

KANSAS

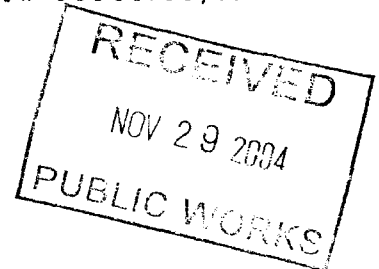
DEPARTMENT OF TRANSPORTATION
DEB MILLER, SECRETARY

KATHLEEN SEBELIUS, GOVERNOR

CHRIS J. HERRICK, P.E., CHIEF

November 23, 2004

Mr. David Woosley
City Traffic Engineer
City of Lawrence
6 East 6th Street
Lawrence, KS 66044-0708



Dear Mr. Woosley:

Thank you for your request for funding from the KDOT Fiscal Year 2007 Intelligent Transportation Systems (ITS) Set-Aside Program. We had 23 requests for the \$2 million funding program that totaled \$4.5 million. All the projects submitted were very thorough and detailed. The projects were distributed to the ITS Steering Committee to be scored and ranked. The committee's final recommendation was based on the average of the rankings. Seven projects were selected. The projects were then presented to the Kansas Department of Transportation Program Review Committee for final approval.

We appreciate the time and effort that was put into your project submittal. Numerous considerations went into the project selections and we felt that all the projects submitted were good candidates for the funding. We are sorry to announce that your project was not selected for funding. The following is the project you submitted.

<u>Project Name</u>	<u>Requested Funds</u>	<u>Programmed Funds</u>
1. 6 th St. Closed-Loop Traffic Signal System	\$292,500	\$0

As we evaluated your proposal, we noted that you included installation of fiber optic cable. The KDOT ITS Unit does not support ITS Set-Aside funding for telecommunication systems. If it would be helpful, please call our office to discuss any proposals you plan to submit in the coming years.

We hope that the outcome of this year's program will not affect your future participation in this program. Thank you again for your time, effort and the great project ideas that you submitted. If you have any questions or concerns about the ITS Set-Aside program, please call Mike Floberg at 785-296-5652 or Karen Gilbertson at 785-296-3387.

Sincerely,

Karen Gilbertson, P.E.
ITS Engineer

BUREAU OF TRANSPORTATION PLANNING
DWIGHT D. EISENHOWER STATE OFFICE BUILDING
700 S.W. HARRISON STREET, TOPEKA, KS 66603-3754
PUBLIC ACCESS AT NORTH ENTRANCE OF BUILDING
VOICE 785-296-3841 TTY 785-296-3585 FAX 785-296-8168 <http://www.ksdot.org>



MIKE RUNDLE, MAYOR
COMMISSIONERS
DENNIS "BOOG" HIGHBERGER
DAVID M. DUNFIELD
SUE HACK
DAVID M. SCHAUNER

City of Lawrence K A N S A S

City Offices 6 East 6th
Box 708 66044-0708 785-832-3000
TDD 785-832-3205 FAX 785-832-3405
www.lawrenceks.org



MIKE WILDGEN, CITY MANAGER

TRAFFIC ENGINEERING DIVISION
(785) 832-3034
FAX (785) 832-3054
Email: traffic@ci.lawrence.ks.us

June 1, 2004

Mr. Michael D. Floberg
ITS Unit
Kansas Department of Transportation
Topeka, KS 66612-1568

Re: Application for ITS Set-Aside Funds
6th Street (US40-59) Closed-Loop Traffic Signal System

Dear Mr. Floberg:

The City of Lawrence is pleased to submit this application for ITS Set-Aside funds for FY2007. We appreciate the opportunity to take part in the deployment of ITS technology and believe that our project has the potential to provide meaningful benefits to motorists and can be done in a relatively short period to help further promote ITS in Kansas.

We have standardized and upgraded all of our traffic signal controllers and have installed conduit along some of our major arterial streets, including the project area, for traffic signal interconnect.

We do not anticipate any significant operations and maintenance costs above and beyond our normal functions and manpower. We have added a staff member to address traffic signal timing and operations who will be responsible for operating the new central software and our maintenance crews will be capable of handling any problems with the field master and communications network. We recognize that as we continue to develop closed-loop systems, we will need to add additional staff.

We are aware of communications architecture requirements and anticipate full compliance with this initial project and other projects in the future. The fiber optic cables along 6th Street (US40-59) will provide an important communication backbone for our ITS development.

Thank you again for this opportunity. Please feel free to contact me at your convenience if additional information is needed.

