

Norfolk Southern Corporation Goverment Relations One Constitution Avenue, N.E. Suite 300 Washington, DC 20002 202/675-8200 202/675-8210 Fax

Darrell L. Wilson Assistant Vice President

January 6, 2010

Charles Jenkins Chairman National Capital Region Transportation Planning Board Metropolitan Washington Council of Governments 777 North Capital Street, N.E. Suite 300 Washington, DC 20002

Dear Chairman Jenkins:

I would like to take this opportunity to address Mr. Donald Halligan of the Maryland Department of Transportation's (MDOT) motion to delay the Transportation Planning Board's vote for approval of the Crescent Corridor support letter made during the December 16th meeting.

Since the first quarter of 2009, Norfolk Southern has gone to great lengths keeping MDOT abreast of the Crescent Corridor Intermodal Freight Program as it affects the state. While the Crescent Corridor's TIGER application does not include any projects within Maryland, Norfolk Southern has nevertheless provided prompt responses to all the questions MDOT has posed.

On October 6, 2009, Norfolk Southern's Business Development Vice President, Dr. Rob Martinez, formerly Secretary of the Virginia DOT, sat down with MDOT representatives including Caitlin Rayman Hughes, Assistant Secretary for Transportation Policy, to specifically address truck traffic impacts from the Crescent Corridor. During this meeting, Alan Meyers of Cambridge Systematics (CS) joined the meeting via teleconference to discuss the truck diversion analysis he provided for the Corridor. At length, both Dr. Martinez and Mr. Meyers discussed how the Crescent Corridor will reduce truck vehicle miles traveled (VMTs) by more than 32 million miles in Maryland annually, or the equivalent of 884,000 long-haul trucks diverted to rail, when the Corridor is fully developed. Notably, these truckloads neither originate nor are destined for Maryland and therefore reduce mobility and quality of life standards within the state without delivering economic development opportunities. (Please find attached subsequent correspondence from that October 6th meeting with MDOT, including the origin-destination truck VMT reduction spreadsheet Mr. Meyers prepared for the state.)

Chairman Jenkins January 6, 2010 Page 2 of 4

Delving further into how CS arrived at its conclusion that the Crescent Corridor, at full development, would reduce Maryland interstate highway VMTs by more than 32 million miles annually, CS' first analysis step determined which highway routing would experience reduced truck mileage as a result of the Corridor for each origin-destination move. CS had access to interstate highway truck origin-destination surveys conducted by the Commonwealth of Virginia. For many moves, CS was able to assign truck traffic to highway routes according to actual survey data. For other moves, CS identified "least distance" highway routes between cities and regions. CS then compiled estimates of truck travel distance associated with each highway routing. Norfolk Southern provided corresponding estimates of rail travel distance associated with each rail routing.

From this information, CS tabulated the total anticipated traffic over the Corridor by origindestination pair, the corresponding rail mileage incurred, and the equivalent long-haul truck mileage avoided. Truck mileage associated with local pickup and delivery, including from the proposed Franklin County Regional Intermodal Facility in Greencastle, Pennsylvania, was not included in the avoided mileage. That being said, however, the modest size of this facility, capable within four years after opening of handling 85,000 lifts (a lift is counted when a container or trailer is loaded onto or lifted off of a railcar), combined with the inherent economic incentive of reducing drayage between intermodal rail facilities and intermodal rail customers, clearly shows that local drayage will be negligible relative to the net VMT reduction of long-haul trucks diverted off Maryland's highways. Presently, the overwhelming majority of long-haul freight is being moved by truck between the Northeast and South. The Crescent Corridor offers a more sustainable alternative for Maryland and its roadways, eliminating a significant amount of long-haul truck traffic which is neither originating from nor destined for consumption within the state.

For the Hagerstown region, trucks making pickups and deliveries will be on local roads serving businesses with or without the Crescent Corridor and the Franklin County Regional Intermodal Facility. What the Crescent Corridor offers for the region is congestion relief from the perspective of diverting more than 6.3 million long-haul through truck VMTs annually from I-81, according to Cambridge. Additionally, the Franklin County Intermodal Facility will help spur nearly 1,800 jobs (both direct and indirect) as well as deliver an annual economic impact of \$81 million by 2020 within the state as a result of industrial expansions, according to Insight Research Corporation. This development will complement a region which is already touted as a "crossroads for commerce" (http://www.hagerstownedc.org/bc_transportation.aspx) and most recently recognized by Expansion Solutions Magazine's 2009 Awards of Excellence in the Warehousing/Distribution industry category as one of the nation's top five locations where warehouse/distribution companies can thrive

(http://www.expansionsolutionsmagazine.com/awards09_warehouse.) The Hagerstown/Eastern Panhandle Metropolitan Planning Organization recognizes the unique opportunity the Crescent Corridor presents, which is why this past August they signed a letter of support endorsing the Crescent Corridor. (Please find attached their support letter.)

