Traffic Safety Improvement Program

Applications for
STUDIES, RESEARCH, PUBLIC INFORMATION INITIATIVES
FY 2016

Received August 15, 2014

STUDIES, RESEARCH, PUBLIC INFORMATION INITIATIVES
FY 2016

Page No.	Applicant	Title/Subject	$ $ $	
			Project	Request
1	Iowa DOT Office of Traffic and Safety	In-Service Performance Evaluation of Median Cable Barrier in Iowa	$150,000	$150,000
3	Iowa DOT	High Friction Surface Treatment (Data Collection and Evaluation)	$110,000	$50,000
5	Iowa DOT, Office of Traffic and Safety	Strategic Highway Safety Plan Implementation	$50,000	$50,000
9	Iowa DOT, Office of Traffic and Safety	Traffic and Safety Forum, Training, & Peer Exchange	$30,000	$30,000
13	Iowa DOT, Office of Traffic and Safety	Work Zone Safety Training	$110,000	$55,000
15	Iowa DOT, Office of Traffic and Safety	Data Analysis, Truck Rollover Crashes Due to High Winds		$40,000
19	Iowa DOT, Office of Traffic and Safety	SHSP Data Analysis	$30,000	$30,000
23	Iowa DOT, Systems Planning	Statewide/Bicycle Media Campaign	$27,000	$20,000
27	Iowa DOT, Office of Traffic and Safety	Zero Fatalities Conference	$25,000	$25,000
31	Iowa DOT, Office of Design	Crash Cushion Selection Criteria – Phase IV	$20,000	$20,000
35	Iowa DOT, Office of Design	Crash Cushion Selection Criteria – Phase III	$20,000	$20,000
39	City of Norwalk, Iowa	Highway 28, Sub-Area 1 Master Planning	$18,000	$18,000
47	Iowa DOT, Office of Traffic and Safety	Local Technical Assistance Program (LTAP)	$145,000	$85,000
51	Iowa DOT, Office of Traffic and Safety	Installation Guidance for Centerline and Edge Line Rumble Strips in Narrow Pavements	$50,000	$50,000

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STUDIES, RESEARCH, PUBLIC INFORMATION INITIATIVES (Continued)

53	Iowa DOT, Office of Design	Crash Cushion Selection Criteria – Phase II	$20,000	$20,000
57	Iowa DOT, Office of Design	Crash Cushion Selection Criteria – Phase I	$20,000	$20,000
61	Iowa DOT, Office of Traffic and Safety	Go Team II: Study for all Iowa Fatalities	$50,000	$50,000
71	Iowa DOT, Office of Traffic and Safety	Iowa Traffic Safety Data Service (ITSDS)	$200,000	$50,000
75	Iowa DOT, Office of Traffic and Safety	Coupons for Motorcycle Safety Course	$75,000	$75,000
77	Creston Police Department	Creston Speed and Traffic Project – Part 2	$5,200	$5,200
83	Iowa DOT, Office of Traffic and Safety	Analysis: Iowa SPF-CMF Development	$200,000	$200,000
87	City of Waterloo	Television Broadcast Traffic Safety Awareness Campaign	$60,000	$60,000
93	Iowa Dot	Safety Guide for County Engineers	$40,000	$40,000
95	Iowa Dot	Evaluation of the Magnitude of School Bus Stop Arm Passing	$80,000	$40,000
	Totals	**24 Projects**	**$1,535,200**	**$1,203,200**

Iowa Department of Transportation

Rev. 3/08

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: In-Service Performance Evaluation of Median Cable Barrier in Iowa

Applicant: Iowa DOT Office of Traffic & Safety

Contact Person: Chris Poole Title: Safety Programs Engineer

Complete Mailing Address: 800 Lincoln Way

Ames, IA 50010

Phone: (515) 239-1267 (Area Code) E-Mail: chris.poole@dot.iowa.gov

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s): _____

Contact Person: _____ Title: _____

Complete Mailing Address: _____

_____

Phone: _____ (Area Code) E-Mail: _____

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- Site Specific ☐
- Traffic Control Device ☐
- Safety Study ☒

Funding Amount

Total Project Cost: $ 150,000

Safety Funds Requested: $ 150,000

Title
In-Service Performance Evaluation of Median Cable Barrier in Iowa

Background
In an effort to reduce the occurrence of cross-median crashes, the Iowa DOT began installing median cable barriers on its Interstate highways in 2003. Since that time, approximately 270 more miles of these barriers have been installed. While it appears that the barriers are functioning as desired, no in-depth analysis of their performance has yet been completed.

Objective
The objective of this project is to conduct an in-depth analysis of the effectiveness of Iowa's Interstate median cable barriers. This effort should result in a comprehensive document describing the performance of the barriers, similar to studies conducted in Washington, Illinois, and Wisconsin.

Activities in this effort may include:

- Benefit/Cost analyses taking into account:
    - Crash experience
    - Construction costs
    - Maintenance and repair costs
- Comparison of:
    - Barrier manufacturers
    - Barrier location/offset
- In-Depth analysis of:
    - Large truck crashes
    - Motorcycle crashes
    - Secondary crashes

Implementation
It is anticipated that the results of this research would be used to guide future investments into median cable barriers. The results may also be used to modify Iowa DOT's installation and/or maintenance practices.

Estimated Cost: $150,000

Duration: Completion within 2 years from Notice to Proceed

Iowa Department of Transportation

Rev. 3/08

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: High Friction Surface Treatment (Data Collection and Evaluation)

Applicant: Iowa DOT

Contact Person: T Ostendorf, M Pawlovich Title: _____

Complete Mailing Address: Iowa DOT, Office of Traffic and Safety

_____

Phone: 515-239-1077 (Area Code) E-Mail: Terry.Ostendorf@dot.iowa.gov

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s): _____

Contact Person: _____ Title: _____

Complete Mailing Address: _____

_____

Phone: _____ (Area Code) E-Mail: _____

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- Site Specific ☐
- Traffic Control Device ☐
- Safety Study ☒

Funding Amount

Total Project Cost: $ 110,000

Safety Funds Requested: $ 50,000

APPLICATION CERTIFICATION FOR LOCAL GOVERNMENT

To the best of my knowledge and belief, all information included in this application is true and accurate, including the commitment of all physical and financial resources. This application has been duly authorized by the participating local government(s). I understand the attached resolution(s) binds the participating local government(s) to assume responsibility if any additional funds are committed, and to ensure maintenance of any new or improved city streets or secondary roads.

I understand that, although this information is sufficient to secure a commitment of funds, a firm contract between the applicant and the Department of Transportation is required prior to the authorization of funds.

Representing the _____

Signed: _____

Signature Date Signed

_____

Typed Name

Attest: _____

Signature Date Signed

_____

Typed Name

Iowa Department of Transportation

Rev. 3/08

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: Strategic Highway Safety Plan Implementation

Applicant: Iowa DOT, Office of Traffic & Safety

Contact Person: Jan Laaser-Webb Title: State Safety Engineer

Complete Mailing Address: 800 Lincoln Way

Ames, Iowa

Phone: 515-239-1349 (Area Code) E-Mail: jan.laaser-webb@dot.iowa.gov

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s): _____

Contact Person: _____ Title: _____

Complete Mailing Address: _____

_____

Phone: _____ (Area Code) E-Mail: _____

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- Site Specific ☐
- Traffic Control Device ☐
- Safety Study ☒

Funding Amount

Total Project Cost: $ 50,000

Safety Funds Requested: $ 50,000

APPLICATION CERTIFICATION FOR LOCAL GOVERNMENT

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Representing the _____

Signed: _____

Signature Date Signed

Jan Laaser-Webb

Typed Name

Attest: _____

Signature Date Signed

_____

Typed Name

Title: Strategic Highway Safety Plan Implementation

Background:
Iowa DOT's Office of Traffic & Safety has published the 2013 Strategic Highway Safety Plan with the help of other safety professionals on the SHSP Advisory Team. Members of the SHSP Advisory Team have been implementing the strategies identified in the plan and continue to need funds to reach the plan goals. Implementation requires resources such as staff time and funding sources.

Project:
This effort will be under the direction of the State Safety Engineer and Safety staff with input from safety partners involved with the SHSP.

This project will assist with the implementation of the safety goals identified in the plan. Implementation efforts are carried out within normal programs and activities whenever possible. This program is built to augment implementation activities that fall outside normal operations. Sponsored activities may include hosting outreach events, providing promotion safety materials to conferences and/or events, supporting safety communications and outreach, sponsoring research opportunities, providing training and education, supporting equipment purchases, and other multi-disciplinary activities that support the SHSP. Implementation of valuable strategies that reduce fatalities and serious injuries is the purpose.

Cost:
$50,000

Schedule:
Funds to be used in FY 2016

Iowa Department of Transportation

Rev. 3/08

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: Traffic & Safety Forum, Training, & Peer Exchange

Applicant: Iowa DOT, Office of Traffic & Safety

Contact Person: Jan Laaser-Webb Title: State Safety Engineer

Complete Mailing Address: 800 Lincoln Way

Ames, Iowa

Phone: 515-239-1349 (Area Code) E-Mail: jan.laaser-webb@dot.iowa.gov

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s): _____

Contact Person: _____ Title: _____

Complete Mailing Address: _____

_____

Phone: _____ (Area Code) E-Mail: _____

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- Site Specific ☐
- Traffic Control Device ☐
- Safety Study ☒

Funding Amount

Total Project Cost: $ 30,000

Safety Funds Requested: $ 30,000

APPLICATION CERTIFICATION FOR LOCAL GOVERNMENT

To the best of my knowledge and belief, all information included in this application is true and accurate, including the commitment of all physical and financial resources. This application has been duly authorized by the participating local government(s). I understand the attached resolution(s) binds the participating local government(s) to assume responsibility if any additional funds are committed, and to ensure maintenance of any new or improved city streets or secondary roads.

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Representing the _____

Signed: _____

Signature Date Signed

Jan Laaser-Webb August 15, 2014

Typed Name

Attest: _____

Signature Date Signed

_____

Typed Name

Title: Traffic and Safety Forum, Training, Peer Exchange

Background:
The Iowa DOT requires staff to be involved in the traffic and safety engineering decisions as part of the project development process. Management has requested training and peer exchange opportunities to enhance traffic/safety knowledge and capability.

Project:
The objective of this project is to provide up to date traffic safety resources, tools and training for Iowa's state and local engineers, and to foster sharing of knowledge and best practices among transportation safety professionals.

Activities may include hosting conferences or events, sponsoring attendance to such events, or sponsoring training programs.

Cost:
$30,000

Schedule:
Funds to be used in FY 2016

Iowa Department of Transportation

Rev. 3/08

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: Work Zone Safety Training

Applicant: Iowa DOT, Office of Traffic & Safety

Contact Person: Steven Schroder Title: Traffic Safety Engineer

Complete Mailing Address: 800 Lincoln Way

Ames, IA 50010

Phone: 515-239-1623 (Area Code) E-Mail: steven.schroder@dot.iowa.gov

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s): _____

Contact Person: _____ Title: _____

Complete Mailing Address: _____

_____

Phone: _____ (Area Code) E-Mail: _____

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- Site Specific ☐
- Traffic Control Device ☐
- Safety Study ☒

Funding Amount

Total Project Cost: $ 110,000

Safety Funds Requested: $ 55,000

A. Not applicable

B. The Iowa DOT supports an ongoing program for training city, county, state, contractor, and utility personnel in traffic control within work zones. Motor vehicle crashes in work zones continue to kill and injure motorists and workers each year. Despite the hundreds of workers trained yearly (approximately 770 in 2014), many road workers have yet to be reached with training in basic work zone safety.

   Some localities send several staff members each year and thus maintain an adequate training level over time. Other localities participate irregularly or not at all. Efforts are made to reach all Iowans who work on or adjacent to the roadway to insure that they understand proper traffic control methods required by law, according to the Manual on Uniform Traffic Control Devices, Part VI.

