



Making Houston More Connected and Less Congested

The ConnectSmart Program will help disperse travelers across time, space, and mode by using demand management and behavior analytics to influence a traveler's decision to adopt more efficient travel options, e.g., leave at a less congested time, take a different route, carpool or use public transit.

In an effort to deploy an innovative solution that optimizes available capacity while managing demand variabilities, TxDOT applied for an Advanced Transportation and Congestion Management Technologies Deployment (ATCMTD) grant. Under this grant, TxDOT will deploy ConnectSmart, an advanced technology framework with a built-in mobile app that integrates Transportation Systems Management and Operations (TSMO) and Active Demand Management (ADM) to provide users with predictive travel times, travel costs, available travel modes and system updates while leveraging behavioral economics to encourage the use of alternative mobility options.

TxDOT aims to establish a model methodology that enhances regional transportation system's safety, reliability, and efficiency by reducing congestion and maintaining quality of life and economic vitality. Converting commuter behavior towards more sustainable mobility options while optimizing available capacity and achieving operational objectives is the goal.

As an added benefit, TxDOT will gain critical insight into their system's operations and performance, permitting proactive deployment of ADM strategies to address traveler demands while improving traveler experience. ConnectSmart collaborations will further enhance and strengthen partnerships as regional transportation agencies unite to manage future mobility. Lastly, mobile app users and agency partners will be engaged via robust communications and marketing & outreach plans.



ConnectSmart 8-County Region

BETTER DECISIONS

ConnectSmart will give drivers robust information regarding congestion and will reward them for making better commute decisions.

REAL-TIME INFORMATION

Real-time data is shared with travelers through a mobile app, direct messaging, websites, and Dynamic Message Signs to improve transportation demand management.

AGENCY COORDINATION

Anonymous user data will be collected and aggregated to enhance Transportation Systems Management and Operations' effectiveness through big data sharing among regional agencies; leading to improved data analytics capabilities associated with safety, system performance, and real-time operational intervention.

CHALLENGES: Despite transportation capacity projects and traditional strategies focused on shifting drivers toward more sustainable modes, about 80% percent of Houston commuters still drive alone. According to INRIX's 2019 Traffic Score Card, Houston commuters wasted an average of 81 hours per year sitting in traffic. Automation, connectedness, and big data analytics will be key components to effectively managing and mitigating future transportation supply and demand.

PARTNERSHIP: ConnectSmart is a public-private partnership. TxDOT is the lead agency supported by local partners, the Houston-Galveston Area Council, Metropolitan Transit Authority of Harris County, and Houston TranStar. Transportation experts from private companies and the State's university system further support the program.

FUNDING: An \$18 million grant, funded 50/50 by the State and Federal Highway Administration's ATCMTD Program.

DEPLOYMENT SCHEDULE:

