October 5, 2010

MEMORANDUM #2010-156

TO: Hampton Roads Transportation Operations (HRTO) Members & Guests

BY: Robert B. Case, Principal Transportation Engineer

RE: HRTO Subcommittee Meeting – October 12, 2010

An HRTO Subcommittee meeting will be held from 9:30 a.m. – 11:30 a.m. on Tuesday, October 12, 2010, at Virginia Beach Traffic Management Center, 3556 Dam Neck Road, Virginia Beach (385-1454). Note: After turning left from Dam Neck Road, park in the parking lot on the left. A tour of the facility is scheduled at the end of the agenda.

1. Public Comment Period

2. Summary Minutes of August 10, 2010 Meeting

   Minutes of the last HRTO meeting are attached.

   Attachment 2

   Recommended Action: Approval

3. Nominating Committee for Chairperson Position

   When the Chair of the Transportation Technical Advisory Committee (TTAC) designated HRTO as an official subcommittee of TTAC in February 2010, staff distributed a one-page designation document recommending that HRTO elect its own Chair in December 2010 for a two-year term, at which time Robert Lewis will have completed almost two years as Chair of HRTO. HRTO will vote for a new chairperson at its December meeting.

   Recommended Action: Robert Lewis will appoint members of a nominating committee for 2011-2012 HRTO Chair.

4. Triumphs and Trials - Newport News - PhotoSAFE

   Jackie Kassel and Randy Cooper will present lessons learned through the implementation of a red light camera enforcement program named PhotoSAFE.
5. **RCTO Performance Measures**

The first six-month set of performance measures has been prepared for RCTO based on the three quantifiable objectives in the RCTO Resource Document. Kris Gilbert, VDOT, will present the performance values.

Recommended Action: Provide feedback to VDOT on RCTO performance measurement.

6. **Bridge Deck Temperature Probes**

Marty Willson will present Hampton’s experience with bridge deck temperature probes.

7. **Old Business; New Business**

8. **FYI**

The July and August newsletters of Virginia Beach’s TMC are attached.

Attachment 8A and 8B

9. **Next Meeting Schedule and Agenda Items**

The next HRTO meeting is scheduled for Tuesday, December 14, 2010 from 9:30 a.m. – 11:30 a.m. Members will be requested to mention any agenda items that they would like to have at that meeting.

10. **Tour of Virginia Beach Traffic Management Center**

Founded in January 2006, the Traffic Management Center (TMC) serves as an information dissemination hub. The TMC facilitates the application of technology and engineering to managing traffic and the dissemination of traffic related information to the motoring public.

Frank Hickman will give HRTO a tour of the Traffic Management Center.

RBC/kg

Attachments
HRTO Subcommittee:
Kevin Abt, VPA
Guzin Akan, NO
Stephen R. Boyce, VDOT
Charles Burch, JC
Alesia Cain, HRT
Kamlesh Chowdhary, HRT
Randy Cooper, NN
Michael A. Corwin, P.E., VDOT
Kevin Eppley, CH
Jeffrey Florin, VPA
Stephany Hanshaw, VDOT
Richard Hartman, PO
Franklin Hickman, VB
Jacqueline M. Kassell, P.E., NN
Stephen P. Kopczynski, YK
Robert E. Lewis, P.E., SU
Ric Lowman, P.E., VB
Tal Luton, JC
Daniel A. Rydzewski, P.E., NO
W. Leon Sisco, WATA
Eric Stringfield, VDOT
Ed Taylor, SU
Gary E. Walton, P.E., CH
Martin Willson, HA
John Yorks, HA
HRTO Invited Guests:

Joel Acree
Beck Barfield, PO
Jocelyn K. Bauer
R. Stephen Best, Sr., CH
Tim Breslin, CH
Stephen C. Brich, VDOT
Chad Brooks
Robert Buckham
Leah Bush, VDH
A. Call, HA
Jimmy Carter
Joseph Carter, PQ
Mecit Cetin, ODU
Chief Chesapeake PD, CH
Jonathan Clark, Open Roads
Dwayne Cook, VDOT
Marc Copeland
Steven Cover, VB
Scott Cowherd, VDOT
William P. Dent (WM Fire)
Leon Dextradeur, VB
Doug Draper, CH
Richard Drumwright, WATA
Michael Felix, NO
Rusty Fitzhugh, VDOT
Eric Fly, Seamcorp
Chris Francis, VDOT
Robert K. Gey, VB
George Glazner, NO
James Gray, HA
Mike Haas, Open Roads
Cynthia Hall, NO
John Hendrickson, PBQ&D
Jeffrey B. Holland, CBBTC
Robert T. Holloway, Jr., PQ
John Horner, Open Roads
Chuck Houck, NO
Amanda Jacobs, JC
Daniel E. Jenkins, P.E., FHWA
Ken Jennings, DMV
Alan Jensen, P.E., NAVY
Kenneth L. Jones, NN
John Kaoudis, NN
Asad Khattak, Ph.D, ODU
Raymond Khoury, VDOT
Frank Kowaleski, DMV
Charles Lavene, Norfolk Airport
Stephen D. Little, Transdyn
Jake McCoury, VSP
Jim McCullough, Transdyn
Joe Moore, NN
Jessie Neal, VDOT
Mark Outlaw, SU
Shawn Pillow, VSP
Daniel Plott, VSP
Earnest Poole, VSP
Eric Reddeck, CH
Matthew Riethmiller
Iris Rodriguez, FHWA
Safety Officer, NN
Mark Sawyers
Dave M. Seale, VIT
Tanya Showers, Army
Bill Smith
Mark Solesky, CH
Leticia Soto, NAVY
Gregory S. Staylor, CH
David C. Sullivan, HRT
Linda Taylor, VDH
Ted Tynes, VSP
Charles E. Vidrine, NAVY
Scott S. Williams, NN
Jeff Wise, NO
Nick Wooten, HA

Cc: Sam Belfield
    Rob Case
    Dwight Farmer
    Keith Nichols
    Camelia Ravanbakht
    Stephanie Shealey
    Joe Turner
Opportunity for Public Comment

• No response.

Summary Minutes of June 15, 2010 Meeting

• Minutes were passed as presented.

Identifying Effective ITS Projects

• Rob Case presented a handout showing all ITS projects as they were ranked by the subcommittee.

• Opportunity was given for questions or further comments concerning the ranking.

• Hearing no comment, a motion was made to accept the list as presented and forward the same to VDOT. The motion was seconded, then voted on and passed as presented.

Cityworks Software Presentation

• Unfortunately, the Cityworks software did not operate properly with the equipment available at the facility. In lieu of a software presentation, Robert Lewis gave a verbal presentation and explanation of the Cityworks software.

  o The City of Suffolk Public Works Department has been using Cityworks for about 2.5 years.

  o Cityworks is comprised of several components

    ▪ Service Requests are an important function of the Cityworks program.
• A Service Request is generated by the person answering the phone when someone calls with a complaint or a request.

• Cityworks is tied to the City’s GIS database, so each Service Request is geo-coded to an exact location.

• The request is automatically routed to the proper person and/or division of Public Works.

• Public Works has a policy that all service requests be responded to within a 72 hour period. This means that a response has been made to the citizen, not necessarily that any work has been completed.

  ▪ Another important aspect of Cityworks is the Work Order.

    • A Work Order is created when work is required, therefore not all Service Requests result in a Work Order, as some calls are unfounded.

    • A Work Order functions to track work done, personnel used, equipment and supplies used, and man hours required to complete a task.

    • All divisions can be tracked separately, and the Work Order will be automatically forwarded to the proper divisions. For example, if a section of roadway requires repair, a single Work Order may be forwarded through an excavation crew, pavement crew, and paint crew before it is completed and closed out, eventually being archived.

  ▪ Cityworks allows for the monitoring and printing of many different types of reports, allowing you to track the history of the work of a single crew, or a specific area, etc.

  ▪ By tracking all work done, Cityworks helps to justify man power and equipment.

    o The City of Suffolk would like to eventually have a local version of VIPIR, fueled by Cityworks, that will show all work zones, emergency situations, etc.

    o In the future, the City of Suffolk hopes to be able to enter data into Cityworks in the field, updating the maps in real time with the most current information.

  o Questions or Comments?

    ▪ Rob Case asked if there are problems getting all groups to enter their information?

      • Answer: No – Cityworks automatically forwards the Work Order to the proper group. It is difficult to lose things in an automated system.
Old Business

Lane Closure Notification

Rob Case asked the subcommittee to report on usage of the VDOT Lane Closure Form emailed to members on 7-9-10 in accordance with HRTO action at its April meeting.

- Jackie stated that Newport News has an internal system they are using currently. The new form has been given to contractors, but they have not had any feedback from them as of yet. She felt they will probably have to fill the forms out themselves for the contractors. They are currently in the process of integrating into a web-based system.

