

**CITY COUNCIL
COMMUNICATION:**

ITEM _____

**OFFICE OF THE CITY MANAGER
CITY OF DES MOINES, IOWA**

02-455

SYNOPSIS -

AGENDA:

AUGUST 19, 2002

SUBJECT:

IOWA
DEPARTMENT OF
TRANSPORTATION
TRAFFIC SAFETY
FUND
APPLICATIONS

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, 2002, with Council authorization to be received by IDOT no later than September 4, 2002. Staff has reviewed various high-accident locations and has developed three (3) projects for submittal: SE 14th Street (US 69) and East Indianola Avenue Right-Turn Lane and Traffic Signal Modifications; Arterial Street Traffic Signal Visibility Improvements; and Merle Hay Road and Aurora Avenue Traffic Signal Upgrade.

FISCAL IMPACT -

TYPE:

**RESOLUTION
ORDINANCE
RECEIVE/FILE**

1. SE 14th Street (US 69) and East Indianola Avenue Right-Turn Lane and Traffic Signal Modifications

Traffic Safety Funds Requested	\$129,000
City Funds (Design/Inspection)	\$21,000
Total Project Cost	\$150,000

SUBMITTED BY:

JEB BREWER, P.E.
CITY ENGINEER

2. Arterial Street Traffic Signal Visibility Improvements

Traffic Safety Funds Requested	\$50,000
City Funds (Design/Inspection)	\$5,000
Total Project Cost	\$55,000

3. Merle Hay Road and Aurora Avenue Traffic Signal Upgrade

Traffic Safety Funds Requested	\$45,000
City Funds (Design/Inspection)	\$10,000
Total Project Cost	\$55,000

For the SE 14th and Indianola improvements, City funding would be requested through a future Capital Improvement Program if this project is approved by the IDOT. For the other two signal projects, the City funding would come from the existing CIP, Citywide Signals, Channelization and School Crossing Protection Program.

RECOMMENDATION -

Approval.

BACKGROUND -

The 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 41 projects and approximately \$8.3 million, including several major intersection improvements, traffic signal upgrades, and other safety projects. Applications are currently being accepted until August 15, 2002, 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. SE 14th Street (US 69) and East Indianola Avenue Right-Turn Lane and Traffic Signal Modifications

This project includes a combination of several improvements, including a right-turn lane on Indianola Avenue to turn south onto SE 14th Street, modifications to the existing traffic signals, and relocation of a driveway on Indianola Avenue farther southeast from the intersection. New signal timings, phasing and offsets will more

efficiently serve traffic at the intersection and should decrease excessive delays and rear-end, right-angle, and left-turning collisions due to unexpected stops. The turn lane will increase capacity at the intersection by providing a separate lane for this very heavy turning movement and enhance safety by reducing lane shifting of vehicles on Indianola Avenue through the intersection. Moving the driveway in the northeast corner farther from the intersection will reduce turning conflicts at the intersection and still provides good access to this commercial area.

The estimated project cost for this improvement is \$150,000 that includes \$95,000 for the turn lane, \$22,000 for the signal modifications, and \$33,000 for the driveway relocation. Traffic Safety Funding of \$129,000 is requested for construction and minor right-of-way costs, with estimated City costs of \$21,000 for design, inspection, and contract administration.

2. Arterial Street Traffic Signal Visibility Improvements

The proposed project consists of replacing the existing signal heads along E. 14th and SE 14th Street with new LED signal heads and backplates for greater visibility. 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 \$55,000, with \$50,000 requested from Traffic Safety Funds for purchase of the new signal heads and backplates. The City will have minor costs of about \$5,000 for design and inspection activities, and will install the new heads with City signal crews.

3. Merle Hay Road and Aurora Avenue Traffic Signal Upgrade

This project consists of upgrading the existing signals at the intersection of Merle Hay Road (Iowa 28) and Aurora Avenue. The existing signals, including the left-turn signals, will be replaced with new LED's and backplates for better visibility. Pole-mounted signal heads will be added, along with pedestrian signals and pushbuttons. The existing signal poles were installed approximately 10 years ago and are located outside the 10-foot clear zone, so they will not need to be modified. Durable pavement markings will be included to provide enhanced lane markings for the approach lanes. Traffic Safety Funds of \$45,000 will be requested for construction costs, with an estimated \$10,000 of City cost for design and inspection.