Sincerely,

David E. Woosley, P.E.
Transportation/Traffic Engineer



We are committed to providing excellent city services that enhance the quality of life for the Lawrence Community

Kansas ITS Project Form

Project Name (with ITS Involvement):

6th Street (US40-59) Closed-Loop Traffic Signal System

KDOT Project No.:

Project Champion (Name/Bureau):

David Woosley, City Traffic Engineer, City of Lawrence

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

- ☒ KDOT District # 1
☒ FHWA
☐ Office of Chief Counsel
☐ Bureau of Computer Services
☐ Bureau of Construction & Maintenance
☐ Bureau of Design
☐ Bureau of Traffic Safety
☐ Bureau of Local Projects
☒ Bureau of Traffic Engineering
☒ Bureau of Transportation Planning
☐ Office of Transportation Information
☐ Kansas Highway Patrol
☐ Universities -
☒ Other - City of Lawrence

Applicable User Services/Functional Areas:
Metropolitan:

- ☐ Traveler Information
☐ Freeway Management
☒ Traffic Signal Control
☐ Transit Management
☐ Electronic Toll Collection
☐ Electronic Fare Payment
☐ Incident Management
☐ Emergency Management
☐ Highway/Rail Intersection

Rural:

- ☐ Emergency Services
☐ Fleet O&M
☐ Infrastructure O&M
☐ Safety & Security
☐ Traveler Mobility
☐ Commercial Vehicle Operations
☐ Tourism & Traveler Info

Other:

- ☒ Telecommunications

Related Projects/Interfaces:

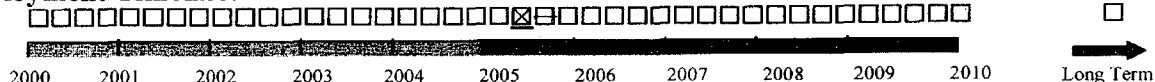
There are no dependent projects. This project would serve as the backbone for future closed-loop traffic signal systems in the city, as defined in the Traffic Signal Master Plan, a study commissioned by the city.

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.

Deployment Timeline:

Estimated Costs:

Study: \$ 0
 Design: \$ 34,600
 Capital: \$ 0
 O&M: \$ 2,500 /year
 Bid: \$ 325,000

Benefits:

- ☒ Safety
☒ Travel Time
☒ Customer Satisfaction
☒ Cost Savings
☐ Throughput
☒ Environmental

Funding Sources:

- ☐ Federal %
☐ State %
☒ Local 10 %
☒ ITS Set-aside
☐ Local Projects

- ☐ System Enhancement
☐ K-TRAN
☐ ENTERPRISE
☒ Public/Private
☐ Other -

Project Type: New Deployment

Project Status: Proposed

Completion Date: 31 December 2006

PROJECT TITLE: Traffic Signal System - 23rd Street

DEPARTMENTAL RESPONSIBILITY: Public Works

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 23rd Street between Iowa Street and Harper Street.

Justification:

Optimization of traffic flow during multiple times of the day, seasons of the year, and during special events.

Comments:

EXPENDITURE SCHEDULE (\$000,S)									
PROJECT ELEMENT	TOTAL	THRU 2004	2005	2006	2007	2008	2009	2009	BEYOND 2010
PLANNING									
DESIGN	50				50				
LAND									
CONSTRUCTION	350				350				
EQUIPMENT									
2% FOR ARTS									
OTHER									
TOTAL	400				400				

FUNDING SCHEDULE (\$000,S)									
SOURCE	TOTAL	THRU 2004	2005	2006	2007	2008	2009	2009	BEYOND 2010
G. O. BONDS	400				400				
SPECIAL ASSMT.									
REVENUE BONDS									
CURRENT REV.									
FEDERAL AID									
STATE AID									
EX. BONDS									
OTHER									
TOTAL	400				400				

PROJECT TITLE: Traffic Signal System - Iowa Street

DEPARTMENTAL RESPONSIBILITY: Public Works

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 Iowa Street between 6th Street and 23rd Street.

Justification:

Optimization of traffic flow during multiple times of the day, seasons of the year, and during special events.

Comments:

EXPENDITURE SCHEDULE (\$000, S)									
PROJECT ELEMENT	TOTAL	THRU 2004	2005	2006	2007	2008	2009	2009	BEYOND 2010
PLANNING									
DESIGN	35			35					
LAND									
CONSTRUCTION	280			280					
EQUIPMENT									
2% FOR ARTS									
OTHER									
TOTAL	315			315					

FUNDING SCHEDULE (\$000, S)									
SOURCE	TOTAL	THRU 2004	2005	2006	2007	2008	2009	2009	BEYOND 2010
G. O. BONDS	315			315					
SPECIAL ASSMT.									
REVENUE BONDS									
CURRENT REV.									
FEDERAL AID									
STATE AID									
EX. BONDS									
OTHER									
TOTAL	315			315					

PROJECT TITLE: Traffic Signal System - 6th Street

DEPARTMENTAL RESPONSIBILITY: Public Works

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 6th Street between Massachusetts Street and Iowa Street.

