

## **RAIL Solution's Transportation Vision for America -- the "Steel Interstate" -- a network of high-capacity rail corridors**

*The concept of a steel interstate system in the U.S. is rather analogous to the Interstate Highway System that has been built out over the last 50 years. That has given us a core national network of high-capacity, grade-separated roads that made travel faster and safer than on the old system of U.S. Routes.*

*Today's railroads are like the old U.S. Routes – built a long time ago and often seriously under-engineered and lacking in capacity to handle the demands of today's shipping volumes. Therefore, a dollar of transportation investment made today can often have a bigger impact in increased freight-carrying capacity when invested in rail than in more highway lanes.*

*Rail leads in better safety, much lower emissions (including greenhouse gasses), greater energy efficiency, and far lower land requirements. But there is another pivotal consideration. Today in the U.S. our national transportation system is virtually 100% dependent on oil. We need to be planning now to cope with a world where oil is no longer affordable or even available for transportation.*

*Railroads can readily be electrified, so our steel interstates can be powered by whatever fuels (nuclear, coal, solar, wind, hydro or biofuels) are being used for electrical generation in a given time and place.*

*With proper planning over ensuing decades, we can have a core national steel interstate system in place before oil becomes prohibitively expensive or runs out. Featuring a network of high-capacity, electrified rail lines, it would be the backbone for movement of both goods and passengers in this country for the 21<sup>st</sup> Century.*

*Besides passenger trains and conventional freight, long-distance trucks can also be carried by trains on such routes. Though this has been done in Europe for some time, the singular approach to accommodating trucking growth in the U.S. has always been to build ever more lanes of highway.*



*A truck-ferry and passenger train share an electrified steel interstate in California [schematic] © 2003 J. Craig Thorpe*



*A truck-ferry in operation in Switzerland (hupac photo)*

*Railroads in the U.S. have done a fine job developing long-haul intermodal business, but it is focused almost entirely on moving shipping containers, mostly to and from ocean ports. Millions of trucks on the nation's highways remain a huge, untapped opportunity and challenge. As a nation we need an "open" intermodal approach, a technology that can handle not only shipping containers but all kinds of trucks and trailers.*

*Currently the railroad system in the United States lacks the capacity, reliability, and speed necessary for this type of service. But the time has come to explore public/private ventures to bring public investment into a steel interstate system. Equivalent capacity can be put in place at lower dollar cost and environmental impact than adding more lanes of road. Huge public benefits can result, exceeding and justifying the public's investment in the steel interstate.*

## **RAIL Solution's Transportation Vision for Virginia – a "Steel Interstate" pilot project demonstrated in the Interstate 81 Corridor**

*Today a Norfolk Southern rail line parallels I-81 for almost 600 miles between Knoxville, TN and Harrisburg, PA. Upgrading, double-tracking, grade separating, and electrifying this line would provide an excellent demonstration of the steel interstate concept. RAIL Solution urges Virginia to support such an initiative in the next federal transportation reauthorization act.*

*Implementation of the pilot project could cost upward of \$20 million/mile, or \$12 billion for the entire route. While this sounds hugely expensive, it is less than the \$13 billion dedicated truck lanes project STAR Solutions proposed for federal demonstration support, and that covered only the 325 miles of I-81 in Virginia.*

*Dense through trucking characterizes this I-81 Corridor, funneling to and from I-40 and I-75 at Knoxville, and to and from the Northeast via many routes at Harrisburg. Diverting 60% of the through trucks to trains would greatly reduce highway congestion, maintenance, need for new construction, and highway safety problems.*

*Because an electrified railway substitutes domestically generated energy for imported oil, the steel interstate also has a national defense dimension and can help alleviate our dependence on foreign oil. Further, it can help ensure the vital mobility of goods and people in Virginia when oil becomes prohibitively expensive or is no longer readily available.*

*A high-capacity steel interstate line would also aid the movement of conventional freight and intermodal rail shipments, including Norfolk Southern's Crescent Corridor project.*

*Capability would exist to handle passenger trains over the route on an expedited basis, connecting to and from the Northeast Corridor at Harrisburg.*

*Currently an "I-81 Freight Rail Study" initiated by RAIL Solution is being conducted and funded jointly by Norfolk Southern and Department of Rail and Public Transportation. This study will explore key environmental and economic feasibility issues associated with a 21st Century multi-state rail corridor, as shown in the Craig Thorpe schematic below done for RAIL Solution.*

