

**TRAFFIC SIGNAL COMMITTEE**  
**Meeting Minutes**  
**March 1, 2006**

**ATTENDEES**

Ted Schoenecker	Washington County	Joe Gustafson	Scott County
George Stuempfig	SRF	Pete Sorenson	Bolton & Menk
Jan Dubar	Dakota County	Roger Plum	SEH
Steve Manhart	Edwards & Kelsey	Eric Drager	Hennepin County
Tim Mrozek	Hennepin County	Jerry Kotzenmacher	MnDOT

**LOCATION: Hennepin County - Medina**

**Topic I – Vehicle Counts – tube vs. loop/video detention (Eric Drager)**

Hennepin County looked at two locations for their study, which included:

- Hemlock Ln (CSAH 61) / East Fish Lake Rd
- Rockford Rd (CSAH 9) / Dunkirk Ln

These intersections utilized two different types of video detection systems. At Hemlock Ln / East Fish Lake Rd, Iteris was used. At Rockford Rd / Dunkirk Ln, Autoscope was used.

The initial placement of the cameras was for detection purposes not specifically for counting purposes.

Rockford Rd (CSAH 9) / Dunkirk Ln

- Data was collected for 11 days that compared video detection to tube counts.
- On average, the counts from the video detection were approximately 92%-95% of the counts from the tubes.

Hemlock Ln (CSAH 61) / East Fish Lake Rd

- Data was collected for 17 days that compared video detection to tube counts.
- The video detection counts were more sporadic compared to the tube counts. The counts ranged from approximately 85%-110% of the tube counts. The greatest deviations tended to occur during the PM peak periods.
- A comparison was also conducted between hard-wired loops and the tube counts. On average, the counts from the hard wire loops were approximately 96% of the counts from the tubes.

Other Items of Note

- The nighttime video detection counts seemed to be more consistent with the tube counts.
- There is a possibility that these video detection counts can be used for both planning purposes (ADT counts) and signal timing purposes (turning movement counts).
- City of Minneapolis did a comparison of loops vs. video as part of SCOOTs project
  - Looked at occupancy



NORTH CENTRAL SECTION

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- Issues with shadows / glare
- Some over count / under count
- Worked best on cloudy days

### **Topic II – TEO Traffic Signal Committee (Jerry K)**

- Poly Heads - Metro Traffic is looking at installing at approximately 30 intersections
- Frey Mounts
  - Anyone going to 90 degree mounts with new Frey connection?
  - Dakota County and Washington County currently use the Frey mount, but neither have installed the new connection type.
  - MnDOT is looking to simplify details / plans & not specify any particular mount.
  - Frey also has a new bracket for 5-section head – Frey 115 Bracket
- Battery back up - service cabinet detail not required. MnDOT will be using spec only; cabinets may not look the same but they will have the same bolt pattern
  - Battery needs 1100 watt output
  - If one battery is replaced, should replace all batteries to provide an even load distribution (there may be a device that evens the load so that you do not have to replace all of the batteries. Cost is unknown.)
  - Approved cabinet shortly
- Mouse shield spec
  - woven wire mesh installed on signals transformer base poles
- Dialight
  - MnDOT has not had any problems with field installation since they were put back on the approved qualified list
- MnDOT is working on updating the list of approved products
- LED EVP Indicator
  - Metro Traffic to install at approximately 30 locations
  - TCP (Technical Consumer Products) LR30 AMB / WH27K
  - 2 yr warranty
- MnDOT classes
  - The MnDOT Signal design class started March 1
  - The Roadway lighting class is scheduled for May 23-24
  - Advanced Controller Class, June 2006

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- Signal Timing & Coordination, 2007
- Cabinet Training Class – looking to get more formal class
- Signal Cell Library
  - Set up differently and is divided into 3 categories
    - Sig lay
    - Sig wire
    - Sig chart
- Terminal Block Connection 2-4-6
  - Looking at Puetsche Pin Connector
  - Only UL approve for 14ga wire
  - Strength of 14ga cable is a concern
  - Wiring color codes & cables need to change
  - Vendors need to stock this specific cable for MnDOT
  - Signal wiring diagram would change
  - Detail needed
  - Sole source products are a concern
- MnDOT has looked at the possibility of DC voltage for traffic signals
  - Not many advantages
- Detectors placed in bridge decking
  - Place when deck is being poured
  - Get in bridge plans
  - Need splice box under bridge & easily accessible (shoulders/median) from median
- Tomar EVP
  - Issues near high power line with power jumping
- RR Pre-emption
  - OTSO is preparing a memo (Letter of understanding) to specify what calls (RR preempt and gate down logic) are needed from RR
  - Work with MnDOT RR office if you have questions
- Grounding
  - MnDOT is examining the use of NMC
  - If NMC is used, a #6 stranded 1/C wire (1/C #6 bare)
  - detail should be included in the plans
  - grounding rods at the signal poles
  - daisy chain at grounding nut inside transformer base

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- include layout in spec.
- Conduit stubout 1" should be included in layout for ground rod from the signal pole
  - solid wire from nut to rod

**Round Robin**

- Red light running update
  - Mpls coming to NCITE
  - Mpls looking at adding more
  - Only St. Paul & Mpls can implement because they are a City of 1<sup>st</sup> class
- Joe G – Hand holes in sidewalk vs. turf
  - looking at possibly installing in sidewalk
  - recommendation to stay in turf if possible

**NEXT MEETING**

The next meeting will be on **April 5, 2006 at MnDOT Oakdale, Rm 1**

Meeting Agenda – Railroad Preemption Guidelines/Forms  
Liability of Agencies for Signal Coordination with RR Company