Operator will be given to the Engineer and the Engineer will pass the comments to the Contractor.

H. SAFETY RESPONSIBILITIES OF THE CONTRACTING AUTHORITY.

The Contracting Authority has specific responsibilities regarding operational safety on airports before and during periods of construction activity. Special attention will be directed toward construction within safety areas. The Engineer will be involved in the following functions:

- Review of safety plans to determine limits of work and possible safety problem areas.
- Ensure that users of the facilities have ample warning of the proposed construction so that they may make advanced plans to change their operations.
- Participate in the preconstruction meeting to review and approve the safety plan. Also, participate in inspections of the Contractor's work to determine that there are no safety violations to FAR Part 139.

I. OTHER SAFETY REQUIREMENTS.

1. Runway Ends.

Construction equipment shall not penetrate the 20:1 approach surface.

2. Taxiways and Aprons.

Construction activity setback lines shall be located at a distance of 25 feet plus one-half the wingspan of the largest predominant aircraft from the centerline of an active taxiway or apron.

3. Stockpiled Material.

Stockpiled material shall be constrained in a manner to prevent movement resulting from aircraft blast or wind. Material shall not be stored near aircraft turning areas or movement areas.

4. Construction Vehicle Traffic.

With respect to vehicular traffic, aircraft safety during construction is likely to be endangered by four principal causes: increased traffic volume, nonstandard traffic patterns, vehicles without radio communication and marking, and operators untrained in airport procedures.

01050.04 METHOD OF MEASUREMENT AND BASIS OF PAYMENT.

This work will not be measured and paid for separately. The cost shall be incidental to the bid item Painted Airport Pavement Markings.