   Objectives:

   - To conduct approximately 10 day-long workshops at locations across Iowa to accommodate at least 800 participants
   - To have instruction tailored to city, county, contractor, utility, and Iowa DOT personnel
   - To retain consultant services for the primary trainer
   - To develop local personnel to assist in training
   - Partial funding of registration fees – this funding will help to keep the registration fee as low as possible for those attending the training

C. The estimated cost of this project is $55,000 for training in the winter of 2015-16.

D. The anticipated time schedule for this project is for training for the winter of 2015-16.

Iowa Department of Transportation

Rev. 3/08

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: Data Analysis: Truck Rollover Crashes Due to High Winds

Applicant: Iowa Department of Transportation, Office of Traffic and Safety

Contact Person: Terry Ostendorf Title: _____

Complete Mailing Address: 800 Lincoln Way
Ames, IA 50010

Phone: (515) 239-1077 (Area Code) E-Mail: Terry.Ostendorf@dot.iowa.gov

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s): _____

Contact Person: _____ Title: _____

Complete Mailing Address: _____

_____

Phone: _____ (Area Code) E-Mail: _____

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- Site Specific ☐
- Traffic Control Device ☐
- Safety Study ☒

Funding Amount

Total Project Cost: $ _____

Safety Funds Requested: $ 40,000

APPLICATION CERTIFICATION FOR LOCAL GOVERNMENT

To the best of my knowledge and belief, all information included in this application is true and accurate, including the commitment of all physical and financial resources. This application has been duly authorized by the participating local government(s). I understand the attached resolution(s) binds the participating local government(s) to assume responsibility if any additional funds are committed, and to ensure maintenance of any new or improved city streets or secondary roads.

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Signed: _____

Signature Date Signed

_____

Typed Name

Attest: _____

Signature Date Signed

_____

Typed Name

A. Not applicable.

B. Project Narrative

Of various adverse weather factors, high winds are one of the major causes of crashes. Truck rollover crashes could cause infrastructure damages, injuries, fatalities, delays, and significant economic losses. The objective of this project is to analyze causal effects on high wind crashes, and identify problematic areas within Iowa's Commercial and Industrial Network (CIN). Crashes due to high winds, in the form of blow-over, push-over, slide-over (associated with slick pavement), yaw, and blown apart, could be attributed to a number of factors, such as traffic volume, roadway geometry, vehicle speed and configurations. Therefore, historical data will be compiled and analyzed, including the crash reports (date, time, location, vehicle configurations (trailer, height, weight, and speed), officer's description, etc.), wind data (wind speed, direction, gust speed), AADT (all vehicles and trucks), roadway features (vertical and horizontal alignments, roadside and overhead obstructions). Dangerous areas with high crash rate, wind gusts, and high truck volume will be identified. The outcome of the proposed research can help Iowa DOT better understand the risky areas for truckers to drive through during high winds, and design risk mitigation systems accordingly, for example, high wind warnings and enforceable restrictions on high profile vehicles.

C. Estimated Cost

A total of $40,000 TSIP funding is requested for the data analysis. Additional funding from MTC will be sought to establish engineering relationships between side wind forces and vehicle performance. By taking advantage of the wind tunnel facilities in the Aerospace Engineering department at ISU, lab experiments can be conducted.

D. Project Duration

12 months, from July 1, 2015 to June 30, 2016.

Iowa Department of Transportation

Rev. 3/08

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: SHSP Data Analysis

Applicant: Iowa DOT, Office of Traffic & Safety

Contact Person: Jan Laaser-Webb Title: State Safety Engineer

Complete Mailing Address: 800 Lincoln Way

Ames, Iowa

Phone: 515-239-1349 (Area Code) E-Mail: jan.laaser-webb@dot.iowa.gov

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s): _____

Contact Person: _____ Title: _____

Complete Mailing Address: _____

_____

Phone: _____ (Area Code) E-Mail: _____

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- Site Specific ☐
- Traffic Control Device ☐
- Safety Study ☒

Funding Amount

Total Project Cost: $ 30,000

Safety Funds Requested: $ 30,000

APPLICATION CERTIFICATION FOR LOCAL GOVERNMENT

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Representing the _____

Signed: _____

Signature Date Signed

Jan Laaser-Webb August 15, 2015

Typed Name

Attest: _____

Signature Date Signed

_____

Typed Name

Title: Strategic Highway Safety Plan Data Analysis

Background:
Iowa DOT's Strategic Highway Safety Plan requires annual reports and data updates. In support of the annual reports, rigorous data analysis is required to determine key metrics related to the safety performance of Iowa's roadways.

Project:
The purpose of this study is to investigate the safety trends and characteristics in recently completed calendar years in order to fulfill annual reporting requirements. In addition, analysis of regional areas delineated by DOT Districts, Iowa Counties, or other limits may be initiated to assist transportation officials in those areas in decision making.

These data analysis efforts will be utilized by decision makers to establish directions for systemic safety improvements and other transportation improvements for upcoming years.

Cost:
$30,000

Schedule:
Funds to be used in FY 2016

Iowa Department of Transportation

Rev. 3/08

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: Statewide/ Bicycle Safety Media Campaign

Applicant: Iowa DOT - Systems Planning

Contact Person: Craig Markley Title: Office Director

Complete Mailing Address: 800 Licoln Way

Ames, IA 50010

Phone: 515-239-1027 (Area Code) E-Mail: craig.markley@dot.iowa.gov

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s): Iowa Bicycle Coalition

Contact Person: Mark Wyatt Title: Executive Director

Complete Mailing Address: P.O. Box 5562

Coralville, IA 52241

Phone: 515-309-2867 (Area Code) E-Mail: mark@iowabicyclecoalition.org

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- Site Specific ☐
- Traffic Control Device ☐
- Safety Study ☒

Funding Amount

Total Project Cost: $ 27,000

Safety Funds Requested: $ 20,000

APPLICATION CERTIFICATION FOR LOCAL GOVERNMENT

To the best of my knowledge and belief, all information included in this application is true and accurate, including the commitment of all physical and financial resources. This application has been duly authorized by the participating local government(s). I understand the attached resolution(s) binds the participating local government(s) to assume responsibility if any additional funds are committed, and to ensure maintenance of any new or improved city streets or secondary roads.

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Representing the _____

Signed: _____

Signature Date Signed

_____

Typed Name

Attest: _____

Signature Date Signed

_____

Typed Name

NARRATIVE outlining the proposed concept and the goals or expected results.
Include statewide applicability, and provide adequate transportation safety justification.

Overtaking crashes involving bicycles are a problem in Iowa. Statistics suggest Iowa's average of fatal overtaking crashes is larger than the national average. Efforts need to be expanded to decrease overtaking crashes involving bicycles.

According to Iowa Bicycle Crash data, non-intersection crashes have been on a steady rise since 2010 when 157 crashes occurred to 186 crashes in 2012. Unsafe passing movements contributed to 75% of fatal bike crashes in Iowa in 2013, 100% in 2012, and 100% in 2011. Nationally, rear end collisions with bicycles comprised 40% of fatal crashes from February 2011 to February 2013.

Recently, the Iowa Attorney General issued a letter of advice to the Iowa DOT on passing bicyclists. The letter of advice stated, "1. A bicycle does constitute a "vehicle" under Iowa Code §321.299; and 2. The rules set forth in that section relating to the overtaking and passing of vehicles also apply to the overtaking and passing of bicycles." The Iowa DOT changed the drivers manual to reflect this by changing the manual to read, "Give bicycle riders the room they deserve and need for safety. When passing a bicycle rider, pass as if the cyclist were a vehicle and move into the other lane."

Anecdotally, most Iowans understand this when driving. People riding bicycles on streets or highways will have a story of one or two motorist that "buzz" the riders. Operationally, motorists need to treat people riding bicycles as they would any other vehicle and change lanes to pass. An informational campaign will be focused on the change lanes to pass bikes message.

The Iowa Bicycle Coalition recommends an informational awareness campaign on passing bicyclists safely. Multiple approaches are recommended, including web/social media, drivers education, and mass media advertising.

Website and Social Media Campaign
1. A microsite will be built at the Iowa Bicycle Coalition's website, with a separate domain (changelanestopassbikes.com) and subdomain (safepassing.iowabicyclecoalition.org).
2. The microsite will be populated with information on safe passing laws, tips, and instruction.
3. The microsite will be advertised using funds from a Google Grant.
4. The microsite will be promoted on Facebook on a frequent basis.

Drivers Education
1. Create and distribute a online drivers education curriculum.
2. Create volunteer opportunities for bicyclists to speak at driver education courses.

Mass Media
1. Start a spring radio campaign to promote the change lanes to pass bicycles theme.
2. Begin a spring print campaign.
3. Create an intensive local media campaign in the Des Moines metro radio stations.

ESTIMATED COST including a list of the sources and amounts of supplementary funds (itemized if possible).

Item	Quantity	Cost/Unit	Total Cost	TSIP	Google	PFB[1] Grant
Des Moines Radio Group Marketing Package	**1**	**$5,000**	**$5,000**	**$5,000**	--	--
Radio Iowa Marketing Package	**1**	**$10,000**	**$10,000**	**$10,000**	--	--
Gannett/Register Media	**1**	**$5,000**	**$5,000**	**$5,000**	--	--
Microwebsite	**1**	**$2,000**	**$2,000**	--	--	**$2,000**
Google Advertising	**1**	**$2,000**	**$2,000**	--	**$2,000**	--
Promotional Materials (stickers, flyers, etc)	**1**	**$3,000**	**$3,000**	--	--	**$3,000**
TOTAL			**$27,000**	**$20,000**	**$2,000**	**$5,000**

[1] People for Bikes Community Grant

A TIME SCHEDULE for the proposed project with a completion date.

Website and Social Media Campaign

- January 2015 Build Website
- March 2015 to TBA Advertise Website
- April 2015 to September 2015 Promote website on social media

Drivers Education

- February 2015 Build and market driver education curriculum to instructors
- Spring 2015 Beta test course
- Summer 2015 Full implementation
- Fall 2015 Full Implementation and survey results

Mass Media

- May 2015 Statewide Radio Campaign
- June 2015 Gannett Print Campaign
- May 2015 to July 2015 Des Moines Radio Promotion

Iowa Department of Transportation

Rev. 3/08

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: Zero Fatalities Conference

Applicant: Iowa DOT, Office of Traffic & Safety

Contact Person: Jan Laaser-Webb Title: State Safety Engineer

Complete Mailing Address: 800 Lincoln Way

Ames, Iowa

Phone: 515-239-1349 (Area Code) E-Mail: jan.laaser-webb@dot.iowa.gov

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s): _____

Contact Person: _____ Title: _____

Complete Mailing Address: _____

_____

Phone: _____ (Area Code) E-Mail: _____

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- Site Specific ☐
- Traffic Control Device ☐
- Safety Study ☒

Funding Amount

Total Project Cost: $ 25,000

Safety Funds Requested: $ 25,000

APPLICATION CERTIFICATION FOR LOCAL GOVERNMENT

To the best of my knowledge and belief, all information included in this application is true and accurate, including the commitment of all physical and financial resources. This application has been duly authorized by the participating local government(s). I understand the attached resolution(s) binds the participating local government(s) to assume responsibility if any additional funds are committed, and to ensure maintenance of any new or improved city streets or secondary roads.

I understand that, although this information is sufficient to secure a commitment of funds, a firm contract between the applicant and the Department of Transportation is required prior to the authorization of funds.

Representing the _____

Signed: _____
Signature Date Signed

Jan Laaser-Webb August 15, 2014
Typed Name

Attest: _____
Signature Date Signed

_____
Typed Name

Title: Zero Fatalities Conference

Background:
The State of Iowa has committed to a Zero Fatalities vision for Iowa's roadways. Partner agencies include, but are not limited to, the Departments of Transportation, Public Safety, and Public Health. Zero Fatalities is an education campaign inspired by AASHTO's Toward Zero Deaths initiative. It is a desired goal of this program to reach as many people as possible with traffic safety messages, inspire good driving habits, and change bad driving behaviors at a cultural level.

Project:
The objective of this project is to create a conference for safety partners to:

- share knowledge and best practices among transportation safety professionals
- discuss how to engage the traveling public in creating a safer transportation culture
- review traffic safety resources, tools and training.

Activities may include hosting conference planning events, hosting the conference itself, providing trainer travel, sponsoring attendance, providing promotion safety materials, supporting staff communication.

