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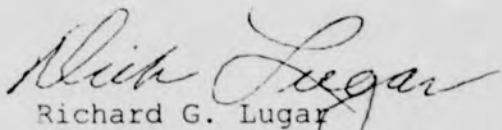
crossings. The review also identified a number of grade-separated tracks that would be underutilized as a result of this merger.

Indiana is one of the most rail-intensive states in the nation, with the Northwest region having the highest concentration of highway-rail grade crossings in the State. Every year, Indiana ranks among the top five states for numbers of motorists killed or injured as a result of vehicle-train crashes at highway-rail grade crossings. We have led an effort in Congress in recent years to address this pressing safety issue. We are working in Congress to focus more resources and more federal highway construction funds to rail intensive states. Working together, we hope to assist local governments in their efforts to make infrastructure and other safety improvements that will help eliminate accidents at highway-rail grade crossings.

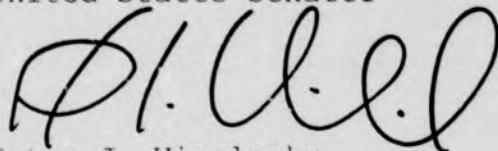
As in many U.S. communities, state and local governments in Indiana have made substantial investments in recent years to improve the safety and economic efficiency of its transportation systems. The Four Cities Consortium has identified a number of issues of importance to Northwest Indiana, and has included a number of alternatives that could mutually benefit the railroads and the Northwest Indiana region. As the STB continues its important work to review the CSX/Norfolk Southern acquisition proposal, we hope every consideration will be given to the merits of the Four Cities' alternative routing plan.

Thank you for your assistance with this matter.

Sincerely,

  
Richard G. Lugar  
United States Senator

  
Dan Coats  
United States Senator

  
Peter J. Visclosky  
Member of Congress

CSX CORPORATION AND CSX  
TRANSPORTATION, INC. AND NORFOLK  
SOUTHERN CORPORATION AND  
NORFOLK SOUTHERN RAILWAY  
COMPANY -- CONTROL AND OPERATING  
LEASES/AGREEMENTS -- CONRAIL INC.  
AND CONSOLIDATED RAIL  
CORPORATION

Finance Docket No. 33388

This statement is submitted to the Surface Transportation Board (STB) on behalf of the following elected officials of the State of Indiana's 110th General Assembly:

- ```
-- Lonnie Randolph, State Senator (2nd District);
-- Rose Ann Antich, State Senator (4th District);
-- Earl Harris, State Representative (2nd District); and
-- Jesse M. Villalpando, State Representative (12 District).
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Collectively, we represent the citizens of northwest Indiana in the General Assembly of the State of Indiana. We are pleased to present our views to the Board on the CSX Corporation and Norfolk Southern Corporation's proposed acquisition of Conrail, and the impact of the Application on our individual Assembly Districts and the region.

Spread throughout northwestern Indiana is a full spaghetti of rail lines, many that were located in the region over 100 years ago to service newly constructed steel mills and refineries, and to support east-west through traffic. As the local representatives of the people of northwest Indiana, we are often the first persons contacted by citizens and businesses who are facing growing vehicular delay problems resulting from the disproportionately high number of highway/rail crossings over active rail lines located in our districts. Without the cooperation of the railroads, there is little that we can do about the severe air quality, vehicle delays, and safety problems that are associated with the high amount of train operations flowing through our communities.

We are disappointed by the lack of action taken by the Applicants in the above-referenced proceeding to mitigate the negative congestion impacts of their operations in our region. The federal government, through the Surface Transportation Board, has primary jurisdiction over railroad mergers and interstate operations. We are pleased that the Cities of Gary, East Chicago, Hammond, and Whiting, located in northwest Indiana (known as the Four Cities) have become actively involved as a Party of Record in this merger proceeding. We have been apprised of the Four Cities efforts, and we support their proposal to slightly shift the Applicants' proposed local train patterns in a manner that will minimize area congestion problems.



The General Assembly of the State of Indiana is on record in this proceeding as supporting the joint application of CSX and NS to acquire and divide the routes and assets of Conrail. We do not disagree that the proposed merger could potentially benefit northwestern Indiana through merger efficiencies, service improvements, improved railroad competition, etc. However, we are disappointed that the Applicants have not taken a stronger interest in developing transportation patterns through the region that will promote our mutual goal of creating transportation efficiencies while minimizing congestion related problems. We respectfully request that the STB adopt the Four Cities Alternative Routing Plan being proposed in this proceeding as a fair and minimal step that will help mitigate the problems associated with the Applicants' plan.

Verification

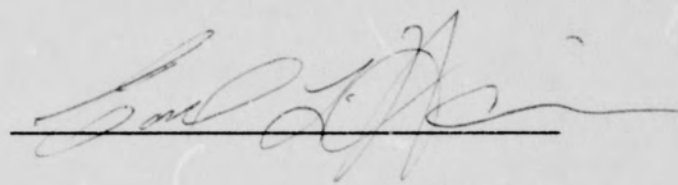
State of Indiana )

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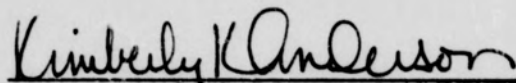
ss:

County of Lake )

Earl L. Harris, being duly sworn, deposes and says  
that he has read the foregoing Statement, knows the contents  
thereof, and that the same are true as stated to the best of his  
knowledge, information and belief.



Subscribed and sworn to before  
me this 15 day of October,  
1997:



Notary Public in and for the  
State of Indiana

KIMBERLY K. ANDERSON  
Notary Public-Indiana  
Lake County  
Commission No. 402657  
Comm. Expires February 2, 2001

Verification

State of Indiana )

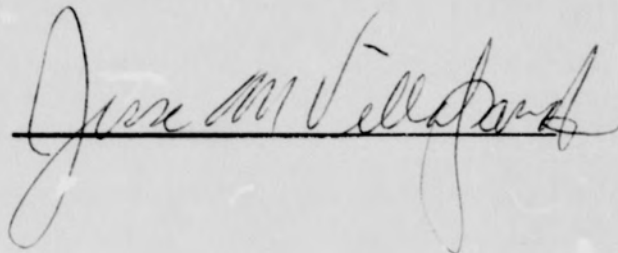
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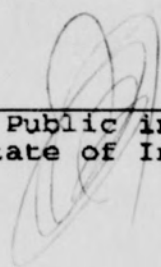
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County of \_\_\_\_\_)

Jesse M. Vilalpando being duly sworn, deposes and says that he has read the foregoing Statement, knows the contents thereof, and that the same are true as stated to the best of his knowledge, information and belief.



Subscribed and sworn to before  
me this 17 day of October,  
1997:



\_\_\_\_\_  
Notary Public in and for the  
State of Indiana

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FROM

Verification

State of Indiana )

SS:

County of \_\_\_\_\_ )

Sen. Rose Ann Antich, being duly sworn, deposes and says that he has read the foregoing statement, knows the contents thereof, and that the same are true as stated to the best of his knowledge, information and belief.

Sen. Rose Ann Antich

Subscribed and sworn to before  
me this 17 day of October,  
1997:

Notary Public in and for the  
State of Indiana

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# **NORTHWESTERN INDIANA REGIONAL PLANNING COMMISSION**

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**6100 Southport Road  
Portage, Indiana 46368**

October 16, 1997

Mr. Vernon A. Williams  
Secretary  
Surface Transportation Board  
STB Finance Docket No. 33388  
1925 K Street, N.W.  
Washington, D.C. 20423-0001

RE: STB Finance Docket No. 33388, CSX Corporation,  
et al. -- Control and Operating Leases/Agreements  
-- Conrail Inc., et al.

Dear Mr. Secretary:

Through this letter, the Northwestern Indiana Regional Planning Commission (NIRPC) hereby expresses its support for the relief being requested in the above-referenced proceeding by the Cities of East Chicago, Indiana; Hammond, Indiana; Gary, Indiana; and Whiting, Indiana, (known as the Four Cities Consortium or FCC).

NIRPC is an areawide planning agency representing local governments in a 1,500 square mile planning area, covering three counties, including the Four Cities, in the northwestern part of Indiana. NIRPC serves as the Metropolitan Planning Organization for transportation planning in the region, and our functions include the planning, coordination, and advocacy of cooperative areawide transportation strategies. In this capacity, NIRPC has conducted several feasibility studies on the benefits and costs of implementing improved rail traffic flow alignments to help mitigate rail congestion problems plaguing communities in Northwest Indiana.

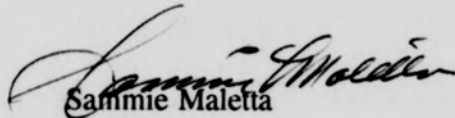
NIRPC is well-aware of existing problems associated with the high number of highway/rail crossings in the Four Cities, including substantial motorist delays, unfavorable air quality impacts, and high accident rates. We understand that the Norfolk Southern Corporation (NS) would increase rail traffic over lines that already experience significant vehicular congestion problems. The application apparently also proposes the reinstatement of an out-of-service line in Gary that would result in an additional 20 highway/rail grade crossings in the Four Cities.

Mr. Vernon A. Williams  
October 16, 1997  
Page 2

We have discussed with the Four Cities their Alternative Routing Plan, and we support their proposal. We believe that the FCC's plan would reduce incremental congestion problems associated with the Applicants' plan while eliminating the need to add numerous additional highway/rail grade crossings. At the same time, the FCC's alternative plan would accommodate the full volume of traffic anticipated by the Applicants.

We encourage the Surface Transportation Board, as a condition to the approval of the proposed Conrail acquisition by CSX and NS, to accept and implement the FCC's Alternative Routing Proposal. On behalf of NIRPC, we appreciate your consideration of this letter of support on behalf of the Four Cities' alternative plan.

Sincerely,

A handwritten signature in cursive script, appearing to read "Sammie Maletta".

Sammie Maletta  
Chairperson  
Transportation Policy Committee



BURRIS

**BEFORE THE  
SURFACE TRANSPORTATION BOARD**

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Finance Docket No. 33388

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**CSX CORPORATION AND CSX TRANSPORTATION, INC.,  
NORFOLK SOUTHERN CORPORATION AND  
NORFOLK SOUTHERN RAILWAY COMPANY  
— CONTROL AND OPERATING LEASES/AGREEMENTS —  
CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION**

---

Verified Statement  
of  
**Philip H. Burris**  
Vice President  
**L. E. Peabody & Associates, Inc.**

On Behalf of  
Four Cities Consortium

Due Date: October 21, 1997

## **TABLE OF CONTENTS**

|                                                                                               | <b><u>PAGE</u></b> |
|-----------------------------------------------------------------------------------------------|--------------------|
| I. INTRODUCTION .....                                                                         | 1                  |
| II. BACKGROUND .....                                                                          | 2                  |
| III. SUMMARY AND CONCLUSIONS .....                                                            | 3                  |
| IV. TRAIN DELAY STUDY .....                                                                   | 11                 |
| V. DEVELOPMENT OF FCC'S ALTERNATIVE ROUTING PLAN .....                                        | 13                 |
| VI. ECONOMIC IMPACT OF APPLICANTS' PROJECTED INCREASE<br>IN RAIL TRAFFIC .....                | 17                 |
| VII. COMPARATIVE ANALYSIS OF APPLICANTS' PROPOSAL AND<br>FCC'S ALTERNATIVE ROUTING PLAN ..... | 23                 |

**LIST OF EXHIBITS**

| <b>EXHIBIT<br/>NO.</b> | <b>DESCRIPTION</b>                                                                                                |
|------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>(1)</b>             | <b>(2)</b>                                                                                                        |
| 1                      | Qualifications of Philip H. Burris                                                                                |
| 2                      | Graphical Depiction of the Rail Lines in the Central Portions of the Four Cities                                  |
| 3                      | Graphical Depiction of CSX Willow Creek to Calumet Park and the IHB/Conrail Porter Branch                         |
| 4                      | Graphical Depiction of the Hobart to Clarke Jct. PRR Line and FCC's Proposed Alternative Routing via NS & EJE     |
| 5                      | Cost to the Public of Applicants' Projected Traffic and Operating Plan                                            |
| 6                      | Comparison of Annual costs for Applicants' Proposal and FCC's Alternative Routing -- Willow Creek to Calumet Park |
| 7                      | Calculation of Railroad Operating Costs for Applicants' Proposal and FCC's Alternative Routing Plan               |
| 8                      | Comparison of Annual Costs for Applicants' Proposal and FCC's Alternative Routing -- Hobart to Pine Jct.          |

## **I. INTRODUCTION**

My name is Philip H. Burris. I am a vice president of the economic consulting firm of L.E. Peabody & Associates, Inc. The firm's offices are located at 1501 Duke Street, Alexandria, Virginia 22315. My qualifications are attached as to this statement as Exhibit PHB-1.

I have been requested by the Cities of East Chicago, Indiana, Hammond, Indiana, Gary, Indiana and Whiting, Indiana (hereinafter referred to as the "Four Cities", "Four Cities Consortium" or "FCC") to evaluate the impact on the Four Cities of the proposed acquisition and operation of Consolidated Rail Corporation ("Conrail")<sup>1/</sup> by Norfolk Southern Corporation and its rail affiliates ("NS") and CSX Corporation and its rail affiliates ("CSX"), collectively referred to as "Applicants". Based upon the results of my evaluation, which demonstrated substantial adverse incremental impacts on safety, traffic congestion, emergency service and air quality in the Four Cities, I was also asked to determine whether there was any reasonable way to take advantage of rail lines with fewer at grade crossings to alleviate the adverse impacts of the Applicants' proposed post-acquisition rail traffic routings.

My statement is organized as follows:

- II. Background
- III. Summary and Conclusions
- IV. Train Delay Study
- V. Development of FCC's Alternative Routing Plan
- VI. Economic Impact of Applicants' Projected Increase in Rail Traffic
- VII Comparative Analysis of Applicants' Proposal and FCC's Alternative Routing Plan

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<sup>1/</sup> Including Conrail's 51 percent ownership interest in the Indiana Harbor Belt Railroad ("IHB")

## II. BACKGROUND

Each of the Four Cities named above is located in Northwest Indiana, at the southern tip of Lake Michigan. This region, which is part of the greater Chicagoland area, is densely populated with industrial development and residential communities. The industries (including steel mills, oil refineries, an electric generating station and a cement plant) are served by several railroads via hundreds of miles of mainline, switch, yard and industrial tracks.

The region is a major crossroads for transcontinental rail and motor carrier freight traffic. Three Class I railroads, four terminal and switching railroads, and a regional railroad operate in the area.<sup>2/</sup> In addition, Amtrak provides intercity passenger service and the Northern Indiana Commuter Transportation District ("NICTD") operates a commuter passenger rail service in the region.

This rail network, combined with the dense industrial and residential population in the Four Cities area, currently causes significant safety problems and disruption of the movement of motor vehicles throughout the entire region. The present disruption of vehicular traffic at rail/highway grade crossings is barely manageable especially with regard to the provision of emergency services by the local governments. In the Four Cities alone, 243 at-grade rail crossings exist.

According to the Association of American Railroads ("AAR"), the state of Indiana has the fourth highest incidence of vehicle-train collisions and fatalities of any of the fifty states and the

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<sup>2/</sup> These carriers include, Conrail, NS, CSX, IHB, The Belt Railway Company of Chicago ("BRC"), the Elgin Joliet and Eastern Railway Company ("EJE"), the Baltimore, Ohio and Chicago Terminal Railroad ("BOCT"), and the Chicago SouthShore & South Bend Railroad ("CSS&SB").



District of Columbia<sup>3/</sup>. This statistic underscores the extreme concern regarding rail/highway safety by the Four Cities.

As a result of the existing, barely manageable situation, the Four Cities are deeply concerned by the potential impact of Applicants' projections of increased rail traffic on several rail lines in the Four Cities region. Their concerns are further exacerbated by the impact of the projected increase in rail traffic on the Cities' respective economic development plans which are vital to the economic recovery of the region. The public safety, emergency services, and economic development concerns of the Four Cities are described at length in the accompanying verified statements of the City Planners from each community.<sup>4/</sup>

### **III. SUMMARY AND CONCLUSIONS**

#### **1. Applicants' Current and Projected Rail Traffic**

Exhibit PHB-2 is a map showing the rail lines in the central portions of the Four Cities, with specific rail line segments identified. Each of these segments is identified in the table below. For each segment the number of at-grade and grade separated crossings, Applicants' current and projected number of trains moving on the segment, and the increase in trains in both absolute number of trains and percent change is shown in the table below.<sup>5/</sup>

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<sup>3/</sup> Association of American Railroads, Overall Rail Casualty Data, preliminary 1996 FRA Data, obtained from the AAR internet web site; <http://www.aar.org/comm>; 9/17/97

<sup>4/</sup> These include the verified statements of Daniel A. Botich, Michael L. Cervay, Kimberly L. Gordon and Donald F. Thomas.

<sup>5/</sup> The trains per day shown in this table were derived from the Application in this proceeding (Volumes 3A of 8 and 3B of 8). The crossing information was developed from both Applicants' track charts and information provided by the Federal Railroad Administration("FRA").

