CITY COUNCIL COMMUNICATION:

03-383

AGENDA:

AUGUST 11, 2003

SUBJECT:

IOWA DEPARTMENT OF TRANSPORTATION TRAFFIC SAFETY FUND APPLICATIONS

TYPE:

RESOLUTION
ORDINANCE
RECEIVE/FILE

SUBMITTED BY:

JEB E. BREWER, P.E.
CITY ENGINEER

ITEM ____

OFFICE OF THE CITY MANAGER
CITY OF DES MOINES, IOWA

SYNOPSIS —

The Iowa Department of Transportation (IDOT) has an annual program to provide funds for Traffic Safety Fund (TSF) improvements. The deadline for this year's applications is August 15, 2003. Staff has reviewed various high-accident locations and has developed four (4) projects for submittal: 38th Street and Douglas Avenue Widening and Signalization; E.14th/SE 14th Street Traffic Signal Visibility Improvements; E. 14th/E. 15th Street Traffic Signal Improvements; and 2nd Avenue and Douglas Avenue Intersection Traffic Signal Upgrade.

FISCAL IMPACT —

1. 38th Street and Douglas Avenue Widening and Signalization

Traffic Safety Funds Requested	$500,000
Total Project Cost	$2,600,000

(If TSF funding is approved, additional funding sources would be considered.)

2. E.14th/SE 14th Street Traffic Signal Visibility Improvements

Traffic Safety Funds Requested	$88,000
City Funds (Design/Inspection)	$10,000
Total Project Cost	$98,000

3. E. 14th/E. 15th Street Traffic Signal Improvements (State Capitol Area)

Traffic Safety Funds Requested	$215,000
City Funds (Design/Inspection)	$30,000
Total Project Cost	$245,000

4. 2nd Avenue and Douglas Avenue Intersection Traffic Signal Upgrade

Traffic Safety Funds Requested	$120,000
City Funds (Design/Inspection)	$15,000
Total Project Cost	$135,000

For the 38th and Douglas improvements, City funding would be requested through a future Capital Improvement Program (CIP) if

this project is approved by IDOT. For the other three signal projects, the City funding would come from the existing CIP, Citywide Signals, Channelization and School Crossing Protection Program, or Citywide Traffic Signal Interconnection Program.

RECOMMENDATION —

Approval and authorization to submit an application to IDOT for Traffic Safety Funds for these four projects.

BACKGROUND —

IDOT implemented an annual program beginning in 1988 to provide for traffic safety improvements. These improvements may include roadway construction projects to correct high-accident locations, upgrading of obsolete traffic control devices to comply with the requirements of the Manual on Uniform Traffic Control Devices, or traffic studies to determine how to correct a safety problem.

Since the program began, Des Moines has been successful in receiving approval of 43 projects and approximately $8.6 million, including several major intersection improvements, traffic signal upgrades, and other safety projects. Applications are currently being accepted until August 15, 2003, for the next programming cycle. Staff has reviewed the accident history at various locations, and recommends that the following projects be submitted for the next funding cycle.

1. 38th Street and Douglas Avenue Widening and Signalization

   The proposed project consists of the widening of Douglas Avenue at the intersection of 38th Street to a 58-foot back-to-back pavement within an 80-foot right-of-way in order to provide for an east-west left-turn lane. Additional right-of-way will be required on the northeast, northwest, and southwest quadrants. In order to minimize the impact on adjacent properties, the left-turn length is designed at 75 feet long, with a 20:1 taper back to the existing pavement width. New traffic signals would be installed at the intersection, and would be coordinated into the existing Douglas Avenue signal system.

   The current estimated project cost for this improvement is $2.6 million, which assumes significant right-of-way impacts. Traffic Safety Funding of $500,000 is requested.

2. E.14th/SE 14th Street Traffic Signal Visibility Improvements

   The proposed project consists of replacing the existing signal

heads along E. 14th and SE 14th Street with new Light Emitting Diode (LED) signal heads and backplates for greater visibility. Side-mounted signals would also be installed. The improved visibility is expected to reduce rear-end and right-angle collisions. In addition, the new LED signals provide substantial energy savings, replacing a 135-watt signal bulb with an 18-watt LED. The estimated cost for this project is $88,000, which is requested from Traffic Safety Funds for purchase of the new signal heads and backplates. The City will have minor costs of about $10,000 for design and inspection activities, and will install the new heads with City signal crews.

3. E. 14th/E. 15th Street Traffic Signal Improvements (State Capitol Area)

   The proposed project consists of improvements at the signalized intersections along the E. 14th Street/E. 15th Street (U.S. 69) corridor between Court Avenue and Walker Street. The existing overhead signals would be replaced with new LED signals and backplates, and side-mounted signal indications would be added. At side-street locations, overhead mast-arm signals and backplates would be added at locations where they currently are side-mounted only. The existing twisted-pair interconnect system would be replaced with a fiberoptic system in order to provide more reliable and expanded communications ability to the traffic signals within the project area. It would also allow a direct fiberoptic connection between the City's Traffic Operations Center and the SE 14th Street Signal System which extends along SE 14th Street to the Southridge Mall area. The system currently relies on a dial-up telephone modem for communications. The estimated construction cost for this project is $215,000. The City will have design/inspection costs of approximately $30,000, for a total project cost of $245,000.

4. 2nd Avenue and Douglas Avenue Intersection Traffic Signal Upgrade

   The proposed improvement consists of upgrading the existing traffic signal installation at the intersection of 2nd Avenue and Douglas Avenue. The existing traffic signal poles would be removed and new foundations and poles would be installed outside the 10-foot clear zone. Overhead signals would be installed on Douglas Avenue, and backplates would be installed on all overhead signals. Side-street detection would be installed on Douglas Avenue in order to operate the intersection signal in a "semi-actuated" mode. The total construction cost is estimated to be $120,000. The City will have design/inspection costs of approximately $15,000, for a

	total project cost of $135,000.