Cost:
$25,000

Schedule:
Funds to be used in FY 2016

Iowa Department of Transportation

Rev. 3/08

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: Crash Cushion Selection Criteria - Phase IV

Applicant: Iowa DOT - Office of Design

Contact Person: Khyle Clute Title: Transportation Engineer

Complete Mailing Address: Iowa Department of Transporation

800 Lincoln Way, Ames, Iowa 50010

Phone: 515-239-1862 (Area Code) E-Mail: khyle.clute@dot.iowa.gov

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s): _____

Contact Person: _____ Title: _____

Complete Mailing Address: _____

_____

Phone: _____ (Area Code) E-Mail: _____

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- Site Specific ☐
- Traffic Control Device ☐
- Safety Study ☒

Funding Amount

Total Project Cost: $ 20,000

Safety Funds Requested: $ 20,000

APPLICATION CERTIFICATION FOR LOCAL GOVERNMENT

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Representing the _____

Signed: _____

Signature Date Signed

_____

Typed Name

Attest: _____

Signature Date Signed

_____

Typed Name

A. APPLICATION CERTIFICATION

n/a

B. NARRATIVE

Although crash cushions are tested and submitted to FHWA for acceptance, each state highway agency is charged with approving products for use in their state. Without nationwide guidance as to which systems perform better than others, the decision to approve a product in Iowa rests with the Design Methods Engineer, per Materials IM 455. Without having performance and lifetime cost guidance to deny certain products, if a product is approved by FHWA, the Methods Engineer lacks ground to deny use of that product in Iowa. This study aims to develop guidance for approval of new products and the reconsideration of previously approved ones through a multi-phased approach.

Phase IV – Combine Phase II and III information to determine life cycle benefit/cost for each product type.

C. ESTIMATED COST

The estimated cost of Phase IV is $20,000.

D. TIME SCHEDULE AND COMPLETION DATE

June 30, 2017.

Iowa Department of Transportation

Rev. 3/08

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: Crash Cushion Selection Criteria - Phase III

Applicant: Iowa DOT - Office of Design

Contact Person: Khyle Clute Title: Transportation Engineer

Complete Mailing Address: Iowa Department of Transporation

800 Lincoln Way, Ames, Iowa 50010

Phone: 515-239-1862 (Area Code) E-Mail: khyle.clute@dot.iowa.gov

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s) _____

Contact Person _____ Title _____

Complete Mailing Address _____

_____

Phone _____ (Area Code) E-Mail _____

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- Site Specific ☐
- Traffic Control Device ☐
- Safety Study ☒

Funding Amount

Total Project Cost $ 20,000

Safety Funds Requested $ 20,000

APPLICATION CERTIFICATION FOR LOCAL GOVERNMENT

To the best of my knowledge and belief, all information included in this application is true and accurate, including the commitment of all physical and financial resources. This application has been duly authorized by the participating local government(s). I understand the attached resolution(s) binds the participating local government(s) to assume responsibility if any additional funds are committed, and to ensure maintenance of any new or improved city streets or secondary roads.

I understand that, although this information is sufficient to secure a commitment of funds, a firm contract between the applicant and the Department of Transportation is required prior to the authorization of funds.

Representing the _____

Signed: _____

Signature Date Signed

_____

Typed Name

Attest: _____

Signature Date Signed

_____

Typed Name

A. APPLICATION CERTIFICATION

n/a

B. NARRATIVE

Although crash cushions are tested and submitted to FHWA for acceptance, each state highway agency is charged with approving products for use in their state. Without nationwide guidance as to which systems perform better than others, the decision to approve a product in Iowa rests with the Design Methods Engineer, per Materials IM 455. Without having performance and lifetime cost guidance to deny certain products, if a product is approved by FHWA, the Methods Engineer lacks ground to deny use of that product in Iowa. This study aims to develop guidance for approval of new products and the reconsideration of previously approved ones through a multi-phased approach.

Phase III – Collect maintenance data to develop repair costs and down time based on product type.

Should there be remaining funds after Phase III is complete, those funds will be migrated into Phase IV.

C. ESTIMATED COST

The estimated cost of Phase III is $20,000.

D. TIME SCHEDULE AND COMPLETION DATE

December 31, 2016

Iowa Department of Transportation

Rev. 3/08

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: Highway 28, Sub-Area 1 Master Planning

Applicant: City of Norwalk, Iowa

Contact Person: Josh Heggen Title: Community Dev. Director

Complete Mailing Address: 705 North Ave
Norwalk, Iowa 50323

Phone: 515-981-9523 (Area Code) E-Mail: joshh@norwalk.iowa.gov

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s): _____

Contact Person: _____ Title: _____

Complete Mailing Address: _____

_____

Phone: _____ (Area Code) E-Mail: _____

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- Site Specific ☐
- Traffic Control Device ☐
- Safety Study ☒

Funding Amount

Total Project Cost	$ 18,000
Safety Funds Requested	$ 18,000

APPLICATION CERTIFICATION FOR LOCAL GOVERNMENT

To the best of my knowledge and belief, all information included in this application is true and accurate, including the commitment of all physical and financial resources. This application has been duly authorized by the participating local government(s). I understand the attached resolution(s) binds the participating local government(s) to assume responsibility if any additional funds are committed, and to ensure maintenance of any new or improved city streets or secondary roads.

I understand that, although this information is sufficient to secure a commitment of funds, a firm contract between the applicant and the Department of Transportation is required prior to the authorization of funds.

Representing the City of Norwalk, Iowa

Signed: _____ 8-14-14
Signature Date Signed

Josh Heggen
Typed Name

Attest: _____
Signature Date Signed

_____
Typed Name

RESOLUTION NO. 0807-14-66

RESOLUTION APPROVING AN APPLICATION TO THE IOWA DEPARTMENT OF TRANSPORTATION FOR TRAFFIC SAFETY FUNDING IN CONNECTION WITH HIGHWAY 28, THE FUTURE HY-VEE PROJECT AND SUB-AREA 1 MASTER PLANNING

WHEREAS, the City Council of the City of Norwalk has heretofore deemed it necessary and desirable to identify safety issues, potential improvements, access points and future controlled intersections as it relates to new and future growth; and

WHEREAS, as part of the project, the City will pursue grant funding through the Iowa Department of Transportation to fund said project; and

WHEREAS, Staff and Veenstra and Kimm has prepared an application for traffic safety funding; and

WHEREAS, it would be in the best interests of the City of Norwalk to submit said application.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Norwalk, Warren County, Iowa, that the above-referenced application is supported and the same hereby approved.

BE IT FURTHER RESOLVED that the Mayor and City Clerk are hereby authorized and directed to execute said application on behalf of the City of Norwalk.

****

Passed and approved this 7th day of August, 2014.

Tom Phillips, Mayor

ATTEST:

Jeff Rosien, City Clerk

Highway 28, Sub-Area 1 Master Planning Narrative

Norwalk's central core along Iowa Highway 28 continues to grow. Recent development includes Capital City Fruit, Loffredo Fresh Produce and potentially a new Hy-Vee. When complete, these businesses alone will employ over 500 individuals within half a mile of Iowa Highway 28. This area will continue to grow with commercial businesses as Norwalk population grows. Traffic safety along Iowa Highway 28 is extremely important, particularly related to location of future access points and controlled intersections. The future Hy-Vee site is surrounded by open farm fields and targeted for additional development in the near future. The Norwalk Comprehensive Plan identifies this area as Sub-Area 1 and calls for additional future master planning. The sub-area master planning, future land use, traffic flow, and access management will determine the safety of the entire area. Norwalk will use the traffic safety funds to study Iowa Highway 28 as it relates to Hy-Vee project and the Sub-Area 1 Master Planning.

Norwalk desires to maintain Iowa Highway 28 as a safe place for all transportation modes, from driving the roadway to walking and biking along adjacent sidewalks and trails. Currently, access from Iowa Highway 28 is driven by developer need rather than by a plan that looks at all aspect of a multi-modal transportation network. This grant will be used, in conjunction with city funds, MPO Surface Transportation Program funds and other potential funding sources. The project will identify how traffic will flow to and from Iowa Highway 28 into Sub-Area 1 and the identified land uses. This plan will set fourth clear access points, turn lanes, lane widths, pedestrian safety, and any other transportation needs for Iowa Highway 28 and the Sub-Area 1. Once the study is complete, developers, landowners, businesses and residents will know exactly how the future Sub-Area 1 Master Plan will interact with Iowa Highway 28. Both the Iowa DOT and the City of Norwalk will have more confidence in knowing exactly how the corridor will come together as development happens in the area, making the entire development process smoother for all parties.

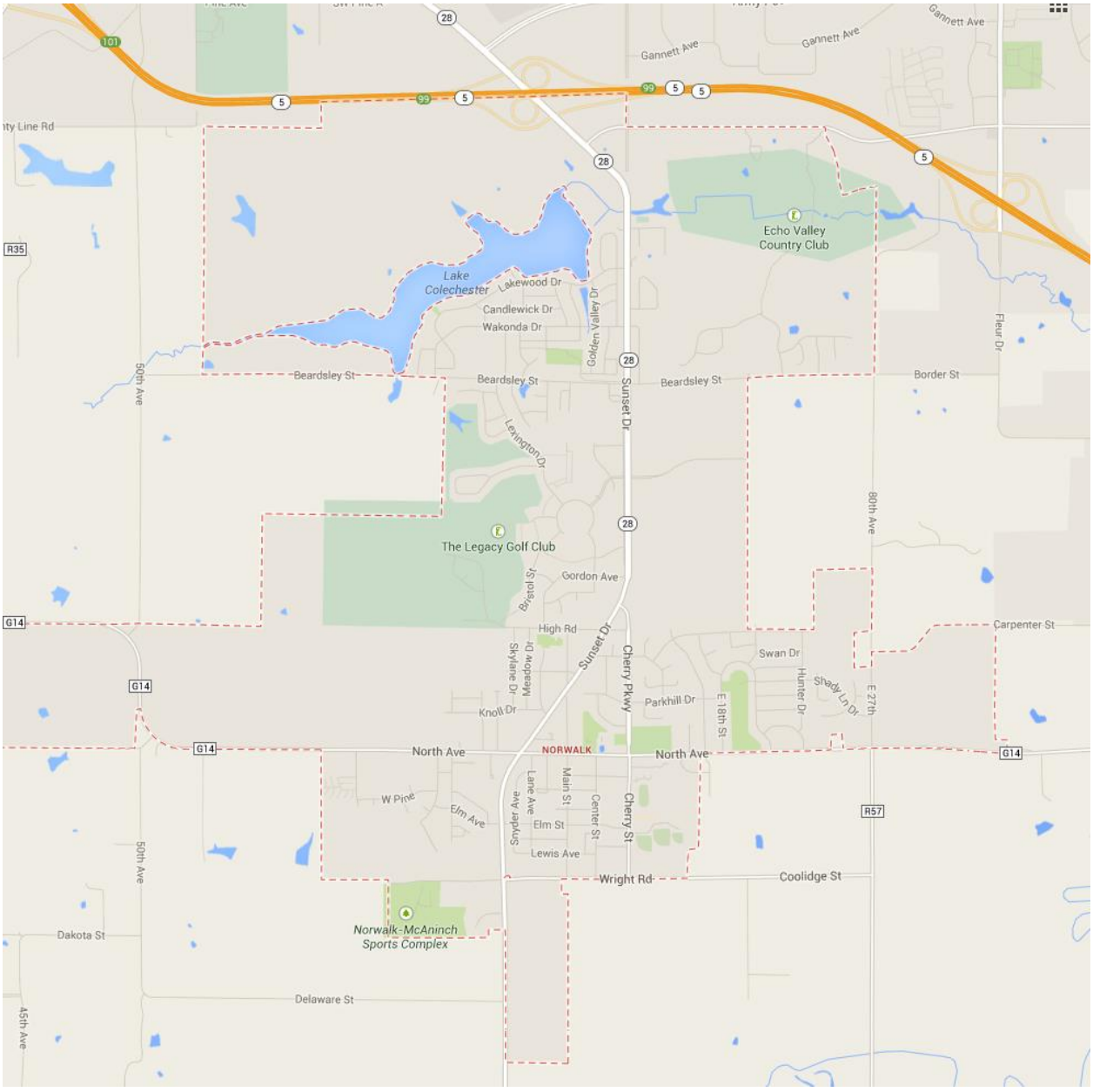
Norwalk continues to grow and is showing signs of outpacing all previous years and a number of our peer communities. This growth will put additional development pressure and traffic onto Iowa Highway 28, creating the potential for some serious safety issues if all the above mentioned planning is not well thought out. Planning for this growth based on the land use in the area will ensure that Norwalk and the Iowa DOT develop the corridor properly to minimize the chance of additional studies in the future to try and retrofit the roadway to address unforeseen problems.