Justification:

Optimization of traffic flow during multiple times of the day, seasons of the year, and during special events.

Comments:

EXPENDITURE SCHEDULE (\$000, S)									
PROJECT ELEMENT	TOTAL	THRU 2004	2005	2006	2007	2008	2009	2009	BEYOND 2010
PLANNING									
DESIGN	40		40						
LAND									
CONSTRUCTION	325		325						
EQUIPMENT									
2% FOR ARTS									
OTHER									
TOTAL	365		365						

FUNDING SCHEDULE (\$000, S)									
SOURCE	TOTAL	THRU 2004	2005	2006	2007	2008	2009	2009	BEYOND 2010
G. O. BONDS	365		365						
SPECIAL ASSMT.									
REVENUE BONDS									
CURRENT REV.									
FEDERAL AID									
STATE AID									
EX. BONDS									
OTHER									
TOTAL	365		365						

Public Works Dept.**Memo**

To: Mike Wildgen
cc: David Corliss, Debbie Van Saun, Terese Gorman, David Woosley
From: Chuck Soules
Date: June 27, 2003
Re: ITS Set-Aside Funds

Attached is an application for ITS (Intelligent Transportation System) Set-Aside Funds for two projects:

- 6th Street Closed-Loop Traffic Signal System from Iowa to Massachusetts
- Iowa Street Closed-Loop Traffic Signal System from 6th Street to 23rd Street

The benefits gained from ITS include:

- Synchronized signals for improved traffic flow.
- Signals could be programmed for weather conditions and special events to move traffic efficiently.
- Check signal operation and automatic notification of malfunction versus notification by public.
- Efficiently moving traffic means fewer driver delays and improved customer satisfaction.
- Environmentally beneficial by reducing the time it takes one to arrive at their destination.

This is a cost share program for construction at 90% KDOT and 10% City participation. The City is also responsible for design, operation and maintenance. The conduit for this project is already in place for both projects. These projects are included in the City's Capital Improvement Plan and could be funded with the Traffic Signals Improvement Budget which would be bonded.

Estimated costs are as follows:

<u>6th STREET</u>	<u>KDOT</u>	<u>CITY</u>	<u>TOTAL</u>
Design	-0-	\$35,000	\$ 35,000
Construction	\$292,500	\$32,500	\$325,000
Total	\$292,500	\$67,500	\$360,000

Additional Annual O&M \$ 2,500

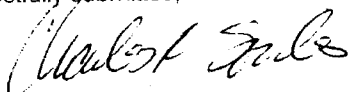
<u>IOWA STREET</u>	<u>KDOT</u>	<u>CITY</u>	<u>TOTAL</u>
Design	-0-	\$30,000	\$ 30,000
Construction	\$247,500	\$27,500	\$275,000
Total	\$247,500	\$57,500	\$305,000

Additional Annual O&M \$ 2,500

The application is due by July 14, 2003; therefore, it should be presented to the City Commission at their July 8, 2003 meeting.

Please let me know if you have any questions.

Respectfully submitted,



Charles F. Soules, P.E.
 Director of Public Works

KANSAS

DEPARTMENT OF TRANSPORTATION
DEB MILLER, SECRETARY

KATHLEEN SEBELIUS, GOVERNOR

JAMES E. TOBABEN, CHIEF

October 3, 2003

Mr. David Woosley
City Traffic Engineer
City of Lawrence
6 East 6th
PO Box 708
Lawrence, Kansas 66044-0708

Dear Mr. Woosley:

Thank you for your request for funding from the Intelligent Transportation Systems (ITS) Set-Aside Program. We had requests for the \$2 million funding program that totaled \$4,591,000. All the projects submitted were very thorough and detailed. The projects were distributed to the ITS Steering Committee to be scored and ranked. The committee's final recommendation was based on the average of the rankings. The projects were then presented to the Kansas Department of Transportation Program Review Committee for final approval.

We appreciate the time and effort that was put into your project submittal. Numerous considerations went into the project selections and we felt that all the projects submitted were good candidates for the funding. We are sorry to announce that your projects were not selected for funding. The following are the projects you submitted and a few suggestions that you may want to consider for future ITS Set-Aside Program proposals:

<u>Project Name</u>	<u>Requested Funds</u>
Iowa Street Closed-Loop Traffic Signal System	\$274,500
6th Street Closed-Loop Traffic Signal System	\$324,000

As we evaluated your proposals it did not appear that the projects were part of an established Regional Architecture. May we suggest that if you decide to apply for these types of projects in future ITS Set-Aside Programs that you provide us with information on how the project will be incorporated into a established Regional Architecture and how data from your proposal will be utilized to improve traffic congestion throughout the Lawrence transportation system.

