

TRAFFIC SIGNAL SUBCOMMITTEE

Thursday, March 7, 2019
Anne Arundel County Dept. of Public Works

MINUTES

1. WELCOME AND INTRODUCTIONS

Bo Zhou welcomed everyone to the first meeting of the signal subcommittee of 2019. A round of introductions followed this.

2. REVIEW OF PREVIOUS MEETING MINUTES

Notes from the last meeting on October 25, 2018 were approved without any modifications.

3. SAFETY IMPACTS OF FLASHING RED ARROW PROTECTED-PERMISSIVE LEFT-TURN CONTROL

Mr. Rachtan (mdot-sha) highlighted the safety impacts of the Flashing Red Arrow (FRA) that is a variation on the Protected-permissive left-turn (PPLT) control. The FRA has the following specific advantages:

- Temporary or permanent mitigation of PPLT left turn crash pattern when protected-only left-turn phasing is not feasible
- No Yellow Trap
- Allows for lead-lag and twice-per-cycle left turn operations
- Can be protected by time of day, or by conditional statements in controller logic

The FRA is currently in use at 91 intersections – 81 of which are owned by SHA, 6 by Anne Arundel County, 2 in Baltimore City and 2 in Montgomery County.

Following extensive research and analysis, the team concluded the following:

- Application of FRA PPLT alleviates a LT safety problem while maintaining operational efficiency of a traditional PPLT display with circular green
- When conversion to fully protected phasing not feasible or easily attainable, FRA can be used as a temporary or a permanent countermeasure

- Allows for greater flexibility in phase sequence than doghouse PPLT: can use FRA with lead-lag or twice-per-cycle LT phasing
- Restricting LT operations to protected-only by time of day possible with FRA
- To address unique LT safety problems, FRA display allows for cycle-by-cycle suppression of the permissive LT with advanced controller logic

If anyone would like the full report or have specific questions, please contact Mr. Rachtan (prachtan@sha.state.md.us)

4. MONTGOMERY COUNTY HAWK SIGNALS

Mr. Kamal Hamud, Montgomery County DPW, described the operation of a modified HAWK signal (MOHAWK) installed at the intersection of East Gude Drive and Fishers Lumber. This was approved by MDOT-SHA as an experimental traffic control device with a 4-section signal display and a two-stage pedestrian crossing. It was modified to flash yellow instead of a dark phase. The signal operation goes from a flashing yellow to quick flash yellow to a solid yellow and red.

Mr. Hamud also presented other HAWK signals in operation in Montgomery County like the one at East West Highway and Chevy Chase High School. This is a standard HAWK with a 3 signal display (bottom yellow and top 2 red). The signal operation starts with a resting dark followed by quick flash yellow to solid yellow to red and then dark.

If anyone needs additional information about the operation of these signals, please contact Mr. Hamud (Kamal.Hamud@montgomerycountymd.gov).

5. TRAFFIC SIGNAL FORUM/ITSMD ANNUAL MEETING

Bala Akundi noted that preliminary discussions have been initiated with ITSMD to select a date for the joint signal forum/ITSMD Annual Meeting. It will again be held at the Maritime Institute. The planning team will hold bi-weekly calls starting in April and anyone interested in volunteering should reach out to Bala.

6. TECHNOLOGY SHOWCASE

Applied Information is a leading developer of connected, intelligent transportation system (ITS) solutions designed to improve safety, reliability and mobility. Applied Information's Glance Smart City Supervisory System™ platform allows cities to manage all their traffic and ITS assets on one web-based application. This includes 5 key areas: Traffic Intersections, School Beacons, Parking Guidance System, Mobile Vehicle Assets and ITS devices. AI's Glance TravelSafely™ smartphone app connects drivers, cyclists

and pedestrians for a safer commute. Mr. Jeff Wilson provided an overview of all of their products and platforms. For more information, contact Jeff at (jwilson@appinfoinc.com) or visit their websites at www.appinfoinc.com. www.travelsafelyapp.com

ATTENDANCE

Ben Myrick, MDOT-SHA
Minseok Kim, MDOT-SHA
Yeshitlaw Argaw,
Piotr Rachtan,
Eddie Bostic, Century
Bo Zhou, Anne Arundel County
Kevin Newton,
Charlie Wang,
Roger Hale, TS& T
Judy Theiss, TS&T
Keith Riniker, Sabra
Bo Yuan, Endesco
Kamal Hamud, Montgomery County
Niranjan Aryal, BCDOT
Subin George, Howard County
Bala Akundi, BMC
Jeff Wilson, Applied Information