Estimated Costs:

The traffic planning effort described would entail trip generation and distribution to and from the area as well as incorporating these volumes into the expected Ia Hwy 28 traffic volumes. We would be looking at access locations, expected roadway widths and number of lanes, traffic progression impact on Hwy 28, the need for signals as well as potential need for safety measures. The efforts would also include a look at pedestrian and bicycle movements and patterns expected with this development and its build-out over a period of time. The engineers estimate fee for this effort to be in the $15,000 to $18,000 range. We would make use of DOT counts and turning movement counts available online. This data would be used to generate projected volumes compared back to MPO volumes. Norwalk would supplement any funds needed above and beyond the grant, if needed, from the city's general fund.

Timeline

Norwalk would approve and engineering agreement for the study in Spring 2015
Norwalk would begin the work in July of 2015
Final traffic safety study would be complete in late fall/early winter of 2015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Wakonda Dr
Golden Valley Dr
Fleur Dr
50th Ave
Beardsley St
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Border St
Sunset Dr
Lexington Dr
80th Ave
The Legacy Golf Club
Gordon Ave
Bristol St
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High Rd
Carpenter St
Swan Dr
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Meadow Dr
Knoll Dr
Parkhill Dr
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Lane Ave
Sharper Ave
Main St
Elm St
Center St
Cherry St
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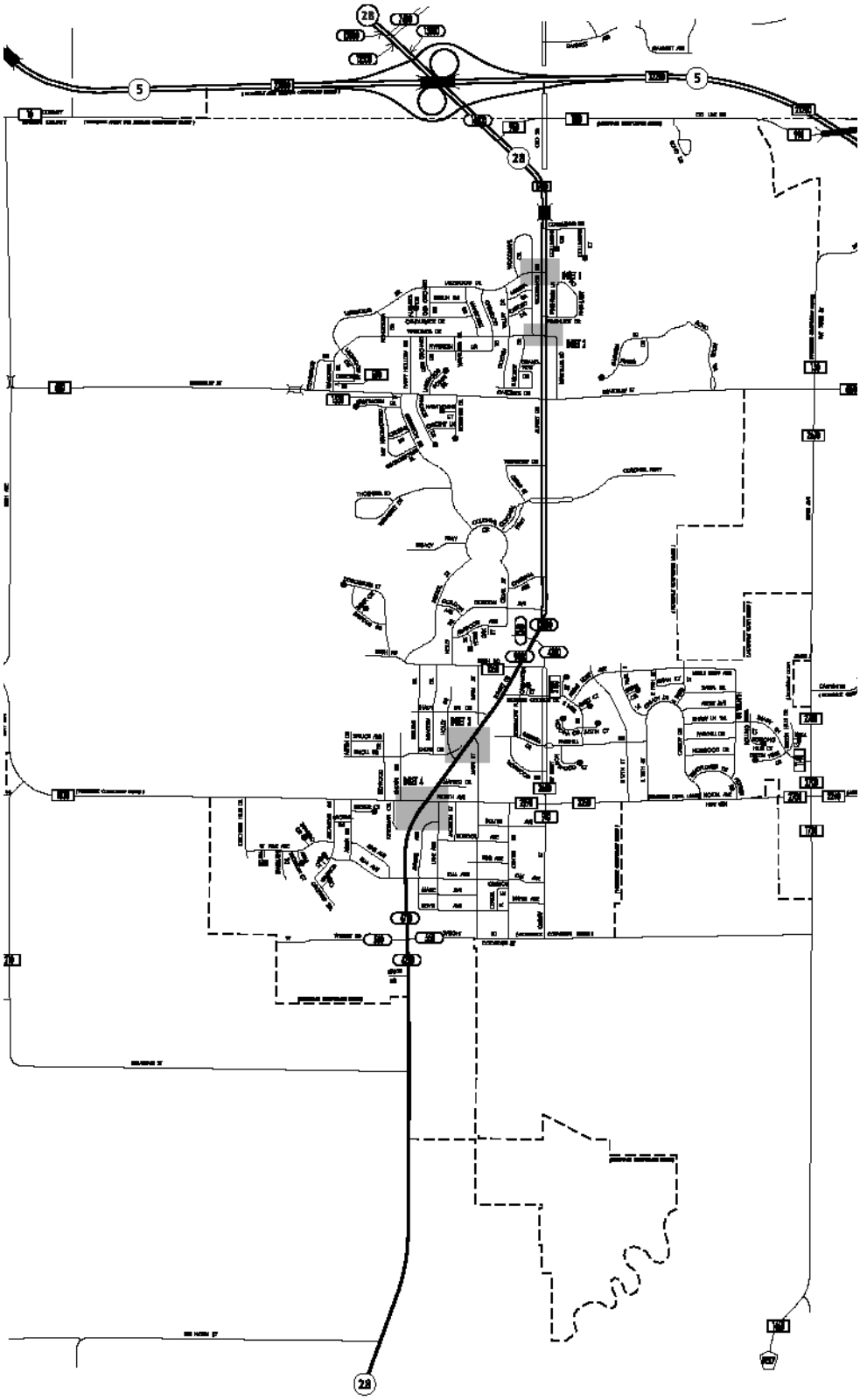


Iowa Department of Transportation

Rev. 3/08

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: Local Technical Assistance Program (LTAP)

Applicant: Iowa DOT, Office of Traffic & Safety

Contact Person: Steven Schroder Title: Traffic Safety Engineer

Complete Mailing Address: 800 Lincoln Way

Ames, IA 50010

Phone: 515-239-1623 (Area Code) E-Mail: steven.schroder@dot.iowa.gov

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s): _____

Contact Person: _____ Title: _____

Complete Mailing Address: _____

_____

Phone: _____ (Area Code) E-Mail: _____

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- Site Specific ☐
- Traffic Control Device ☐
- Safety Study ☒

Funding Amount

Total Project Cost: $ 145,000

Safety Funds Requested: $ 85,000

A. Not applicable

B. This application is for programs funded through the Local Technical Assistance Program (LTAP). These funds will primarily be used for the Local Roads Safety Liaison and Safety Circuit Rider.

Local Roads Safety Liaison Program

The Local Roads Safety Liaison Program commenced in March of 2008 as a new outreach to local governments (primarily counties) under the TSIP funded programs of the Iowa Department of Transportation. Although started as a tool to get DOT provided safety program information and assistance to county engineering offices that had not been active in safety, the program has expanded to provide more training coordination and grant program assistance to both cities and counties. This continues to be accomplished for them through personal on site consultations, assistance with grant awareness and applications, training at fall safety schools, presentations to county engineer groups, league of cities members, multi-disciplinary safety teams (MDST), and Regional Planning Associations(RPAs). These associations have helped build and strengthen the safety community locally and regionally. Budgetary struggles continue for local entities and most do not have the staff and/or time available to permit attending the formal training opportunities, or to perform the necessary analysis to identify traffic safety concerns. The Local Roads Safety Liaison Program can continue to fill that gap.

Recommendations:

- Continue to work with Safety Circuit Rider, ITSDS, state MDST, DOT Safety staff, and training personnel to provide appropriate topics, crash maps, contacts, and requested safety analysis.
- Continue to attend meetings of regional MDST groups, RPAs, cities and counties, and DOT staff to keep current with safety related information and issues, as well as current research projects and studies, to provide a knowledge base which can be shared with other safety partners
- Continue to provide specific new safety research information to local agencies – i.e. safety edge experience, crash rates on low volume unpaved roads are significantly higher on >100 ADT than <100 ADT, etc.
- Continue to provide detailed analysis of traffic related crashes to local agencies when requested, using traffic studies and crash analysis tools, and identify alternate safety improvements to provide mitigation
- Continue to assist counties with road safety audits where requested
- Provide assistance and information to promote and enhance the formation and active participation of area agencies in multidisciplinary groups
- Investigate adopting a Minnesota type program for individual county safety reviews and program development. Assist local agencies in developing an overall traffic safety program
- Continue to provide current and timely information and assistance to those local agencies that rely on this form of presentation to keep the safety message heard

Assistance from a professional engineer, working approximately 65 hours per month, is anticipated to carry out these tasks. Continued coordinated work with DOT and InTrans staff, along with various safety interest groups and trainers could be continued and program growth expanded to areas including cities and RPAs. Developing associations with those officials and other contacts around the state will definitely promote the ongoing development of a safety culture in Iowa.

Safety Circuit Rider

The Safety Circuit Rider program was created about 20 years ago as a strategy to bring safety training to local government agency personnel at their own place of work. Often, local governments are short on funds for training and find it difficult to send all personnel in need of specific training long distances. This is especially true for flagging, by far the most popular program the Safety Circuit Rider offers. The Safety Circuit Rider program was established as a part of the Local Transportation Assistance Program residing within the Center for Transportation Research and Education, Iowa State University, Ames.

The Safety Circuit Rider program was established by a coalition including the Iowa DOT, Governor's Traffic Safety Bureau, Federal Highway Administration, and the Center for Transportation Research and Education, Iowa State University. In addition to flagger training, the program also deals with general work zone safety and the annual winter day-long work zone safety training program held at numerous field locations across Iowa. The Safety Circuit Rider assists in planning and executing the DOT's winter work zone training program for city, county, state, contractor, and utility personnel. Crash analysis, low cost safety improvements, sign management, inventory, and other miscellaneous topics fill in the comprehensive program.

The program currently receives $60,000 annually in Section 402 Highway Safety funds from the Governor's Traffic Safety Bureau. Over time the program has expanded and requires a budget substantially greater than that. The funds being requested from the TSIP will help the program meet the safety training needs of Iowa's roadway workers in the future. Iowa's safety program of outreach to local jurisdictions is nationally recognized, and has been awarded the FHWA/RSA award for local programs.

C. A funding level of $65,000 through TSIP would fund the Local Roads Safety Liaison Program for calendar year 2017. A funding level of $20,000 would fund the Safety Circuit Rider program for calendar year 2017.

D. The anticipated time schedule for this project is for calendar year 2017 for both the Local Roads Safety Liaison Program and the Safety Circuit Rider Program.

Iowa Department of Transportation

Rev. 3/08

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: Installation Guidance for Centerline and Edgeline Rumble Strips in Narrow Pavements

Applicant: Iowa DOT Office of Traffic & Safety

Contact Person: Chris Poole Title: Safety Programs Engineer

Complete Mailing Address: 800 Lincoln Way
Ames, IA 50010

Phone: (515) 239-1267 (Area Code) E-Mail: chris.poole@dot.iowa.gov

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s): _____

Contact Person: _____ Title: _____

Complete Mailing Address: _____

_____

Phone: _____ (Area Code) E-Mail: _____

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- ☐ Site Specific
- ☐ Traffic Control Device
- ☒ Safety Study

Funding Amount

Total Project Cost: $ 50,000

Safety Funds Requested: $ 50,000

Title
Installation Guidance for Centerline and Edgeline Rumble Strips in Narrow Pavements

Background
The installation of centerline and/or edgeline rumble strips on two-lane rural highways is a proven safety countermeasure. Placement of both centerline and edgeline rumble strips can usually be accommodated within wide pavements (24 feet or greater paved width) without issue. However, proper placement of one or both is less straightforward for highways with paved widths less than 24 feet. This becomes especially difficult as widths approach 20 feet. Contributing factors such as traffic volume, roadway alignment, and the presence of roadside hazards may suggest the use of one type of rumble strip over another. However, no guidance currently exists regarding the minimum paved width necessary to install both centerline and edgeline rumble strips, or which one to install when the installation of both is infeasible.