- Also from Newport News, a problem is that often inspectors must change their plans in the field and do not know a week or two weeks in advance what and where their work will be.

- A member asked that the form be resent, as some members did not receive it.

- A member asked if it is the intention that this form be used in the case of emergency closings?
  - Answer: No, the intent was for this form to be used for planned work, and only on major roadways that may affect the interstate. Emergency closings will be handled differently. If you have emergencies that will have regional significance, please let Smart Traffic Center know.

- The City of Suffolk is currently working at finding a better way to coordinate internally. Is anyone else trying to do this internally to help educate citizens of the road work in the City?
  - The City Manager in Suffolk has requested that communication be better between facilities.
  - Perhaps a future agenda item is to discuss how we can coordinate in our own cities. Please in the future come prepared to share lessons learned.

- In Chesapeake, PRO issues traffic advisory for citizens, but there is not a coordination process.

- In some cities, the Police and Fire Department are notified of road work as needed, in a system that is more reactive than proactive.
  - There is a web based system (InVISTA) Norfolk uses, in a partnership with Cox, Verizon and Natural Gas. They list their projects so they do not overlap. Virginia Beach is training on InVISTA now. Dan said perhaps someone could do a future presentation.

ITS Project Inventory

- This list was included in the agenda and will be included in the ITS plan, updates will be made as necessary.
VDOT’s *Hurricane Lane Reversal Plan*

Rob Case reported on recent TTAC action, recent TTS action, and the implications of current VDOT hurricane analysis (Ph III):

- TTAC approved recommendations made by the subcommittee at a prior meeting. The subcommittee had suggested VDOT be encouraged to continue 58 lane reversal, as well as consider keeping the MMBT open. Concerns from Fire Chief were addressed.

- The TTS, another TTAC subcommittee, met and discussed this. The HRTO had suggested that extra $3.5m RSTP money be put towards the reversal. The TTS, however, set that money aside for contingency for ARRA projects. If that money is not used, or is only partially used, the TTS would like to put the remainder towards the 58 lane reversal.

**HRTO comments:**

- As a region, it does us no good to put money towards a project that is not progressing. If one million is approved, it may be possible to proceed with the engineering aspect of this, allowing for a more accurate overall cost estimate for construction.

Rob Case continued:

- VTRC is analyzing various hurricane scenarios to judge the impact of keeping the MMBT open, including one scenario similar to that advocated by HRTO (i.e. without a crossover at Hampton Coliseum). The timetable is unknown at this point, but may be finished as early as this fall. It is geared towards next summer’s hurricane season. TPO staff plans to wait for VTRC results before taking HRTO/TTAC hurricane evacuation recommendations to the TPO board.

**VDOT comment:**

- It will be a significant additional draw on their staff to leave MMBT open.

**New Business**

- Rob Case had been approached concerning variable message signs. The concern was that variable message signs seem to focus on the HRBT, perhaps causing a problem by not addressing other choke points. Would the HRTO group be interested in becoming involved in the issue of variable message signing for the tunnels? Comments:
  - In Newport News, the signs do a good job of mentioning backups on both crossings.
  - On the Southside you cannot necessarily get to both crossings.
  - Gary questioned the standard operating procedure. He stated it may be a good idea to get either Stephany or Stephen to explain protocols of certain messages, i.e. when they are put on the signs.
• Giving anticipated travel times to the next intersection may be a big help.
• Do any of these ITS projects have the ability to give travel times to key intersections?
• Stephany used to calculate travel times by the length of the queue. It may be helpful to have an updated status of this.
• There was a proposal to move forward with travel time estimates based on detector data with the DYNEX system.
  o At December’s meeting, a new chair will be appointed. In October, a nominating committee will be selected. Please let Robert know if you would like to serve as chair or on the nominating committee.
  o Opticom has now been adopted regionally. The subcommittee forwarded a regional project for regional CMAQ funding. In the competition, the project did not rank highly enough to move forward. Hopefully it will receive funding in the future. Some cities are moving forward via their own funding. The HRTO will continue to seek funding to advance the regional project.

• FYI
  o The June newsletter of Va. Beach’s TMC is attached to the agenda.

• Next Meeting Schedule and Agenda Items
  o The next HRTO meeting is scheduled for Tuesday, October 12, 2010 (9:30 AM – 11:30 AM) at Virginia Beach’s TOC.

• Tour of VMASC
  o Mike Robinson of the VMASC staff provided the subcommittee with a tour of the VMASC facility.
I. **Signal Retiming Accomplished/Installed/Verified**  
This topic involves the resolving signal timing issues at certain intersections based on citizen suggestions and staff observations.