We hope that the outcome of this year's process will not affect your future participation in this program. Thank you again for your time, effort and the great project ideas that you submitted. If you have any questions or concerns about the ITS Set-Aside program, please call Mike Floberg at 785-296-5652 or Rex Fleming at 785-296-6356.

Sincerely,



Michael D. Floberg, P.E.
State ITS Engineer

BUREAU OF TRANSPORTATION PLANNING
915 SW HARRISON, RM. 830E, TOPEKA, KS 66612-1568
VOICE 785-296-3841 TTY 785-296-3585 FAX 785-296-8168 <http://www.ink.org/public/kdot/>

Kansas ITS Project Form

Project Name (with ITS Involvement): 6th Street Closed-Loop Traffic Signal System		KITS ID:	
Project Champion (Name/Bureau): David Woosley, City Traffic Engineer, City of Lawrence, Kansas		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 Maintenance Shop at 5th and Mississippi, one block north of the project corridor. The central system control would be capable of eventually linking with all traffic signals in the city, and be upgraded to serve other ITS uses.			
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: 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 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	
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 and nearing completion.			
Telecommunication Needs/Considerations: All system communications would be via fiber optic cable installed as part of the project. This cable would be installed in conduit already in place along 6th Street. The central system hardware/software would be located one block from the project corridor.			
Design Needs and Considerations: The project is rather straightforward and uses off-the-shelf technology (Eagle Signal field master and software for the central system in order to be compatible with all controllers in the city). Plans and specifications would need to be developed to identify manhole and pull box locations, identify construction requirements, and summarize quantities. Bid contract would include on-the-job and classroom training of city staff in fiber optics and the central control software.			
Deployment Timeline: <div style="display: flex; align-items: center;"> <div style="flex: 1;"> </div> <div style="margin-left: 10px;"> <input type="checkbox"/> Long Term </div> </div>			
Estimated Costs: Study: \$ 0 Design: \$ 34,600 Capital: \$ 0 O&M: \$ 2,500 /year Bid: \$ 318,400		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	
Funding Sources: <input type="checkbox"/> Federal % <input type="checkbox"/> State % <input checked="" type="checkbox"/> Local 10% <input checked="" type="checkbox"/> ITS Set-aside <input type="checkbox"/> Local Projects		<input type="checkbox"/> System Enhancement <input type="checkbox"/> K-TRAN <input type="checkbox"/> ENTERPRISE <input checked="" type="checkbox"/> Public/Private <input type="checkbox"/> Other -	
Project Type: New Deployment		Project Status: Proposed	
		Completion Date: 10/31/02	

Kansas ITS Project Form

Project Name (with ITS Involvement): —Iowa Street Closed-Loop Traffic Signal System		ITS ID:	
Project Champion (Name/Bureau): David Woosley, City Traffic Engineer, City of Lawrence, Kansas		KDOT Project No.:	
Project Description: Installation of fiber optic cable and modems to develop a closed-loop traffic signal system to monitor and optimize traffic flow along this busy arterial street between 6 th Street and 23rd Street. The City has upgraded its Eagle EPAC controllers and has the interconnect conduit already in place. The closed-loop system would be linked to a central signal system control proposed to be installed as part of another project. The central system control would be capable of eventually linking all traffic signals in the city, and could be upgraded to serve other ITS uses.			
Resources: Advisory Project Team <input checked="" type="checkbox"/> X KDOT District # —1 <input checked="" type="checkbox"/> X 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"/> X Bureau of Traffic Engineering <input checked="" type="checkbox"/> X 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"/> X 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"/> X 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"/> X Telecommunications </div> </div>	
Related Projects/Interfaces: —This project, as currently conceptualized, would be dependent on the 6 th Street Closed-Loop Traffic Signal System project. This project, though, could stand alone as an isolated corridor signal system.			
Telecommunication Needs/Considerations: —All system communications would be via fiber optic cable installed as part of the project. This cable would be installed in conduit already in place along Iowa Street.			
Design Needs and Considerations: —This project is rather straightforward and uses off-the-shelf technology (Eagle Signal field master). Plans and specifications would need to be developed to identify manhole and pullbox locations, identify construction requirements, and summarize quantities.			
Deployment Timeline: <div style="display: flex; align-items: center;"> <div style="flex: 1;"> <div style="display: flex; justify-content: space-between; font-size: 0.8em;"> 20002001200220032004200520062007200820092010 </div> <div style="display: flex; align-items: center;"> <div style="flex: 1; border-bottom: 2px solid black; margin-bottom: 5px;"></div> <div style="margin-left: 10px;"> <input checked="" type="checkbox"/> </div> </div> </div> <div style="margin-left: 20px; text-align: right;"> <input type="checkbox"/> Long Term </div> </div>			
Estimated Costs: <i>Study:</i> \$ —0 <i>Design:</i> \$ —30,000 <i>Capital:</i> \$ —0 <i>O&M:</i> \$ —2,500 <i>/year</i> <i>Bid:</i> \$ —275,000		Benefits: <input checked="" type="checkbox"/> X Safety <input checked="" type="checkbox"/> X Travel Time <input checked="" type="checkbox"/> X Customer Satisfaction <input checked="" type="checkbox"/> X Cost Savings <input type="checkbox"/> Throughput <input checked="" type="checkbox"/> X Environmental	
Funding Sources: <input type="checkbox"/> Federal % <input type="checkbox"/> State % <input checked="" type="checkbox"/> X Local 10% <input checked="" type="checkbox"/> X ITS Set-aside <input type="checkbox"/> Local Projects		<input type="checkbox"/> System Enhancement <input type="checkbox"/> K-TRAN <input type="checkbox"/> ENTERPRISE <input checked="" type="checkbox"/> X Public/Private <input type="checkbox"/> Other -	
Project Type: —New Deployment		Project Status: —Proposed	
Completion Date: —12/31/04			