Objective
The objective of this project is to develop guidance for the installation and placement of centerline and/or edgeline rumble strips in narrow pavements.

It is anticipated that the first step in this research would be the determination of a minimum "rumble-free" lane width that is tolerable for a majority of road users. This width could then be used to develop a matrix of rumble strip options for a range of narrow pavement widths. The proper combination and width of centerline and/or edgeline rumble strips to install might then depend on site conditions such as:

- Traffic volumes
- Shoulder width
- Roadside hazard rating
- Roadway alignment
- Presence of bicyclists

Implementation
It is anticipated that the results of this research would primarily be used by County Engineers to guide the installation of rumble strips on the Secondary road system, where narrow-width pavements are common. This is especially important as the rate of rumble strip application on lower-volume highways increases, due in large part to the HSIP-Secondary funding program and its focus on low-cost, systemic safety improvements. The results could also be incorporated into the Iowa DOT's Design Manual for use on the Primary road system.

Estimated Cost: $50,000

Duration: Completion within 1 year from Notice to Proceed

Iowa Department of Transportation

Rev. 3/08

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: Crash Cushion Selection Criteria - Phase II

Applicant: Iowa DOT - Office of Design

Contact Person: Khyle Clute Title: Transportation Engineer

Complete Mailing Address: Iowa Department of Transporation
800 Lincoln Way, Ames, Iowa 50010

Phone: 515-239-1862 (Area Code) E-Mail: khyle.clute@dot.iowa.gov

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s) _____

Contact Person _____ Title _____

Complete Mailing Address _____

_____

Phone _____ (Area Code) E-Mail _____

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- Site Specific ☐
- Traffic Control Device ☐
- Safety Study ☒

Funding Amount

Total Project Cost $ 20,000

Safety Funds Requested $ 20,000

APPLICATION CERTIFICATION FOR LOCAL GOVERNMENT

To the best of my knowledge and belief, all information included in this application is true and accurate, including the commitment of all physical and financial resources. This application has been duly authorized by the participating local government(s). I understand the attached resolution(s) binds the participating local government(s) to assume responsibility if any additional funds are committed, and to ensure maintenance of any new or improved city streets or secondary roads.

I understand that, although this information is sufficient to secure a commitment of funds, a firm contract between the applicant and the Department of Transportation is required prior to the authorization of funds.

Representing the _____

Signed: _____

Signature Date Signed

_____

Typed Name

Attest: _____

Signature Date Signed

_____

Typed Name

A. APPLICATION CERTIFICATION

n/a

B. NARRATIVE

Although crash cushions are tested and submitted to FHWA for acceptance, each state highway agency is charged with approving products for use in their state. Without nationwide guidance as to which systems perform better than others, the decision to approve a product in Iowa rests with the Design Methods Engineer, per Materials IM 455. Without having performance and lifetime cost guidance to deny certain products, if a product is approved by FHWA, the Methods Engineer lacks ground to deny use of that product in Iowa. This study aims to develop guidance for approval of new products and the reconsideration of previously approved ones through a multi-phased approach.

Phase II – Collect crash data to develop crash rates based on location and injury rates based on product characteristics.

Should there be remaining funds after Phase II is complete, those funds will be migrated into Phase III.

C. ESTIMATED COST

The estimated cost of Phase II is $20,000.

D. TIME SCHEDULE AND COMPLETION DATE

June 30, 2016

Iowa Department of Transportation

Rev. 3/08

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: Crash Cushion Selection Criteria - Phase I

Applicant: Iowa DOT - Office of Design

Contact Person: Khyle Clute Title: Transportation Engineer

Complete Mailing Address: Iowa Department of Transporation
800 Lincoln Way, Ames, Iowa 50010

Phone: 515-239-1862 (Area Code) E-Mail: khyle.clute@dot.iowa.gov

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s): _____

Contact Person: _____ Title: _____

Complete Mailing Address: _____

_____

Phone: _____ (Area Code) E-Mail: _____

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- Site Specific ☐
- Traffic Control Device ☐
- Safety Study ☒

Funding Amount

Total Project Cost: $ 20,000

Safety Funds Requested: $ 20,000

APPLICATION CERTIFICATION FOR LOCAL GOVERNMENT

To the best of my knowledge and belief, all information included in this application is true and accurate, including the commitment of all physical and financial resources. This application has been duly authorized by the participating local government(s). I understand the attached resolution(s) binds the participating local government(s) to assume responsibility if any additional funds are committed, and to ensure maintenance of any new or improved city streets or secondary roads.

I understand that, although this information is sufficient to secure a commitment of funds, a firm contract between the applicant and the Department of Transportation is required prior to the authorization of funds.

Representing the _____

Signed: _____

Signature Date Signed

_____

Typed Name

Attest: _____

Signature Date Signed

_____

Typed Name

A. APPLICATION CERTIFICATION

n/a

B. NARRATIVE

Although crash cushions are tested and submitted to FHWA for acceptance, each state highway agency is charged with approving products for use in their state. Without nationwide guidance as to which systems perform better than others, the decision to approve a product in Iowa rests with the Design Methods Engineer, per Materials IM 455. Without having performance and lifetime cost guidance to deny certain products, if a product is approved by FHWA, the Methods Engineer lacks ground to deny use of that product in Iowa. This study aims to develop guidance for approval of new products and the reconsideration of previously approved ones through a multi-phased approach.

Phase I – Collect location, product type, and installation date for existing permanent crash cushions.

Should there be remaining funds after Phase I is complete, those funds will be migrated into Phase II.

C. ESTIMATED COST

The estimated cost of Phase I is $20,000.

D. TIME SCHEDULE AND COMPLETION DATE

December 31, 2015

Iowa Department of Transportation

Rev. 3/08

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: Go Team II: Study for all Iowa Fatalities

Applicant: Iowa DOT, Office of Traffic & Safety

Contact Person: Jan Laaser-Webb Title: State Safety Engineer

Complete Mailing Address: 800 Lincoln Way

Ames, Iowa

Phone: 515-239-1349 (Area Code) E-Mail: jan.laaser-webb@dot.iowa.gov

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s): _____

Contact Person: _____ Title: _____

Complete Mailing Address: _____

_____

Phone: _____ (Area Code) E-Mail: _____

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- Site Specific ☐
- Traffic Control Device ☐
- Safety Study ☒

Funding Amount

Total Project Cost: $ 50,000

Safety Funds Requested: $ 50,000

APPLICATION CERTIFICATION FOR LOCAL GOVERNMENT

To the best of my knowledge and belief, all information included in this application is true and accurate, including the commitment of all physical and financial resources. This application has been duly authorized by the participating local government(s). I understand the attached resolution(s) binds the participating local government(s) to assume responsibility if any additional funds are committed, and to ensure maintenance of any new or improved city streets or secondary roads.

I understand that, although this information is sufficient to secure a commitment of funds, a firm contract between the applicant and the Department of Transportation is required prior to the authorization of funds.

Representing the _____

Signed: _____

Signature Date Signed

Jan Laaser-Webb August 15, 2014

Typed Name

Attest: _____

Signature Date Signed

_____

Typed Name

Title: Go Team II: Study for all Iowa Fatalities

Background:
The background, project overview, task description, and estimated budget can be found in the attached draft proposal from University of Iowa and Iowa State University.

The project is estimated to cost $1,000,000. This request is for $50,000 to supplement other funds being committed to this project.

Cost:
$50,000

Schedule:
Funds to be used in FY 2016

Understanding Crash Fatalities in Iowa

Phase 2 Go-Team Study for all fatalities

Draft Proposal submitted to the
Iowa Department of Transportation

August 1, 2014

Daniel McGehee
Michelle Reyes
University of Iowa

Shauna Hallmark
Iowa State University

Background

Over the past 20 years, Iowa has seen a long-term downward trend in the number of motor vehicle crash (MVC) fatalities, from a high of 527 in 1995 (Iowa DOT). Nevertheless, such crashes remain a significant public health issue. In 2012, 365 people died in crashes on Iowa roadways (Iowa DOT).

This puts Iowa firmly in the middle of the 50 states in terms of crash fatalities. The Insurance Institute for Highway Safety (2012) estimated a rate of 11.9 fatalities per 100,000 people in Iowa, or 1.17 per 100,000 vehicle miles traveled (VMT). Nationwide, these rates range from a low of 0.42 in the District of Columbia to a high of 1.86 in North Dakota.

Many factors impact the number and types of MVC fatalities in each state, including population density, travel speeds, road geometry, weather, and state traffic laws. Thus, it is important both that each state attempt to understand the most important issues influencing crash fatalities within its borders, and to share information and best practices nationwide in the effort to save lives.

Project Overview

This study will take an in-depth look at each fatal crash over a one year time period—historically over 300 fatalities per year. Currently, the amount and type of data gathered at fatal crashes can vary widely depending on county, jurisdiction, and procedures of law enforcement and emergency medical personnel at the scene. Here, we propose to take a systematic approach to the analysis of fatal crashes by developing a detailed case study on each crash.

The University of Iowa (UI) research team has extensive experience in this research area. The overall framework for this study was previously developed for the Iowa DOT study, *Moving Beyond Teen Crash Fatality Statistics: The Go-Team Study* (2013).

In that previous study, which looked at teen fatalities from 2009-2011, crash data were gathered from media sources, law enforcement agencies, and the Iowa Department of Transportation. The driving records of teens, including licensure history, prior traffic citations, and prior crashes, were acquired, along with data about charges filed as a result of the fatal crash from media sources, driving records, and the Iowa court system (accessed through Iowa courts online).

The proposed study will build on this foundation to assess all fatal crashes in Iowa. It will also expand the case study of each crash with the addition of the analysis of a crash reconstructionist and traffic engineer. The addition of these two levels of expertise will significantly enhance our understanding of these fatal crashes. Having an engineering crash reconstructionist analyze police reports and reconstructions will offer a more specialized and nuanced picture of the crash; a traffic engineer will help the team focus on the importance of infrastructure and how it might be improved to prevent future crashes.

The goal is to go beyond the current protocols for evaluating crash causation to begin to uncover the relationships between factors and consider general causation summaries, such as the relationship between driver/roadway/vehicle exemplified in the landmark 1985 Rumar study, which found that 57% of crashes were due solely to driver factors, 27% to combined roadway and driver factors, 6% to combined vehicle and driver factors, 3% solely to roadway factors, 3% to combined roadway, driver, and vehicle factors, 2% solely to vehicle factors, and 1% to combined roadway and vehicle factors.

Why this project matters

Crash fatalities in Iowa and the US remain a significant public health problem. In 2013, more than 300 people in Iowa and 33,000 nationwide died in car crashes. The overarching challenge is that crashes are always the result of a complex mix of factors – there is never only one cause. Research at the UI has concentrated on listing as many factors as possible that contribute to a crash. We then aggregate these factors to identify the most prominent features of crashes.

There is currently little definitive scientific knowledge regarding crash causation factors. A great deal of driver crash-avoidance data is available from simulators and experimental studies, but detailed field data about crashes is lacking. Every crash is unique. There are an infinite number of ways that behavioral, environmental and roadway factors can vary to collide in a tragic event. While behavioral factors (e.g., speeding) are a challenge to change, understanding the role of roadway infrastructure could be a first step in reducing one factor in some crashes. For example, single vehicle roadway departure is historically the most common type of fatal crash scenario in Iowa. Given that, one might consider, ‘What role does shoulder maintenance play in this type of loss-of-control crash?’

To determine the factors that contribute to fatal car crashes, it is important to have objective, detailed and accurate data. We have developed a method of collecting such data by combining information sources from law enforcement, coroners, media and other sources. In addition, we have a long history in naturalistic driving and crash research, with detailed coding strategies for analyzing the sources of real-world crashes. Using our current IVER coding methods, the National Motor Vehicle Crash Causation Survey (NMVCCS), and the National Model with its TraCS software, we can develop a detailed coding strategy that includes both standard categories used in national crash databases and other necessary variables. The result will be a comprehensive and focused method for decomposing crash causation.

