

Kansas ITS Project Form

Project Name (with ITS Involvement): U.S. Highway 40 Closed-Loop Traffic Signal System		KITS ID:	
Project Champion (Name/Bureau): City of Lawrence/Department of Public Works		KDOT Project No.:	
Project Description: Installation of fiber optic cable, modems and central control hardware/software to develop a closed-loop traffic signal system to monitor and optimize traffic flow along this busy arterial street between downtown (Massachusetts) and Iowa Street. The City has upgraded its Eagle EPAC controllers and has the interconnect conduit already in place. The central signal system control would be installed in the Traffic Engineering Offices at 445 Mississippi Street, one block north of the project corridor. The central system control would be capable of eventually linking with all traffic signals in the city.			
Resources: Advisory Project Team <input checked="" type="checkbox"/> KDOT District # 1 <input checked="" type="checkbox"/> FHWA <input type="checkbox"/> Office of Chief Counsel <input type="checkbox"/> Bureau of Computer Services <input type="checkbox"/> Bureau of Construction & Maintenance <input type="checkbox"/> Bureau of Design <input type="checkbox"/> Bureau of Traffic Safety <input type="checkbox"/> Bureau of Local Projects <input checked="" type="checkbox"/> Bureau of Traffic Engineering <input checked="" type="checkbox"/> Bureau of Transportation Planning <input type="checkbox"/> Office of Transportation Information <input type="checkbox"/> Kansas Highway Patrol <input type="checkbox"/> Universities - <input checked="" type="checkbox"/> Other - City of Lawrence		Applicable User Services/Functional Areas: <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> Metropolitan: <input type="checkbox"/> Traveler Information <input type="checkbox"/> Freeway Management <input checked="" type="checkbox"/> Traffic Signal Control <input type="checkbox"/> Transit Management <input type="checkbox"/> Electronic Toll Collection <input type="checkbox"/> Electronic Fare Payment <input type="checkbox"/> Incident Management <input type="checkbox"/> Emergency Management <input type="checkbox"/> Highway/Rail Intersection </div> <div style="width: 48%;"> Rural: <input type="checkbox"/> Emergency Services <input type="checkbox"/> Fleet O&M <input type="checkbox"/> Infrastructure O&M <input type="checkbox"/> Safety & Security <input type="checkbox"/> Traveler Mobility <input type="checkbox"/> Commercial Vehicle Operations <input type="checkbox"/> Tourism & Traveler Info Other: <input checked="" type="checkbox"/> Telecommunications </div> </div>	
Related Projects/Interfaces: There are no dependent projects. This project would serve as the backbone for future closed-loop traffic signal systems in the city, as defined in the Traffic Signal Master Plan, a study commissioned by the city.			
Telecommunication Needs/Considerations: All system communications would be via fiber optic cable installed as part of the project. The cable would be installed in conduit already in place. The central system hardware/software would be located one block from the project corridor.			
Design Needs and Considerations: This project uses off-the-shelf technology. Plans and specifications would need to be developed. Contract would include on-the-job and classroom training. An ITS Communications Architecture for Lawrence is scheduled to be developed and completed by November 2008.			
Deployment Timeline: <div style="display: flex; align-items: center;"> <div style="flex: 1;"> </div> </div>			
Estimated Costs: <i>Study:</i> \$ <i>Design:</i> \$ 50,000 <i>Capital:</i> \$ <i>O&M:</i> \$ 2,500 /year <i>Bid:</i> \$450,000		<div style="display: flex;"> <div style="flex: 1;"> Benefits: <input checked="" type="checkbox"/> Safety <input checked="" type="checkbox"/> Travel Time <input checked="" type="checkbox"/> Customer Satisfaction <input checked="" type="checkbox"/> Cost Savings <input type="checkbox"/> Throughput <input checked="" type="checkbox"/> Environmental </div> <div style="flex: 1;"> Funding Sources: <input type="checkbox"/> Federal % <input type="checkbox"/> State % <input checked="" type="checkbox"/> Local 50% <input checked="" type="checkbox"/> ITS Set-aside <input type="checkbox"/> Local Projects </div> <div style="flex: 1;"> <input type="checkbox"/> System Enhancement <input type="checkbox"/> K-TRAN <input type="checkbox"/> ENTERPRISE <input type="checkbox"/> Public/Private <input type="checkbox"/> Other - </div> </div>	
Project Type: New Deployment		Project Status: Proposed	
Completion Date: 2010			

ITS Application: Fiber Optic Closed Loop Traffic Signal System, Lawrence, Kansas