Chairman Jenkins January 6, 2010 Page 3 of 4

As the second analysis step, CS translated non-monetized benefits for the first full operating year into monetized equivalents. To accomplish this, CS developed a detailed spreadsheet model based on benefit categories and factors specified by TIGER guidance, along with supporting data from the Highway Economic Requirements System (HERS) model, the IMPLAN input-output model, and other federal and state sources. All monetized benefits were estimated in 2009 dollars, without inflation in future years. A cumulative 30-year benefit stream analysis for Maryland, with no discounting, reveals that the Crescent Corridor will: reduce VMTs by more than 1.1 billion miles resulting in \$82 million in savings to the state from pavement wear and tear avoidance; provide travel time savings of 38 million hours or the monetized equivalent of \$940 million; provide fuel savings of more than 150 million gallons or the equivalent of \$561 million; and will prevent 1,166 accidents from occurring or the equivalent of \$131 million. (Please find attached CS' 30-year Crescent Corridor Executive Summary.)

Clearly, the rigorous methodology CS employed for Crescent demonstrates substantial public benefits for the state of Maryland. The information enclosed in this letter as well as the attached documents have previously been shared with MDOT. Norfolk Southern resolutely believes the areas of concern MDOT presented on December 16th have been more than adequately addressed in previous correspondence. Furthermore, Norfolk Southern has not requested any financial commitment from Maryland for the Crescent Corridor, even while this project will deliver more than \$106 million in monetized annual long-term public benefits when fully developed.

Norfolk Southern believes that the public benefits the Crescent Corridor will deliver to Maryland and the National Capital Region as well as the detail and quality that went into Cambridge's independent analysis are compelling reasons why both MDOT and the Transportation Planning Board should be on public record supporting it.

For the foregoing reasons, I trust that the Transportation Planning Board will vote to approve a support letter for the Crescent Corridor on January 20, 2010.

With kind regards, I remain,

Sincerely,

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Darrell L. Wilson Assistant Vice President

Chairman Jenkins January 6, 2010 Page 4 of 4

Transportation Planning Board Members

Phil Mendelson Yvette Alexander Muriel Bowser Gabe Klein Harriet Tregoning Todd Turner Gary Hodge Patrick Wojahn Linda Smyth Paul Smith Henry Marraffa Rodney Roberts Donald Halligan Marc Elrich Arthur Holmes Tony Knots Haitham Hijazi Susan Hoffmann Colleen Clay William Bronrott Jennie Forehand Kerry Donley Christopher Zimmerman Dan Drummond

Catherine Hudgins David Snyder Lori Waters Jonathan Way Suhas Naddoni Michael May John Jenkins Margaret Vanderhye Patricia Ticer John Catoe

CC:



Norfolk Southern Corporation Goverment Relations One Constitution Avenue, N.E. Suite 300 Washington, DC 20002 202/675-8200 202/675-8210 Fax

Darrell L. Wilson Assistant Vice President

January 6, 2010

Donald Halligan Office of Planning and Capital Programming Maryland Department of Transportation 7201 Corporate Center Drive Hanover, MD 21076

Dear Mr. Halligan:

I would like to address areas of concern you expressed in your motion to delay a vote to support the Crescent Corridor for 30 days at the Transportation Planning Board's December 16th meeting.

Norfolk Southern has exercised due diligence over this past year with MDOT as it pertains to the Crescent Corridor in providing prompt, thorough, and accurate information. Since the first quarter of 2009, MDOT's Assistant Secretary for Transportation Policy, Caitlin Rayman Hughes, among others, has been kept regularly updated as this project has developed. Correspondence has included periodic face-to-face meetings between NS and MDOT representatives, such as on October 6, 2009 with NS Business Development Vice President, Dr. Rob Martinez and Assistant Secretary Hughes, as well as, at times, daily email and telephone exchanges. NS has always remained actively engaged with MDOT concerning the Crescent Corridor and, accordingly, considers itself to be a freight partner with Maryland.

The areas of concern you raised on December 16th were expressed earlier in the year by MDOT and more than adequately answered earlier in the year by NS. Principally, while there will be associated local pickups and deliveries on Maryland roadways from the new Franklin County Regional Intermodal Facility, the fact remains that VMTs from these movements will be marginal compared to VMT reductions from long-haul truck diversions to rail. It belies prudent policy not to support a project that will, according to Cambridge Systematics, reduce truck VMTs by more than 32 million miles annually, or more than 1.1 billion miles over 30 years. And truck diversions to rail represent the linchpin for all the other associated public benefits every state transportation department seeks to achieve, including fewer accidents, less congestion, and improved quality of life standards. The Crescent Corridor will help MDOT fulfill its obligation to the state and its citizens by reducing over the next thirty years travel time by 38 million hours, fuel consumption by 150 million gallons, carbon dioxide emissions by 1.6 million tons, and accidents by 1,166.