1. First Colonial Road/Laskin Road  
2. 22nd Street/Pacific Avenue  
3. Indian River Road/Kemps River Road  
4. Virginia Beach Boulevard/Lynnhaven Parkway  
5. Independence Boulevard/Euclid Road  
6. Pacific Avenue/5th Street  
7. Diamond Springs Road/Northampton Boulevard

II. **Transportation Communications Network Construction (Fiber Project)**  
Once completed, this project will expand the City’s traffic signal network by installing **92 miles of fiber optic cable**, adding **39 closed circuit television cameras** at high traffic intersections, adding vehicle **video detection equipment at 100 intersections** and installing **Emergency Vehicle Pre-emption at 26 critical intersections**. Together, this will provide a 1 Gig Ethernet backbone that connects everything back to the Traffic Management Center.

   a. **Successfully completed Testing of All Project Phases**  
      These field tests demonstrated the report back capability of CCTV cameras, Video Detection cameras, and Vehicle Pre-emption devices back to the Traffic Management Center from 105 intersections tested in the field.

   b. **Signal Integrator Project (Overall Construction Progress is 83% Complete)**  
      1. Installed 18 video detection cameras  
      2. Installed 28 CCTV cameras  
      3. Installed 31 video encoders  
      4. Installed 1440 feet of 8 count fiber drop cable

   The civil project civil work (fiber cable installation/junction box installations/ sidewalk replacements) is 100% complete

III. **Significant Meeting Hosted or Attended**  
1. July 6, 2010 – Spoke to the Courthouse Rotary Club regarding the City of Virginia Beach ITS program at the Virginia Beach Golf Course Clubhouse  
2. July 10, 2010 - Staff participated in the “ALL Systems Go!” Conference & Expo at the Virginia Beach Convention Center  
   The event, produced by FACES (Foundation for the Advancement of Creative Educational Solutions) is a regional community interactive event that highlights innovations in Science Technology Engineering and Mathematics (STEM). (Photos attached)
IV. Systems Maintenance Issues
This topic addresses the resolution of traffic detection issues noted in citizen suggestions and staff observations at noted intersections

1. Video Detection or Loop Issues identified and repaired at:
   a. Dam Neck Road/General Booth Boulevard

2. Removing the Span Wire Traffic signal installation at 21st/22nd Street and Pacific Avenue (photos attached)

V. Traffic Management Operations Division Response Information
Some of the vital statistics we address each month

1. Number of Traffic Counts Scheduled/Completed – 25/29

   - 129 hits for month of June 2010
   - 1570 hits since program inception (July 2009)

3. Number of Utility Locate Tickets (Miss Utility) Received/Marked – 2660/555

4. Number of Traffic Signal Preventive Maintenance Actions completed – 71

5. Number of Traffic Signal Work Orders Received - 268

6. Number of Traffic Sign Work Orders Completed – 466

7. Installed thermoplastic pavement marking – 4000 feet
“All Systems Go” Conference and Exhibition
City of Virginia Beach Convention Center
July 10, 2010

Show casing ITS devices to all citizens
Replacement of Span Wire Installation at 21st/22nd Street at Pacific Avenue

Public Works Operations staff worked on July 17th/18th to replace two aging signal spans on Pacific Avenue at the 21st and 22nd Street intersections. The two 75 foot mast arms installed are among the longest in the city inventory. The project execution was flawless. The cost savings from performing the work with in-house staff is at least 50%.

The 11 person crew comprised of members of Traffic Management Operations, Highways, and Operations Management divisions worked on overtime from 12 am to 10 am. Several weeks of prep work were accomplished in advance to ensure that the project proceeded smoothly.
Replacement of Span Wire Installation at 21st/22nd Street at Pacific Avenue

22nd Street/Pacific Avenue (Before)

22nd Street/Pacific Avenue (After)
Replacement of Span Wire Installation at 21st/22nd Street at Pacific Avenue

21st Street/Pacific Avenue (Before)

21st Street/Pacific Avenue (After)

Attachment 8A
I. Signal Retiming Accomplished/Installed/Verified
This topic involves the resolving signal timing issues at certain intersections based on citizen suggestions and staff observations.