**Current and Projected Rail Traffic on the  
CSXT, NS and Conrail Rail Lines in the Four Cities Area**

**Trains per Day**

| (1)                             | No. of<br>At Grade<br>Crossings<br>(2) | Grade<br>Separated<br>Crossings<br>(3) | Trains/Day     |                  | Change in<br>Trains/Day |                |
|---------------------------------|----------------------------------------|----------------------------------------|----------------|------------------|-------------------------|----------------|
|                                 |                                        |                                        | Current<br>(4) | Projected<br>(5) | Absolute<br>(6)         | Percent<br>(7) |
| CSXT - Willow Creek - Pine Jct  | 7.0                                    | 7.0                                    | 22.1           | 38.6             | 16.5                    | 75%            |
| Pine Jct. - Calumet Park        | 20.0                                   | 5.0                                    | 27.6           | 33.3             | 5.7                     | 21%            |
| CSXT - Hobart - Clarke Jct.     | 20.0                                   | 3.0                                    | 0.0            | 5.0              | 5.0                     | ---            |
| NS - Porter - CP 501            | 7.0                                    | 11.0                                   | 83.4           | 76.5             | (6.9)                   | (8%)           |
| CP 501 - Indiana Harbor         | 0.0                                    | 3.0                                    | 57.4           | 64.3             | 6.9                     | 12%            |
| Indiana Harbor - S. Chicago     | 4.0                                    | 5.0                                    | 57.1           | 51.2             | (5.9)                   | (10%)          |
| CSXT-Indiana Harbor -S. Chicago | 4.0                                    | 5.0                                    | 2.0            | 5.3              | 3.3                     | 165%           |

The data in the table above demonstrates that for many line segments, the Applicants project an increase in the number of trains after the Conrail transaction is consummated. The largest increases will occur on the line segments that run through the heart of East Chicago and Hammond that cross several very heavily travelled roads at-grade. Further exacerbating this problem is the fact that Applicants project that the annual tons handled on these lines will increase at a far greater rate than will the number of trains. Assuming Applicants' projections

are accurate, this indicates that in addition to the increase in the number of trains, the length of the trains will also increase.<sup>6/</sup> The current and projected gross tons per year moving over each identified line segment, based on each Applicant's operating plan and underlying workpapers, appear in the table below. Also shown is the absolute and percent change in Applicants' current and projected annual gross tons for each segment.

**Current and Projected Rail Traffic on the  
CSXT, NS and Conrail Rail Lines in the Four Cities Area  
Millions of Gross Tons per Year**

| (1)                             | No. of<br>At Grade<br>Crossings<br>(2) | Grade<br>Separated<br>Crossings<br>(3) | MGT/Year       |                  | Change in<br>MGT/Year |                |
|---------------------------------|----------------------------------------|----------------------------------------|----------------|------------------|-----------------------|----------------|
|                                 |                                        |                                        | Current<br>(4) | Projected<br>(5) | Absolute<br>(6)       | Percent<br>(7) |
| CSXT - Willow Creek - Pine Jct  | 7.0                                    | 7.0                                    | 34.0           | 70.0             | 36.0                  | 106%           |
| Pine Jct. - Calumet Park        | 20.0                                   | 5.0                                    | 41.0           | 65.0             | 24.0                  | 59%            |
| CSXT - Hobart - Clarke Jct.     | 20.0                                   | 3.0                                    | 0.0            | 12.0             | 12.0                  | ---            |
| NS - Porter - CP 501            | 7.0                                    | 11.0                                   | 129.2          | 131.6            | 2.4                   | 2%             |
| CP 501 - Indiana Harbor         | 0.0                                    | 2.0                                    | 85.9           | 114.3            | 28.4                  | 33%            |
| Indiana Harbor - S. Chicago     | 4.0                                    | 5.0                                    | 81.3           | 99.5             | 18.2                  | 22%            |
| CSXT-Indiana Harbor -S. Chicago | 4.0                                    | 5.0                                    | 1.0            | 7.0              | 6.0                   | 600%           |

## 2. Vehicle Delay at Rail/Highway Crossings

I have determined the additional vehicle delay which will occur in the central portion of the Four Cities as a result of Applicants' projected traffic and operating plans. My analysis shows that vehicle delays will increase from current levels of 664 hours per day to 1,614 hours per day

<sup>6/</sup> My conclusion that the length of the trains will increase is based on CSX's responses to the FCC's discovery requests compared with our observation of current operations. As discussed, later in this statement, a vehicle delay study was recently performed by the FCC at several rail/highway at-grade crossings. The observations from this study show a current average train size of 68.9 cars per train. Documents provided by CSX show projected cars per train of 87.0 post-acquisition for the same rail line.

based on Applicants' projected rail traffic. This is the equivalent of a 143.1 percent increase in vehicle delay in the central portion of the Four Cities.<sup>7/</sup> The increased delay will undoubtedly cause a significant increase in the disruption of vehicle flows and the provision of emergency services by the Four Cities, as well as a higher probability of accidents, injuries and fatalities. The Applicants' projected traffic increase will have a measurable negative economic impact on the Four Cities.

### **3. FCC Alternative Routing Plan**

To mitigate the negative impact of the Applicants' proposed operating plans, we have developed an Alternative Routing Plan which permits the flow of Applicants' projected traffic through the Four Cities in a manner that maximizes use of grade separated rail lines and minimizes the required capital investment in rail line rehabilitation and upgrades.

The FCC alternative addresses two proposed routes included in Applicants' operating plans. First, FCC proposes that CSX reduce the traffic it projects to move on the Willow Creek to Pine Junction and Pine Junction to Calumet Park lines<sup>8/</sup> by using these lines primarily for westbound traffic, and using the IHB line for eastbound movements from Calumet Park, IL to a connection with the Conrail Porter Branch near Tolleston, IN, and thence via the Porter Branch back to Willow Creek. This will effectively result in paired mainline tracks, each with traffic moving

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<sup>7/</sup> The analysis of vehicle delay in the Four Cities is based on actual observations of vehicle delay for a one week period in September, 1997 and application of the study results and accepted traffic flow models to the at-grade crossing characteristics for each crossing in the study area. The design and implementation of the vehicle delay study is fully described in the accompanying verified statements of Dr. Gary M. Andrew and Mr. Gregg L. Heinzman.

<sup>8/</sup> The Pine Junction to Calumet Park line is owned by the BOCT, which is a wholly owned subsidiary of CSX. I will hereinafter refer to this line as the "CSX/BOCT line".

primarily in a single and opposite direction.<sup>9/</sup> Exhibit PHB-3 is a map of the CSX Willow Creek to Calumet Park line via Pine Junction and the IHB/Conrail Porter Branch from Calumet Park to Willow Creek.

The CSX lines between Willow Creek and Calumet Park via Pine Junction have 27 at grade crossings, with 20 of these crossings located on the CSX/BOCT line between Pine Junction and Calumet Park. By contrast, the IHB/Conrail Porter Branch line from Calumet Park to Willow Creek has only three at grade crossings. The IHB/Conrail line also has thirteen grade separated crossings. As stated in the accompanying verified statement of Mr. Donald F. Thomas, City Planner for Hammond, the Federal, State and City governments have invested \$25 million in the grade separations on the IHB corridor.

The FCC's proposed shift of traffic from the CSX Willow Creek to Pine Junction and Pine Junction to Calumet Park lines to the IHB/Conrail Porter Branch lines will substantially reduce the number of at-grade highway crossings by the affected trains, thereby mitigating some of the most significant negative impacts on the Four Cities as a result of the Applicants' proposed operating plans.<sup>10/</sup>

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<sup>9/</sup> Based on responses to the FCC's discovery requests, CSX has provided traffic diagrams (Bates numbers CSX 44 CO 00010-CSX 44 CO 000126) and data on computer diskettes, describing the existing CSX traffic flows within the Chicago-Northern Indiana region. This information identifies the individual trains traversing these routes and whether their direction is inbound or outbound thereby allowing for a determination as to the proportional flow of traffic in each direction.

<sup>10/</sup> If upon closer examination, it is determined that the bridges on the out of service portion of the IHB alternative line require rehabilitation that proves to be uneconomic, then traffic should be routed on the IHB line to the current connection with Conrail at Ivanhoe rather than to a new connection east of Tolleston. This alternative would also result in less disruption to the Four Cities than Applicants' operating plan; however, it is not as favorable as FCC's preferred route.



The second route addressed by the FCC's Alternative Routing Plan is the former Pennsylvania Railroad ("PRR") line between Hobart and Clarke Junction via Tolleston, which CSX proposes to place back into service. As best as can be determined from the information provided by CSX, both in its operating plan and in discovery, CSX plans to connect this line to the Conrail Porter Branch at Tolleston, the NS Wabash spur and the EJE at Dunes. The out-of-service PRR line is 11.75 miles in length and has 23 at-grade crossings, which will be reactivated under the Applicants' proposal. Based on CSX's responses to FCC's September 29, 1997 questions in lieu of deposition and CSX's responses to FCC's Second Interrogatories and Request for Production of Documents, it appears that CSX desires to reactivate the PRR line northwest of Hobart to move coal and coke to the steel mills located on the Lake Michigan waterfront. For example, CSX's responses to FCC's questions indicate this coal and coke will be moved to the U. S. Steel Mill in Gary via the Hobart to Tolleston lines, then over the EJE by CSX crews.

FCC opposes the reactivation of the out-of-service PRR line between Hobart and Clarke Junction. Such reactivation would entail reopening of 23 at-grade highway crossings and would interfere with the City of Gary's effort to develop part of the area traversed by this line for a new housing development. To accommodate the five trains per day CSX projects to move over this line, FCC proposes that these CSX trains be routed from Hobart west to Van Loon over the NS's former Nickel Plate ("NKP") line via a new trackage rights agreement between CSX and NS. From Van Loon, FCC proposes that the CSX trains move north over the EJE via trackage rights to the same lakefront steel mills.<sup>11/</sup> This alternative requires the construction of a

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<sup>11/</sup> According to CSX's responses to the FCC's questions in lieu of deposition, it is apparent that CSX has an agreement with the EJE which allows "coal and coke deliveries to U.S. steel using CSX crews." If such an



connection between the NS/NKP line and the EJE line at Van Loon. Exhibit PHB-4 is a map of the Hobart to Clarke Junction PRR line and the FCC's proposed alternative routing via NS and EJE.

The FCC's Alternative Routing Plan not only would avoid the increased rail traffic over the CSX/BOCT line, but actually results in a decrease in vehicle delay hours from current levels and allows Applicants to move all of their projected traffic through the Four Cities region in an efficient manner. The table below summarizes the current annual vehicle delay hours and those resulting from both the Applicants' projected traffic and operating plan and FCC's proposed Alternative Routing Plan.

| <u>Line Segment</u><br>(1)   | <u>Current<br/>Delay Hours</u><br>(2) | <u>Applicants'<br/>Proposal<br/>Delay Hours</u><br>(3) | <u>FCC's<br/>Alternative<br/>Delay Hours</u><br>(4) |
|------------------------------|---------------------------------------|--------------------------------------------------------|-----------------------------------------------------|
| Willow Creek to Calumet Park | 242,353                               | 427,338                                                | 333,202                                             |
| Hobart to Pine Junction      | 0                                     | 160,939                                                | 30,432                                              |
| <b>Total Hours</b>           | <b>242,353</b>                        | <b>588,277</b>                                         | <b>363,634</b>                                      |

#### **4. Economic Impact of Applicant's Projected Increase in Traffic**

I have quantified the economic impact related to the projected increase in Applicants' traffic above the current traffic levels and found that the annual cost to the public living and working in the Four Cities region equals \$6.8 million. The net present value of the cost to the cities for

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agreement is not in place and if CSX and EJE were unable to achieve such an agreement, one could presumably be imposed, as a condition of the acquisition, allowing CSX to obtain trackage rights enabling it to operate over the EJE line from Van Loon to Pine Junction to deliver this traffic to the Gary area.

a twenty year period equals \$87.5 million. The discount factor used in this calculation is the Federal Railroad Administration's ("FRA") most recent rate of 4.6 percent.

The increased costs are a result of four factors: 1) lost productivity resulting from incremental vehicle delays at rail/highway crossings; 2) additional fuel and oil consumption associated with the incremental delay; 3) the incremental emissions exhausted into the atmosphere resulting from increased delays at rail crossings; and, 4) the increase in the number of rail/vehicle accidents, injuries and fatalities at rail crossings resulting from increased rail traffic.

#### **5. Comparative Analysis of Applicants' Proposal and the FCC's Alternative Operating Plan**

I have performed a comparative analysis of the Applicants' proposed operating plans for these two routes and the FCC's Alternative Routing Plan and determined that the FCC's Alternative results in an annual cost savings to the public and the Applicants of \$6.0 million. The net present value of these savings for a twenty year period equals \$77.5 million.

My comparative analysis is based on the same four factors listed in the previous section plus the change in rail operating costs and a return on investment on the capital required to implement each of the alternatives. Based on our calculations, the Applicants' operating costs will decrease slightly using the FCC's Alternative Routing Plan to operate between Willow Creek and Calumet Park, and slightly increase from Hobart to Clarke Junction. The required capital costs will decrease in both instances based on the FCC Alternative. The latter occurs because the railroads will avoid the expenditure of funds required to upgrade certain rail lines and to reactivate out-of-service rail lines.

#### **IV. TRAIN DELAY STUDY**

As stated previously, on site observations of vehicle delays at rail crossings in the Four Cities region were performed between September 28 and October 5, 1997. The vehicle delay study was designed by Dr. Gary M. Andrew to estimate the annual vehicle delay time experienced at specified rail crossings in the central portion of the Four Cities. The results of this study were used by Dr. Andrew, in conjunction with accepted traffic flow models, to estimate the annual vehicle delay hours in the Four Cities region.

The observations of delay time were performed by Cole Associates, Inc. under the supervision of Mr. Gregg L. Heinzman, a Professional Engineer. The study design and results, and the calculation of daily vehicle delay time are fully described in the accompanying verified statement of Dr. Andrew. Observation and data collection is described in the joint statement of Mr. Heinzman and Mr. Ronald H. Dunn, a Professional Engineer with 35 years of experience in railroad and rail transit engineering.

The table on page 9 above, summarizes the current annual vehicle delay hours computed by Dr. Andrew and those resulting from both the Applicants' projected traffic and operating plan and FCC's proposed Alternative Routing Plan. As described in Dr. Andrew's statement, his computation of delay hours considers factors such as annual average vehicle crossings at each location, train speeds, and the size of the train. I have used the hours of delay information to develop the economic impact on the Four Cities as it relates to the value of lost productivity, fuel and oil consumption and emissions into the atmosphere.

### **1. Vehicles Around Gates**

Dr. Andrew also describes an endemic occurrence in the Four Cities area of vehicles going around closed gates at rail crossings which was observed during the train delay study. This phenomenon, which occurred at all twelve crossings studied, occurred an average of 484 times each day. This delay avoidance behavior is an enormous endangerment to public safety, which will only worsen with Applicants' projected increase in rail traffic.

The vehicles observed and recorded going around closed gates were not included in my computation of vehicle delay hours. Were those vehicles included (as they would have been if they had obeyed the safety devices), the delay hours under both current conditions and Applicants' projected traffic would increase by approximately 5.8 percent, or 14,100 hours and 34,120 hours annually for current and projected traffic, respectively.

### **2. Disruption of Emergency Services**

As discussed in the accompanying verified statements of the city planners from each community, current vehicle delays at rail crossings significantly impair the delivery of emergency services, such as fire, ambulance and police services. In many instances, the cities have, at significant expense, acquired duplicate facilities, equipment and emergency services personnel to minimize this disruption.

For example, the City of East Chicago incurred 9,688 delays in 1996 by police vehicles responding to emergency calls. This represents twenty percent of the total police emergency calls responded to by East Chicago in 1996. Further, of 1,594 emergency medical services responded to in East Chicago in 1996, 966, or 61 percent, were delayed at railroad crossings

and in 241 of these instances, an additional emergency vehicle had to be dispatched to provide the needed service. These statistics are based on information provided by the City of East Chicago.

Clearly, the significant increase in the number of vehicle delay hours at railroad crossings from Applicants' projected post-acquisition traffic and operating plans will substantially worsen the already difficult situation in each of these communities.

#### **V. DEVELOPMENT OF FCC ALTERNATIVE ROUTING PLAN**

The Alternative Routing Plan devised by the FCC modifies the Applicants' post-acquisition operating plans for northwest Indiana, in two essential respects. The first involves CSX's east-west operations via Willow Creek. Under the FCC's Alternative Routing Plan, westbound CSX traffic will continue to move primarily via Willow Creek and Pine Junction, and thence via either the CSX Lakefront line or the CSX/BOCT line, as contemplated by CSX. Eastbound CSX traffic, however, would be rerouted away from the CSX/BOCT line, with its many heavily-used highway grade crossings, and onto the largely grade-separated IHB line for movement east from Calumet Park.

The IHB line has sufficient capacity to accommodate the approximately 17 additional daily eastbound CSX trains that would use this line.<sup>12/</sup> Further, based on information provided by the FRA, the IHB line has a 40 mile per hour speed limit, which is greater than that currently

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<sup>12/</sup> This excess capacity has been confirmed by the IHB itself, which recently advised the FCC that its line between Ivanhoe and Blue Island via Calumet Park has the capacity to handle additional traffic without congesting the railroad.



posted on the CSX/BOCT line. The result of this re-routing is that the number of post-acquisition train movements over the CSX/BOCT line would be reduced from the 33.3 trains per day (projected by CSX) to 16.7 per day.<sup>13/</sup> This also represents a reduction from the present frequency which is 27.6 trains per day.

Under the Alternative Routing Plan, CSX trains would operate eastward over the IHB to a point just east of Tolleston, where the trains would transfer to Conrail's Porter Branch (which is to be acquired by CSX). The CSX trains would then operate over the Porter Branch back to Willow Creek, where they would use the new connection proposed by CSX to return to the CSX main line for movement to eastern points.

There is an existing connection between the IHB and the Conrail Porter Branch at Ivanhoe. East of Ivanhoe, the IHB line is used only to serve local industries. The IHB line east of Chase Street in Gary has been out-of-service for several years. The elevated right of way (including several bridges over highways) still exists, however, and under the Four Cities' Plan 2.1 miles of track would be re-constructed on this right of way between Chase Street and a point near Virginia Street. At that point, a new connection would be built between the IHB grade elevated right-of-way and the parallel Conrail Porter Branch. The reason for using the IHB line east of Ivanhoe to the Tolleston area is that the IHB continues to be grade-separated, whereas the Porter Branch between Ivanhoe and Tolleston has nine at-grade highway crossings. The Alternative Routing Plan is designed to maximize the use of grade-separated lines and minimize the use of

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<sup>13/</sup> The 16.7 trains per day on the CSX/BOCT line is premised on one-half of the CSX projected trains moving in each direction. Although an even balance may not be absolute, documents provided by CSX indicate that the aggregate of eastbound and westbound traffic over the CSX lines and the IHB/Conrail Porter Branch lines between Willow Creek and Calumet Park are similar.