PROJECT TITLE: Traffic Signal System -
23rd Street

DEPARTMENTAL RESPONSIBILITY: Public Works

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 23rd Street between Iowa Street and Harper Street.

Justification:

Optimization of traffic flow during multiple times of the day, seasons of the year, and during special events.

Comments:

EXPENDITURE SCHEDULE (\$000, S)									
PROJECT ELEMENT	TOTAL	THRU 2003	2004	2005	2006	2007	2008	2009	BEYOND 2009
PLANNING									
DESIGN	50				50				
LAND									
CONSTRUCTION	350				350				
EQUIPMENT									
2% FOR ARTS									
OTHER									
TOTAL	400				400				

FUNDING SCHEDULE (\$000, S)									
SOURCE	TOTAL	THRU 2003	2004	2005	2006	2007	2008	2009	BEYOND 2009
G. O. BONDS	400				400				
SPECIAL ASSMT.									
REVENUE BONDS									
CURRENT REV.									
FEDERAL AID									
STATE AID									
EX. BONDS									
OTHER									
TOTAL	400				400				

PROJECT TITLE: Traffic Signal System -
Iowa Street

DEPARTMENTAL RESPONSIBILITY: Public Works

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 Iowa Street between 6th Street and 23rd Street.

Justification:

Optimization of traffic flow during multiple times of the day, seasons of the year, and during special events.

Comments:

EXPENDITURE SCHEDULE (\$000's)									
PROJECT ELEMENT	TOTAL	THRU 2003	2004	2005	2006	2007	2008	2009	BEYOND 2009
PLANNING									
DESIGN	35			35					
LAND									
CONSTRUCTION	280			280					
EQUIPMENT									
2% FOR ARTS									
OTHER									
TOTAL	315			315					

FUNDING SCHEDULE (\$000's)									
SOURCE	TOTAL	THRU 2003	2004	2005	2006	2007	2008	2009	BEYOND 2009
G. O. BONDS	315			315					
SPECIAL ASSMT.									
REVENUE BONDS									
CURRENT REV.									
FEDERAL AID									
STATE AID									
EX. BONDS									
OTHER									
TOTAL	315			315					

PROJECT TITLE: Traffic Signal System -
6th Street

DEPARTMENTAL RESPONSIBILITY: Public Works

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 6th Street between Massachusetts Street and Iowa Street.

Justification:

Optimization of traffic flow during multiple times of the day, seasons of the year, and during special events.