1. Pacific Avenue at 30th & 31st Streets
2. Pacific Avenue and 32nd Street
3. Princess Anne Road and Salem Road
4. Virginia Beach Boulevard and London Bridge Road
5. Princess Anne Road at Dam Neck Road & Concert Drive
6. Drakesmile Corridor
7. Lynnhaven Parkway and Centerville Turnpike

II. Transportation Communications Network Construction (Fiber Project)
Once completed, this project will expand the City’s traffic signal network by installing 92 miles of fiber optic cable, adding 39 closed circuit television cameras at high traffic intersections, adding vehicle video detection equipment at 100 intersections and installing Emergency Vehicle Pre-emption at 26 critical intersections. Together, this will provide a 1 Gig Ethernet backbone that connects everything back to the Traffic Management Center

a. Signal Integrator Project (Overall Construction Progress is 89% Complete)
   1. Installed 3 video detection cameras
   2. Installed 11 CCTV cameras (photos attached)
   3. Installed 75 network Ethernet switches
   4. Installed 1440 feet of 8 count fiber drop cable

The civil project civil work (fiber cable installation/junction box installations/ sidewalk replacements) is 100% complete. All that remains to be accomplished is the video wall installation and repair of fiber damaged after the initial installation.

III. Significant Meeting Hosted or Attended
1. August 17, 2010 – Conducted an Enhanced Critical Infrastructure Protection (ECIP) Initiative visit with Department of Homeland Security personnel. Surveys were conducted during the visit to determine if the Traffic Management Center (TMC) should be classified as “critical infrastructure” for the City of Virginia Beach and the Hampton Roads region.

2. August 30 to September 2, 2010 - Staff attended the Clarus/MDSS Stakeholder Meeting in Indianapolis, Indiana. This is an annual meeting, sponsored by the U.S. Department of Transportation, to promote weather responsive traffic management solutions. The project goal is to collect real-time weather information and relay that information to motorists to minimize the delay and risk experienced while driving in bad weather.
IV. **Systems Maintenance Issues**  
This topic addresses the resolution of traffic detection issues noted in citizen suggestions and staff observations at noted intersections. It also addresses significant traffic signal network maintenance issues.

1. Video Detection or Loop Issues identified and repaired at:  
   a. Shore Drive/Baylake Road  
   b. Pacific Avenue/5th Street  
   c. Wesleyan Drive/Broadmeadows Boulevard  
   d. Great Neck Road/Adam Keeling Road  
   e. Providence Road/Beryl Avenue  
   f. Lynnhaven Parkway/I-264 EB Off Ramp

2. Installation of 10,500 feet of fiber optic cable by Staff on Rosemont Road (between Holland Road and Sentara Way. (photos attached)

V. **Traffic Management Operations Division Response Information**  
Some of the vital statistics we address each month

1. **Number of Traffic Counts Scheduled/Completed** – 37/38

2. **Number of Hits on the Traffic Data Database** (at [www.VBgov.com/TCDS](http://www.VBgov.com/TCDS))  
   - 121 hits for month of August 2010  
   - 1691 hits since program inception (July 2009)

3. **Number of Utility Locate Tickets (Miss Utility) Received/Marked** – 2836/180

4. **Number of Traffic Signal Preventive Maintenance Actions completed** – 86

5. **Number of Traffic Signal Work Orders Received** - 102

6. **Number of Traffic Sign Work Orders Completed** – 571

7. **Installed thermoplastic pavement marking** – 32,300 feet
Weather is the second largest cause of non recurring congestion, accounting for 25% of all non recurring delays. Weather plays a role in 25 percent of total crashes – approximately 1,511,000. A 14-year average between 1995 and 2008 indicated 7,400 people are killed and over 629,000 are injured in weather-related crashes each year.

The Road Weather Management Program (RWMP), which is part of the Federal Highway Administration’s (FHWA) Office of Operations and works with the Intelligent Transportation Systems (ITS) office of Research and innovative Technology (RITA), addresses road weather challenges through research, technology development, and community outreach to gain a greater understanding of the impact weather has on roadways, and through the promotion of strategies and tools that mitigate those impacts- anytime and anywhere.
Traffic Signal System Construction and Maintenance Highlights

Portico Realty Services (traffic communications network contractor) installed 11 closed circuit television (CCTV) cameras during August. This brings the total to 39 CCTV cameras installed with the project.

CCTV Camera Installation

Rosemont Road Fiber Installation by Staff

Staff installed 10,500 feet of 96 count fiber optic cable on Rosemont Road, between Holland Road and Sentara Way. We plan to run fiber the entire length of Rosemont Road to provide another redundant ring in our 100 mile fiber optic cable plant.