at-grade lines in the Four Cities region. Exhibit GLH-/RHD-1 is a graphical depiction of the area where the IHB line would be restored to service and connected to the Porter Branch. This exhibit is included in the accompanying joint verified statement of Messers. Heinzman and Dunn.

The out-of-service portion of the IHB line east of Chase Street has been examined by FCC witness Heinzman, as has the area of proposed connection with the Conrail Porter Branch at Virginia Street. Based on this examination, and Mr. Heinzman's consultations with FCC witness Dunn, the proposed replacement of the out-of-service portion of the IHB and connection with Conrail is feasible from an engineering perspective. Mr. Heinzman also examined the Conrail Porter Branch from the proposed connection to Willow Creek and determined that it has the capacity to handle the traffic proposed by FCC. The Conrail Porter Branch is classified as a FRA Class 3 track with a 40 mile per hour speed limit.

The operational feasibility of using the IHB/Porter Branch combination from Calumet Park to Willow Creek is further supported by a joint study performed by the FRA and the Indiana State Highway Commission in 1980.<sup>14/</sup> This study offered, as an alternative to consolidate rail operations in the Four Cities region, "Alternative Plan 3BC". This plan would have rerouted traffic from the CSX/BOCT line to the IHB to reduce congestion in Hammond and East Chicago.<sup>15/</sup>

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<sup>14/</sup> Hammond Railroad Relocation and Consolidation Project, Administration Action and Draft Environmental Impact Statement; U.S. Department of Transportation, Federal Highway Administration and Indiana Highway Commission, February, 1980.

<sup>15/</sup> At the time of the study, the IHB line was still in service east of Chase Street, extending to Burns Harbor. The study ultimately rejected Alternative Plan 3BC because of the potential disruption to communities east of Virginia Street, the easternmost point at which the FCC proposes to utilize the IHB line.

The second change contemplated by the FCC Alternative Routing Plan involves the PRR line between Hobart and Clarke Junction via Tolleston. As indicated above, CSX plans to rehabilitate this line and use it primarily to serve the steel mills along the Gary/East Chicago lakefront. Under the Four Cities' plan, this line need not be used (and thus need not be rebuilt) northwest of Hobart. Instead, CSX traffic from Fort Wayne and points east will operate, via trackage rights, over the NS/NKP line west to Van Loon, and thence north (again via trackage rights) over the EJE line to Gary via Ivanhoe. The EJE line serves the steel mills, and also connects with CSX's Lakefront line at Pine Junction.

This aspect of the Alternative Routing Plan requires the construction of a connection between the NS/NKP line and the EJE at Van Loon and a connection from the CSX Lakefront line to the Conrail Lakefront line, just east of Pine Junction. These connections are feasible from an engineering standpoint, and would be far less expensive than rebuilding nearly 12 miles of the PRR line between Hobart and Clarke Junction.<sup>16/</sup>

The conditions at Van Loon and the Conrail Lakefront line, where the connections are to be made, have been examined by Mr. Heinzman. Based on his examination and discussions with Mr. Dunn, both connections have been determined to be feasible from an engineering perspective. Further, these connections would be far less expensive than restoring to service the 11.75 miles of PRR line from Hobart to Clarke Junction and constructing connections at

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<sup>16/</sup> A possible (but less desirable) alternative to the EJE connection at Van Loon is for CSX to operate further west over the NS/NKP line to Osborn, and thence north over an IHB line to a connection with CSX's lakefront line at Indiana Harbor. This alternative would not require construction of a connection, between the NS and IHB lines at Osborn, as one currently exists at this location. The route is more circuitous than the EJE route, however, and is also less desirable because the IHB line has more grade crossings than the EJE line.

Tolleston and Dune as proposed by the Applicants.<sup>17/</sup> As discussed in the comparative analysis section, the FCC's Alternative Routing Plan is operationally feasible to provide the CSX and NS service planned for the restored PRR line.

## **VI. ECONOMIC IMPACT OF APPLICANTS' PROJECTED INCREASE IN RAIL TRAFFIC**

As stated previously, I have quantified the economic impact related to the projected increase in Applicants' traffic above the current traffic levels as set forth in the CSX and NS Operating Plans and found that the annual cost to the public living and working in the Four Cities equals \$6.8 million. The net present value of the cost to the cities for a twenty year period equals \$87.5 million.

These costs are a result of four factors: 1) lost productivity resulting from incremental vehicle delays at rail/highway crossings; 2) additional fuel and oil consumption associated with the incremental delay; 3) the incremental emissions exhausted into the atmosphere resulting from increased delays at rail crossings, and; 4) the increase in the number of rail/vehicle accidents, injuries and fatalities at rail crossings resulting from increased rail traffic.

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<sup>17/</sup> In response to FCC's Second Set of Interrogatories and Document Production Requests, Applicants, in response to Interrogatory No. 11.b., state that the PRR line east of Tolleston is in FRA Class 3 condition. This statement contradicts those made in Deposition by both NS witness Mohan, pages 327 and 328, and CSX witness Orrison, pages 77 through 79. Both of these witnesses indicate this line is out of service and will require some rehabilitation. Examination of the line by Mr. Heinzman and personnel from my office indicates this rehabilitation is significant. The required rehabilitation is discussed in the joint verified statement of Messers. Heinzman and Dunn.

### 1. Lost Productivity Costs

Productivity costs associated with delay time at crossings are measured in a cost per hour for the hours individuals are prohibited from proceeding to their destination. This cost cannot be directly measured by the average delay time for individual vehicles because the costs are related to the occupants rather than the vehicles. To appropriately measure per person delay time, the accumulated hours of delay time are increased by an occupancy factor of 1.6 persons per passenger vehicles and 1.0 person per trucks. The source of the passenger vehicle occupancy factor is Timothy A. Ryan, "Roadway Vehicle Delay Costs at Rail-Highway Grade Crossings", Transportation Research Record, Volume 1262, page 36.

The occupancy factor of 1.6 was applied to delay hours for passenger vehicles including automobiles and buses, and an occupancy factor of 1.0 was applied to delay hours for trucks in order to compute per person delay hours.<sup>18/</sup> The delay hours were then multiplied by a cost per person hour \$10.00. The source for the \$10.00 per hour factor is the FRA Model Documentation for *GradeDec Model - Highway-Rail Grade Crossing Investment Decision Support Tool*, Version 1.0.<sup>19/</sup>

The resulting annual lost productivity cost for the current traffic levels and the Applicants' projected traffic and operating plan are shown in the table below.

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<sup>18/</sup> The breakdown of vehicles between trucks and other vehicles is based on the crossing list information provided by the FRA.

<sup>19/</sup> A copy of the model documentation for this recently developed analytical tool is included in my workpapers.

| <u>Lost Productivity</u>      |                       |                                    |
|-------------------------------|-----------------------|------------------------------------|
| <u>Line Segment</u><br>(1)    | <u>Current</u><br>(2) | <u>Applicants' Proposal</u><br>(3) |
| Willow Creek to Calumet Park  | \$3,730,191           | \$6,568,372                        |
| Hobart to Pine Junction       | 0                     | \$2,426,155                        |
| <b>Total</b>                  | <b>\$3,730,191</b>    | <b>\$8,994,527</b>                 |
| Source: Exhibits PHB-5, 6 & 8 |                       |                                    |

## 2. Fuel and Oil Costs

Vehicles experiencing delay at railroad crossings consume fuel and oil idling at crossings.

The gallons of fuel and oil consumed per minute of idling by type of vehicle are shown in the table below. <sup>20/</sup>

| <u>Rate of Fuel and Oil Consumption,<br/>Gallons Per Minute of Idling</u> |                    |                   |
|---------------------------------------------------------------------------|--------------------|-------------------|
| <u>Type of Vehicle</u><br>(1)                                             | <u>Fuel</u><br>(2) | <u>Oil</u><br>(3) |
| Passenger vehicle*                                                        | 0.009              | 0.0003            |
| Truck                                                                     | 0.008              | 0.0002            |
| *Includes buses                                                           |                    |                   |

The gallons of fuel and oil consumed were calculated by multiplying the rates of consumption by vehicle type by the hours of delay by vehicle type. The resulting gallons consumed were then multiplied by the costs per gallon of fuel equal to \$1.50 for fuel and \$4.00 per gallon for oil. The resulting fuel and oil costs associated with the delay at railroad crossings

<sup>20/</sup> The source of the fuel consumption rates is the *Progress Report on Literature and Assessment of Procedures and Data*, Technical Memorandum for NCHRP 7-12, Texas Transportation Institute, Texas A & M University Systems, College Station, Texas, January 1990, as reported in the *GradeDec* Model.



in the Four Cities region based on current traffic levels and the Applicants' projected traffic levels and Operating Plans are shown in the table below.

| <b><u>Fuel and Oil Costs</u></b>  |                              |                                           |
|-----------------------------------|------------------------------|-------------------------------------------|
| <b><u>Line Segment</u></b><br>(1) | <b><u>Current</u></b><br>(2) | <b><u>Applicants' Proposal</u></b><br>(3) |
| Willow Creek to Calumet Park      | \$210,954                    | \$371,800                                 |
| Hobart to Pine Junction           | 0                            | \$139,120                                 |
| <b>Total</b>                      | <b>\$210,954</b>             | <b>\$510,920</b>                          |
| Source: Exhibits PHB-5, 6 & 8.    |                              |                                           |

### 3. Vehicle Emissions Costs

Vehicle delay hours at rail crossings also produce costs to the public related to emissions of Hydrocarbons, Carbon Monoxide and Nitrogen Oxides. These emissions are measured in grams per minute of idling by type of vehicle. The table below provides the emission rates for each pollutant by type of vehicle.<sup>21/</sup>

| <b><u>Emission Rates by Type of Vehicle, Grams per Minute of Idling</u></b> |                                        |                                           |                                                       |
|-----------------------------------------------------------------------------|----------------------------------------|-------------------------------------------|-------------------------------------------------------|
| <b><u>Type of Vehicle</u></b><br>(1)                                        | <b><u>Hydrocarbons (HC)</u></b><br>(2) | <b><u>Carbon Monoxide (CO)</u></b><br>(3) | <b><u>Nitrogen Oxides (NO<sub>x</sub>)</u></b><br>(4) |
| Passenger vehicles*                                                         | 0.1998                                 | 1.6426                                    | 0.1527                                                |
| Truck                                                                       | 1.3986                                 | 45.3639                                   | 0.0111                                                |
| *Includes buses                                                             |                                        |                                           |                                                       |

<sup>21/</sup> The source for the emission rates by type of vehicle and pollutant is the California Air Resources Board, EMFAC7F, Version 1.1, 1995, as reported in the FRA's *GradeDec* Model.

Based on the FRA *GradeDec* Model, the cost of emissions equals \$3,000 per ton for Hydrocarbons, \$4,000 per ton for Carbon Monoxide and \$6,000 per ton for Nitrogen Oxides. Applying the rates of emissions to the vehicle hours of delay by vehicle type produces the grams of emissions by type of pollutant. We then converted the cost per ton to a cost per gram and applied it to the grams of pollutants emitted to yield vehicle emission costs for both the current traffic levels and the Applicants' projected traffic. The table below shows the calculated vehicle emissions costs.

| <u>Emissions Cost</u>        |                  |                    |
|------------------------------|------------------|--------------------|
| <u>Line Segment</u>          | <u>Current</u>   | <u>Applicants'</u> |
| (1)                          | (2)              | <u>Proposal</u>    |
| (3)                          |                  |                    |
| Willow Creek to Calumet Park | \$418,402        | \$755,468          |
| Hobart to Pine Junction      | 0                | \$377,643          |
| <b>Total</b>                 | <b>\$418,402</b> | <b>\$1,133,111</b> |

Source: Exhibit PHB-5.

#### 4. Accident Incident Costs

The FRA provides formulas to predict the incidence of accidents at individual rail crossings. These formulas take into account various inputs including; annual average daily vehicle crossings, type of warning device, timetable speed, accident history, daytime trains per day and night time trains per day, number of tracks, the type of highway surface and number of highway lanes. The model is used to predict accidents, injuries and fatalities for individual crossings.

The Indiana Department of Transportation uses these formulas, with minor modifications to better reflect conditions local to Indiana, and predicts accidents for all at-grade rail crossings in the state. This information was provided to me by the City of Gary for rail crossings in the

Four Cities region. The *GradeDec* Model provides a range of costs for each type of rail crossing accident. The median values are \$3,000,000 per fatality, \$500,000 per injury and \$50,000 per property damage accident.

Using the accident predictions provided for the rail crossings in the central portion of the Four Cities and the cost per accident shown above, we calculated the accident, injury and fatality costs at each crossing for both the current traffic and the Applicants' projected traffic. These costs are shown in the table below.<sup>22/</sup>

| <u>Line Segment</u><br>(1)   | <u>Accident Cost</u>  |                                    |
|------------------------------|-----------------------|------------------------------------|
|                              | <u>Current</u><br>(2) | <u>Applicants' Proposal</u><br>(3) |
| Willow Creek to Calumet Park | \$1,090,845           | \$1,571,286                        |
| Hobart to Pine Junction      | 0                     | \$27,760                           |
| <b>Total</b>                 | <b>\$1,090,845</b>    | <b>\$1,599,046</b>                 |

As this table reflects, accident costs would increase by \$480,441 on the Willow Creek to Calumet Park line segment and would increase from \$0 to \$27,760 on the Hobart to Pine Junction line.

Exhibit PHB-5 summarizes my calculation of each of the above described costs to the public which will result from Applicants' projected traffic and Operating Plans in the Four Cities.

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<sup>22/</sup> The prediction of accidents, by type of accident, for each rail line segment for the projected traffic is calculated by multiplying the predictions for current traffic by the percent change in the number of trains per day from current trains to projected trains.

**5. Summary of Impact of Applicants' Post-Acquisition  
Increase in Rail Traffic on the Four Cities**

The table below summarizes the lost productivity, fuel and oil consumption, emission and accident costs for both the current and Applicants' post-acquisition traffic levels. As shown in the table Applicants' projected post-acquisition traffic levels will result in an annual \$6.8 million cost to the public. The net present value of this cost for a twenty-year period equals \$87.5 million.

| <b>Summary of Public Costs for<br/>Current and Projected Traffic</b> |                                   |                                     |                          |
|----------------------------------------------------------------------|-----------------------------------|-------------------------------------|--------------------------|
| <u>Item</u><br>(1)                                                   | <u>Current<br/>Traffic</u><br>(2) | <u>Projected<br/>Traffic</u><br>(3) | <u>Difference</u><br>(4) |
| 1. Vehicle Delay Hours                                               | 242,353                           | 588,278                             | 345,925                  |
| 2. Lost productivity cost                                            | \$3,730,191                       | \$8,994,527                         | \$5,264,336              |
| 3. Fuel and oil consumption                                          | \$210,954                         | \$510,920                           | \$299,966                |
| 4. Emission of pollutants                                            | \$418,402                         | \$1,133,111                         | \$714,709                |
| 5. Accident Costs                                                    | \$1,090,845                       | \$1,599,046                         | \$508,201                |
| 6. Total Cost to the Public                                          | \$5,450,392                       | \$12,237,604                        | \$6,787,212              |

**VII. COMPARATIVE ANALYSIS OF APPLICANTS'  
PROPOSAL AND FCC'S ALTERNATIVE ROUTING PLAN**

As discussed previously, the FCC proffers alternative routings for two distinct segments of the Applicants' proposed operating plans for the region. These include 1) rerouting a portion of the traffic CSX proposes to move over the lines from Willow Creek to Pine Junction and from Pine Junction to Calumet Park to the IHB and Conrail Porter Branch lines from Calumet Park to Willow Creek via Virginia Street (Gary), and 2) rather than restoring service on the former PRR line from Hobart to Tolleston and Tolleston to Clarke Junction, routing the projected traffic for this line over a combination of the NS/NKP line from Hobart to Van Loon

and the EJE line from Van Loon to Pine Junction, thus allowing movement of coal and coke by CSX to the lakefront steel mills.<sup>23/</sup>

As stated in the Summary and Conclusion Section, I have performed a comparative analysis of the Applicants' proposed operating plans for these two routes and the FCC's Alternative Routing Plan and determined that the FCC Alternative results in an annual cost savings to the public and the Applicants' of \$6.0 million. The net present value of these savings for a twenty year period equals \$77.5 million.

Our comparative analysis is based on the same four factors listed in the previous section plus the change in railroad variable operating costs and return on investment of the capital required to implement each of the alternatives. Based on our calculations the Applicants' operating costs will increase slightly under the FCC's alternatives and Applicants' required return on investment of capital costs will be reduced.

Applicants' required return on investment will be reduced because Applicants will be able to avoid the expenditure of funds required to reactivate the out-of-service PRR line from Hobart to Tolleston and because the volume of traffic under the FCC's Alternative Routing Plan reduces traffic on the Willow Creek to Calumet Park line via Pine Junction. As a result, Applicants can forgo the cost of upgrading portions of this line from FRA Class 2 to Class 3 condition.

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<sup>23/</sup> As discussed previously, an alternative routing would be the NS/NKP line to Osborn (west of Van Loon), and then north over the IHB (which is controlled by Conrail) to reach the Lakefront steel mills.



A comparative analysis of the Applicants' proposed operations and each element of the FCC's Alternative Routing Plan is presented below.

