



## Systems Integration Technical Memorandum

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**RE:** General Planning Consultant Services - Dallas Area Rapid Transit (DART)  
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### 1. SITP SCOPE

- 1.1. The Systems Integration Test Plan (SITP) is a comprehensive document which provides the methodology needed to manage and control test processes utilized to validate that the systems and sub-systems as installed meet original design intent, and conforms to design specifications. Systems Integration provides the comprehensive and systematic management and controls necessary to ensure that all elements of the system and the personnel who will operate and maintain the system are able to function effectively together to provide safe and reliable transportation services.
- 1.2. The ultimate objective of the integrated test program is to verify system readiness for revenue operations based on performance of a logical step-by-step series of tests and drills. The system integration test program verifies that all systems or sub-systems provided under various design, construction, and procurement project phases function seamlessly as a single system. The Integrated Test Program provides guidance to key project elements with special focus on systems integrated testing, critical equipment/facilities tests, system readiness drills, and pre-revenue operations tests.
- 1.3. The SITP focuses on the system integration test phase of the project. It identifies and describes the tests to be conducted and defines the sequence in which they are to be performed. It provides the detail needed to development and maintain a test schedule for the project integration test phase and for the preparation of detailed test procedures.

### 2. Systems Integration Test Plan

The Systems Integration Test Plan will be effective throughout the construction, installation, and startup project phases. The focus of the Test Plan is on systems integrated testing of critical equipment, facilities, readiness drills, and pre-revenue operations tests.

#### 2.1 Objectives



### 3. Start-Up

#### 3.1. Organization

The start-up organization is made up of personnel from multiple sources and disciplines some of which will be agency personnel on loan to the Systems Start-Up organization during the project start-up phase. These personnel will provide support for testing and start-up activities.

### 4. Management Methodology

Integration testing requires a systematic logical system of management and control in order to ensure that all on-site activities proceed safely on schedule, and minimum conflict.

#### 4.1. Management Approach

#### 4.2. Test Program

#### 4.3. Test Program Management

### 5. Organization

#### 5.1. Test Organization

The test organization will be implemented in order to direct start-up activities through installation, integrated testing, and pre-revenue operations. The start-up organization will be responsible for managing the start-up test program. At the end of the project the start-up organization will certify that the Cotton Belt Commuter Rail project meets the goals for safety and operational performance.

#### 5.2. Major responsibilities of the Systems Integration or Start-Up organization

### 6. Document Limitations

6.1 Document provides general guidance.

6.2 Systems Integration Test Program can't be fully developed design criteria is completed

6.3 Vehicle type and specifications are unknown

### 7. Applicable Regulatory Standards

7.1 49 C.F.R. PART 633 Subpart C— Project Management Plan (PMP)

7.2 49 C.F.R. PART 659 (Rail Fixed Guideway Systems; State Safety Oversight)