Comments:

EXPENDITURE SCHEDULE (\$000, \$)									
PROJECT ELEMENT	TOTAL	THRU 2003	2004	2005	2006	2007	2008	2009	BEYOND 2009
PLANNING									
DESIGN	40		40						
LAND									
CONSTRUCTION	325		325						
EQUIPMENT									
2% FOR ARTS									
OTHER									
TOTAL	365		365						

FUNDING SCHEDULE (\$000, \$)									
SOURCE	TOTAL	THRU 2003	2004	2005	2006	2007	2008	2009	BEYOND 2009
G. O. BONDS	365		365						
SPECIAL ASSMT.									
REVENUE BONDS									
CURRENT REV.									
FEDERAL AID									
STATE AID									
EX. BONDS									
OTHER									
TOTAL	365		365						

David W - FYI. TAC

STATE OF KANSAS



PUBLIC WORKS

SEP 25 2001

RECEIVED

**KANSAS DEPARTMENT OF TRANSPORTATION
BUREAU OF TRANSPORTATION PLANNING**

Bill Graves
Governor

E. Dean Carlson
Secretary of Transportation

Docking State Office Building
915 SW Harrison, Rm. 830E
Topeka, Kansas 66612-1568
Ph. (785) 296-3841 FAX (785) 296-8168
TTY (785) 296-3585
September 24, 2001

James E. Tobaben
Bureau Chief

Terese Gorman
City Engineer
City of Lawrence
City Offices, Box 708
6 East 6th
Lawrence, Kansas 66044-0708

Dear Ms. Gorman:

Thank you for your request for funding from the Intelligent Transportation Systems (ITS) Set-Aside Program. We had requests for the \$4 million funding program that totaled \$7,477,567. All the projects submitted were very thorough and detailed. The projects were distributed to the ITS Steering Committee to be scored and ranked. The committee's final recommendation was based on the average of the rankings. The projects were then presented to the Kansas Department of Transportation Program Review Committee for final approval.

We appreciate the time and effort that was put into your project submittal. Numerous considerations went into the project selections and we felt that all the projects submitted were good candidates for the funding. We are sorry to announce that your projects were not selected for funding. Your projects will be submitted to the Bureau of Traffic Engineering for their review. They are going to review the projects for possible funding under a different program. We hope that this will not affect your future participation in this program. The following are the projects you submitted:

<u>Project Name</u>	<u>Requested Funds</u>
1. Iowa Street Closed-Loop Traffic Signal System	\$243,900
2. 6 th Street Closed-Loop Traffic Signal System	\$286,560

Thank you again for your time, effort and the great project idea that we received. If you have any questions or concerns about the ITS Set-Aside program, please call Matt Volz at (785) 296-6356 or Mike Floberg at (785) 296-5652. The contact for the Bureau of Traffic Engineering is David A. Church at (785) 296-3618.

Sincerely,

Michael Floberg, P.E.
ITS Engineer

June 18, 2001

Mr. Michael D. Floberg
ITS Unit
Kansas Department of Transportation
Docking State Office Building
915 SW Harrison, Room 830E
Topeka, KS 66612-1568

**Re: Applications for ITS Set-Aside Funds
6th Street Closed-Loop Traffic Signal System
Iowa Street Closed-Loop Traffic Signal System
Lawrence, Kansas**

Dear Mr. Floberg:

The City of Lawrence is pleased to submit these applications for ITS Set-Aside funds for FY2002 and/or FY2003. We appreciate the opportunity to take part in the deployment of ITS technology and believe that our projects have the potential to provide meaningful benefits to motorists and can be done in a relatively short time period to help you further promote ITS in Kansas.

We are submitting two applications, both of which are for the development of closed-loop traffic signal systems.

- 6th Street between Iowa Street and Massachusetts, and
- Iowa Street between 6th Street and 23rd Street.

Our project champion is David Woosley, City Traffic Engineer. Since coming to Lawrence, David has been positioning us for the continual development of our traffic signal system. We have standardized and upgraded all of our signal controllers, he has commissioned a Traffic Signal Master Plan to help guide the future development of our signal system, and he has successfully negotiated the installation of conduit along some of our major arterial streets for traffic signal interconnect.

We do not anticipate any significant operations and maintenance costs above and beyond our normal functions and manpower. We added a staff member over a year ago to address traffic signal timings and operations. This person will be responsible for operating the new central software and our maintenance crews will be capable of handling any problems with the relatively simple field master and communications network. We recognize, though, that as we continue to develop closed-loop systems, we will need to add at least one additional staff member. That hire is still at least a few years away.

We are aware of communications architecture requirements and anticipate full compliance with these initial projects and, hopefully, other ITS projects in the future. The fiber optic cables along 6th Street and Iowa Street will provide an important communication backbone for our ITS development.

Thank you again for this opportunity. Please call me if you should need any additional information before you make your selection.