**1. Willow Creek to Calumet Park**

The FCC's Alternative Routing Plan shifts traffic off CSX's Willow Creek to Calumet Park line and makes use of the IHB and Conrail Porter Branch. The FCC proposal contemplates but does not necessarily require directional traffic flow, i.e., parallel mainline tracks with the majority of traffic on these lines operating in opposite directions.<sup>24/</sup> Operation of parallel mainlines with directional flow is a common and desirable practice in the railroad industry.

Operating in this manner will significantly reduce the volume of traffic moving on the CSX Willow Creek to Calumet Park line via Pine Junction. Reducing the traffic on this line, which has twenty at-grade crossings in the central business districts of East Chicago and Hammond alone, and placing a portion of the traffic on the grade separated IHB line, will significantly reduce the disruption of vehicular traffic in the Four Cities region. This alternative will significantly mitigate the adverse economic, safety and quality-of-life impacts that would otherwise affect the public in the Four Cities region.

The table below shows the annual delay costs, accident costs, mileage related railroad operating costs and return on investment for the Applicants' projected traffic using both the Applicants' proposed operating plan and the FCC's Alternative Routing Plan.

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<sup>24/</sup> The plan would also work without directional traffic flow as a means to avoid the adverse incremental impacts of the increased traffic over the CSX/BOCT line. However, the directional flow arrangement would be significantly more efficient.

**Comparison of Annual Costs for Applicant's Proposal and FCC's Alternative Routing Plan  
Willow Creek to Calumet Park  
(000)**

| <u>Route</u>                  | <u>Applicants'<br/>Proposal</u> | <u>FCC's<br/>Alternative</u> | <u>Difference</u> |
|-------------------------------|---------------------------------|------------------------------|-------------------|
| (1)                           | (2)                             | (3)                          | (4)               |
| Train Delay Cost              | \$6,568.4                       | \$5,153.5                    | \$1,414.9         |
| Vehicle Fuel Consumption Cost | \$342.1                         | \$267.2                      | \$74.9            |
| Vehicle Oil Consumption Cost  | \$29.7                          | \$23.3                       | \$6.4             |
| Vehicle Emissions Cost        | \$755.5                         | \$526.3                      | \$229.2           |
| Accident Cost                 | \$1,571.3                       | \$1,366.4                    | \$204.9           |
| Rail Operating Cost           | \$16,104.1                      | \$15,981.5                   | \$122.6           |
| Rail Capital Investment       | \$1,116.1 <sup>1/</sup>         | \$265.7 <sup>2/</sup>        | \$850.4           |
| <b>Net Savings</b>            |                                 |                              | <b>\$2,903.3</b>  |

<sup>1/</sup> The required investment is estimated to equal \$6,565,000 with a pre tax return on investment equal to 17 percent. The derivation of the \$6.565 million is shown in footnote 26 below.

<sup>2/</sup> Assumes capital investment to rehabilitate IHB abandoned line and construct connection to CSX (CR) equals \$1,562,762 with a pre tax return on investment equal to 17 percent.

The productivity cost, fuel and oil costs, emissions costs and accident cost shown in the above table for both the Applicants' proposal and the FCC's Alternative Routing Plan were calculated in the same manner as described in the previous section. The calculation of these costs are shown in Exhibit PHB-6. The calculation of the railroad's mileage related operating costs and the return on investment for both the Applicants' proposal and the FCC's Alternative Routing Plan are discussed below.

a. Mileage Related Operating Costs

Using unit costs specific to the CSX based on the Surface Transportation Board's ("STB") Uniform Rail Costing System ("URCS") and the CSX 1995 annual expense data as reported in CSX's Annual R-1 Report, we have calculated the mileage related operating costs for the Applicants' projected traffic moving under both the Applicants' proposal and the FCC's Alternative Routing Plan.<sup>25/</sup> Non-mileage-related costs were not used in this analysis because only mileage related costs for the projected traffic will be affected by the Applicants' and FCC's alternative routing plans. For example, the origin and destination terminal costs associated with the projected traffic will be the same regardless of which routing plan is used.

The mileage-related costs included in the comparative analysis include gross ton-mile costs, locomotive unit-mile costs, train-mile costs and car-mile costs. CSX's 1995 URCS unit costs for each of these items were applied to the gross ton-miles, locomotive unit-miles, train-miles and car-miles for the projected traffic over both alternative routes. The table below shows our calculation of CSX's variable cost by category of cost for the projected traffic using both the Applicants' proposed operating plans and the FCC's Alternative Routing Plan.

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<sup>25/</sup> The 1995 CSX URCS unit costs used in my analysis have been adjusted to reflect changes in operating costs and traffic resulting from CSX's ownership of 42 percent of Conrail. The unit costs have also been increased to reflect the difference between Applicants' appraisal value of Conrail assets and the book value of Conrail assets. CSX 1995 URCS unit costs are used because it is the base year in Applicants' filing and the year for which Applicants made the required improvements to perform this analysis available.

| <u>Operating Cost</u> |                             |                          |
|-----------------------|-----------------------------|--------------------------|
| <u>Cost Item</u>      | <u>Applicants' Proposal</u> | <u>FCC's Alternative</u> |
| (1)                   | (2)                         | (3)                      |
| Gross Ton-Mile        | \$7,178,561                 | \$7,178,603              |
| Locomotive Unit Mile  | \$3,190,650                 | \$3,132,574              |
| Train Mile            | \$2,946,804                 | \$2,893,167              |
| Car Mile              | \$2,788,069                 | \$2,777,158              |
| <b>Total</b>          | <b>\$16,104,084</b>         | <b>\$15,981,502</b>      |

The units of production and variable costs by category of cost and line segment are shown in Exhibit PHB-7 for Applicants' projected traffic for both the Applicants' proposed operating plan and the FCC's Alternative Routing Plan.

**b. Return on Investment**

As shown previously, under FCC's Alternative Routing Plan the volume of traffic, stated in both millions of gross tons per year and trains per day moving on CSX's line between Willow Creek and Pine Junction will decrease slightly from current levels, and the annual gross tons and trains per day moving on the CSX/BOCT line between Pine Junction and Calumet Park will decrease significantly.

As a result, the significant capital investment planned by CSX to upgrade the track and signaling on this line will not be required. We have estimated, based on Applicants' filing before the STB, that the upgrade costs associated with this portion of the line, which can be avoided through implementation of FCC's Alternative Routing, equals \$6,565,000.<sup>26/</sup>

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<sup>26/</sup> Our estimate is based on a reported investment to upgrade CSX's line from Greenwich Ohio to Chicago, Illinois of \$110 million. Prorating this amount on a mileage basis to the miles from Willow Creek to Calumet Park yields an estimated capital expenditure of \$6,656,000 for this portion of the line. In its discovery requests, the

The FCC's Alternative Routing Plan maximizes utilization of the grade separated IHB line from Calumet Park to Virginia Street in Gary. This plan requires the restoration to service of 2.1 miles of out-of-service IHB track and the construction of a connection between the IHB grade separated line and the Conrail Porter Branch in the vicinity of Virginia Street. Currently, the IHB and Conrail lines connect at Ivanhoe. The FCC proposal takes advantage of the substantial sunk investment in rail/highway grade separations along the IHB/Conrail line. As a result crossing delays in the Central Business Districts of East Chicago and Hammond would be significantly reduced.

As discussed in the accompanying joint verified statement of Messers Heinzman and Dunn, the estimated cost of the restoration of the 2.1 miles of IHB track and the construction of the connection with Conrail at Virginia Street equals \$1,562,762. Accordingly, the net reduction in capital cost using FCC's Alternative Routing Plan equals \$5.0 million. Applying the STB's pre-tax cost of capital of 17% to the net reduction in capital costs results in an annual reduction in CSX's required return on investment equal to \$850,380.

As demonstrated above, the FCC's Alternative Routing Plan for the movement of Applicants' projected traffic between Willow Creek and Calumet Park results in a net annual reduction in public and railroad costs equal to \$2.9 million.

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FCC asked CSX to describe the work to be performed and the amount to be spent to upgrade the CSX's Chicago to Greenwich "line(s)" west of Willow Creek. In response, CSX provided an amount to be spent for projects west of Willow Creek without specifying which line segments (and what specific work) were involved. Bates Number CSX 44 HC 000101. Because CSX did not provide the specific information requested, we estimated the capital expenditure required to upgrade the line west of Willow Creek in the manner described above.



## **2. Hobart to Tolleston and Clark Junction**

Applicants' propose to reactivate the former PRR out-of-service rail line from Hobart to Tolleston and Tolleston to Clarke Junction. This out-of-service line has 23 at-grade crossings and two grade separated crossings. Applicants' operating plan and supporting documents indicate two distinct uses for this line. First, CSX intends to move five trains per day, representing 12 million gross tons per year over this line.

CSX's responses to FCC's questions in lieu of deposition, indicate that CSX trains will use this line to move coal and coke to Pine Junction, then over the EJE, using CSX crews for delivery to U. S. Steel. The train weights included in Applicants' filing before the STB for the Hobart to Tolleston segment are heavier than those provided for any other CSX line segment and are consistent with a combination of coal and coke shipments. (The average train weight for this segment equals approximately 6,600 gross tons as compared with 5,000 to 5,300 gross tons for other CSX line segments.)

The second use Applicants intend for this line involves NS' service to the Gary Sugar Works on the former Wabash spur. According to the deposition of NS witness Mohan, NS plans to construct a connection between the Wabash spur and the Tolleston to Clarke Junction portion of the PRR line in order to permit, "through a series of reverse moves"<sup>27/</sup> the NS to move traffic originating or terminating at Gary Sugar Works from the Wabash spur to the Tolleston to Clarke Junction PRR line, across the CSX Lakefront line onto what is currently the Conrail Lakefront

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<sup>27/</sup> See September 17, 1997 Deposition transcript of NS Witness Mohan, at pages 330 to 331.

line. This traffic can then move in an easterly direction on the existing Conrail Lakefront line to Burns Harbor, IN.

The FCC's Alternative Routing Plan for reactivating the Hobart to Tolleston and Clark Junction line permits movement of the two shipments described above, without the reactivation of the out-of-service PRR line and its 23 at-grade crossings.

The FCC's Alternative Routing Plan contemplates the movement of the CSX coal and coke traffic from Hobart over the NS NKP line to Van Loon where a connection would be constructed to the EJE. From EJE the CSX trains would be operated by CSX crews through Pine Junction to the U.S. Steel Mill in Gary and other lakefront steel mills in the area. As stated previously, use of CSX crews to operate over the EJE is consistent with CSX's current plan for the movement of traffic from Pine Junction to the Gary lakefront.

The FCC's Alternative Routing Plan accommodates the NS Gary Sugar Works traffic through the construction of a connection between the CSX Lakefront line and the existing Conrail Lakefront line just east of Pine Junction. This connection would permit NS to move traffic originated at the Gary Sugar Works along the Wabash spur, in a reverse move, to its current connection with the CSX Pine Junction to Calumet Park line. Once on the CSX Pine Junction to Calumet Park line, the traffic can move forward through Pine Junction onto the CSX Lakefront line then through the new connection with the existing Conrail Lakefront line and east to Burns Harbor, IN.

The table below shows the delay costs, accident costs, mileage related railroad operating cost and return on investment for the Applicants' projected traffic using both the Applicants' proposed operating plan and the FCC's Alternative Routing Plan for the planned movements on the out-of-service PRR line.

| <b>Comparison of Costs for Applicants's Proposal and FCC's Alternative<br/>Hobart to Pine Jct<br/>(000)</b>                                                                                                     |                                        |                                     |                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-------------------------------------|-------------------|
| <b><u>Item</u></b>                                                                                                                                                                                              | <b><u>Applicants'<br/>Proposal</u></b> | <b><u>FCC's<br/>Alternative</u></b> | <b><u>Net</u></b> |
| Train Delay Cost                                                                                                                                                                                                | \$2,462.2                              | \$469.8                             | \$1,956.4         |
| Vehicle Fuel Consumption Cost                                                                                                                                                                                   | \$128.1                                | \$24.4                              | \$103.7           |
| Vehicle Oil Consumption Cost                                                                                                                                                                                    | \$11.0                                 | \$2.1                               | \$8.9             |
| Vehicle Emissions Cost                                                                                                                                                                                          | \$377.6                                | \$49.8                              | \$327.8           |
| Accident Cost                                                                                                                                                                                                   | \$27.8                                 | \$241.6                             | (\$213.8)         |
| Rail Operating Cost                                                                                                                                                                                             | \$1,202.8                              | \$1,378.5 <sup>1/</sup>             | (\$175.7)         |
| Rail Capital Investment                                                                                                                                                                                         | \$1,192.9 <sup>2/</sup>                | \$94.5 <sup>3/</sup>                | \$1,098.4         |
| <b>Net Savings (Cost)</b>                                                                                                                                                                                       |                                        |                                     | <b>\$3,105.7</b>  |
| <sup>1/</sup> Includes trackage rights payment of 3 mills per gross ton-mile.                                                                                                                                   |                                        |                                     |                   |
| <sup>2/</sup> Assumes capital investment to rehabilitate PRR abandoned line and construct connections at Tolleston, Wabash and Dunes equals \$7,017,167 with a pretax return on investment equal to 17 percent. |                                        |                                     |                   |
| <sup>3/</sup> Assumes capital investment to construct connections at Van Loon and Pine Jct equal \$555,866 with a pre-tax return on investment equal to 17 percent.                                             |                                        |                                     |                   |

As with the comparative analysis of the Willow Creek to Calumet Park lines, the productivity cost, fuel and oil costs, emissions cost and the accident cost shown in the above table for both the Applicants' proposal and the FCC's Alternative Routing Plan were calculated

in the same manner as described in the previous section. The calculation of these costs are shown in Exhibit PHB-8.

The calculations of the railroads' variable operating costs and the capital investment requirements for both the Applicants' proposal and the FCC's Alternative Routing Plan are discussed below.

**a. Mileage Related Variable Operating Expense**

The mileage related variable operating expense for the Applicants' operating plans related to traffic moving on the restored PRR line were calculated in precisely the same manner as described for the Willow Creek to Calumet Park alternatives.

Variable operating costs for the FCC's Alternative Routing Plan using the NS and EJE to move CSX coal and coke to the lakefront steel mills have been calculated using a modified procedure to account for trackage rights payments to both NS and EJE for use of their facilities. This procedure removes from the CSX gross ton-mile unit costs the portion of expense related to return on road property and maintenance of way and structures, before applying the unit cost to the gross ton-miles shipped. These expenses were removed from the CSX gross ton-mile unit cost because CSX will not incur either of these expenses while moving on NS and EJE. In doing so, we have calculated CSX's mileage related "above the rail" costs for this traffic.

In addition to the above adjustment, we have included a trackage rights payment from CSX to NS and EJE for use of their facilities. The trackage rights payment has been calculated based on the payment of 3.0 mills per gross ton-mile on unit train traffic by Burlington Northern Santa Fe ("BNSF") to Union Pacific Railroad Company ("UP") as approved by the STB in the recent

UP acquisition of Southern Pacific Railroad Company ("SP"). The table below shows our calculation of CSX's variable cost by category of cost for the projected traffic using both the Applicants' proposed operating plan and the FCC's Alternative Routing Plan.

| <b><u>Hobart to Clarke Jct. Operating Cost</u></b> |                                        |                                     |
|----------------------------------------------------|----------------------------------------|-------------------------------------|
| <b><u>Item</u></b>                                 | <b><u>Applicants'<br/>Proposal</u></b> | <b><u>FCC's<br/>Alternative</u></b> |
| Gross Ton-Mile                                     | \$602,748                              | \$165,838                           |
| Locomotive Unit Mile                               | \$211,699                              | \$248,746                           |
| Train Mile                                         | \$195,519                              | \$229,735                           |
| Car Mile                                           | \$192,848                              | \$226,597                           |
| Trackage Rights                                    | -----                                  | \$507,600                           |
| <b>Total</b>                                       | <b>\$1,202,814</b>                     | <b>\$1,378,516</b>                  |

The units of production and variable costs by category of cost and line segment are shown in Exhibit PHB-7 for Applicants' projected traffic for both the Applicants' proposed operating plan and the FCC's Alternative Routing Plan.

**b. Return on Investment**

The FCC Alternative Routing Plan eliminates the need to reactivate the out-of-service PRR rail line between Hobart and Clarke Junction through Tolleston and the need to construct connections between the Wabash spur and the PRR rail line, between the PRR rail line and the Conrail Porter Branch, and between the PRR line and the EJE line at Dunes. It does require, however, construction of connections between the NS and EJE at Van Loon and between the CSX and existing Conrail Lakefront lines.



Messers Heinzman and Dunn have estimated the capital investment that will be avoided by CSX and NS, assuming the PRR line is not restored to service and the associated connections are not constructed. This amount is estimated to equal \$7,017,167.

Messers Heinzman and Dunn have also observed the conditions at both the Van Loon and Pine Junction connection locations to determine the feasibility of constructing connections at both of these locations. As described in their statements these connections are feasible, and the construction costs for these connections are estimated to total \$555,866.

The FCC's Alternative Routing Plan affords a \$6,461,301 reduction in capital requirements compared with the Applicants' proposed operating plan. Applying the STB's pre-tax cost of capital of 17% to the net reduction in capital costs results in an annual reduction in CSX's required return on investment equal to \$1,098,421 for the Hobart to Tolleston and Clark Junction line.

As demonstrated above, the FCC's Alternative Routing Plan for the movement of Applicants' projected traffic between Hobart and Tolleston and Clarke Junction results in a net annual reduction in public and railroad costs equal to \$3.1 million annually. When combined with the net annual reduction of \$2.9 million for movement of the traffic between Willow Creek and Calumet Park, this produces a total net savings for the FCC's proposal of \$6.0 million a year as compared to the Applicants' plans.

**QUALIFICATIONS OF PHILIP H. BURRIS**

**PROFESSIONAL EXPERIENCE**

Mr. Burris has nineteen (19) years experience in the field of transportation economics as it pertains to transportation supply alternatives, plant location analysis, regulatory policy and dispute resolution before regulatory agencies as well as state and federal courts. He has designed, directed and executed analyses of the costs of moving various commodities by different modes of transportation including rail, barge, truck, pipeline and intermodal. The commodities considered in these studies included coal, grain, automobiles, cold rolled steel, iron ore, limestone, copper coil and sheet, pulpwood, woodchips and water.

Mr. Burris has performed economic analyses of maximum reasonable rate levels for the movement of coal, grain and water using the Interstate Commerce Commission's ("ICC" or "Commission") Constrained Market Pricing ("CMP") standard and specifically the stand-alone cost constraint. Mr. Burris has submitted evidence regarding maximum reasonable rate levels using the stand-alone cost constraint to both the ICC and the State of Colorado District Court for the City and County of Denver. Mr. Burris' firm, L. E. Peabody & Associates, Inc. participated in the development of the stand-alone cost constraint and has submitted testimony to the Commission using the stand-alone cost constraint on behalf of electric utilities in numerous ICC proceedings subsequent to the development of CMP by the Commission.

**QUALIFICATIONS OF PHILIP H. BURRIS**

In addition to development of cost of moving various commodities by different modes of transportation, Mr. Burris has performed evaluations of the economic viability and financial health of short line railroads. These studies were performed on behalf of state agencies to determine the financial viability of the railroads or on behalf of investors considering the purchase and operation of short line railroads. Mr. Burris has also conducted studies of railcar lease and purchase options and negotiated rate reductions on behalf of shippers resulting from the use of shipper provided equipment. He has determined both the costs and profits attributable to the performance of services subject to specific transportation contracts.

Mr. Burris has performed studies and written draft reports for the Railroad Accounting Principles Board, an independent body created by Congress to establish cost accounting principles for use in implementing the regulatory provisions of the Staggers Act of 1980.

The transportation studies designed and executed under Mr. Burris' direction have been commissioned for the purpose of negotiating with transportation companies, for use in dispute resolution before various regulatory agencies and state and federal courts and on behalf of electric utility companies in prudency examination. Mr. Burris has testified before the Commission, the Railroad Commission of Texas, the Colorado Public Utilities Commission, the Illinois Commerce Commission, the Public Service Commission of Nevada and various state and

**QUALIFICATIONS OF PHILIP H. BURRIS**

federal courts. Mr. Burris has also negotiated transportation rates and service on behalf of shipper clients.

**Previous Related Experience** - Mr. Burris has worked in the consulting industry for a period of nineteen years. In addition to his current position as a Vice President of L. E. Peabody & Associates, Inc., Mr. Burris has been an employee of the following consulting firms; A. T. Kearney, Wyer Dick & Associates, Inc. and George C. Shaffer & Associates.

**EDUCATION**

Mr. Burris received a BS in Business Administration from Virginia Polytechnic Institute and State University in 1971 and a MBA from the American University in 1978, specializing in transportation.

**QUALIFICATIONS OF PHILIP H. BURRIS**

**Testimony and Publications**

Finance Docket No. 33290, Nevada Public Service Commission, Sault Ste. Marie Bridge Co... Acquisition Exemption — Lines of Union Pacific Railroad Company; January and September 1997

Nevada Public Service Commission, Docket Nos. 95-7021, 95-5062, 95-5063; Nevada Power Company; March 1996 and September 1996.

U.S. District Court for the Northern District of Iowa, Eastern Division, Case No. C91-2086; Rail Intermodal Specialist, Inc. vs. General Electric Capital Corporation; February 1994 and May 1995.

State of Colorado District Court, City and County of Denver, Case No. CV 13042; Bear Creek Water and Sanitation District, et al. vs. The City and County of Denver; July 1992 and April 1993.

Illinois Commerce Commission Docket 89-0351; Reconciliation of Revenues Collected Under Fuel and Gas Adjustment Charges with Actual Cost; April 1992 and March 1993.

ICC Docket No. AB-1 (Sub-No. 230);; Chicago and North Western Transportation Company - Abandonment - Between Norfolk and Chadron, NE; January 1992.

ICC Docket Nos. 37809 (Sub-No. 1) and 37815S; McCarty Farms, Inc., et al. vs. Burlington Northern, Inc.; November, 1986, August 1987, and October 1987, May 1988, May 1989, July 1989, December 1989 and July 1991.

ICC Docket No. 37038; Bituminous Coal, Hiawatha, Utah to Moapa, Nevada; and ICC Docket No. 37409; Aggregate Volume Rate on Coal, Acco, Utah to Moapa, Nevada; January 1985, March 1988, July 1990 and April 1991.

Railroad Accounting Principles Board; Staff Issue Paper on Reporting Costs and Outputs; June 1985.

Railroad Accounting Principles Board; Staff Issue Paper on Movement Parameters; May 1986.

Virginia Department of Highways and Transportation, Rail and Public Transportation Division; Light Density Line Analysis Seaboard System Railroad, Suffolk to college Park, and South Suffolk to Nurney; September 1985.

Colorado Public Utilities Commission, Docket No. 6397; Colorado-Ute Electric Association vs. Denver & Rio Grande Western Railroad Company; June 1984.



**QUALIFICATIONS OF PHILIP H. BURRIS**

ICC Docket No. AB6 (Sub-No. 175F), Burlington Northern Railroad Company Abandonment in Fergus, Judith Basin and Chouteau Counties, Montana; February 1984.

Ex Parte 431; Adoption of the Uniform Rail Costing System for Determining Variable Costs for Purposes of Surcharges and Jurisdictional Threshold Calculations; September 1983.

Co-authored Influence of Transportation Factors in the Site Selection of a United States Mazda Automobile Assembly Plant; September 1983.

Ex Parte 347 (Sub-No. 1); Coal Rate Guidelines - Nationwide; July 1983.

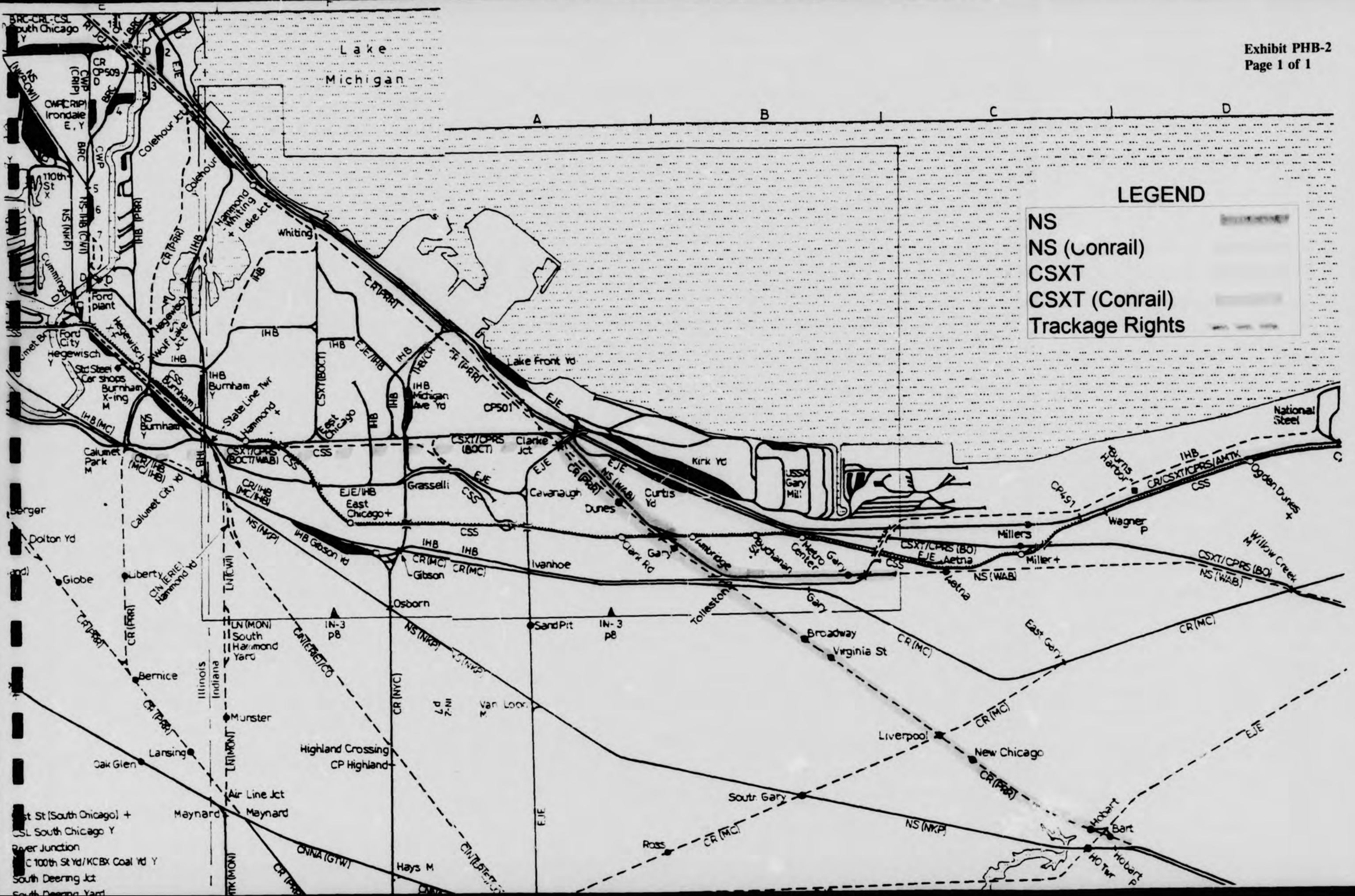
ICC Docket No. 38823; R. A. Williams, Inc. vs. Illinois Central Gulf Railroad Company; April 1983.

Montana Department of Commerce; Montana Rail Cost Data Base; December 1982.

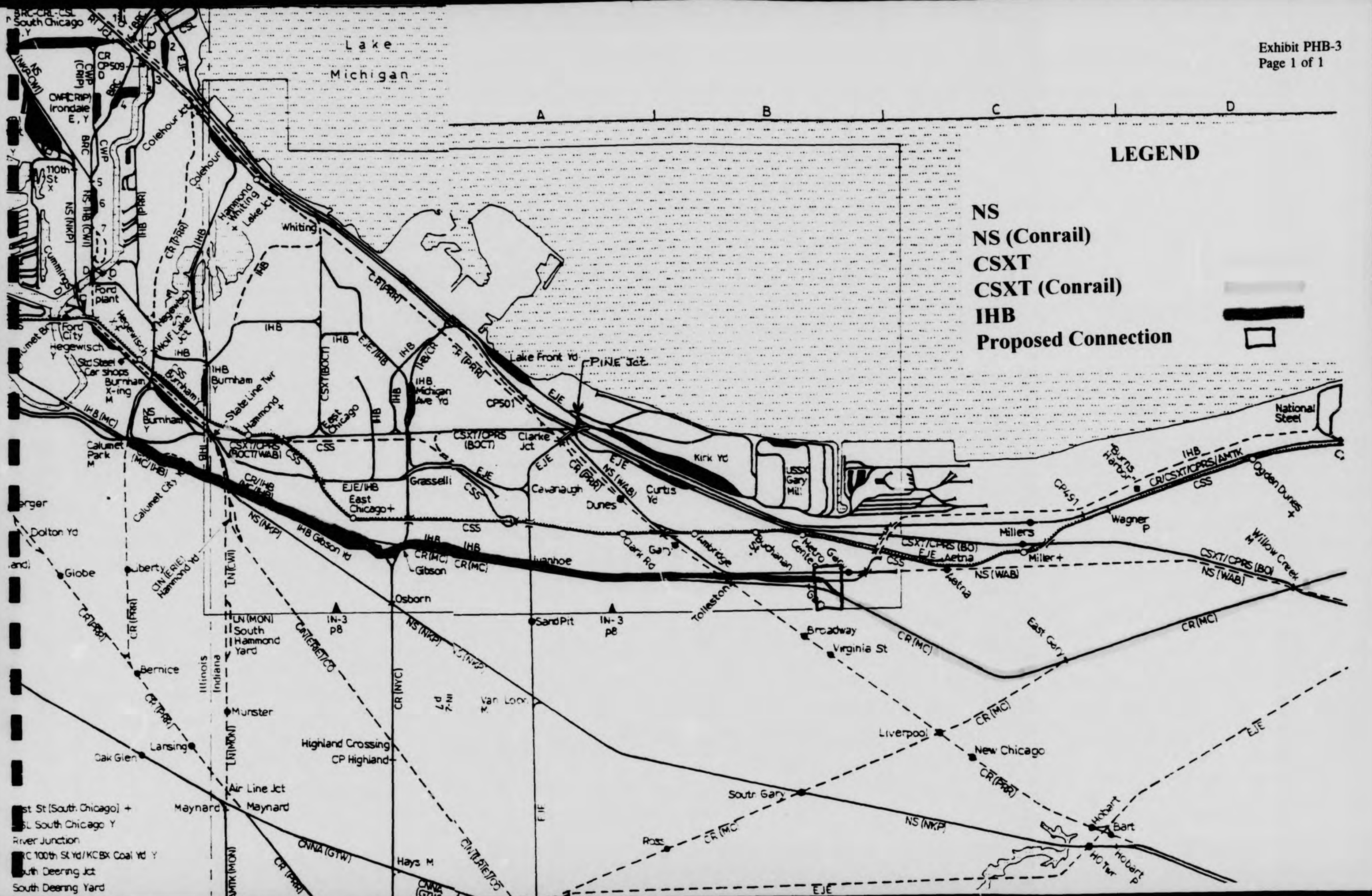
ICC Docket No. 37626; Consolidated Papers, Inc. et al. vs. Chicago & Northwestern Transportation Company, et al.; April 1981, November 1981 and November 1991.

Ex Parte 411; Complaints Filed Under Section 229 of the Staggers Rail Act of 1980; October 1981.

Railroad Commission of Texas, RCT Docket No. 024130ZZR; Switching and Minimum Carload







**LEGEND**

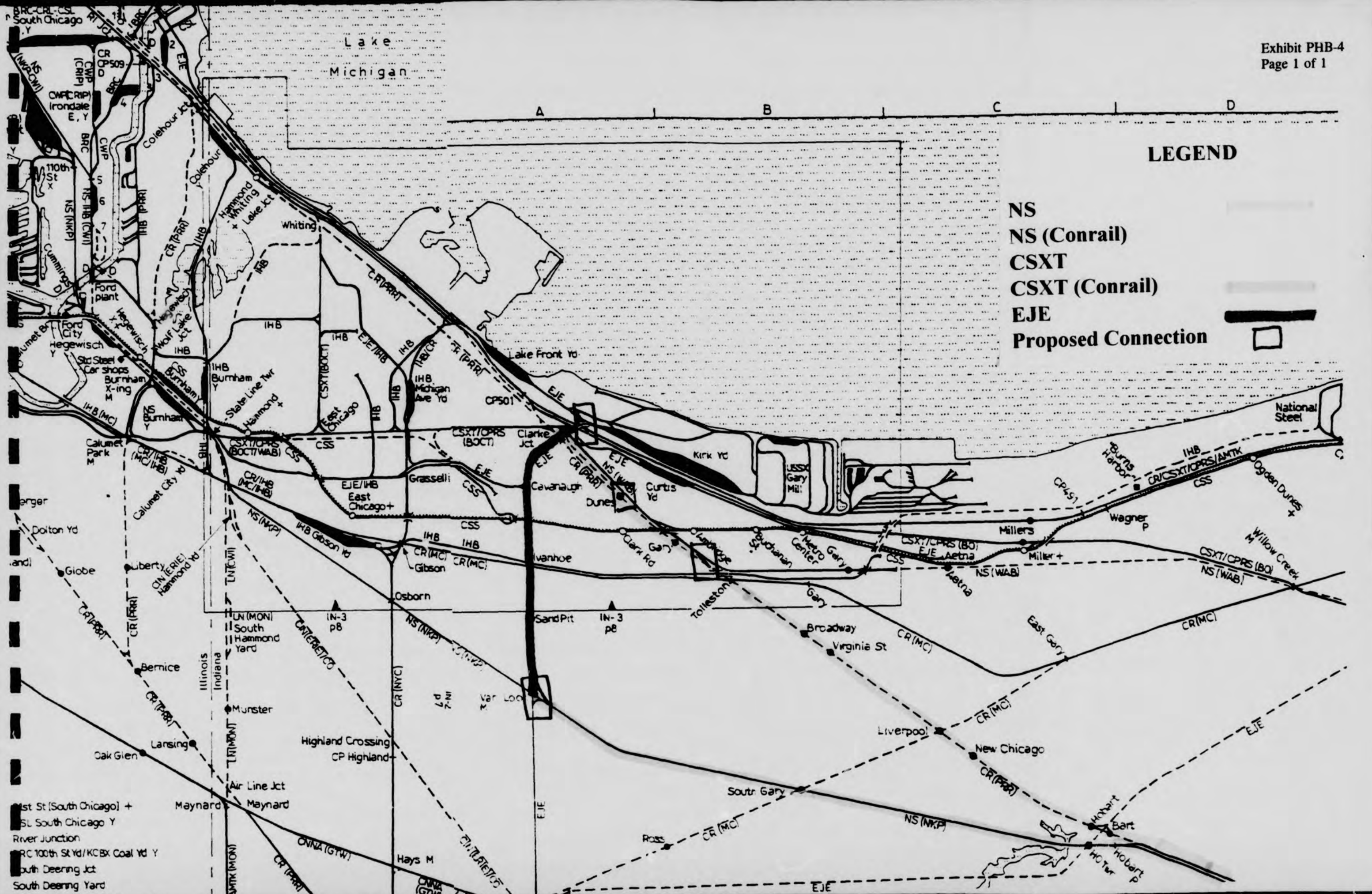
NS  
NS (Conrail)  
CSXT  
CSXT (Conrail)  
IHB  
Proposed Connection

St St (South Chicago) +  
SL South Chicago Y  
River Junction  
RC 100th St Yd/KCBX Coal Yd Y  
South Deering Jct  
South Deering Yard



# LEGEND

- NS
- NS (Conrail)
- CSXT
- CSXT (Conrail)
- EJE
- Proposed Connection



**Summary of Cost to the Public**  
**Current Traffic and Applicants' Post-Acquisition Projected Traffic**  
**(000)**

| Item                             | Current<br>Traffic | Projected<br>Traffic | Difference |
|----------------------------------|--------------------|----------------------|------------|
| Train Delay Cost 1/              | \$3,730.2          | \$8,994.5            | \$5,264.3  |
| Vehicle Fuel Consumption Cost 1/ | \$194.1            | \$470.2              | \$276.1    |
| Vehicle Oil Consumption Cost 1/  | \$16.9             | \$40.7               | \$23.8     |
| Vehicle Emmissions Cost 2/       | \$418.4            | \$1,133.1            | \$714.7    |
| Accident Cost 3/                 | \$1,090.8          | \$1,599.0            | \$508.2    |
| Total Difference                 |                    |                      | \$6,787.1  |

1/ page 2

2/ page 5

3/ Page 7



## Comparison of Vehicle Delay Costs between Current Traffic and Applicants Post-Acquisition Projected Traffic

| <u>Location</u><br>(1)                              | <u>Current<br/>Traffic</u><br>(2) | <u>Projected<br/>Traffic</u><br>(3) |
|-----------------------------------------------------|-----------------------------------|-------------------------------------|
| 1. <u>Daily Delay Hours 1/</u>                      |                                   |                                     |
| 2. Car                                              | 596.65                            | 1420.89                             |
| 3. Truck                                            | 67.33                             | 190.83                              |
| 4. Total per day                                    | 663.98                            | 1611.72                             |
| 5. Total per Year                                   | <b>242,352.7</b>                  | <b>588,277.8</b>                    |
| 6. Delay Cost                                       |                                   |                                     |
| 7. Car Occupancy Factor 2/                          | 1.6                               | 1.6                                 |
| 8. Truck Occupancy Factor                           | 1.0                               | 1.0                                 |
| 9. Hourly Delay Cost per Person 3/                  | \$10                              | \$10                                |
| 10. Annual Delay Cost                               | <b>\$3,730,191</b>                | <b>\$8,994,527</b>                  |
| 11. <u>Fuel Cost 3/</u>                             |                                   |                                     |
| 12. Fuel Idle Consumption Rate (gallons per minute) |                                   |                                     |
| 13. Car                                             | 0.009                             | 0.009                               |
| 14. Truck                                           | 0.008                             | 0.008                               |
| 15. Fuel Cost per Gallon                            | \$1.5                             | \$1.5                               |
| 16. Fuel Cost per Day                               | \$531.76                          | \$1,288.32                          |
| 17. Annual Fuel Cost                                | <b>\$194,094</b>                  | <b>\$470,236</b>                    |
| 18. <u>Oil Cost 3/</u>                              |                                   |                                     |
| 19. Oil Idle Consumption Rate (gallons per minute)  |                                   |                                     |
| 20. Car                                             | 0.0003                            | 0.0003                              |
| 21. Truck                                           | 0.0002                            | 0.0002                              |
| 22. Oil Cost per Gallon                             | \$4.0                             | \$4.0                               |
| 23. Oil Cost per Day                                | \$46.19                           | \$111.46                            |
| 24. Annual Oil Cost                                 | <b>\$16,860</b>                   | <b>\$40,684</b>                     |
| <b>Total</b>                                        | <b>\$3,941,144</b>                | <b>\$9,505,448</b>                  |

1/ PHB Workpapers

2/ Timothy A. Ryan, "Roadway Vehicle Delay Costs at Rail-Highway Grade Crossings",  
Transportation Research Record, Volume 1262, page 36.

3/ GradeDec Model - Highway-Rail Grade Crossing Investment Decision Support  
Tool, Version 1.0

Comparison of Emissions Costs between  
Current Traffic and Applicants Projected Traffic

|                                               | Current         |                  |                 | Projected Traffic |                  |                 |
|-----------------------------------------------|-----------------|------------------|-----------------|-------------------|------------------|-----------------|
|                                               | HC<br>Emissions | NOX<br>Emissions | CO<br>Emissions | HC<br>Emissions   | NOX<br>Emissions | CO<br>Emissions |
| <u>Willow Creek to Pine Junction</u>          |                 |                  |                 |                   |                  |                 |
| a. Emission Rates (grams per hr of idling) 1/ |                 |                  |                 |                   |                  |                 |
| - Car                                         | 11.988          | 9.162            | 98.556          | 11.988            | 9.162            | 98.556          |
| - Truck                                       | 83.916          | 0.666            | 2721.834        | 83.916            | 0.666            | 2721.834        |
| b. Daily Delay Hours 2/                       |                 |                  |                 |                   |                  |                 |
| - Car                                         | 23.08           | 23.08            | 23.08           | 51.63             | 51.63            | 51.63           |
| - Truck                                       | 1.47            | 1.47             | 1.47            | 3.3               | 3.3              | 3.3             |
| c. Emissions Cost per gram 3/                 | \$0.0033        | \$0.0066         | \$0.0044        | \$0.0033          | \$0.0066         | \$0.0044        |
| d. Daily Emissions Cost                       |                 |                  |                 |                   |                  |                 |
| - Car                                         | \$0.92          | \$1.40           | \$10.03         | \$2.05            | \$3.13           | \$22.44         |
| - Truck                                       | \$0.41          | \$0.01           | \$17.64         | \$0.92            | \$0.01           | \$39.61         |
| e. Total Annual Emissions Cost                | \$483           | \$513            | \$10,102        | \$1,082           | \$1,147          | \$22,649        |
| <u>Pine Junction to Calumet Park</u>          |                 |                  |                 |                   |                  |                 |
| a. Emission Rates (grams per hr of idling) 1/ |                 |                  |                 |                   |                  |                 |
| - Car                                         | 11.988          | 9.162            | 98.556          | 11.988            | 9.162            | 98.556          |
| - Truck                                       | 83.916          | 0.666            | 2721.834        | 83.916            | 0.666            | 2721.834        |
| b. Daily Delay Hours 2/                       |                 |                  |                 |                   |                  |                 |
| - Car                                         | 458.42          | 458.42           | 458.42          | 876.98            | 876.98           | 876.98          |
| - Truck                                       | 58.51           | 58.51            | 58.51           | 111.93            | 111.93           | 111.93          |
| c. Emissions Cost per gram 3/                 | \$0.0033        | \$0.0066         | \$0.0044        | \$0.0033          | \$0.0066         | \$0.0044        |
| d. Daily Emissions Cost                       |                 |                  |                 |                   |                  |                 |
| - Car                                         | \$18.18         | \$27.78          | \$199.24        | \$34.77           | \$53.15          | \$381.16        |
| - Truck                                       | \$16.24         | \$0.26           | \$702.31        | \$31.07           | \$0.49           | \$1,343.53      |
| e. Total Annual Emissions Cost                | \$12,562        | \$10,235         | \$329,068       | \$24,031          | \$19,580         | \$629,513       |

**Comparison of Emissions Costs between  
Current Traffic and Applicants Projected Traffic**

|                                                                         | Current         |                  |                  | Projected Traffic |                  |                  |
|-------------------------------------------------------------------------|-----------------|------------------|------------------|-------------------|------------------|------------------|
|                                                                         | HC<br>Emissions | NOX<br>Emissions | CO<br>Emissions  | HC<br>Emissions   | NOX<br>Emissions | CO<br>Emissions  |
| <b>Calumet Park to Willow Creek (via IHB)</b>                           |                 |                  |                  |                   |                  |                  |
| a. Emission Rates (grams per hr of idling) 1/                           |                 |                  |                  |                   |                  |                  |
| - Car                                                                   | 11.988          | 9.162            | 98.556           | 11.988            | 9.162            | 98.556           |
| - Truck                                                                 | 83.916          | 0.666            | 2721.834         | 83.916            | 0.666            | 2721.834         |
| b. Daily Delay Hours 2/                                                 |                 |                  |                  |                   |                  |                  |
| - Car                                                                   | 115.15          | 115.15           | 115.15           | 119.33            | 119.33           | 119.33           |
| - Truck                                                                 | 7.35            | 7.35             | 7.35             | 7.62              | 7.62             | 7.62             |
| c. Emissions Cost per gram 3/                                           | \$0.0033        | \$0.0066         | \$0.0044         | \$0.0033          | \$0.0066         | \$0.0044         |
| d. Daily Emissions Cost                                                 |                 |                  |                  |                   |                  |                  |
| - Car                                                                   | \$4.57          | \$6.98           | \$50.05          | \$4.73            | \$7.23           | \$51.86          |
| - Truck                                                                 | \$2.04          | \$0.03           | \$88.22          | \$2.11            | \$0.03           | \$91.47          |
| e. Total Annual Emissions Cost                                          | \$2,411         | \$2,559          | \$50,469         | \$2,499           | \$2,652          | \$52,315         |
| <b>Total Willow Creek to Calumet Park<br/>to Willow Creek (via IHB)</b> | <b>\$15,456</b> | <b>\$13,307</b>  | <b>\$389,639</b> | <b>\$27,612</b>   | <b>\$23,379</b>  | <b>\$704,477</b> |
| <b>Sum of all emissions</b>                                             |                 |                  | <b>\$418,402</b> |                   |                  | <b>\$755,468</b> |

**Comparison of Emissions Costs between  
Current Traffic and Applicants Projected Traffic**

|                                               | Current         |                  |                  | Projected Traffic |                  |                    |
|-----------------------------------------------|-----------------|------------------|------------------|-------------------|------------------|--------------------|
|                                               | HC<br>Emissions | NOX<br>Emissions | CO<br>Emissions  | HC<br>Emissions   | NOX<br>Emissions | CO<br>Emissions    |
| <u>Hobart to Tolleston</u>                    |                 |                  |                  |                   |                  |                    |
| a. Emission Rates (grams per hr of idling) 1/ |                 |                  |                  |                   |                  |                    |
| - Car                                         |                 |                  |                  | 11.988            | 9.162            | 98.556             |
| - Truck                                       |                 |                  |                  | 83.916            | 0.666            | 2721.834           |
| b. Daily Delay Hours 2/                       |                 |                  |                  |                   |                  |                    |
| - Car                                         |                 |                  |                  | 286.04            | 286.04           | 286.04             |
| - Truck                                       |                 |                  |                  | 44.5              | 44.5             | 44.5               |
| c. Emissions Cost per gram 3/                 |                 |                  |                  | \$0.0033          | \$0.0066         | \$0.0044           |
| d. Daily Emissions Cost                       |                 |                  |                  |                   |                  |                    |
| - Car                                         |                 |                  |                  | \$11.34           | \$17.34          | \$124.32           |
| - Truck                                       |                 |                  |                  | \$12.35           | \$0.20           | \$534.15           |
| e. Total Annual Emissions Cost                |                 |                  |                  | \$8,648           | \$6,399          | \$240,341          |
| <u>Tolleston to Clarke Jct.</u>               |                 |                  |                  |                   |                  |                    |
| a. Emission Rates (grams per hr of idling) 1/ |                 |                  |                  |                   |                  |                    |
| - Car                                         |                 |                  |                  | 11.988            | 9.162            | 98.556             |
| - Truck                                       |                 |                  |                  | 83.916            | 0.666            | 2721.834           |
| b. Daily Delay Hours 2/                       |                 |                  |                  |                   |                  |                    |
| - Car                                         |                 |                  |                  | 86.91             | 86.91            | 86.91              |
| - Truck                                       |                 |                  |                  | 23.48             | 23.48            | 23.48              |
| c. Emissions Cost per gram 3/                 |                 |                  |                  | \$0.0033          | \$0.0066         | \$0.0044           |
| d. Daily Emissions Cost                       |                 |                  |                  |                   |                  |                    |
| - Car                                         |                 |                  |                  | \$3.45            | \$5.27           | \$37.77            |
| - Truck                                       |                 |                  |                  | \$6.52            | \$0.10           | \$281.84           |
| e. Total Annual Emissions Cost                |                 |                  |                  | \$3,636           | \$1,960          | \$116,658          |
| <b>Hobart to Clarke Jct.</b>                  | <b>\$0</b>      | <b>\$0</b>       | <b>\$0</b>       | <b>\$12,284</b>   | <b>\$8,360</b>   | <b>\$356,999</b>   |
|                                               |                 |                  | <b>\$0</b>       |                   |                  | <b>\$377,643</b>   |
| <b>Grand Total</b>                            | <b>\$15,456</b> | <b>\$13,307</b>  | <b>\$389,639</b> | <b>\$39,896</b>   | <b>\$31,739</b>  | <b>\$1,061,476</b> |
| <b>Sum of all emissions</b>                   |                 |                  | <b>\$418,402</b> |                   |                  | <b>\$1,133,111</b> |

1/ GradeDec Model - Highway-Rail Grade Crossing Investment Decision Support

2/ PHB Workpapers

3/ GradeDec Model - Converted to cost per gram from cost per ton

**Comparison of Accident Costs between  
Current Traffic and Applicants Projected Traffic**

| Accidents                                                    | Incidents          |                         | Cost<br>Per Incident | Cost               |                      |
|--------------------------------------------------------------|--------------------|-------------------------|----------------------|--------------------|----------------------|
|                                                              | Current<br>Traffic | Projected<br>Traffic 1/ |                      | Current<br>Traffic | Projected<br>Traffic |
| Willow Creek to Pine Junction                                |                    |                         |                      |                    |                      |
| Property Damage                                              | 0.8222             | 1.4361                  | \$50,000             | \$41,110           | \$71,803             |
| Injury                                                       | 0.2088             | 0.3647                  | \$500,000            | \$104,400          | \$182,346            |
| Fatality                                                     | 0.1116             | 0.1949                  | \$3,000,000          | \$334,800          | \$584,764            |
| Subtotal                                                     |                    |                         |                      | \$480,310          | \$838,912            |
| Pine Junction to Calumet Park                                |                    |                         |                      |                    |                      |
| Property Damage                                              | 1.2851             | 1.5505                  | \$50,000             | \$64,255           | \$77,525             |
| Injury                                                       | 0.2893             | 0.3490                  | \$500,000            | \$144,650          | \$174,523            |
| Fatality                                                     | 0.0594             | 0.0717                  | \$3,000,000          | \$178,200          | \$215,002            |
| Subtotal                                                     |                    |                         |                      | \$387,105          | \$467,051            |
| Calumet Park to Willow Creek (via IHB)                       |                    |                         |                      |                    |                      |
| Property Damage                                              | 0.5866             | 0.6966                  | \$50,000             | \$29,330           | \$34,829             |
| Injury                                                       | 0.1434             | 0.1703                  | \$500,000            | \$71,700           | \$85,144             |
| Fatality                                                     | 0.0408             | 0.0485                  | \$3,000,000          | \$122,400          | \$145,350            |
| Subtotal                                                     |                    |                         |                      | \$223,430          | \$265,323            |
| Total Willow Creek to Calumet Park to Willow Creek (via IHB) |                    |                         |                      | \$1,090,845        | \$1,571,286          |



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**Comparison of Accident Costs between  
Current Traffic and Applicants Projected Traffic**

| Accidents                    | Incidents          |                         | Cost<br>Per Incident | Cost               |                      |
|------------------------------|--------------------|-------------------------|----------------------|--------------------|----------------------|
|                              | Current<br>Traffic | Projected<br>Traffic 1/ |                      | Current<br>Traffic | Projected<br>Traffic |
| Hobart to Tolleston          |                    |                         |                      |                    |                      |
| Property Damage              | ----               | 0.0412                  | \$50,000             | \$0                | \$2,060              |
| Injury                       | ----               | 0.0108                  | \$500,000            | \$0                | \$5,400              |
| Fatality                     | ----               | 0.0019                  | \$3,000,000          | \$0                | \$5,700              |
| Subtotal                     |                    |                         |                      |                    | \$13,160             |
| Tolleston to Clarke Junction |                    |                         |                      |                    |                      |
| Property Damage              | ----               | 0.0670                  | \$50,000             | \$0                | \$3,350              |
| Injury                       | ----               | 0.0153                  | \$500,000            | \$0                | \$7,650              |
| Fatality                     | ----               | 0.0012                  | \$3,000,000          | \$0                | \$3,600              |
| Subtotal                     |                    |                         |                      |                    | \$14,600             |
| Total Hobart - Clarke Jct.   |                    |                         |                      |                    | \$27,760             |
| Grand Total                  |                    |                         |                      | \$1,090,845        | \$1,599,046          |

1/ Incidents for projected traffic equals current traffic increased by the change in the number of trains for each line segment

**Comparison of Costs for Applicants' Proposal and FCC's Alternative  
Willow Creek to Calumet Park (only)  
(000)**

| <u>Item</u>                   | <u>Applicants'<br/>Proposal</u> | <u>FCC's<br/>Alternative</u> | <u>Difference</u> |
|-------------------------------|---------------------------------|------------------------------|-------------------|
| Train Delay Cost              | \$6,568.4                       | \$5,153.5                    | \$1,414.9         |
| Vehicle Fuel Consumption Cost | \$342.1                         | \$267.2                      | \$74.9            |
| Vehicle Oil Consumption Cost  | \$29.7                          | \$23.3                       | \$6.4             |
| Vehicle Emissions Cost        | \$755.5                         | \$526.3                      | \$229.2           |
| Accident Cost                 | \$1,571.3                       | \$1,366.4                    | \$204.9           |
| Rail Operating Cost 1/        | \$16,104.1                      | \$15,981.5                   | \$122.6           |
| Rail Capital Investment       | \$1,116.1 2/                    | \$265.7 3/                   | \$850.4           |
| Net Savings (Cost)            |                                 |                              | \$2,903.3         |

1/ Exhibit PHB-7

2/ Assumes upgrade of line from 25mph to 40mph, plus installation of a Centralized Traffic Control System. The required investment is estimated to equal \$6,565,000 with a pre tax return on investment equal to 17 percent..