Mr. Halligan January 6, 2010 Page 2 of 2

Previously, Maryland has gone on record acknowledging that intermodal rail corridor projects have significant utility in freight transportation and can strengthen the state's entire surface transportation network, as evidenced by the Memorandum of Understanding the state signed earlier committing \$75 million for CSX's National Gateway intermodal terminal in the Baltimore/Washington region. In fact, the state has gone to great lengths to receive TIGER funds for that project. Consequently, then, if the state finds one intermodal rail corridor project acceptable and has committed funds to see that it becomes a reality, it stands to reason that the Crescent Corridor Program – which is not requesting any financial commitment from Maryland but will nonetheless deliver more than \$106 million in monetized annual long-term public benefits when fully developed – should also receive public support, if not similar treatment.

If MDOT has any additional concerns it wishes to express about the Crescent Corridor prior to the next Transportation Planning Board meeting on January 20, 2010, NS stands prepared to respond, as in past instances, promptly, thoroughly, and accurately.

In light of the substantial public benefits the Crescent Corridor will deliver to Maryland and the National Capital Region, NS expects that MDOT will allow the Transportation Planning Board to vote to approve the Crescent Corridor support letter on January 20th and would hope that MDOT would join other TPB members in approving that letter.

With kind regards, I remain,

Sincerely,

Dull. Milar

Darrell L. Wilson Assistant Vice President

CC:

Transportation Planning Board Members

Phil Mendelson Yvette Alexander Muriel Bowser Gabe Klein Harriet Tregoning Todd Turner Gary Hodge Patrick Wojahn Linda Smyth Paul Smith Henry Marraffa Rodney Roberts

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Norfolk Southern Corporation

C. Scott Muir Assistant Vice President Government Relations

Caitlin Hughes Rayman Assistant Secretary for Transportation Policy Maryland Department of Transportation 7201 Corporate Center Drive Hanover, MD 21076

October 9, 2009

Dear Assistant Secretary Rayman:

Thank you for the opportunity to meet you and members of your staff on Tuesday, October 6 to review our freight railroad investments and opportunities in Maryland. We assembled a group of managers and consultant Alan Meyers to provide detailed information on Maryland freight movement, customer opportunities and our Crescent Corridor public benefits.

From this meeting and a subsequent conversation Wednesday with Rick Johnson we understand you have two remaining questions about the Crescent Corridor:

The first asks Norfolk Southern to provide data developed by consultant Cambridge Systematics concluding Crescent Corridor will reduce the truck traffic passing through Maryland on Interstate 95 by 23 million miles per year, and also reduce truck traffic by 6 million miles per year on Interstate 81.

The second asks Norfolk Southern to provide a more detailed prediction of how a Crescent Corridor intermodal terminal would impact local traffic in the greater Hagerstown region if located in Greencastle PA.

We are happy to provide this supplemental information in the attached documents.

Finally, realizing that a great deal of information has been shared between Norfolk Southern and Maryland in recent weeks and months, it is worth highlighting the Crescent Corridor's most salient points.

First, Cambridge Systematics found that the Crescent Corridor project delivers an extremely favorable benefit-to-cost ratio of **24.8: 1** from 2011-2040. Even earlier, however, Crescent still delivers a **15.5: 1** benefit-to-cost ratio. In other words, the Crescent Corridor will deliver \$15.50 in benefits for every \$1 dollar of investment.

Cambridge's cumulative 20-year summary of benefits from Crescent within Maryland (without discounting) includes:

- VMT Reduced: 637,000,000
- Hours of Travel Saved: 20,731,564
- Gallons of Fuel Saved: 82,007,197
- Tons of Carbon Dioxide Eliminated: 910,280
- Accidents Avoided: 633
- Pavement Savings: \$45,000,000
- Congestion Savings: \$510,000,000

Secondly, the Crescent Corridor will create 47,000 jobs by 2020 and 73,000 jobs by 2030, according to economic impact analysis by Insight Research Corporation. As a direct result of anticipated industrial expansions near the proposed Greencastle, Pennsylvania intermodal facility, Insight projects this will result in more than \$100 million in capital investments to construct 2 million additional square feet of commercial space throughout the greater Hagerstown region. Annual employment by 2020 from these expansions will top 650 FTEs, with a payroll of approximately \$19.5 million.

Both the strong benefit-to-cost ratio and job creation potential support our conclusion that *the Crescent Corridor delivers the single greatest return on investment from TIGER funding of any comparable project*.

The Governors of Pennsylvania, Alabama, Mississippi, Tennessee, Virginia, and West Virginia, 14 U.S. Senators, 32 U.S. Representatives, 12 metropolitan planning organizations and nearly 100 other local and state officials, businesses, and nonprofits have recognized this and have pledged their full support behind the Crescent Corridor's TIGER application.

Despite their diverse backgrounds and political affiliations, Crescent Corridor supporters realize that the stakes are simply too high to ignore growing transportation challenges along this integral corridor and that the Crescent Corridor represents the best prospect for augmenting highway capacity, by diverting long-haul domestic trucks onto this rail corridor, while stimulating job creation.

Our meetings and discussions with MDOT since the first quarter of this year have focused on demonstrable Crescent Corridor benefits to the economy, environment, and transportation system within Maryland. We believe third party consultants Insight Research and Cambridge Systematics have provided sufficient information to conclude that significant benefits will accrue within the state.

We respectfully request your support for a communication from Secretary Swaim-Staley to U.S. DOT Secretary LaHood acknowledging Crescent Corridor benefits to Maryland.

Sincerely,

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Cc: Secretary Beverley K. Swaim-Staley

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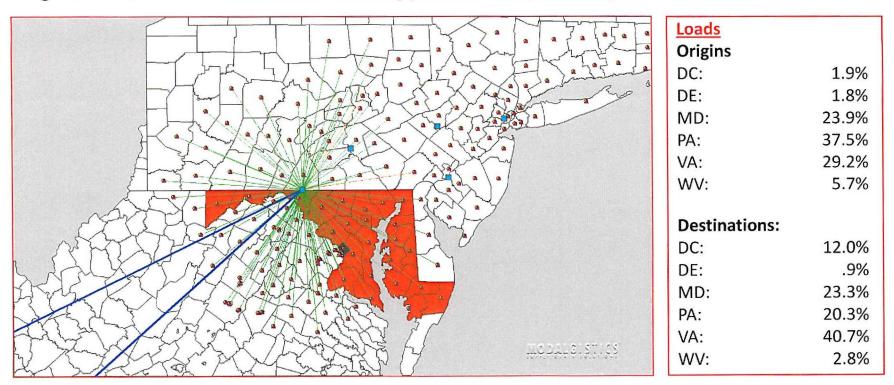
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200,891 | 628,155
645,249 | -
112,528
 | 2,765,528 | - | -
 | 5,765,686 | | |
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PHIS | RSTOWN - ISBURG 399,015 TON - VILLE - DO - HJERSEY 25,020 DELPHIA 367,158 Total 791,193 MD - or I-83 f Total MD - or I-83 f Total/VMT Destination - ATLANTA - ISBURG 390,438 Total 390,438 or I-95 or I-95 f Total/VMT Destination - MD - or I-95 f Total/VMT Destination - MD - NTA - LEHEM - NGHAM - LOTTE - AS - TON <t< td=""><td>RSTOWN - - ISBURG 399,015 - TON - 222,452 VILLE - - DO - 131,635 PHIS - - DD - 131,635 HJERSEY 25,020 - DELPHIA 367,158 - Total 791,193 1,021,042 MD - - or I-83 - f Total/VMT Destination - ATLANTA HARRISBURG G NTA - 287,102 ISBURG 390,438 - Total 390,438 - Total 390,438 - f Total/VMT Destination - MD - - or - - MD - - or - - MD - - OT</td><td>RSTOWN - 15,996 ISBURG 399,015 - - TON - 222,452 - VILLE - - - DO - 131,635 - HIS - - - DO - 131,635 - HJERSEY 25,020 - - DELPHIA 367,158 - - Total 791,193 1,021,042 117,149 MD - - - or I-83 - - MD - 287,102 287,102 ISBURG 390,438 - 390,438 Total 390,438 287,102 677,540 MD - - - or I-95 - - for I-95 - - or I-95 - - for I-95 - -</td><td>RSTOWN - - 15,996 - ISBURG 399,015 - - - - TON - 222,452 - - - VILLE - - - - - DO - 131,635 - - - HJERSEY 25,020 - - 225,798 DELPHIA 367,158 - - 55,764 Total 791,193 1,021,042 117,149 281,562 MD - - 55,764 - - foral 791,193 1,021,042 117,149 281,562 MD - - - 55,764 foral RSDRG 390,438 - - - - SBURG 390,438 - 390,438 - 390,438 - - - - - - - - - - - - <t< td=""><td>RSTOWN - - 15,996 - 71,247 ISBURG 399,015 -<</td><td>RSTOWN . 15,996 71,247 ISBURG 399,015 . . . TON . 222,452 . . . VILLE DO . 131,635 DO . 131,635 DO . 131,635 .</td><td>RSTOWN . 15,996 71,247 . . ISBURG 399,015 . <t< td=""><td>RSTOWN - 15,996 - 71,247 - - 30,875 ISBURG 339,015 -</td><td>RSTOWN - 15,996 71,247 - - 30,875 - ISBURG 399,015 - - - 34,960 - - 60,642 VILLE - - - 34,960 - - - 60,642 VILLE - - - 31,960 -</td><td>RSTOWN - - 15,996 - 71,247 - - 30,875 - 30,775 - 30,775 - 30,775 - 30,775 - 30,775 - 30,775 - 30,775 - 30,775 - 30,775 - 30,775 - 30,775 - 30,775 - 30,775 -
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Hagerstown/Greencastle Local Truck Traffic

A Preliminary Overview of Inbound/Outbound Traffic for Maryland/DC

> Prepared by NS' Modalgistics Andy Piper 12/October/2009



Hagerstown/Greencastle Intermodal Opportunities (Phase 1)

Top 10 MD Origins (by percentage)

Baltimore City	23.5%	Montgomery	5.4%
Baltimore	23.2%	Allegany	5.2%
Howard	9.2%	Washington	4.8%
Prince George	7.6%	Anne Arundel	4.6%
Harford	7.2%	Frederick	3.5%

Top 10 MD Destinations (by percentage)

Baltimore City	25.3%	Anne Arundel	7.2%
Montgomery	23.2%	Howard	4.9%
Baltimore	11.5%	Harford	3.6%
Prince George	7.7%	Frederick	2.6%
Washington	7.7%	Cecil	1.2%

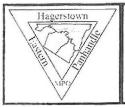
Ultimate Origins/Destinations (Phase 1)

Major Origin County Flows into Maryland

•	Shelby County, TN	12.8%
•	Jefferson County, AL	9.3%
•	Marengo County, AL	5.9%
•	Mississippi County, AR	4.3%
•	Lee County, MS	3.6%
•	Madison County, AL	3.2%
•	Pulaski County, AR	3.2%
•	Talladega County, AL	2.9%
0	Monroe County, AL	2.9%
•	Lowndes County, MS	2.7%

Major Destination County Flows from Maryland

 Shelby County, TN 	22.3%
 Jefferson County, AL 	18.4%
 Cullman County, AL 	14.0%
 Pulaski County, AR 	7.8%
 Madison County, AL 	5.8%
 Montgomery County, AL 	2.5%
 White County, AR 	2.1%
 Autauga County, AL 	1.5%
 Morgan County, AL 	1.4%
 Lee County, MS 	1.2%



Hagerstown/Eastern Panhandle Metropolitan Planning Organization

33 W. Washington St., 4th Floor, Suite 402, Hagerstown, MD 21740 Phone: 240-313-2080, Fax: 240-313-2084 www.hepmpo.net

August 11, 2009

The Honorable Raymond LaHood Secretary U.S. Department of Transportation 1200 New Jersey Ave., SE Washington, DC 20590

Re: Crescent Corridor - TIGER Discretionary Grant Support Letter

Dear Secretary LaHood:

As you know, traffic congestion is a growing problem on our nation's surface transportation systems. The growing congestion costs motorists, businesses, and communities longer travel times, lost productivity, and diminished air quality and fuel efficiency standards. It is estimated that accidents and traffic delays cost Americans more than \$365 billion a year - \$1 billion a day - or \$1,200 for every man, woman, and child in the nation. Diminished mobility also weakens the nation's global competitiveness; information provided to our office suggests that in four short years, total logistics costs for U.S. companies increased \$412 billion from 2004 to 2008.

Furthermore, there is a growing gap between freight transportation demand and capacity. For example, between 1980 and 2007, commercial truck vehicle miles traveled (VMT) more than doubled, while roadway lane miles increased by only 6.8 percent. Current projections suggest that be 2035, freight demand is expected to again double. However, construction of additional roadway capacity will continue to grow at a modest rate. The result of this crippling trend is increasingly felt throughout the eastern U.S., especially along parts of Interstate 81, where over 30 percent of the congestion is attributable to commercial trucks. Ultimately, the rising demand for freight transportation, coupled with the limited investment in our nation's transportation infrastructure, will result in more gridlock on our transportation system and in our communities.

Norfolk Southern's proposed Crescent Corridor Intermodal Freight Project, will have a positive impact on our region's transportation infrastructure. Once this corridor is completed it will help to reduce congestion, mitigate air pollution and fuel consumption, improve commuter safety, shorten travel times, and enhance global competitiveness. This 2,500-mile Crescent Corridor Intermodal Network will provide the most direct intermodal rail route between the Mid-Atlantic and the Southeast. Both the Hagerstown/Eastern Panhandle region and the nation will benefit from this project.

Information provided by Norfolk Southern demonstrates that historically, intermodal rail along the I-81 Crescent Corridor has been commercially underserved. Today, intermodal rail

The Hon. Raymond LaHood Page Two August 11, 2009

constitutes less than a 5% market share along the Crescent Corridor, compared to a 50% market share between New York and Chicago. However, with modest investment towards terminal and rail capacity enhancements, data suggests that intermodal rail along the Crescent Corridor could divert 1.3 million trucks off of the interstate highway system annually.

According to Cambridge Systematics, by 2020 the Crescent Corridor has the potential to provide the following annual public benefits within Maryland, Pennsylvania, and West Virginia:

Maryland	 883,599 - trucks diverted to rail 32,077,278 - truck vehicle miles traveled reduced 4,129,965 - gallons of diesel fuel saved \$5,515,164 - congestion savings \$2,245,409 - highway maintenance savings \$3,568,417 - accident avoidance savings 45,843 - tons of CO₂ emissions reduced
Pennsylvania	690,070 - trucks diverted to rail 76,837,733 - truck vehicle miles traveled reduced 9,892,895 - gallons of diesel fuel saved \$9,454,300 - congestion savings \$5,378,641 - highway maintenance savings \$8,547,767 - accident avoidance savings 109,811 - tons of CO ₂ emissions reduced
West Virginia	642,151 - trucks diverted to rail 17,125,456 - truck vehicle miles traveled reduced 2,204,911 - gallons of diesel fuel saved \$2,115,948 - congestion savings \$1,198,782 - highway maintenance savings \$1,905,111 - accident avoidance savings 24,475 - tons of CO ₂ emissions reduced

One of the Corridor's major terminal capacity enhancements is the proposed Franklin County Intermodal Facility located in Antrim Township, Pennsylvania, approximately three miles north of the Pennsylvania – Maryland border. This new intermodal terminal will occupy 261 acres currently under option by Norfolk Southern, adjacent to the planned 1,000 acre Antrim Commons Business Park. Highway access will be via a new ³/₄ mile long road to be built directly linking the site to both I-81 and U.S. Route 11 at Interchange 3, providing easy access and ensuring fluid freight movements. The Hon. Raymond LaHood Page Three August 11, 2009

In its initial phase, the Franklin County Intermodal Facility will perform 85,000 lifts annually within four years after opening, servicing industries throughout the Hagerstown/Eastern Panhandle region as well as Baltimore/Washington. This particular intermodal terminal will handle two inbound and two outbound trains daily, originating from and destined for Birmingham, Alabama and Memphis, Tennessee.

According to an Economic and Employment Impact Analysis completed in April 2009 by Insight Research of Dallas, Texas, the Franklin County Intermodal Facility will create:

- \$1.48 billion in cumulative economic impact by 2020
- \$1.05 billion in related industrial expansion by 2020
- \$152 million in annual economic impact in 2020
- 4.7 million square feet of development related to the intermodal facility by 2020
- 3651 jobs related to the intermodal facility (both direct and indirect) by 2020
- 730 full time construction related jobs

Finally, as freight congestion increases, so does the cost it imposes on our economy and on the traveling public. The HEPMPO is particularly concerned with the growing congestion and safety concerns along the I-81 corridor. We feel that the Crescent Corridor Intermodal Freight Project will help to reduce congestion's crippling trend within this region. The Franklin County Intermodal Facility will also serve as an engine for economic growth throughout the Hagerstown/Eastern Panhandle area, while the Crescent Corridor in general will enhance the competitive position of area shippers and manufacturers by reducing costs, improving reliability, and providing market competitive shipping times.

We believe the Crescent Corridor will provide significant public benefits to our region, which is why we urge you to award TIGER Discretionary Grant funding for this project. We feel that this project meets the requirements of the TIGER criteria and is consistent with the goals and objectives of the TIGER Discretionary Grant program.

Sincerely,

Solut S. Dordon

Robert S. Gordon Director

Cc: Mr. Herbert Smith, Government Relations – NS Corp. File

PUBLIC BENEFIT ANALYSIS OF THE "CRESCENT CORRIDOR" PROGRAM SUPPLEMENTAL 30-YEAR BENEFIT STREAM ANALYSIS Prepared by Cambridge Systematics, Inc.

Introduction

Cambridge Systematics, Inc. (CS) was retained by the Norfolk Southern Corporation (NS) to prepare a comprehensive quantitative analysis of the public benefits associated with the Crescent Corridor improvement program. Consistent with TIGER guidance, CS estimated <u>monetized benefits from</u> <u>expected long-term outcomes</u> and <u>economic stimulus benefits</u>. CS also estimated <u>other non-monetized</u> <u>and monetized benefits</u> that are particularly relevant for states that will benefit from the Corridor program.

An initial analysis was prepared for NS in support of their TIGER grant application. That analysis estimated benefits that would accrue over a 20-year analysis period. TIGER guidance was not specific on the required length of the analysis period, but most transportation B-C analyses are either 10 or 20 years based on the lifespan of the asset (e.g., its functional usability before major maintenance, repair or upgrade is due) and on increasing uncertainty of estimates over longer analysis periods. Guidance for ARRA rail grants suggests a 20-year period for rail project analysis, and this was deemed reasonable and appropriate for use for analysis in support of the TIGER application.

However, it is recognized that railroad improvements can provide benefits well beyond this 20-year analysis window. CS concluded its "Public Benefit Analysis of the 'Crescent Corridor' Program – Summary of Methodology" with the following:

"As a final note, it is suggested that decision-makers consider the potential benefits of this project beyond the 20-year period. The lifespan of rail infrastructure investments is far longer than 20 years. Most of the nation's rail infrastructure was developed before 1900, and it has remained productive through maintenance, modernization, and adaptation to new markets and customer needs. If built, the Corridor would provide benefits not just through the year 2030, but well into the second half of the century, and would likely remain an important and enduring part of the nation's freight transportation infrastructure."

Following up on this suggestion, CS has quantified the public benefit streams associated with the Crescent Corridor program for a 30-year period, to supplement the previous analysis.

Benefits from Long-Term Outcomes

Six types of long-term outcomes were evaluated. <u>State of Good Repair</u> is the reduced public cost for highway maintenance. <u>Economic Competitiveness</u> is the direct, indirect, and induced value of transportation cost savings for freight shippers and receivers. <u>Livability</u> is the value of travel time savings for highway users. <u>Sustainability</u> is the value of reduced fuel consumption and air emissions. <u>Safety and Security</u> is the value of reduced highway accidents and fatalities. <u>Permanent Wages</u> is the value of wages from new direct, indirect and induced rail-related jobs resulting from the Corridor.

CS estimated the monetized benefit streams of these long-term outcomes over a 20-year analysis period (2011-2030), expressed in 2009 dollars without inflation, and discounted at rates of 3% and 7%. For the full Corridor, with a 3% discount rate, the Cumulative Value of long-term outcome benefits is \$55.0 billion; the NPV (Cumulative Value less the total construction cost of \$2.1 billion) is \$52.8 billion; and the BCR (NPV divided by initial project construction cost) is 24.8. With a 7% discount rate, the Cumulative Value is \$27.7 billion; the NPV is \$25.5 billion; and the BCR is 12.0.

Long-Term Outcomes,	Full	Corridor	Selected States												
2011-2040				AL		MS		PA		TN		VA			
State of Good Repair	\$	1,907	\$	188	\$	96	\$	112	\$	303	\$	391			
Economic Competitiveness	\$	21,613	\$	1,286	\$	1,210	\$	3,815	\$	1,729	\$	865			
Livability	\$	11,945	\$	981	\$	574	\$	915	\$	1,625	\$	2,051			
Sustainability	\$	3,063	\$	302	\$	154	\$	179	\$	487	\$	629			
Safety and Security	\$	3,041	\$	299	\$	153	\$	178	\$	483	\$	624			
Permanent Wages	\$	13,383	\$	1,058	\$	398	\$	3,014	\$	1,599	\$	1,189			
Cumulative Value	\$	54,952	\$	4,114	\$	2,585	\$	8,212	\$	6,226	\$	5,750			
Net Present Value (NPV)	\$	52,820													
Benefit-Cost Ratio (BCR)		24.8													

 Table 1. Cumulative 30-Year Monetized Public Benefit Streams (3 % Discounting, Millions of 2009 \$)

 Table 2. Cumulative 30-Year Monetized Public Benefit Streams (7 % Discounting, Millions of 2009 \$)

Long-Term Outcomes,	0						Selected States											
2011-2040			AL MS		PA		TN		VA									
State of Good Repair	\$	960	\$	95	\$	48	\$	56	\$	153	\$	197						
Economic Competitiveness	\$	10,880	\$	647	\$	609	\$	1,920	\$	870	\$	435						
Livability	\$	6,013	\$	494	\$	289	\$	461	\$	818	\$	1,033						
Sustainability	\$	1,542	\$	152	\$	78	\$	90	\$	245	\$	317						
Safety and Security	\$	1,531	\$	151	\$	77	\$	90	\$	243	\$	314						
Permanent Wages	\$	6,737	\$	533	\$	200	\$	1,517	\$	805	\$	599						
Cumulative Value	\$	27,664	\$	2,071	\$	1,301	\$	4,134	\$	3,134	\$	2,895						
Net Present Value (NPV)	\$	25,531																
Benefit-Cost Ratio (BCR)		12.0																

Benefits from Economic Stimulus

Besides the monetized long-term outcome benefits, the Corridor program generates significant economic stimulus benefits during the construction period (January 2010 through February 2012), including: construction spending of \$2.1 billion (based on NS's construction program); indirect and induced spending of \$1.7 billion (estimated using the IMPLAN model); and 32,361 job-years of direct, indirect, and induced employment (estimated using the IMPLAN model).

Table 3. Economic Stimulus Benefits from Construction	(No Discounting, Millions of 2009 \$)
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Construction Benefits,	Full Corridor		Detail for Selected States											
2010-2012			AL		MS		PA		TN		VA			
Direct Expenditures	\$	2,132.4	\$	435.2	\$	89.4	\$	422.8	\$	382.1	\$	512.3		
Indirect/Induced Spending	\$	1,714.2	\$	349.8	\$	71.8	\$	339.9	\$	307.2	\$	411.9		
Construction Job-Years		32,361		6,605		1,356		6,417		5,799		7,775		

Other Non-Monetized and Monetized Benefits

Finally, it is important to note that significant non-monetized and monetized benefits accrue to all 13 states in the Corridor region, as well as to states outside the region.

Benefits Accruing,	Full Corridor			il for Selected		Ψ)	
2011-2040		AL	MS	PA	TN	VA	
Units Handled	48,311,489	21,160,446	18,602,784	25,240,475	20,959,694	32,118,234	
VMT Reduced (millions)	47,988	4,725	2,414	2,810	7,627	9,853	
Hours of Travel Saved	854,810,795	70,199,112	41,066,157	65,463,898	116,292,080	146,786,862	
Gallons of Fuel Saved	6,178,486,454	608,409,810	310,806,478	361,849,408	981,983,854	1,268,591,002	
Tons of CO2 Eliminated	68,581,200	6,753,349	3,449,952	4,016,528	10,900,021	14,081,360	
Tons of NOX Eliminated	122,631	12,076	6,169	7,182	19,490	25,179	
Tons of PM Eliminated	2,931	289	147	172	466	602	
Accidents Avoided	47,702	4,697	2,400	2,794	7,582	9,794	
Permanent Job-Years	536,870	42,450	15,965	120,890	64,145	47,709	
Pavement Savings [1]	\$ 3,359	\$ 331	\$ 169	\$ 197	\$ 534	\$ 690	
Congestion Savings [2]	\$ 21,045	\$ 1,728	\$ 1,011	\$ 1,612	\$ 2,863	\$ 3,614	
Fuel Savings [3]	\$ 22,935	\$ 2,258	\$ 1,154	\$ 1,343	\$ 3,645	\$ 4,709	
Accident Savings [4]	\$ 5,358	\$ 528	\$ 270	\$ 314	\$ 852	\$ 1,100	
		DE	GA	LA	MD	NC	
Units Handled		7,722,009	27,155,716	18,602,784	32,319,046	17,405,960	
VMT Reduced (millions)		155	2,033	4,232	1,173	2,630	
Hours of Travel Saved		5,551,529	35,885,232	76,923,972	38,188,352	56,567,651	
Gallons of Fuel Saved		19,993,257	261,696,974	544,841,522	151,060,468	338,617,059	
Tons of CO2 Eliminated		221,925	2,904,836	6,047,741	1,676,771	3,758,649	
Tons of NOX Eliminated		397	5,194	10,814	2,998	6,721	
Tons of PM Eliminated		9	124	258	72	161	
Accidents Avoided		154	2,020	4,207	1,166	2,614	
Permanent Job-Years		0	72,630	0	3,173	46,447	
Pavement Savings		\$ 11	\$ 142	\$ 296	\$ 82	\$ 184	
Congestion Savings		\$ 137	\$ 883	\$ 1,894	\$ 940	\$ 1,393	
Fuel Savings		\$ 74	\$ 971	\$ 2,022	\$ 561	\$ 1,257	
Accident Savings		\$ 17	\$ 227	\$ 473	\$ 131	\$ 294	
		NJ	SC	WV	Rest	of US	
Units Handled		6,136,712	12,830,581	23,487,774		31,257,533	
VMT Reduced (millions)		655	1,451	626		7,603	
Hours of Travel Saved		21,208,825	32,441,737	14,651,345		133,584,043	
Gallons of Fuel Saved		84,321,691	186,756,519	80,648,345		978,910,066	
Tons of CO2 Eliminated		935,971	2,072,997	895,197		10,865,902	
Tons of NOX Eliminated		1,674	3,707	1,601		19,429	
Tons of PM Eliminated		40	89	38		464	
Accidents Avoided		651	1,442	623		7,558	
Permanent Job-Years		25,434	9,723	2,908		85,395	
Pavement Savings		\$ 46	\$ 102	\$ 44	\$	532	
Congestion Savings		\$ 522	\$ 799	\$ 361	\$	3,289	
Fuel Savings		\$ 313	\$ 693	\$ 299	\$	3,634	
Accident Savings		\$ 73	\$ 162	\$ 70	\$	849	

Table 4. Cumulative 30-Year Summary of Other Benefits (No Discounting, Millions of 2009 \$)

¹ Equivalent to the State of Good Repair benefit but without discounting.

² Equivalent to the Livability benefit but without discounting.

³ Includes value of reduced fuel costs, monopsony effects, and price shock effects.

⁴ Equivalent to the Safety and Security benefit but without discounting.