



## **CITY OF PORTSMOUTH, VIRGINIA**

Established 1752

### **Office of the Mayor**

(757) 393-8746 • Fax: (757) 393-5378

**Dr. James W. Holley III**  
Mayor

October 29, 2008

Dear Regional Leaders:

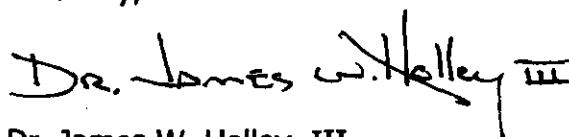
As a follow-up to my earlier correspondence on the Jordan Bridge closure and regional impacts on transportation, a driver needs only to take an early morning or afternoon drive to realize that transportation congestion is a serious, if not an impossible, problem for Hampton Roads. Our failure to properly maintain our current infrastructure as well as properly program and develop new infrastructures to provide for our region's growth, is fast overtaking our ability to properly serve our Hampton Roads family and give them the tools needed to grow our region.

A regional warning shot was fired two years ago with the closure of the King's Highway Bridge in Suffolk. A second warning shot will be fired on November 8, 2008 with the closure of the Jordan Bridge on the Chesapeake/Portsmouth city line. I have directed a white paper be done on the impacts of the Jordan Bridge closure. That paper (included previously under separate cover) drew together some interesting aspects of the closure.

We now have two warning shots which are generally all one gets before the attack begins. What might that attack be? November 1, 2008 will be the 51<sup>st</sup> birthday of the Hampton Roads I-64 Bridge Tunnel. May 22 of this year was the 56<sup>th</sup> birthday of the Downtown Tunnel. September 6 the Midtown Tunnel celebrated its 46<sup>th</sup> birthday. All of these tunnels are approaching or have passed their service life expectancy of about 50 years. There are no plans for major maintenance or replacement for any of these ageing tunnels or other such facilities, yet the three tunnels alone represent an approximate 5 billion in current dollars of investment. The attack on our bridges, tunnels and other infrastructure threatens the way of life which we have become accustomed to.

We have had our warnings. Now we must come together as regional leaders and take action. To this end I will be working with Portsmouth staff to host a public meeting on transportation. Input from this meeting will be used to assist the City of Portsmouth in developing its Master Transportation Plan. We believe this initiative can be used by the region as a starting point to guide a complete overhaul of the regional transportation plan that will, for the first time, addresses major infrastructure maintenance, all modes of transportation instead of just vehicular transportation, and deals with the difficult issues of which of our "I wants" we must do without in order to provide a quality transportation network that will not continue to crumble around us.

Sincerely,

A handwritten signature in black ink that reads "Dr. James W. Holley, III". The signature is written in a cursive style with a prominent "H" and "W".

Dr. James W. Holley, III  
Mayor

Attachment: Jordan Bridge Report (New Recipients Only)  
Distribution List

# Briefing Paper

## Jordan Bridge Closure and Regional Impacts

### **Background**

The Jordan Bridge has been in operation for eighty years. The original structure was designed as a wood pile supported trestle bridge with a vertical lift center span. The center lift portion of the bridge consists of two steel towers made of mild steel. The Elizabeth River is still salt water at the crossing point. The combination of age, salt water and mild steel has deteriorated the bridge beyond the service life of the structure. To keep the bridge in service would be placing public safety at an unnecessary risk.

### **Current Status**

The Jordan Bridge is anticipated to be closed during the month of November 2008. This decision was made on sound engineering judgment and the local government's need to support the City of Chesapeake by seeking immediate and long range solutions to the river crossing problem.

### **Action Plans**

In order to develop a cost effective action plan the problem must be defined and understood. The closure will cause approximately 7,000 vehicles a day during the week to seek an alternate travel route. This displacement of traffic will be inconvenient for some but it will not cause a major disruption in traffic. However, the Gilmerton Bridge is in very poor condition and is scheduled for replacement as soon as full funding has been identified which is expected later this year with construction beginning in the next 12 months.

The following is taken from a report done by the Hampton Roads Planning District Commission (HRPDC) about the Jordan Bridge closure coupled with the Gilmerton bridge construction and the serious impact the combination of the two will have on the region:

#### ***Existing Peak Hour Traffic Backups***

*The Gilmerton Bridge is currently 4 lanes and the Jordan Bridge is fully functional. The following chart summarizes the length of typical backups each work day during the afternoon peak period.*

<b><i>Location</i></b>	<b><i>Typical PM Peak Period Backups</i></b>
<i>Gilmerton Bridge</i>	<i>0.0 miles</i>
<i>High Rise Bridge</i>	<i>0.2 miles</i>
<i>Downtown Tunnel</i>	<i>2.1 miles</i>
<i>Matatown Tunnel</i>	<i>2.3 miles</i>
<del><i>GBT</i></del>	<del><i>2.5 miles</i></del>

**Peak Hour Traffic Backups with the Gilmerton Bridge under Construction**

As previously indicated, VDOT and the City of Chesapeake will require that the number of through lanes along the Gilmerton Bridge during reconstruction be reduced from 4 lanes to 2 lanes. The following chart summarizes the length of typical backups each work day during the afternoon peak period.

<b>Location</b>	<b>Typical PM Peak Period Backups *</b>
Gilmerton Bridge	1.7 miles
High Rise Bridge	0.7 miles
Downtown Tunnel	2.2 miles
Midtown Tunnel	3.3 miles
HRBT	3.6 miles

\* During Gilmerton Bridge reconstruction and with the Jordan Bridge fully functional.

**Peak Hour Traffic Backups with the Jordan Bridge Closure and the Gilmerton Bridge under Construction**

If the Jordan Bridge is closed during the reconstruction of the Gilmerton Bridge, additional significant backups along the major facilities under analysis will occur. The following chart summarizes the length of typical backups each work day during the afternoon peak period under these conditions.

<b>Location</b>	<b>Typical PM Peak Period Backups</b>
Gilmerton Bridge	2.3 miles
High Rise Bridge	1.0 miles
Downtown Tunnel	3.0 miles
Midtown Tunnel	3.9 miles
HRBT	3.7 miles

The above HRPDC analysis shows the severe impact that the combination of the two events will have on transportation in the region. What the above analysis does not take into consideration is that during the 4 year construction period for the Gilmerton Bridge, the Midtown Tunnel and the Martin Luther King projects will likely go under construction further, degrading regional transportation. A question often asked is what impact does a backup have on an individual driver trying to get through the area. Generally, a one mile back up is equal to an extra ten minutes of travel time needed to clear the area. For example the driver using the Midtown Tunnel would need to plan on an extra ten minutes of travel time or a total of nearly 40 minutes to get through the tunnel.

## **Options to Consider**

The options need to be looked at in three levels. They are Short term, Midrange and Future Options.

### **Short Term**

Several short term options have been considered. They have included:

- A. Ferry service at the Jordan bridge location
- B. Ferry service from the Ball Park location
- C. Direct transit service from the bridge to the naval shipyard
- D. Transit service from the bridge to both Chesapeake and Portsmouth transit transfer points as well as the shipyard.

After evaluating the above options, **plan "D"** was chosen and will be placed in service at the time of the bridge closing.

### **Midrange**

At the present time, no discussion has taken place as to the need to develop midrange or future options. Leadership for these two items should come from and under the direction of the Hampton Roads Metro Planning Organization since the impacts are regional in nature. Mid range actions are dependant on the long term decision as to replacement of the crossing point or to develop additional capacity crossing capacity at a different location.

If the crossing point at the current Jordan Bridge location were to be preserved, then the most logical midrange solution would be to develop a ferry service capable of handling vehicles and trucks as well as pedestrians.

### **Long/Range Future Options**

In order to evaluate the long range regional transportation need for crossing the Elizabeth River barrier line, the City of Portsmouth requested HRPDC to analyze the unrestrained river crossing demand out to 2030 and do two alternative long range analyses. Alternate "A" would develop a Portsmouth "West Side Highway" from I 264 to I 464 via a Fredrick, Elm and Jordan Bridge Alignment using a 4 lane divided, limited access highway with a high level bridge crossing the Elizabeth River at the current Jordan Bridge site. Alternate "B" would not replace the Jordan Bridge but would increase the cross section of the Military Highway/Gilmerton Bridge from 4 lanes to six lanes. In alternate "A" there is a toll comparable to the Midtown and Downtown tunnels toll but there is no toll on the Gilmerton Bridge. In alternate "B" there is a toll on the Gilmerton Bridge.

The two proposals yield a considerable different impact on regional traffic. Maps 2, 5, 7 and 9 included at the end of this paper show the computer analysis for the various options. A cursory review of the maps would lead one to believe that alternative "B" produces the best results since it shows the least congested points at the river crossings. However, comparing the computer generated river crossings in the year 2030, there is a difference of 53,000 vehicles per day crossing the river between the two alternatives. This difference is created by the lack of crossing capacity produced by alternative "B" and represents the loss in cross river jobs and trade.

Comparison of Impacts of Alternatives on Total Crossings							
	Midtown Crossings	Downtown Crossings	Jordan Crossings	Gilmerton Crossings	High Rise Crossings	Total River Crossings	Difference from Current conditions
Current Conditions	41,000	101,000	7,000	36,000	76,000	261,000	N/A
Long Range Plan Conditions	49,000	90,000	19,000	47,000	69,000	274,000	13,000
West Side Highway Alt A	44,000	73,000	56,000	44,000	60,000	277,000	16,000
Gilmerton Military Highway Alt B	45,000	86,000	0	33,000	60,000	224,000	37,000
Volume Diff Alternative A & B							53,000