Sincerely,

Terese Gorman, P.E.
City Engineer

Kansas ITS Project Form

Project Name (with ITS Involvement): 6th Street Closed-Loop Traffic Signal System		KITS ID:
Project Champion (Name/Bureau): David Woosley, City Traffic Engineer, City of Lawrence, Kansas		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 Maintenance Shop at 5th and Mississippi, one block north of the project corridor. The central system control would be capable of eventually linking with all traffic signals in the city, and be upgraded to serve other ITS uses.		
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 and nearing completion.		
Telecommunication Needs/Considerations: All system communications would be via fiber optic cable installed as part of the project. This cable would be installed in conduit already in place along 6th Street. The central system hardware/software would be located one block from the project corridor.		
Design Needs and Considerations: The project is rather straightforward and uses off-the-shelf technology (Eagle Signal field master and software for the central system in order to be compatible with all controllers in the city). Plans and specifications would need to be developed to identify manhole and pull box locations, identify construction requirements, and summarize quantities. Bid contract would include on-the-job and classroom training of city staff in fiber optics and the central control software.		
Deployment Timeline: <div style="display: flex; align-items: center;"> <div style="flex: 1;"> <div style="display: flex; justify-content: space-between; font-size: 0.8em;"> 20002001200220032004200520062007200820092010 </div> <div style="display: flex; align-items: center;"> <div style="flex: 1; border-bottom: 2px solid black; margin-bottom: 5px;"></div> <div style="margin-left: 10px;"> <input checked="" type="checkbox"/> 2003 <input type="checkbox"/> 2004 <input type="checkbox"/> 2005 <input type="checkbox"/> 2006 <input type="checkbox"/> 2007 <input type="checkbox"/> 2008 <input type="checkbox"/> 2009 <input type="checkbox"/> 2010 </div> </div> </div> <div style="margin-left: 10px; text-align: center;"> <input type="checkbox"/> Long Term </div> </div>		
Estimated Costs: Study: \$ 0 Design: \$ 34,600 Capital: \$ 0 O&M: \$ 2,500 /year Bid: \$ 318,400	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	Funding Sources: <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <input type="checkbox"/> Federal % <input type="checkbox"/> State % <input checked="" type="checkbox"/> Local 10% <input checked="" type="checkbox"/> ITS Set-aside <input type="checkbox"/> Local Projects </div> <div style="width: 48%;"> <input type="checkbox"/> System Enhancement <input type="checkbox"/> K-TRAN <input type="checkbox"/> ENTERPRISE <input checked="" type="checkbox"/> Public/Private <input type="checkbox"/> Other - </div> </div>
Project Type: New Deployment	Project Status: Proposed	Completion Date: 10/31/02

Kansas ITS Project Form

Project Name (with ITS Involvement): Iowa Street Closed-Loop Traffic Signal System		KITS ID:										
Project Champion (Name/Bureau): David Woosley, City Traffic Engineer, City of Lawrence, Kansas		KDOT Project No.:										
Project Description: Installation of fiber optic cable and modems to develop a closed-loop traffic signal system to monitor and optimize traffic flow along this busy arterial street between 6th Street and 23rd Street. The City has upgraded its Eagle EPAC controllers and has the interconnect conduit already in place. The closed-loop system would be linked to a central signal system control proposed to be installed as part of another project. The central system control would be capable of eventually linking with all traffic signals in the city, and be upgraded to serve other ITS uses.												
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: <table style="width: 100%;"> <tr> <td style="vertical-align: top;"> 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 </td> <td style="vertical-align: top;"> 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 </td> </tr> </table>		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	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								
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Related Projects/Interfaces: This project, as currently conceptualized, would be dependent on the 6th Street Closed-Loop Traffic Signal System project. This project, though, could stand alone as an isolated corridor signal system.												
Telecommunication Needs/Considerations: All system communications would be via fiber optic cable installed as part of the project. This cable would be installed in conduit already in place along Iowa Street.												
Design Needs and Considerations: The project is rather straightforward and uses off-the-shelf technology (Eagle Signal field master). Plans and specifications would need to be developed to identify manhole and pull box locations, identify construction requirements, and summarize quantities.												
Deployment Timeline: <div style="display: flex; align-items: center;"> <div style="display: flex; gap: 5px;"> <input type="checkbox"/> 2000 <input type="checkbox"/> 2001 <input type="checkbox"/> 2002 <input checked="" type="checkbox"/> 2003 <input type="checkbox"/> 2004 <input type="checkbox"/> 2005 <input type="checkbox"/> 2006 <input type="checkbox"/> 2007 <input type="checkbox"/> 2008 <input type="checkbox"/> 2009 <input type="checkbox"/> 2010 <input type="checkbox"/> Long Term </div> <div style="margin-left: 20px;"> </div> </div>												
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<input checked="" type="checkbox"/> ITS Set-aside	<input checked="" type="checkbox"/> Public/Private											
<input type="checkbox"/> Local Projects	<input type="checkbox"/> Other -											
Project Type: New Deployment	Project Status: Proposed	Completion Date: 12/31/02										

