Wisconsin Department of Transportation (WisDOT)

Stand-alone Signals and ITS Program
FY17 Project Application Form
GENERAL INSTRUCTIONS

APPLICATIONS DUE: **FEBRUARY 16, 2016**
Please upload applications to the SharePoint site under your Region
(https://wisdot.sharepoint.com/sites/dtsd/bto/its-sig/2017/SitePages/Home.aspx).

Each Region requesting funds from the Stand-alone Signals and ITS Program must submit the following information:

- ☐ Stand-alone Signals and ITS Program Region Ranking Spreadsheet (one per Region)
- ☐ Completed Stand-alone Signals and ITS Program FY17 Project Application Forms (one for each project request)
- ☐ Any supporting materials deemed necessary by the Region

FY17 Project Application Form: Each FY17 Project Application Form shall be completed entirely to be considered:

Box 1 Fill in those areas that are applicable to your project. Provide a project name to be used consistently when referring to the proposed project. For 'Name of Road/Intersection,' use From-To (South-North or West-East) format for a road segment such as "6th St.-9th St." A proposed project may involve multiple improvement locations; if this is the case, indicate the corridor or the general area of the proposed project. More specific information should be provided in the project description.

Box 2 Identify and describe area of improvement needed.

Box 3 Describe the project in as much detail as possible. A good, detailed, description explaining how the project will address the identified need(s) is essential for application review and evaluation.

Box 4 If your project will be constructed in phases throughout multiple years, then provide the project costs in the appropriate year and describe each in your proposed improvement statement. List major construction items and associated estimates such as new traffic signal installation, intersection channelization. Project expense is considered during the evaluation of the projects. Therefore, **ALL COSTS** (including design, utilities and R/E) should be provided regardless of whether Program funds will be used for all elements of the project.

Box 5 Complete the various questions as they relate to the proposed project. This information will help determine need and may help with ranking of projects among regions.

Box 6 Provide contact information for application sponsor's primary contact person. Application must be signed by the regional operations chief to commit funds and certify as to the answers provided in the application.

Supporting Materials: Each completed application shall include the following, *if applicable*:

- Map of location
- General Sketch of Project Proposal or site photo(s). *An adequate sketch is the minimum requirement. Preliminary plan layout sheets or study reports should be provided if available.*
- Warrant Documentation, required **only** for proposals to install new traffic signals (example worksheet available upon request. Ref: Manual on Uniform Traffic Control Devices [MUTCD], Part IV, Sec C).
- Completed Traffic Control Signal Approval Request form DT1199 (Required for all proposals to install new traffic signals on the State Trunk Highway System, including Connecting Highways and ramp terminals).
- Systems Engineering Analysis. *A SEA may need to be completed for certain types of projects funded by this Program.*

Submittal Instructions & General Questions:

Questions on application process and Program contact:	Submit the application and materials to:
David Karnes David.Karnes@dot.wi.gov Bureau of Traffic Operations 433 W. St. Paul Ave, Suite 300, Milwaukee, WI 53203 (414) 220-6804	Upload all application materials to the SharePoint site under your Region (https://wisdot.sharepoint.com/sites/dtsd/bto/its-sig/2017/SitePages/Home.aspx).

Wisconsin Department of Transportation (WisDOT)

Stand-alone Signals and ITS Program

FY17 Project Application Form

1. Project Description

PROJECT NAME Aldis Cameras WIS 29 Ramps		
FILE NAME (AA_BBBB_FY17 Standalone Program App_CCC.docx)* 02_Aldis Cameras WIS 29 Ramps_FY17 Standalone Program App 20160216.docx		
*File should be named consistently with the following nomenclature: AA=Project Regional Rank; BBBB=Project Name; CCC=Date.		
NAME OF ROAD/INTERSECTION *BUS 51 & WIS 29 Ramp System*		HWY NO. *WIS 29*
COUNTY *Marathon*	CITY/TOWN *Weston & Rothschild*	REGION *North Central*

2. Identification of Needs

Identify which area for improvement the need falls under:	
☐ 1. New Signal Installation	Procurement and installation of controllers, bases and signals
☐ 2. Signal Replacement	Replacement of signals including geometric improvements and upgrades for FY17 construction
☐ 3. Signal Rehabilitation	Upgrade, install or replace detection, controllers, battery backup, etc.
☐ 4. Signal Retrofit	Procure and install monotubes, procure and install flashing yellow arrows, safety improvements not requiring major construction and adaptive signal systems.
☐ 5. Signal Retiming	Data collection, evaluation, prepare signal timing plan, develop and implement corridor coordination plan to support 3 and 5 year timing schedule
☐ 6. LED Signal Replacement*	Procure and install all materials for annual LED signal 7 year replacement cycle
☐ 7. Intersection Communication	Design-build and integrate fiber optic links between existing fiber infrastructure and signal systems, or procure and install cellular Ethernet modems
☒ 8. ITS Device Lifecycle Replacement	Upgrade, install or replace detection, controllers, battery backup, etc.
☐ 9. Software	Upgrade, install or replace software
☐ 10. ITS Device Installation	Upgrade backbone fiber network equipment and switches, replace ramp meter LED's, update non standard CCTV's
☐ Other	

***A**nticipated improvements are understood for LED Signal Replacement projects. Therefore, it is only necessary to respond to the Project Description (3a) and Existing Conditions (3b) questions in section 3.