This model draws on the approach taken by Scandinavian countries like Sweden, Denmark, Norway and Finland to fatal crashes. These countries have independent, 24-hour crash reconstruction teams available to attend the scene of each fatality at the same time as EMS and law enforcement. They examine every aspect of the crash—including interviewing family members and employers to understand sleep cycles. They also do extensive infrastructure evaluations to see what might be changed to prevent a similar crash type in the future. In 2008, a study found that the Swedish Road Administration (SRA) model for a safe road transport system, which includes the interaction between the road user, the vehicle, and the road, could

successfully classify 93% of fatal crashes. Our method will use similar methods to look at the fatal crashes overall.

This project will be the first-ever comprehensive examination of factors present in all fatal crashes for all age groups. Methods and results from the project will be of use not only to Iowa policy makers, but to those in other states as well. Iowa includes both rural and urban driving, so our findings will be generalizable to most other US settings. While Iowa may not have the kind of congested traffic that occurs in the country's largest urban centers, it is worth noting that fatal crashes in such driving scenarios are extremely rare. This study will thus provide a great societal benefit and advance the overall field of traffic and crash safety. It will also be a significant addition to the literature on crash causation.

Specific questions to answer

The questions we hope to answer relate specifically to identifying the factors present in each fatal crash.

1. What were the precipitating causes of the crash with regard to distraction, speed, alcohol, and drowsiness?
2. What environmental factors were present (darkness, rain, snow, ice, etc.)
3. What passenger factors where present (especially for teens)
4. Were there roadway factors that may have contributed to the crash (e.g., unmaintained shoulder lip)
5. Where did the crash occur? (i.e., at an intersection, on a curve, two-lane straight road, etc.)
6. What technological interventions might have prevented or mitigated the crash? (e.g., forward collision, lane-departure, eyes-off-road warning systems)

To conduct a comprehensive analysis of every fatal crash in Iowa we propose the following:

Year 1 January 1, 2015 – December 31, 2015 (or 12 months after award)

Task1. Develop infrastructure for case reviews

The first task will begin the process of developing the infrastructure for case reviews. We will formally reestablish contact with the Iowa State Patrol (ISP), EMS, Level 1 trauma center personnel, county coroners and judicial offices (e.g., county attorneys). From our first Go-Team project, we have further enhanced our contacts with many of these agencies—particularly the ISP. This cooperation is key. We will obtain letters of cooperation from the coroners' offices, ISP, and law enforcement. A statewide communication program will be developed so that when a fatality occurs, we are notified as quickly as possible, and given access to as much site information as possible. County and/or city engineers will be ask to take site photos as directed by the study team. We learned from our previous project that it takes time to develop such a

network. While we have a very good start, this will require an order of magnitude increase in communication.

We will develop a custom database that includes the varied data sources. Factors such as shape files, roadway and traffic information data, signage and all other relative infrastructure information will be recorded, together with photographic details of the shoulder quality, paint delineation, etc.

The crash database will also include:

- Time, day, date, location, road type, and manner of crash or collision for each fatal crash
- A matrix representing each vehicle, describing the age, gender, seating position, fatality/injury outcome, ejection status, and seat belt status of each occupant
- Crash narrative, contributing factors, and other factors that could have had a potential impact on the crash
- Reporting agency
- License history
- Crash diagram and map

Year 2 January 1, 2016 – December 31, 2016 (or 24 months after award)

Task 2. Data Collection

With our network in place, we will begin gathering data on every fatal crash that occurs in Iowa from January 1, 2016, through Dec 31, 2016.

We will populate our database as our network provides information. Each local jurisdiction official in law enforcement and roadway/traffic engineering will be contacted by phone or email. For each crash, a reconstructionist will review the case and provide supplemental information when possible. Approximately 12 crashes during the year will be independently reconstructed via a site survey. Such independent reconstructions are extremely thorough and technically detailed. Although time consuming (a single reconstruction may take a month to complete), they afford insight into a crash that is not available from any other source.

Year 3 January 1, 2017- December 31, 2017

The final year will evaluate and analyze the crash data gathered. Crash maps will be generated indicating the locations and type of crash; month, day and time it occurred; whether driver was at-fault; number of vehicles involved and number of fatalities. Using the maps and crash reconstructions, the traffic engineer will analyze each crash based on roadway geometry, surface condition and signage and make recommendations regarding potential roadway changes. Statistical analyses will be conducted to determine the most important factors influencing crash fatalities in Iowa.

This project represents an opportunity to take a big step forward in our understanding of what remains one the top 10 leading causes of death in the US, and what the CDC continues to label a

serious public health problem. Fatal crashes are fortunately rare from the perspective of total miles driven, and each represents the confluence of a myriad of factors. Performing a close and intensive analysis of every fatal crash that occurs in Iowa over the period of a year will add to our store of definitive scientific knowledge regarding crash causation factors. The results will translate into lives saved, both within Iowa and across the nation.

Budget

GO-TEAM PHASE 3 BUDGET SUMMARY BY YEAR IN $K

	YEAR 1	YEAR 2	YEAR 3	**TOTAL**
McGehee (UI PI)	$60	$60	$60	**$180**
Hallmark (ISU PI)	$45	$45	$45	**$135**
Reyes	$80	$80	$80	**$240**
Crash Epidemiologist	$40	$40	$40	**$120**
Reconstruction	$20	$160	$40	**$220**
Admin/editor/proj mgt	$19	$19	$19	**$57**
Travel	$5	$15	$5	**$25**
SUPPLIES	$5	$15	$3	**$23**
TOTAL	**$274**	**$434**	**$292**	**$1,000**

Includes fringes and indirect cost

Iowa Department of Transportation

Rev. 3/08

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: Iowa Traffic Safety Data Service (ITSDS)

Applicant: Iowa Department of Transportation, Office of Traffic and Safety

Contact Person: Michael D. Pawlovich Title: Traffic Safety/Crash Data Engineer

Complete Mailing Address: 800 Lincoln Way

Ames, IA 50010

Phone: (515) 239-1428 (Area Code) E-Mail: Michael.Pawlovich@dot.iowa.gov

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s): _____

Contact Person: _____ Title: _____

Complete Mailing Address: _____

_____

Phone: _____ (Area Code) E-Mail: _____

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- Site Specific ☐
- Traffic Control Device ☐
- Safety Study ☒

Funding Amount

Total Project Cost: $ 200,000 (FFY 2015)

Safety Funds Requested: $ 50,000

Iowa Traffic Safety Data Service (ITSDS)

A. Not applicable.

B. The Iowa Traffic Safety Data Service (ITSDS) provides timely access to crash analyses and reports from many safety and geographic information systems tools developed by the Iowa Department of Transportation (DOT) and the Center for Transportation Research and Education (InTrans/CTRE) in recent years. The ITSDS facilitates decision-making, effective presentation of information, and education. One major example of ITSDS-related activities is the Office of Traffic and Safety's web-based Profiles website (http://www.iowadot.gov/crashanalysis/index.htm).

The ITSDS originated as a major component of Iowa's Section 411 (federal) program for improving state traffic records systems. It was approved by the Iowa Statewide Traffic Records Advisory Committee (STRAC) as a way of attaining the objectives within the statewide strategic plan for safety data. The Section 411 program has now ended and Section 408 funds currently provide the primary support; however, support from the Traffic Safety Improvement Program (TSIP) remains important as Section 408 funds can be redirected, may end with a new federal transportation bill, and are less flexible.

The services provided by ITSDS are available at no cost to Iowa cities, counties, the DOT, and the Governor's Traffic Safety Bureau (GTSB). It has become a highly valued program by state and local safety entities in need of data analysis or to augment the widely distributed analysis tools, SAVER and CMaT.

C. Amount requested for contract with InTrans /CTRE to support ITSDS: $50,000

(Supplementary funds typically are supplied via 408/405c NHTSA/GTSB funds in the amount of $20,000 for Office of Traffic and Safety-related tasks and $80,000 for GTSB-related activities. Additionally, further 408/405c NHTSA/GTSB funds have been allocated in the past year and likely the upcoming year for database development – intersection, interchange, segment, etc.)

D. Time schedule: Nominally starting when fund use is granted and ending one year after placing the funds under contract.

APPLICATION CERTIFICATION FOR LOCAL GOVERNMENT

To the best of my knowledge and belief, all information included in this application is true and accurate, including the commitment of all physical and financial resources. This application has been duly authorized by the participating local government(s). I understand the attached resolution(s) binds the participating local government(s) to assume responsibility if any additional funds are committed, and to ensure maintenance of any new or improved city streets or secondary roads.

I understand that, although this information is sufficient to secure a commitment of funds, a firm contract between the applicant and the Department of Transportation is required prior to the authorization of funds.

Representing the Iowa Department of Transportation, Office of Traffic and Safety

Signed: _____

Signature Date Signed

Michael D. Pawlovich

Typed Name

Attest: _____

Signature Date Signed

_____

Typed Name

Iowa Department of Transportation

Rev. 3/08

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: Coupons for Motorcycle Safety Course

Applicant: Iowa DOT, Office of Traffic & Safety

Contact Person: Steven Schroder Title: Traffic Safety Engineer

Complete Mailing Address: 800 Lincoln Way

Ames, IA 50010

Phone: 515-239-1623 (Area Code) E-Mail: steven.schroder@dot.iowa.gov

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s): _____

Contact Person: _____ Title: _____

Complete Mailing Address: _____

_____

Phone: _____ (Area Code) E-Mail: _____

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- Site Specific ☐
- Traffic Control Device ☐
- Safety Study ☒

Funding Amount

Total Project Cost: $ 75,000

Safety Funds Requested: $ 75,000

A. Not applicable

B. The Iowa DOT hosts a Motorcycle Safety Forum (MSF) every spring jointly funded by the Iowa DOT and Governor's Traffic Safety Bureau (GTSB). The portion of funding from GTSB has dropped in recent years. One aspect of the forum used to be coupons for people who wanted to take a certified motorcycle safety course. This was discontinued in 2013 because of lack of funding.

   These funds would be used to continue the program of offering coupons for certified Motorcycle Safety Courses. Participants use the coupons as payment for the course, and the presenters offering the course then request payment from the Iowa DOT.

   The courses range in cost from about $130-$200 and about 600 people attended the 2014 MSF. While this funding level would not allow for all MSF attendees to have a coupon, those that typically attend the Motorcycle Safety Courses are new riders and those that want a refresher course on riding a motorcycle. So coupons would not be needed for every attendee of the MSF.

C. The $75,000 will go to offering a maximum of 375 coupons for Motorcycle Safety Courses that will be handed out at the 2016 MSF. Any remaining coupons or funds will be carried over for the 2017 MSF. Additional funding for the Motorcycle Safety Forum comes from Iowa DOT SMS funds and GTSB funds.

D. The coupons will be handed out at the Motorcycle Safety Forum in spring 2016. The coupons can be redeemed for courses taken in 2016.

<u>Applicant</u>

Steven Schroder
Iowa DOT, Office of Traffic & Safety

Rev. 3/08

Iowa Department of Transportation

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: Creston Speed and Traffic Project - Part 2

Applicant: Creston Police Department

Contact Person: Paul Ver Meer Title: Chief of Police

Complete Mailing Address: 302 North Pine

Creston, Iowa 50801

Phone: 641-782-8402 (Area Code) E-Mail: pvermeer@iowatelecom.net

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s): Creston Public Works

Contact Person: Kevin Kruse Title: Public Works Director

Complete Mailing Address: 116 West Adams

Creston, Iowa 50801

Phone: 641-782-2000 ext. 1 (Area Code) E-Mail: kkruse@crestoniowa.org

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- Site Specific ☐
- Traffic Control Device ☐
- Safety Study ☒

Funding Amount

Total Project Cost: $ 5200.00

Safety Funds Requested: $ 5200.00

Rev. 3/08

APPLICATION CERTIFICATION FOR LOCAL GOVERNMENT

To the best of my knowledge and belief, all information included in this application is true and accurate, including the commitment of all physical and financial resources. This application has been duly authorized by the participating local government(s). I understand the attached resolution(s) binds the participating local government(s) to assume responsibility if any additional funds are committed, and to ensure maintenance of any new or improved city streets or secondary roads.

