

UAS Tethered Drone System Engineering Project

PID: 121601

Scope of Services

The Ohio Department of Transportation (ODOT) released a statewide ITS Architecture utilizing version 8.3 of the ARC-IT tool. While this version is not the latest, the existing architecture is currently organized and largely up to date with the technologies that have been proposed / deployed within Ohio. The ODOT UAS Center, housed within DriveOhio, has received approval to move forward with implementation of a tethered-drone program using commercial products from Fotokite. This program requires a complete understanding of all of the integrations that need to occur to make this program a success with minimal undefined challenges. In order to achieve this goal, the following services are needed through this contract effort:

1. Complete required CFR940 documentation for the tethered drone program as identified by the ODOT Traffic Engineering Manual. This documentation shall include:
 - a) Scope
 - b) Regional (Statewide) ITS Architecture
 - c) Concept of Operations
 - d) Functional Requirements
 - e) Interfaces
 - f) Testing & Validation
 - g) Traceability Matrix
 - h) Change Management
 - i) Maintenance Plan
2. A project level ITS Architecture to be included and integrated into the statewide ITS Architecture
3. Coordination with ODOT
 - a) Identification and coordination with the relevant divisions / offices within ODOT that would interface with the tethered drone system
 - b) Determination and development of functional requirements for successful implementation of the tethered drone program
 - c) At a minimum, the currently identified divisions to be engaged within ODOT include:
 - Division of Operations
 - Office of Traffic Management
 - Office of Maintenance Operations
 - Division of Planning
 - Office of Technical Services
 - Division of Engineering
 - Division of IT
 - District Offices
 - Construction
 - Maintenance
 - Others

Deliverables:

- Project level CFR 940 documentation for Tethered Drone Program
- Updated Statewide CV/AV Architecture RAD-IT Database to include Tethered Drone Project
- Updated Statewide CV/AV Architecture SET-IT Files, including Tethered Drone Project