3/ Assumes capital investment to rehabilitate IHB abandoned line and construct connection to CSX (CR) equals \$1,562,762 with a pre tax return on investment equal to 17 percent.

**Comparison of Vehicle Delay Costs between  
Applicants Projected Traffic and FCC's Traffic  
Willow Creek to Calumet Park to Willow Creek (via IHB/Conrail)**

| <u>Location</u><br>(1)                              | <u>Projected<br/>Traffic</u><br>(2) | <u>FCC's<br/>Traffic</u><br>(3) |
|-----------------------------------------------------|-------------------------------------|---------------------------------|
| 1. Daily Delay Hours 1/                             |                                     |                                 |
| 2. Car                                              | 1047.94                             | 831.73                          |
| 3. Truck                                            | 122.85                              | 81.15                           |
| 4. Total per day                                    | 1170.79                             | 912.88                          |
| 5. Total per Year                                   | <b>427,338.4</b>                    | <b>333,202.3</b>                |
| 6. Delay Cost                                       |                                     |                                 |
| 7. Car Occupancy Factor 2/                          | 1.6                                 | 1.6                             |
| 3. Truck Occupancy Factor                           | 1.0                                 | 1.0                             |
| 9. Hourly Delay Cost per Person 3/                  | \$10                                | \$10                            |
| 10. Annual Delay Cost                               | <b>\$6,568,372</b>                  | <b>\$5,153,518</b>              |
| 11. Fuel Cost 3/                                    |                                     |                                 |
| 12. Fuel Idle Consumption Rate (gallons per minute) |                                     |                                 |
| 13. Car                                             | 0.009                               | 0.009                           |
| 14. Truck                                           | 0.008                               | 0.008                           |
| 15. Fuel Cost' per Gallon                           | \$1.5                               | \$1.5                           |
| 16. Fuel Cost per Day                               | \$937.28                            | \$732.13                        |
| 17. Annual Fuel Cost                                | <b>\$342,108</b>                    | <b>\$267,228</b>                |
| 18. Oil Cost 3/                                     |                                     |                                 |
| 19. Oil Idle Consumption Rate (gallons per minute)  |                                     |                                 |
| 20. Car                                             | 0.0003                              | 0.0003                          |
| 21. Truck                                           | 0.0002                              | 0.0002                          |
| 22. Oil Cost per Gallon                             | \$4.0                               | \$4.0                           |
| 23. Oil Cost per Day                                | \$81.35                             | \$63.78                         |
| 24. Annual Oil Cost                                 | <b>\$29,692</b>                     | <b>\$23,280</b>                 |
| <b>Total</b>                                        | <b>\$6,940,173</b>                  | <b>\$5,444,026</b>              |

1/ PHB Workpapers

2/ Timothy A. Ryan, "Roadway Vehicle Delay Costs at Rail-Highway Grade Crossings",  
Transportation Research Record, Volume 1262, page 36.

3/ GradeDec Model - Highway-Rail Grade Crossing Investment Decision Support  
Tool, Version 1.0

**Comparison of Emissions Costs between  
Applicants Projected Traffic and FCC's Traffic**

|                                               | Projected Traffic |                  |                 | FCC's Traffic   |                  |                 |
|-----------------------------------------------|-------------------|------------------|-----------------|-----------------|------------------|-----------------|
|                                               | HC<br>Emissions   | NOX<br>Emissions | CO<br>Emissions | HC<br>Emissions | NOX<br>Emissions | CO<br>Emissions |
| <u>Willow Creek to Pine Junction</u>          |                   |                  |                 |                 |                  |                 |
| a. Emission Rates (grams per hr of idling) 1/ |                   |                  |                 |                 |                  |                 |
| - Car                                         | 11.988            | 9.162            | 98.556          | 11.988          | 9.162            | 98.556          |
| - Truck                                       | 83.916            | 0.666            | 2721.834        | 83.916          | 0.666            | 2721.834        |
| b. Daily Delay Hours 2/                       |                   |                  |                 |                 |                  |                 |
| - Car                                         | 51.63             | 51.63            | 51.63           | 29.43           | 29.43            | 29.43           |
| - Truck                                       | 3.3               | 3.3              | 3.3             | 1.88            | 1.88             | 1.88            |
| c. Emissions Cost per gram 3/                 | \$0.0033          | \$0.0066         | \$0.0044        | \$0.0033        | \$0.0066         | \$0.0044        |
| d. Daily Emissions Cost                       |                   |                  |                 |                 |                  |                 |
| - Car                                         | \$2.05            | \$3.13           | \$22.44         | \$1.17          | \$1.78           | \$12.79         |
| - Truck                                       | \$0.92            | \$0.01           | \$39.61         | \$0.52          | \$0.01           | \$22.57         |
| e. Total Annual Emissions Cost                | \$1,082           | \$1,147          | \$22,649        | \$616           | \$654            | \$12,905        |
| <u>Pine Junction to Calumet Park</u>          |                   |                  |                 |                 |                  |                 |
| a. Emission Rates (grams per hr of idling) 1/ |                   |                  |                 |                 |                  |                 |
| - Car                                         | 11.988            | 9.162            | 98.556          | 11.988          | 9.162            | 98.556          |
| - Truck                                       | 83.916            | 0.666            | 2721.834        | 83.916          | 0.666            | 2721.834        |
| b. Daily Delay Hours 2/                       |                   |                  |                 |                 |                  |                 |
| - Car                                         | 876.98            | 876.98           | 876.98          | 439.80          | 439.80           | 439.80          |
| - Truck                                       | 111.93            | 111.93           | 111.93          | 56.13           | 56.13            | 56.13           |
| c. Emissions Cost per gram 3/                 | \$0.0033          | \$0.0066         | \$0.0044        | \$0.0033        | \$0.0066         | \$0.0044        |
| d. Daily Emissions Cost                       |                   |                  |                 |                 |                  |                 |
| - Car                                         | \$34.77           | \$53.15          | \$381.16        | \$17.44         | \$26.65          | \$191.15        |
| - Truck                                       | \$31.07           | \$0.49           | \$1,343.53      | \$15.58         | \$0.25           | \$673.74        |
| e. Total Annual Emissions Cost                | \$24,031          | \$19,580         | \$629,513       | \$12,051        | \$9,819          | \$315,687       |



**Comparison of Emissions Costs between  
Applicants Projected Traffic and FCC's Traffic**

|                                                                         | Projected Traffic |                  |                  | FCC's Traffic   |                  |                  |
|-------------------------------------------------------------------------|-------------------|------------------|------------------|-----------------|------------------|------------------|
|                                                                         | HC<br>Emissions   | NOX<br>Emissions | CO<br>Emissions  | HC<br>Emissions | NOX<br>Emissions | CO<br>Emissions  |
| <b>Calumet Park to Willow Creek (via IHB)</b>                           |                   |                  |                  |                 |                  |                  |
| a. Emission Rates (grams per hr of idling) 1/                           |                   |                  |                  |                 |                  |                  |
| - Car                                                                   | 11.988            | 9.162            | 98.556           | 11.988          | 9.162            | 98.556           |
| - Truck                                                                 | 83.916            | 0.666            | 2721.834         | 83.916          | 0.666            | 2721.834         |
| b. Daily Delay Hours 2/                                                 |                   |                  |                  |                 |                  |                  |
| - Car                                                                   | 119.33            | 119.33           | 119.33           | 362.50          | 362.50           | 362.50           |
| - Truck                                                                 | 7.62              | 7.62             | 7.62             | 23.14           | 23.14            | 23.14            |
| c. Emissions Cost per gram 3/                                           | \$0.0033          | \$0.0066         | \$0.0044         | \$0.0033        | \$0.0066         | \$0.0044         |
| d. Daily Emissions Cost                                                 |                   |                  |                  |                 |                  |                  |
| - Car                                                                   | \$4.73            | \$7.23           | \$51.86          | \$14.37         | \$21.97          | \$157.55         |
| - Truck                                                                 | \$2.11            | \$0.03           | \$91.47          | \$6.42          | \$0.10           | \$277.76         |
| e. Total Annual Emissions Cost                                          | \$2,499           | \$2,652          | \$52,315         | \$7,590         | \$8,056          | \$158,888        |
| <b>Total Willow Creek to Calumet Park<br/>to Willow Creek (via IHB)</b> | <b>\$27,612</b>   | <b>\$23,379</b>  | <b>\$704,477</b> | <b>\$20,258</b> | <b>\$18,530</b>  | <b>\$487,481</b> |
| <b>Sum of all emissions</b>                                             |                   |                  | <b>\$755,468</b> |                 |                  | <b>\$526,269</b> |

1/ GradeDec Model - Highway-Rail Grade Crossing Investment Decision Support

2/ PHB Workpapers

3/ GradeDec Model - Converted to cost per gram from cost per ton

**Comparison of Accident Costs between  
Applicants Projected Traffic and FCC's Traffic**

| Accidents                                                           | Projected<br>Traffic 1/ | FCC's<br>Traffic | Cost<br>Per Incident | Projected<br>Traffic | FCC's<br>Traffic   |
|---------------------------------------------------------------------|-------------------------|------------------|----------------------|----------------------|--------------------|
| <u>Willow Creek to Pine Junction</u>                                |                         |                  |                      |                      |                    |
| Property Damage                                                     | 1.4361                  | 0.8185           | \$50,000             | \$71,803             | \$40,924           |
| Injury                                                              | 0.3647                  | 0.2079           | \$500,000            | \$182,346            | \$103,928          |
| Fatality                                                            | 0.1949                  | 0.1111           | \$3,000,000          | \$584,764            | \$333,285          |
| Subtotal                                                            |                         |                  |                      | \$838,912            | \$478,137          |
| <u>Pine Junction to Calumet Park</u>                                |                         |                  |                      |                      |                    |
| Property Damage                                                     | 1.5505                  | 0.7775           | \$50,000             | \$77,525             | \$38,879           |
| Injury                                                              | 0.3490                  | 0.1750           | \$500,000            | \$174,523            | \$87,524           |
| Fatality                                                            | 0.0717                  | 0.0359           | \$3,000,000          | \$215,002            | \$107,824          |
| Subtotal                                                            |                         |                  |                      | \$467,051            | \$234,227          |
| <u>Calumet Park to Willow Creek (via IHB)</u>                       |                         |                  |                      |                      |                    |
| Property Damage                                                     | 0.6966                  | 1.7170           | \$50,000             | \$34,829             | \$85,851           |
| Injury                                                              | 0.1703                  | 0.4197           | \$500,000            | \$85,144             | \$209,872          |
| Fatality                                                            | 0.0485                  | 0.1194           | \$3,000,000          | \$145,350            | \$358,275          |
| Subtotal                                                            |                         |                  |                      | \$265,323            | \$653,998          |
| <b>Total Willow Creek to Calumet Park to Willow Creek (via IHB)</b> |                         |                  |                      | <b>\$1,571,286</b>   | <b>\$1,366,361</b> |

**CALCULATION OF RETURN ON INVESTMENT COSTS**  
**Willow Creek to Calumet**

| Segment<br>(1)                | Source<br>(2) | Investment Cost                                     |                                         |
|-------------------------------|---------------|-----------------------------------------------------|-----------------------------------------|
|                               |               | Applicants'<br>Projected<br>Post-Acquisition<br>(3) | FCC's<br>Alternative<br>Proposal<br>(4) |
| 1. Willow Creek to Calumet    |               | \$6,565,000                                         | --                                      |
| 2. IHB/CR - Michigan Central  | GLH/RDH-2     | --                                                  | \$1,562,762                             |
| 3. Total                      | L.1 + L. 2    | \$6,565,000                                         | \$1,562,762                             |
| 4. Return on Investment - 17% | L.3 * .17     | \$1,116,050                                         | \$265,670                               |

**Calculation of Railroad Operating Cost**  
**Applicants' Projected Post-Acquisition Traffic and Operating Cost**

This Exhibit contains Highly Confidential URCS cost material. The text of this exhibit is contained in my Highly Confidential Workpapers at Bates Numbers 1009 - 1010.

**Comparison of Costs for Applicants' Proposal and FCC's Alternative  
Hobart to Pine Jct  
(000)**

| <u>Item</u>                   | <u>Applicants'<br/>Proposal</u> | <u>FCC's<br/>Alternative</u> | <u>Difference</u> |
|-------------------------------|---------------------------------|------------------------------|-------------------|
| Train Delay Cost              | \$2,426.2                       | \$469.8                      | \$1,956.4         |
| Vehicle Fuel Consumption Cost | \$128.1                         | \$24.4                       | \$103.7           |
| Vehicle Oil Consumption Cost  | \$11.0                          | \$2.1                        | \$8.9             |
| Vehicle Emmissions Cost       | \$377.6                         | \$49.8                       | \$327.8           |
| Accident Cost                 | \$27.8                          | \$241.6                      | (\$213.8)         |
| Rail Operating Cost 1/        | \$1,202.8                       | \$1,378.5                    | (\$175.7)         |
| Rail Capital Investment       | \$1,192.9 2/                    | \$94.5 3/                    | \$1,098.4         |
| Net Savings (Cost)            |                                 |                              | \$3,105.7         |

1/ Exhibit PHB-7

2/ Assumes capital investment to rehabilitate PRR abandoned line and construct connections at Tolleston, Dunes and Wabash equals \$7,017,167 with a pre tax return on investment equal to 17 percent.

3/ Assumes capital investment to construct connections at Van Loon and Pine Jct equal \$555,866 with a pre tax return on investment equal to 17 percent.



**Comparison of Vehicle Delay Costs between  
Applicants Projected Traffic and FCC's Traffic  
Hobart to Pine Junction**

| <u>Location</u><br>(1)                              | <u>Projected<br/>Traffic</u><br>(2) | <u>FCC's<br/>Traffic</u><br>(3) |
|-----------------------------------------------------|-------------------------------------|---------------------------------|
| 1. <u>Daily Delay Hours 1/</u>                      |                                     |                                 |
| 2. Car                                              | 372.95                              | 75.57                           |
| 3. Truck                                            | 67.98                               | 7.81                            |
| 4. Total per day                                    | 440.93                              | 83.38                           |
| 5. Total per Year                                   | <b>160,939.5</b>                    | <b>30,432.4</b>                 |
| 6. <u>Delay Cost</u>                                |                                     |                                 |
| 7. Car Occupancy Factor 2/                          | 1.6                                 | 1.6                             |
| 3. Truck Occupancy Factor                           | 1.0                                 | 1.0                             |
| 9. Hourly Delay Cost per Person 3/                  | \$10                                | \$10                            |
| 10. Annual Delay Cost                               | <b>\$2,426,155</b>                  | <b>\$469,823</b>                |
| 11. <u>Fuel Cost 3/</u>                             |                                     |                                 |
| 12. Fuel Idle Consumption Rate (gallons per minute) |                                     |                                 |
| 13. Car                                             | 0.009                               | 0.009                           |
| 14. Truck                                           | 0.008                               | 0.008                           |
| 15. Fuel Cost per Gallon                            | \$1.5                               | \$1.5                           |
| 16. Fuel Cost per Day                               | \$351.04                            | \$66.83                         |
| 17. Annual Fuel Cost                                | <b>\$128,128</b>                    | <b>\$24,394</b>                 |
| 18. <u>Oil Cost 3/</u>                              |                                     |                                 |
| 19. Oil Idle Consumption Rate (gallons per minute)  |                                     |                                 |
| 20. Car                                             | 0.0003                              | 0.0003                          |
| 21. Truck                                           | 0.0002                              | 0.0002                          |
| 22. Oil Cost per Gallon                             | \$4.0                               | \$4.0                           |
| 23. Oil Cost per Day                                | \$30.12                             | \$5.82                          |
| 24. Annual Oil Cost                                 | <b>\$10,992</b>                     | <b>\$2,123</b>                  |
| <b>Total</b>                                        | <b>\$2,565,275</b>                  | <b>\$496,339</b>                |

1/ PHB Workpapers

2/ Timothy A. Ryan, "Roadway Vehicle Delay Costs at Rail-Highway Grade Crossings",  
Transportation Research Record, Volume 1262, page 36.