David W-For your files. TAG



MIKE WILDGEN, CITY MANAGER

City of Lawrence KANSAS

CITY OFFICES

BOX 708

66044-0708

6 EAST 6th

785-832-3000

TDD 785-832-3205

FAX 785-832-3405

CITY COMMISSION

MAYOR

JAMES R. HENRY

COMMISSIONERS

MIKE RUNDLE

ERVIN E. HODGES

MARTIN A. KENNEDY

DAVID M. DUNFIELD

August 18, 2000

Mr. Matt Volz
ITS Coordinator
Kansas Department of Transportation
Room 830, Docking State Office Building
Topeka, KS 66612-1568

**Re: Applications for ITS Set-Aside Funds
6th Street Closed-Loop Traffic Signal System
Iowa Street Closed-Loop Traffic Signal System
Lawrence, Kansas**

Dear Mr. Volz:

The City of Lawrence is pleased to submit these applications for ITS Set-Aside funds for FY2001. We appreciate the opportunity to take part in the deployment of ITS technology and believe that our projects have the potential to provide meaningful benefits to motorists and can be done in a relatively short time period to help you further promote ITS in Kansas.

We are submitting two applications - one for 6th Street between Iowa Street and Massachusetts, and one for Iowa Street between 6th Street and 23rd Street. Both projects are for the development of closed-loop traffic signal systems.

Our project champion is David Woosley, City Traffic Engineer. Since coming to Lawrence, David has been positioning us for the continual development of our traffic signal system. We have standardized and upgraded all of our signal controllers, he has commissioned a Traffic Signal Master Plan to help guide the future development of our signal system, and he has successfully negotiated the installation of conduit along some of our major arterial streets for traffic signal interconnect.

We do not anticipate any significant operations and maintenance costs above and beyond our normal functions and manpower. We recently added a staff member to address traffic signal timings and operations. This person will be responsible for operating the new central software and our maintenance crews will be capable of handling any problems with the relatively simple field master and communications network. We recognize, though, that as we continue to develop closed-loop systems, we will need to add at least one additional staff member. That hire is still at least a few years away.



We are committed to providing excellent city services that enhance the quality of life for the Lawrence community

Thank you again for this opportunity. Please call me at 785-832-3130 if you should need any additional information before you make your selection.

Sincerely,

Terese A. Gorman

Terese A. Gorman, P.E.
City Engineer

Kansas ITS Project Form

Project Name (with ITS Involvement): 6th Street Closed-Loop Traffic Signal System		KITS ID:	
Project Champion (Name/Bureau): David Woosley, City Traffic Engineer, City of Lawrence, Kansas		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 conduit already in place. The central signal system control would be installed in the Traffic Maintenance Shop at 5th and Mississippi, one block north of the project corridor. The central system control would be capable of eventually linking with all traffic signals in the city, and be upgraded to serve other ITS uses.			
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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 and nearing completion.			
Telecommunication Needs/Considerations: All system communications would be via fiber optic cable installed as part of the project. This cable would be installed in conduit already in place along 6th Street. The central system hardware/software would be located one block from the project corridor.			
Design Needs and Considerations: The project is rather straightforward and uses off-the-shelf technology (Eagle Signal field master and software for the central system in order to be compatible with all controllers in the city). Plans and specifications would need to be developed to identify manhole and pull box locations, identify construction requirements, and summarize quantities. Bid contract would include on-the-job and classroom training of city staff in fiber optics and the central control software.			
Deployment Timeline: <p>2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 Long Term →</p>			
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Project Type: New Deployment		Project Status: Proposed	
		Completion Date: 10/31/01	

Kansas ITS Project Form

Project Name (with ITS Involvement): Iowa Street Closed-Loop Traffic Signal System		KITS ID:		
Project Champion (Name/Bureau): David Woosley, City Traffic Engineer, City of Lawrence, Kansas		KDOT Project No.:		
Project Description: Installation of fiber optic cable and modems to develop a closed-loop traffic signal system to monitor and optimize traffic flow along this busy arterial street between 6th Street and 23rd Street. The City has upgraded its Eagle EPAC controllers and has the conduit already in place. The closed-loop system would be linked to a central signal system control proposed to be installed as part of another project. The central system control would be capable of eventually linking with all traffic signals in the city, and be upgraded to serve other ITS uses.				
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Design Needs and Considerations: The project is rather straightforward and uses off-the-shelf technology (Eagle Signal field master). Plans and specifications would need to be developed to identify manhole and pull box locations, identify construction requirements, and summarize quantities.				
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Project Type: New Deployment		Project Status: Proposed		
		Completion Date: 12/31/01		