

EXISTING INTELLIGENT TRANSPORTATION SYSTEMS



The City of Sandy Springs

has an extensive transportation system which includes over 330 miles of roadways, transit, bicycle, pedestrian, and trail facilities. The City has embraced the challenge of optimizing the existing multi-modal transportation system by integrating technology for the purposes of managing, operating, and enhancing the travel experience – the City relies upon intelligent transportation system (ITS) deployments and supporting systems to make this happen.

Intelligent Transportation Systems

are defined by the Federal Highway Administration (FHWA) as: *“electronics, communications, or information processing used singly or in combination to improve the efficiency or safety of a surface transportation system”*.



The City of Sandy Springs Traffic Management Center (TMC)

is a state-of-the-art facility which provides the ability to actively monitor and manage the transportation network; identify, verify, and respond to events and incidents; share video and information with neighboring jurisdictions; and identify and troubleshoot equipment malfunctions. These systems provide enhanced safety, mobility, and sustainability within the City of Sandy Springs.

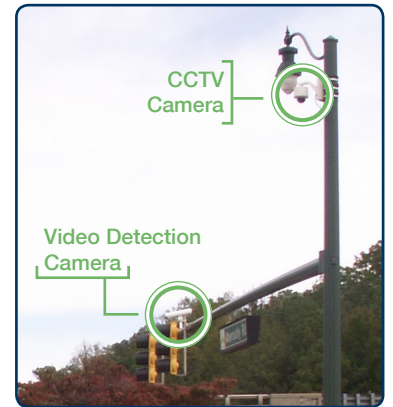
Traffic Signal System

The City of Sandy Springs uses advanced traffic signal timing programs to coordinate their traffic signal system, reducing congestion, vehicle emissions, and travel times. The advanced programs move large groups of vehicles through the traffic network to provide a safer, more reliable travel experience in the City of Sandy Springs.



Detection

The City of Sandy Springs uses a mixture of vehicle and pedestrian detection technologies at intersections with traffic signals to maximize intersection efficiency and increase travel time reliability. The advanced signal timing programs use the information from each detector to determine the amount of time necessary for each movement: optimizing the traffic signal system network and reducing unnecessary delay.



Closed Circuit Television (CCTV) Cameras

Sandy Springs currently uses CCTV cameras for traffic monitoring, situational awareness, incident detection and verification, and traffic equipment monitoring and maintenance.

Communications Network

The ITS devices and systems communicate through various mediums which provide the connectivity required to operate and maintain the City's ITS infrastructure. The fiber network is the nerve center of the transportation system: connecting each of the field devices to the TMC. Fiber optic cable is the preferred medium of communications and currently provides communications to a majority of the City's ITS network.

Existing ITS Field Devices



136

Traffic Signals



80

School Zone Beacons
and other caution signals



95

CCTV Cameras



54

Traffic Data Collection Units



43

Miles of Fiber Optic Cable



6

Wireless Radios



45

Cellular Modems