I understand that, although this information is sufficient to secure a commitment of funds, a firm contract between the applicant and the Department of Transportation is required prior to the authorization of funds.

Representing the Creston Police Department

Signed: _____ 8-14-14
Signature Date Signed

Paul Ver Meer
Typed Name

Attest: _____ 8/14/2014
Signature Date Signed

Warren Woods, Mayor
Typed Name

B.

The goal of this project is to provide the Creston Police Department and Public Works department with needed equipment to enhance current traffic safety studies. Each year we receive numerous complaints regarding speeding vehicles or the need to control vehicle speed with signage. We received a grant through the DOT last year to purchase a radar recorder and software to monitor traffic speed and flow. We are requesting this grant to enhance this project. By using these LED speed signs in conjunction with the current equipment we will be better able to monitor and control speeds in certain problem areas.

The expected result of this program is to enable us to selectively enforce speed and traffic laws by using this equipment to control it. We will be able to know if the LED speed signs are enough of a deterrent or if officers need to be assigned for special traffic enforcement in these areas. With our current equipment we are able to determine high traffic times and speeds associated with these times. The LED speed signs would allow us to determine if visual notification of a vehicles current speed will control this.

The main area of concern in the city of Creston are the "feeder" streets that lead to the local high school and middle school which are the main routes for students and parents.

C.

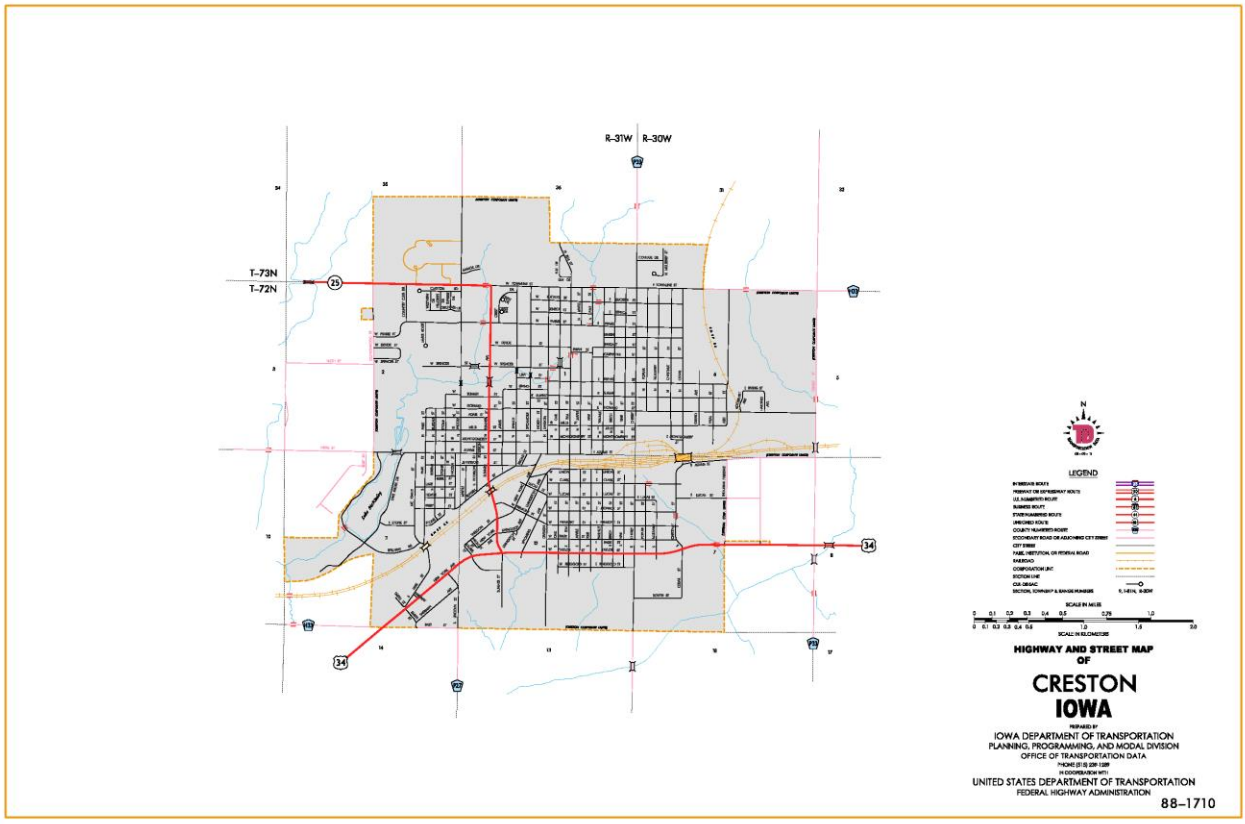
The estimated cost of this project is $5200.00. This would include the following:

- (2) SP100 SafePace speed signs

The above funds would be received through the Iowa Department of Transportation. Any additional costs such as equipment set-up and monitoring would be covered by the Creston Police Department and Public Works Department through existing budgeted funds.

D.

The proposed time table for implementation of this project if funding is approved by July 1, 2015 would be as follows. The order and purchase of equipment by August 1, 2015, with a completion date and the equipment being in place and running by September 1, 2015.


R-31W
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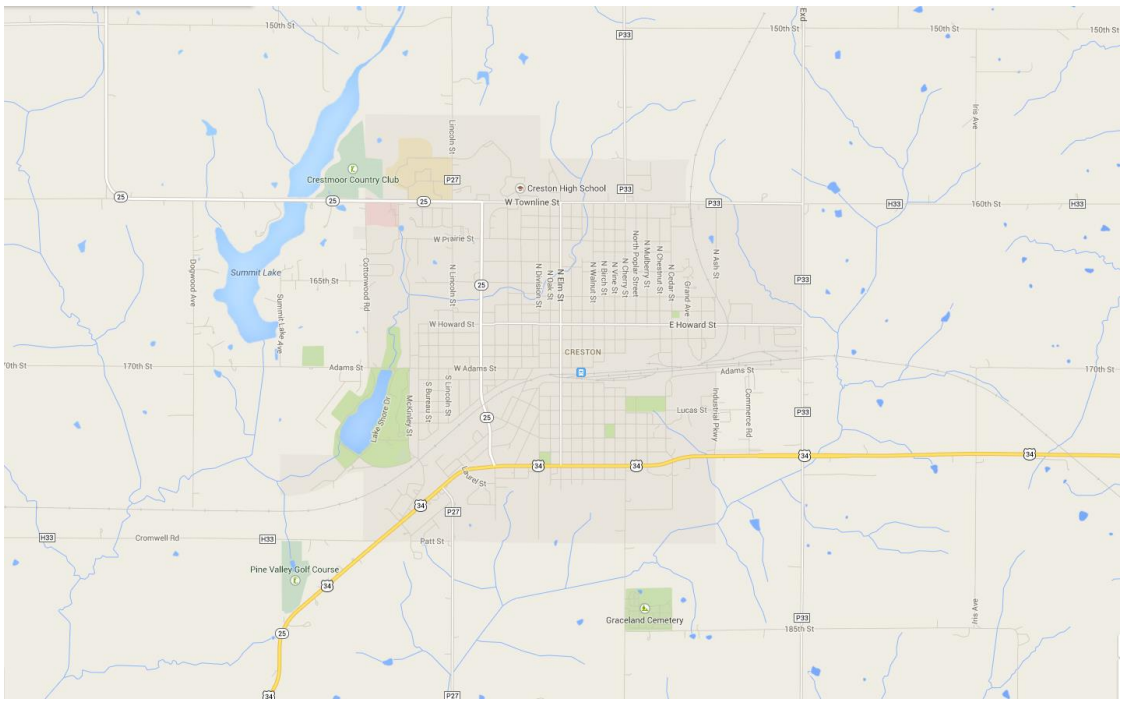
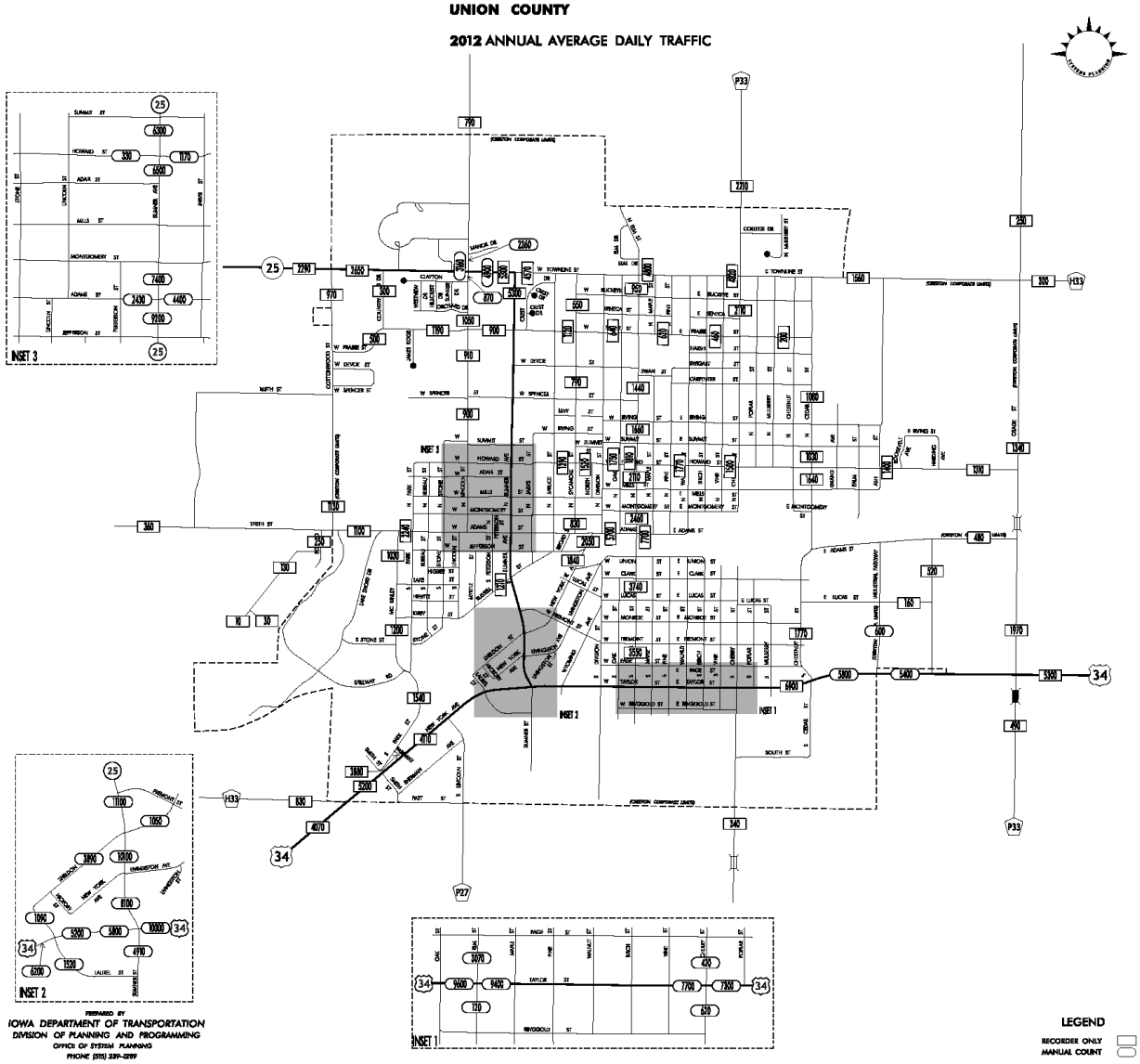
LEGEND
HIGHWAY AND STREET MAP
OF
CRESTON
IOWA
IOWA DEPARTMENT OF TRANSPORTATION
PLANNING, PROGRAMMING, AND MODAL DIVISION
OFFICE OF TRANSPORTATION DATA
UNITED STATES DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
88-1710


Crestmoor Country Club
Creston High School
W Townline St
Summit Lake
W Prairie St
W Howard St
E Howard St
CRESTON
W Adams St
Adams St
Lucas St
Pine Valley Golf Course
Graceland Cemetery
Patt St
Cromwell Rd
150th St
160th St
165th St
170th St
185th St

CRESTON

UNION COUNTY

2012 ANNUAL AVERAGE DAILY TRAFFIC



PREPARED BY
IOWA DEPARTMENT OF TRANSPORTATION
DIVISION OF PLANNING AND PROGRAMMING
OFFICE OF SYSTEM PLANNING
PHONE (515) 239-1259

Iowa Department of Transportation

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: Analysis: Iowa SPF-CMF Development

Applicant: Iowa Department of Transportation, Office of Traffic and Safety

Contact Person: Michael D. Pawlovich Title: Traffic Safety/Crash Data Engineer

Complete Mailing Address: 800 Lincoln Way

Ames, IA 50010

Phone: (515) 239-1428 (Area Code) E-Mail: Michael.Pawlovich@dot.iowa.gov

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s): _____

Contact Person: _____ Title: _____

Complete Mailing Address: _____

_____

Phone: _____ (Area Code) E-Mail: _____

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- Site Specific ☐
- Traffic Control Device ☐
- Safety Study ☒

Funding Amount

Total Project Cost: $ 200,000

Safety Funds Requested: $ 200,000

Data Analysis: Crash Facts

A. Not applicable.

B. For the past decade, national safety analysis efforts have trended towards a more scientific approach. These efforts have centered around development of Safety Performance Functions (SPFs) and Crash Modification Factors (CMFs), culminating in the Highway Safety Manual (HSM) and the online Crash Modification Factor (CMF) Clearinghouse.

