

MEMORANDUM

State of Alaska

Department of Transportation & Public Facilities
Design and Engineering Services – Southcoast Region
Preliminary Design and Environmental – Traffic and Safety

TO: Charles Deininger
Chief Contracts Officer

DATE: July 27, 2015

THRU: ~~Rob~~ Rob Campbell, P.E. *CWC*
Regional Director

TELEPHONE NO: 465-4413

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THRU: Vanda Randolph *VR*
SR Contracts Officer

SUBJECT: Approval to use Wavetronix
SmartSensor radar-based traffic
detection products on 68584
JNU Mendenhall Valley
Adaptive Traffic Signal
Control System

FROM: David Epstein, P.E. *DE*
Engineering Manager

The 68584 Juneau Mendenhall Valley Adaptive Traffic Signal Control System project intends to specify the use of Wavetronix SmartSensor radar-based traffic detection products. The SmartSensor Matrix and Advance equipment is radar-based technology that Southcoast Region has successfully used at four other intersections in Juneau.

A Public Interest Finding (PIF) was prepared that outlines the reasons for the use of SmartSensor equipment on this project. As stated in the PIF, we believe that it is in the State's best interest for the specification of the proprietary SmartSensor equipment and that this request is in accordance with 23 CFR 635.411 as well DOT&PF Policy and Procedure 10.02.013.

By signing below, the parties agree that the use of SmartSensor equipment is in the State's best interest.

Recommended:

Rob Campbell
Rob Campbell, P.E., Regional Director

7/28/15
Date

Charles Deininger
Charles Deininger, Chief Contracts Officer

7/28/15
Date

PUBLIC INTEREST FINDING – PROJECT #68584
Mendenhall Valley Adaptive Traffic Signal Control System, Juneau, Alaska
23 CFR 635.411 and 23 CFR 635.407

Introduction

This Public Interest Finding is to allow the Department of Transportation & Public Facilities to use Wavetronix SmartSensor radar-based traffic detection equipment on the JNU Mendenhall Valley Adaptive Traffic Signal Control System project.

Purpose:

The intent is to use Federal Congestion Mitigation and Air Quality Improvement (CMAQ) funds to deploy Wavetronix SmartSensor Matrix and SmartSensor Advance traffic detection equipment in conjunction with the above-referenced project. The SmartSensor line of equipment is radar-based technology that Southcoast Region has successfully used at four other intersections in Juneau (Loop and Atlin, Loop and Stephen Richards, Egan and Riverside, and Twin Lakes Drive and Egan Drive). The region desires to continue moving from conventional in-pavement loop detectors and video detection to newer radar-based technology that is not subject to difficult-to-resolve physical failure and weather-based interference. The only other radar detection equipment available on the market of which we are aware combines radar and video detection technology. Video detection has been tried in Juneau and failed to perform acceptably when water and ice are present on the pavement, as glare from headlights and highway illumination tend to induce the video cameras to detect vehicles when none are present (i.e., “false calls”). The result is excessive traffic delay. We have found the Wavetronix equipment to be unaffected by such weather-induced conditions. Furthermore, being free of in-pavement components, radar detection equipment is superior to detector loops. When loops fail and require replacement, pavement must be disturbed and traffic is impacted. The radar detection equipment is mounted on existing light poles and/or mast arms, and is easier to maintain with minimal traffic impacts and no need to dig up pavement.

By virtue of having previously used Wavetronix equipment, the region already owns software necessary to operate the system. By approving this waiver, software costs associated with a different system would be avoided.

Based on the foregoing reasons, we request approval of this Public Interest Finding.