3. Proposed Improvements

3a. Project Description

In some detail, describe the proposed project and how it will address the identified need. If the project includes multiple proposed improvement locations, identify the locations.

This project would install Aldis cameras to detect vehicles, collect volume counts, report data to office remotely and allow for live and recorded video observations. This project will also install communications to make the system functional and to tie the signals to Centracs.

The proposed intersections are in a system (SS0120) and are as follows:
S0178: Bus 51 & EB WIS 29 ramp
S0179: Bus 51 & WB Wis 29 ramp
S0217: Bus 51 & Jelnki/Kort St
S0503 – Bus 51 & Ellen Street

3b. Existing Conditions

Describe the existing conditions of the existing infrastructure. For example, type and age of current infrastructure; what is its current condition?

There have been complaints about the current signal operations at these signals. This system is over 45 miles from the Wisconsin Rapids office, making it difficult to observe traffic operations. There is not enough staff in Ops to do traffic counts manually and it is expensive to use consultants.

3c. Project Performance Goals and Objectives

Describe the proposed project performance goals and objectives. How will project success be determined?

Goal: Retime (or review) signalized intersections every 3 to 5 years.

Objective: Collect traffic counts before signal re-timing and observe after changes are made to verify good operations.

3d. Mobility Improvements

In some detail, describe the anticipated mobility improvements of the proposed project and how they will be measured (i.e. detection will be used to determine before and after peak hour delay).

The signals have not been retimed lately. The cameras will allow new counts to be taken so timing plans can be updated. Video capabilities will allow verification of operational improvements.

3e. Operations and Maintenance Impacts

In some detail, describe how this project will efficiently use or reduce operations and maintenance funds.

Count data and video capabilities will mean a reduction in unnecessary use of resources required to either sit at the intersection to manually count vehicles or to observe operations and flow.

3f. Energy and Environmental Impacts

In some detail, describe the anticipated energy and environmental impacts of the proposed project.

There will be some improvement as energy usage from state vehicles for field visits (electricians and engineers) will decrease.

3g. Safety Improvements

In some detail, describe the anticipated safety improvements of the proposed project.

Safety concerns raised by citizens can be reviewed immediately. Remotely observing traffic reduces risk to employees in the field. During an incident or weather event, the cameras could provide situational awareness.

3h. Additional Justification

Provide additional detail that should be considered during the evaluation of this project. This may include the consequences of what would happen should the project not be implemented.

Fish-eye detection can supplement or backup the existing in-ground detector loops.

4. Project Cost

Estimate project costs in today's dollars:	FY17	FY18	FY19	FY20*
Design:				
Real Estate: (Note: real estate acquisition funds are NOT included in this appropriation, other funding sources need to be identified in the space below)				
Construction Items (Include Construction Engineering and Contingencies): (Note: up to 50% of the geometric improvements needed can be funded by this appropriation)				
Let construction				
Installation via procurement contracts				
State furnished materials	80,000			
Other Costs:				
****TOTAL COST =**	**80,000**			

* The program does not extend passed FY18, however for planning purposes please include potential projects for FY20 which could be funded through a reauthorization of this program or an alternate funding source.

** The project sponsors will be responsible for any project costs in excess of the approved appropriation funding amount. Appropriation funds must be encumbered during the FY identified.

5. Additional Project Information

Is this specific project addressed through PDS within the next 6 years?	☐ YES ☒ NO
Performance measures: does this project help with achieving WisDOT's performance goals? Refer to http://dotnet/mapss/index.htm – *Mobility*: Delivering transportation choices that result in efficient trips and no unexpected delays. – *Accountability*: The continuous effort to use public dollars in the most efficient and cost-effective way. – *Preservation*: Protecting, maintaining and operating Wisconsin's transportation system efficiently by making sound investments that preserve and extend the life of our infrastructure, while protecting our natural environment. – *Safety*: Moving toward minimizing the number of deaths, injuries and crashes on our roadways. – *Service*: High quality and accurate products and services delivered in a timely fashion by a professional and proactive workforce.	Select all that apply: ☒ Mobility ☒ Accountability ☐ Preservation ☒ Safety ☒ Service
Is this project listed as a strategic objective in the State Traffic Operations Program Plan (STOPP)? Refer to \\Mad00fph\n4public\BHO\meeting-minutes\bto\stopp\	☐ YES ☐ NO If yes, what section of the STOPP?

Timeline

Steps in process	Months (MM/YY – MM/YY)	Anticipated Quarter of Encumbrance	Anticipated Required Resources (Reg PDS, Reg OPS (eng, electricians), consultant contract, electrical contractors, etc.)
1. Design	*7/16-2/16*		Vendor, Reg Ops
2. Real Estate Acquisition	*n/a*		
3. Procurement	*7/16-3/17*	Q1	Reg Ops
4. Construction	*3/17-6/17*		Vendor, Reg Ops
5. Other			

6. Contact Information and Signature

PRIMARY CONTACT NAME *Lindsey Heineck*	TITLE *CE Trans*	
REGION *NCR*		
EMAIL ADDRESS *Lindsey.heineck@dot.wi.gov*	TELEPHONE 715-421-7300	
SIGNATURE OF OPERATIONS SUPERVISOR Kelly A. Laabs		DATE *2/13/2016*
SIGNATURE OF OPERATIONS CHIEF Jeffrey Hess		DATE *2/15/2016*

REVISED DRAFT 10/31/2015