   However, most of the currently developed SPFs and CMFs were based on data from particular states with different characteristics affecting roadway traffic crashes. These characteristics include design criteria and policies, driver tendencies, vehicle mix, weather, enforcement, and others. Therefore, the applicability of "nationally" developed SPFs and CMFs to the characteristics of Iowa is questionable.

   The outcome of this project is the development of several Iowa-based SPFs and CMFs.

C. Amount requested: $200,000

D. Time schedule: Within two years from contract start, anticipated to be initiated when funds are available.

APPLICATION CERTIFICATION FOR LOCAL GOVERNMENT

To the best of my knowledge and belief, all information included in this application is true and accurate, including the commitment of all physical and financial resources. This application has been duly authorized by the participating local government(s). I understand the attached resolution(s) binds the participating local government(s) to assume responsibility if any additional funds are committed, and to ensure maintenance of any new or improved city streets or secondary roads.

I understand that, although this information is sufficient to secure a commitment of funds, a firm contract between the applicant and the Department of Transportation is required prior to the authorization of funds.

Representing the Iowa Department of Transportation, Motor Vehicle Enforcement

Signed: _____

Signature Date Signed

Lance Evans

Typed Name

Attest: _____

Signature Date Signed

_____

Typed Name

Iowa Department of Transportation

Rev. 3/08

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: Television Broadcast Traffic Safety Awareness Campaign

Applicant: City of Waterloo

Contact Person: Mohammad Elahi Title: Traffic Engneer

Complete Mailing Address: 625 Glenwood Street, Public Works Building

Waterlooo, Iowa 50703

Phone: (319) 291-4440 (Area Code) E-Mail: mohammad.elahi@waterloo-ia.org

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s): _____

Contact Person: _____ Title: _____

Complete Mailing Address: _____

_____

Phone: _____ (Area Code) E-Mail: _____

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- Site Specific ☒
- Traffic Control Device ☐
- Safety Study ☐

Funding Amount

Total Project Cost: $ 60,000

Safety Funds Requested: $ 60,000

APPLICATION CERTIFICATION FOR LOCAL GOVERNMENT

To the best of my knowledge and belief, all information included in this application is true and accurate, including the commitment of all physical and financial resources. This application has been duly authorized by the participating local government(s). I understand the attached resolution(s) binds the participating local government(s) to assume responsibility if any additional funds are committed, and to ensure maintenance of any new or improved city streets or secondary roads.

I understand that, although this information is sufficient to secure a commitment of funds, a firm contract between the applicant and the Department of Transportation is required prior to the authorization of funds.

Representing the City of Waterloo

Signed: Ernest G. Clark — August 18, 2014
Signature — Date Signed

Ernest G. Clark
Typed Name

Attest: Suzy Schares — August 18, 2014
Signature — Date Signed

Suzy Schares
Typed Name

Information Initiative Grant Application

Television Broadcast Traffic Safety Awareness Campaign with Zero Fatality Tag Covering Waterloo and Surrounding Areas

Why TV

Television safety ads offer a better known and more assured reach to people of driving age utilizing viewership data. Each airing will reach thousands of viewers. The percent of population it can reach are known. The safety message, when made appropriately, has a better chance of affecting the audience by using motion and sound. Combined visual and sound effects have a better chance of impacting the viewers. The ad will be the only message competing for viewer's attention at the time. TV makes up a large part of most people's leisure time. When viewers see something on TV that affects them, they are likely to talk about it to others.

Complementing Efforts: Making for a Strong Overall Campaign

The City of Waterloo's Drive Safe Cedar Valley (DSCV) traffic safety awareness campaign is in its 7th year. DSCV has used many avenues such as sending volunteer officers to schools, producing and giving away children coloring books, advertising on billboards, placing ads in newspapers and their web sites, and radio ads. Television will complement other efforts and web efforts. (A web-based safety contest is scheduled for children ages 7 thru 11 to start in September. Area merchants will donate prizes.) DSCV has not been present on TV. In addition in impacting viewers toward traffic safety, the proposed TV campaign will be an effort towards a better known and recognized DSCV campaign and the zero fatality tag. It will emphasize our goal of zero fatalities. This was one of the goals of the Drive Safe Cedar Valley traffic Safety campaign at its inception in 2007.

We have collected the following information regarding our proposed local television campaign. It is subject to change depending on media rates at the time of execution.

Primetime Overview

Traffic Operations will use prime time television to reach audiences over the age of eighteen. Traditionally, primetime designation is programming between 7pm and 10pm. For this assessment, we have extended the time window to begin at 5 pm to accommodate news programming.

Unlike our experience with radio ads, the local stations do not provide placement options that allow spots to "rotate" over the entire time period. Rather, media placements are selected on a "spot" basis. This means that Traffic Operations selects specific programming during which spots will air.

Below is a table of the programming currently available in primetime and the costs associated with each.

Program	Day	Time	Rate	Adults 18+
News at 5	M-F	5-5:30p	$250	5.3
News at 6	M-F	6-6:30p	$500	8.1
News at 6	Sat	6-6:30p	$250	5.3
News at 5	Sun	5-5:30p	$100	3.6
Last Comic Standing	M	7-8p	$400	10.4

American Warrior Ninja	M	8-10p	$400	10.8
America's Got Talent	T	7-9p	$700	8.8
Law & Order SVU	W	7-8p	$500	8.6
America's Got Talent	W	7-9p	$750	9.5
Hollywood Game Night	Th	7-8p	$500	10.4
Dateline	F	7-9p	$200	9.1

Based on the above data we are interested in news programs. KWWL News at 6:00pm, Monday through Friday, is the best option. This program will reach an estimated 8.1% of the television viewing audience at that time. At a cost of $500 each, DSCV can run 20 spots at a cost of $10,000. While investigating the data, the station has expressed willingness to use available space to match in-kind airtime. Therefore, up to 40 spots can be run at a cost of $10,000.

Production

Costs of production of the television ad vary greatly depending on the type of ad being developed and the needs of the spot (i.e., lighting, stock footage vs. original footage, etc.). The production can range from $15,000 to $100,000. We are estimating a middle ground of $50,000 to produce a spot that would have a good impact.

Other Grants

If this grant application is approved, the City will try to apply for other grants. The estimated $60,000 is expected to cover production costs as well as 40 prime-time air times. Although the probability of obtaining additional funding is very low, however, if it materializes we will use it to increase the number of airtimes and/or improve the production spot.

Time Schedule

Ad Agency Selection: February-March 2015
Production: April-May 2015
Air Time: June- Sept 2015

Title of Project: Evaluation of the Magnitude of School Bus Stop-Arm Passings

Budget: $80,000 total -- $40,000 requested (will submit to MTC or IHRB)

Description:

School buses provide school-aged children with one of the safest forms of transportation available (Yang et al. 2009). The Transportation Research Board (TRB) conducted a study to assess the relative risks of school travel and found that only 2% of fatalities for school-aged children during normal school hours occurred on school buses (NRC 2002). The majority of fatalities occur in private passenger vehicles or as pedestrians or bicyclists. A study by the National Highway Traffic Safety Administration (NHTSA) confirmed these finding in a report showing that the over 75% of school transportation-related fatalities were vehicle occupants while 17% were struck by either the bus or another vehicle (NHTSA 2011).

Yet, despite being one of the safest modes of transportation, school bus injury is still a concern, as many children are hit either by the bus itself or by other motor vehicles when loading and unloading the bus. The TRB found that 50 percent of children killed annually in school related crashes are struck by the bus while pedestrians and 25 percent are struck as pedestrians by other vehicles, many of which pass the school bus illegally while it is loading or unloading (NRC 2002).

Iowa has recently tried to address school bus stop-arm violations through Kadyn's Law. School districts have also implemented stop-arm cameras. National statistics show a high violation rate for stop-arm passing but there are no solid numbers for Iowa. Additionally, very few of these types of crashes have occurred in Iowa but high exposure provides a very significant potential safety problem.

As a result, this study will document the number of school bus stop-arm passings in Iowa through on-bus surveys and/or using school districts that have cameras installed. The scope of the problem will be documented along with characteristics of stop-arm passings (i.e. left side versus right side; drivers stopping and then carefully pulling around buses with no children present versus passing without stopping). This information will allow state and local agencies to better define and then address the problem.

Iowa Department of Transportation

Rev. 3/08

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: Safety Guide for County Engineers

Applicant: Iowa DOT

Contact Person: Jan Lasser-Webb Title: State Safety Engineer

Complete Mailing Address: 800 Lincoln Way

Ames, Iowa

Phone: 515-239-1349 (Area Code) E-Mail: Jan.Laaser-Webb@dot.iowa.gov

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s): _____

Contact Person: _____ Title: _____

Complete Mailing Address: _____

_____

Phone: _____ (Area Code) E-Mail: _____

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- Site Specific ☐
- Traffic Control Device ☐
- Safety Study ☒

Funding Amount

Total Project Cost: $ 40,000

Safety Funds Requested: $ 40,000

APPLICATION CERTIFICATION FOR LOCAL GOVERNMENT

To the best of my knowledge and belief, all information included in this application is true and accurate, including the commitment of all physical and financial resources. This application has been duly authorized by the participating local government(s). I understand the attached resolution(s) binds the participating local government(s) to assume responsibility if any additional funds are committed, and to ensure maintenance of any new or improved city streets or secondary roads.

I understand that, although this information is sufficient to secure a commitment of funds, a firm contract between the applicant and the Department of Transportation is required prior to the authorization of funds.

Representing the _____

Signed: _____

Signature Date Signed

_____

Typed Name

Attest: _____

Signature Date Signed

_____

Typed Name

Iowa Department of Transportation

Rev. 3/08

Application for TRAFFIC SAFETY FUNDS

GENERAL INFORMATION

Location / Title of Project: Evaluation of the Magnitude of School Bus Stop-Arm Passings

Applicant: Iowa DOT

Contact Person: Jan Lasser-Webb Title: State Safety Engineer

Complete Mailing Address: 800 Lincoln Way
Ames, Iowa

Phone: 515-239-1349 (Area Code) E-Mail: Jan.Laaser-Webb@dot.iowa.gov

If more than one highway authority is involved in this project, please indicate and fill in the information below (use additional sheets if necessary).

Co-Applicant(s): _____

Contact Person: _____ Title: _____

Complete Mailing Address: _____

_____

Phone: _____ (Area Code) E-Mail: _____

PLEASE COMPLETE THE FOLLOWING PROJECT INFORMATION:

Application Type

- Site Specific ☐
- Traffic Control Device ☐
- Safety Study ☒

Funding Amount

Total Project Cost: $ 80,000

Safety Funds Requested: $ 40,000

APPLICATION CERTIFICATION FOR LOCAL GOVERNMENT

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