3/ GradeDec Model - Highway-Rail Grade Crossing Investment Decision Support  
Tool, Version 1.0

Comparison of Emissions Costs between  
Applicants Projected Traffic and FCC's Traffic

|                                               | Projected Traffic |                  |                 | FCC's Traffic   |                  |                 |
|-----------------------------------------------|-------------------|------------------|-----------------|-----------------|------------------|-----------------|
|                                               | HC<br>Emissions   | NOX<br>Emissions | CO<br>Emissions | HC<br>Emissions | NOX<br>Emissions | CO<br>Emissions |
| <u>Hobart to Tolleston</u>                    |                   |                  |                 |                 |                  |                 |
| a. Emission Rates (grams per hr of idling) 1/ |                   |                  |                 |                 |                  |                 |
| - Car                                         | 11.988            | 9.162            | 98.556          |                 |                  |                 |
| - Truck                                       | 83.916            | 0.666            | 2721.834        |                 |                  |                 |
| b. Daily Delay Hours 2/                       |                   |                  |                 |                 |                  |                 |
| - Car                                         | 286.04            | 286.04           | 286.04          |                 |                  |                 |
| - Truck                                       | 44.5              | 44.5             | 44.5            |                 |                  |                 |
| c. Emissions Cost per gram 3/                 |                   |                  |                 |                 |                  |                 |
|                                               | \$0.0033          | \$0.0066         | \$0.0044        |                 |                  |                 |
| d. Daily Emissions Cost                       |                   |                  |                 |                 |                  |                 |
| - Car                                         | \$11.34           | \$17.34          | \$124.32        |                 |                  |                 |
| - Truck                                       | \$12.35           | \$0.20           | \$534.15        |                 |                  |                 |
| e. Total Annual Emissions Cost                | \$8,648           | \$6,399          | \$240,341       |                 |                  |                 |
| <u>Tolleston to Clarke Jct.</u>               |                   |                  |                 |                 |                  |                 |
| a. Emission Rates (grams per hr of idling) 1/ |                   |                  |                 |                 |                  |                 |
| - Car                                         | 11.988            | 9.162            | 98.556          |                 |                  |                 |
| - Truck                                       | 83.916            | 0.666            | 2721.834        |                 |                  |                 |
| b. Daily Delay Hours 2/                       |                   |                  |                 |                 |                  |                 |
| - Car                                         | 86.91             | 86.91            | 86.91           |                 |                  |                 |
| - Truck                                       | 23.48             | 23.48            | 23.48           |                 |                  |                 |
| c. Emissions Cost per gram 3/                 |                   |                  |                 |                 |                  |                 |
|                                               | \$0.0033          | \$0.0066         | \$0.0044        |                 |                  |                 |
| d. Daily Emissions Cost                       |                   |                  |                 |                 |                  |                 |
| - Car                                         | \$3.45            | \$5.27           | \$37.77         |                 |                  |                 |
| - Truck                                       | \$6.52            | \$0.10           | \$281.84        |                 |                  |                 |
| e. Total Annual Emissions Cost                | \$3,636           | \$1,960          | \$116,658       |                 |                  |                 |
| <u>Hobart to Clarke Jct.</u>                  |                   |                  |                 |                 |                  |                 |
| Sum of all emissions                          | \$12,284          | \$8,360          | \$356,999       | \$0             | \$0              | \$0             |
|                                               |                   |                  | \$377,643       |                 |                  | \$0             |

Comparison of Emissions Costs between  
Applicants Projected Traffic and FCC's Traffic

|                                               | Projected Traffic |                  |                  | FCC's Traffic   |                  |                 |
|-----------------------------------------------|-------------------|------------------|------------------|-----------------|------------------|-----------------|
|                                               | HC<br>Emissions   | NOX<br>Emissions | CO<br>Emissions  | HC<br>Emissions | NOX<br>Emissions | CO<br>Emissions |
| Hobart - Van Loon - Pine Jct. (via NS/EJE)    |                   |                  |                  |                 |                  |                 |
| a. Emission Rates (grams per hr of idling) 1/ |                   |                  |                  |                 |                  |                 |
| - Car                                         |                   |                  |                  | 11.988          | 9.162            | 98.556          |
| - Truck                                       |                   |                  |                  | 83.916          | 0.666            | 2721.834        |
| b. Daily Delay Hours 2/                       |                   |                  |                  |                 |                  |                 |
| - Car                                         |                   |                  |                  | 75.57           | 75.57            | 75.57           |
| - Truck                                       |                   |                  |                  | 7.81            | 7.81             | 7.81            |
| c. Emissions Cost per gram 3/                 |                   |                  |                  | \$0.0033        | \$0.0066         | \$0.0044        |
| d. Daily Emissions Cost                       |                   |                  |                  |                 |                  |                 |
| - Car                                         |                   |                  |                  | \$3.00          | \$4.58           | \$32.85         |
| - Truck                                       |                   |                  |                  | \$2.17          | \$0.03           | \$93.70         |
| e. Total Annual Emissions Cost                |                   |                  |                  | \$1,885         | \$1,684          | \$46,190        |
| <b>Total Hobart - Van Loon - Pine Jct.</b>    | <b>\$0</b>        | <b>\$0</b>       | <b>\$0</b>       | <b>\$1,885</b>  | <b>\$1,684</b>   | <b>\$46,190</b> |
| <b>Grand Total</b>                            | <b>\$12,284</b>   | <b>\$8,360</b>   | <b>\$356,999</b> | <b>\$1,885</b>  | <b>\$1,684</b>   | <b>\$46,190</b> |
| <b>Sum of all emissions</b>                   |                   |                  | <b>\$377,642</b> |                 |                  | <b>\$49,759</b> |

1/ GradeDec Model - Highway-Rail Grade Crossing Investment Decision Support

2/ PHB Workpapers

3/ GradeDec Model - Converted to cost per gram from cost per ton

**Comparison of Accident Costs between  
Applicants Projected Traffic and FCC's Traffic**

| Accidents                           | Projected<br>Traffic 1/ | FCC's<br>Traffic | Cost<br>Per Incident | Projected<br>Traffic | FCC's<br>Traffic |
|-------------------------------------|-------------------------|------------------|----------------------|----------------------|------------------|
| <b>Hobart to Tolleston</b>          |                         |                  |                      |                      |                  |
| Property Damage                     | 0.0412                  | ----             | \$50,000             | \$2,060              | \$0              |
| Injury                              | 0.0108                  | ----             | \$500,000            | \$5,400              | \$0              |
| Fatality                            | 0.0019                  | ----             | \$3,000,000          | \$5,700              | \$0              |
| Subtotal                            |                         |                  |                      | \$13,160             | \$0              |
| <b>Tolleston to Clarke Junction</b> |                         |                  |                      |                      |                  |
| Property Damage                     | 0.0670                  | ----             | \$50,000             | \$3,350              | \$0              |
| Injury                              | 0.0153                  | ----             | \$500,000            | \$7,650              | \$0              |
| Fatality                            | 0.0012                  | ----             | \$3,000,000          | \$3,600              | \$0              |
| Subtotal                            |                         |                  |                      | \$14,600             | \$0              |
| <b>Total Hobart - Clarke Jct.</b>   |                         |                  |                      | <b>\$27,760</b>      | <b>\$0</b>       |

**Comparison of Accident Costs between  
Applicants Projected Traffic and FCC's Traffic**

| Accidents                                  | Projected<br>Traffic 1/ | FCC's<br>Traffic | Cost<br>Per Incident | Projected<br>Traffic | FCC's<br>Traffic |
|--------------------------------------------|-------------------------|------------------|----------------------|----------------------|------------------|
| Hobart - Van Loon - Pine Jct. (via NS/EJE) |                         |                  |                      |                      |                  |
| Property Damage                            | 0.0000                  | 0.5966           | \$50,000             | \$0                  | \$29,828         |
| Injury                                     | 0.0000                  | 0.1506           | \$500,000            | \$0                  | \$75,292         |
| Fatality                                   | 0.0000                  | 0.0455           | \$3,000,000          | \$0                  | \$136,472        |
| <b>Total Hobart - Van Loon - Pine Jct.</b> |                         |                  |                      | <b>\$0</b>           | <b>\$241,592</b> |
| <b>Total</b>                               |                         |                  |                      | <b>\$27,760</b>      | <b>\$241,592</b> |

1/ Incidents for projected traffic equals current traffic increased by the change in the number of trains for each line segment




**CALCULATION OF RETURN ON INVESTMENT COSTS**  
**Hobart to Clarke Jct.**

| Segment<br>(1)                | Source<br>(2) | Investment Cost                                     |                                         |
|-------------------------------|---------------|-----------------------------------------------------|-----------------------------------------|
|                               |               | Applicants'<br>Projected<br>Post-Acquisition<br>(3) | FCC's<br>Alternative<br>Proposal<br>(4) |
| 1. Hobart to Clarke Jct       | GLH/RDH-3     | \$6,817,167                                         | --                                      |
| 2. Van Loon Connection        | GLH/RDH-6     | --                                                  | \$277,933                               |
| 3. Lakefront Connection       | GLH/RDH-5     | --                                                  | \$277,933                               |
| 4. Wabash Connection          | GLH/RDH-3     | \$200,000                                           |                                         |
| 5. Total                      | sum L. 1-L. 4 | \$7,017,167                                         | \$555,866                               |
| 6. Return on Investment - 17% | L. 5 * .17    | \$1,192,918                                         | \$94,497                                |

## VERIFICATION

COMMONWEALTH OF VIRGINIA )  
 )  
CITY OF ALEXANDRIA )

PHILIP H. BURRIS, being duly sworn, deposes and says that he has read the foregoing statement, knows the contents thereof and that the same are true as stated.

  
Philip H. Burris

Sworn to and subscribed  
before me this 20 day  
of October, 1997.

**Witness my hand and official seal.**

James M. Norton  
Jephus 12/31/98

ANDREW

**BEFORE THE  
SURFACE TRANSPORTATION BOARD**

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Finance Docket No. 33388

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**CSX CORPORATION AND CSX TRANSPORTATION, INC.,  
NORFOLK SOUTHERN CORPORATION AND  
NORFOLK SOUTHERN RAILWAY COMPANY  
--CONTROL AND OPERATING LEASES/AGREEMENTS--  
CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION**

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Verified Statement  
of  
**Gary M. Andrew**  
**Senior Consultant**  
**L. E. Peabody & Associates, Inc.**

On Behalf of  
Four-City Consortium

Due Date: October 21, 1997

## **TABLE OF CONTENTS**

|                                                          | <b><u>PAGE</u></b> |
|----------------------------------------------------------|--------------------|
| <b>I. INTRODUCTION .....</b>                             | <b>1</b>           |
| A. Qualifications .....                                  | 1                  |
| B. Engagement .....                                      | 1                  |
| <b>II. SUMMARY OF FINDINGS .....</b>                     | <b>3</b>           |
| <b>III. SAMPLE DESIGN .....</b>                          | <b>4</b>           |
| A. Objectives .....                                      | 4                  |
| B. Characteristics To Be Observed And/Or Estimated ..... | 5                  |
| C. Sample Size and Schedule .....                        | 7                  |
| D. Data Collection Forms and Instructions .....          | 9                  |
| <b>IV. DATA COLLECTION AND ANALYSIS .....</b>            | <b>10</b>          |
| A. Data Collection .....                                 | 10                 |
| B. Analysis of Data .....                                | 10                 |
| <b>V. MODEL SELECTION AND CALIBRATION .....</b>          | <b>12</b>          |
| A. Model Selection .....                                 | 12                 |
| B. Model Calibration .....                               | 13                 |
| C. "Around The Gate" Phenomenon .....                    | 13                 |
| <b>VI. ESTIMATION OF TRAFFIC DELAY HOURS .....</b>       | <b>15</b>          |



**LIST OF EXHIBITS**

| <b>EXHIBIT<br/>NO.<br/>(1)</b> | <b>DESCRIPTION<br/>(2)</b>           |
|--------------------------------|--------------------------------------|
| GMA-1                          | Qualifications of Witness            |
| GMA-2                          | Assignment of Observers              |
| GMA-3                          | Train Sheet                          |
| GMA-4                          | Instructions to Observers            |
| GMA-5                          | Summary Results of Train Delay Study |
| GMA-6                          | Traffic Delay Model                  |
| GMA-7                          | Model Calibration                    |

## **I. INTRODUCTION**

### **A. QUALIFICATIONS**

My name is Gary Martin Andrew. I am Senior Consultant with the economic consulting firm of L.E. Peabody and Associates, Inc. located at 1501 Duke Street, Suite 200, Alexandria, Virginia 22314. Exhibit \_\_GMA-1 contains my resume and qualifications.

### **B. ENGAGEMENT**

I was requested by the Four City Consortium ("FCC") to design a statistically valid sampling study for determining the vehicular delay time resulting from existing rail operations over designated lines in the Four Cities region that will be affected by the proposed CSX/NS acquisition of Conrail ("Applicants' Proposal") and for predicting the vehicular delay time that would result from the Applicants proposed post acquisition routing of rail traffic over such lines. The purpose of the sample was to provide data sufficient to verify the validity of data received from other sources and to calibrate the mathematical model used to estimate the traffic delays for current conditions. It was also my responsibility to apply the mathematical model to estimate traffic delays that would occur given the traffic volumes and operating plan set forth in the Applicants' Proposal and an Alternative Routing Plan proposed by the FCC. The Alternative Routing Plan was developed to move the same aggregate traffic as the Applicants' Proposal in a manner that would minimize adverse incremental impacts on the Four Cities.

I have performed or personally supervised the tasks necessary to complete this assignment in a professional manner consistent with accepted statistical methods and my more than thirty-five (35) years of experience in teaching, research, and application of statistical analysis in a variety of transportation matters, including queuing theory.

The results of the study are summarized, and the details of each component of the analysis are discussed below, under the following headings:

- II. Summary of Findings
- III. Sample Design
- IV. Data Collection and Analysis
- V. Model Selection and Calibration
- VI. Estimation of Traffic Delay Hours

## II. SUMMARY OF FINDINGS

The vehicle delay study consisted of three parts: 1) an on-site sampling study of rail and vehicular traffic at twelve (12) at-grade crossings with currently active CSX or CSX and Conrail lines; 2) Selection of a method ("model") to use for estimating the vehicle delay hours at any intersection and the calibration of the resulting model using the sample results; and, 3) application of the model to calculate total vehicle hours delayed by the current conditions in the Four City area, by the Applicants' Proposal and by the Alternative Routing Plan.

I designed the traffic sample, and the data was collected by observers familiar with the Four City area during the week beginning Sunday evening, September 28, 1997, and ending Sunday afternoon, October 5, 1997. The observers collected data that enabled me to estimate the characteristics of train and vehicular traffic shown in the columns of Exhibit \_\_GMA-5.

The model that I chose to estimate the vehicular delay hours per day at an at-grade crossing under conditions differing from the sampled crossings used the following train and vehicular characteristics: average daily vehicular traffic; number of rail cars and locomotives per train; train speed limit; average train speed; number of highway lanes at the crossing; and an unknown vehicular traffic flow rate. The unknown flow rate was determined by comparing the total vehicular delay hours computed using the model at the 12 sampled crossings with the total vehicular delay hours estimated from the observations at these same 12 sampled crossings. The unknown flow factor was estimated to be 1.39 and this enabled me to use the model to estimate

the vehicular delay at any at-grade crossing given the above list of characteristics of the crossing.

I then applied the model to the list of involved at-grade crossings using the required characteristics of each crossing provided to me by Mr. Philip Burris. The resulting total vehicular delay hours for the at-grade crossings involved in the movement of current traffic are shown in column (2) of Table 1 below. The total vehicle delay hours for the at-grade crossings of rail lines involved in the Applicants' Proposal are shown in column (3) of Table 2. Finally, the total vehicle delay hours for at-grade crossings involved in the Alternative Routing Plan are shown in column (4) of Table 2. I provided these results to Mr. Burris for his use in evaluating the economic impacts of the three scenarios.



**Table 1**  
**Vehicle Delay Hours<sup>1/</sup> (Per day)**

| <u>Route/Segment<sup>2/</sup></u><br>(1)         | <u>Current</u><br>(2) | <u>Applicants'<br/>Proposal</u><br>(3) | <u>Alternative<br/>Routing<br/>Plan</u><br>(4) |
|--------------------------------------------------|-----------------------|----------------------------------------|------------------------------------------------|
| 1. <u>Willow Creek to Calumet Park</u>           |                       |                                        |                                                |
| a. Willow Creek to Pine Junction                 | <b>24.5</b>           | <b>54.9</b>                            | <b>31.3</b>                                    |
| b. Pine Junction to Calumet Park                 | <b>516.9</b>          | <b>988.9</b>                           | <b>495.9</b>                                   |
| c. Calumet Park to Willow Creek<br>(via IHB)     | <b><u>122.5</u></b>   | <b><u>127.0</u></b>                    | <b><u>385.6</u></b>                            |
| d. <b>Total</b>                                  | <b>663.9</b>          | <b>1170.8</b>                          | <b>912.8</b>                                   |
| 2. <u>Hobart to Clarke Jct.</u>                  |                       |                                        |                                                |
| a. Hobart to Tolleston                           | <b>N/A</b>            | <b>332.6</b>                           | <b>N/A</b>                                     |
| b. Tolleston to Clarke Jct.                      | <b>N/A</b>            | <b><u>110.4</u></b>                    | <b>N/A</b>                                     |
| c. <b>Total</b>                                  | <b>N/A</b>            | <b>443.0</b>                           | <b>N/A</b>                                     |
| 3. Hobart - Van Loon - Pine Jct.<br>(via NS/EJE) | <b>N/A</b>            | <b>N/A</b>                             | <b>83.4</b>                                    |
| 4. <b>Grand Total</b>                            | <b>663.9</b>          | <b>1613.8</b>                          | <b>996.2</b>                                   |

<sup>1/</sup> The train speed limits and average daily vehicular traffic used to compute this Table were obtained from the Federal Rail Administration.

<sup>2/</sup> The at-grade crossings involved in each of these scenarios were identified by Mr. Philip Burris.

### **III. SAMPLE DESIGN**

The sequence of steps in the design of the sampling study began with the development of the set of objectives for the study and determining how the results of the study would be used. The next steps were the decisions on times, places, and sample size (number of observations) required and the schedule for the observers that would maximize the observation time. The final design phase was the preparation of the data collection forms and written instructions to observers.

#### **A. OBJECTIVES**

The overall objective of the traffic study was to provide the data sufficient to calibrate the mathematical model to be used to estimate the various impacts that will be caused by changes in rail traffic volumes and routings under the operating plans as set forth in the Applicants' Proposal. The primary impacts to be measured are the costs due to: 1) increased accidents due to increased rail traffic and resulting property damage, personal injury and death; 2) lost personal productive time; 3) wasted fuel; and, 4) emissions added to the atmosphere. The quantity required in all of these impact estimates is vehicle delay time. Estimation and modelling of vehicle delay time require data on each of the following:

- Vehicular traffic volumes;
- Number of trains;
- Length of trains;
- Train Speeds;

- Gate down times;
- Queue lengths;
- Queue clearing times; and,
- Lanes of traffic.

The objectives were to obtain information on each of these characteristics, in a one-week sampling period with a sufficient number of crossing observations. An additional requirement that I placed on the design was to prepare a sample that would produce estimates by time of day and day of week. Such observations would enable estimation of the time dependence of the variables being observed. The sample was designed to provide reliable estimates of aggregate averages of the characteristics discussed above. Finally, the observations were sequenced in a manner such that failure of one observer to understand or execute the instructions would not seriously damage the results.

#### **B. CHARACTERISTICS TO BE OBSERVED AND/OR ESTIMATED**

Vehicular traffic volume is the average number of vehicles (autos, trucks, and buses) that traverse an at-grade crossing in a day. This is referred to as Average Daily Traffic ("ADT") for a given segment of a roadway (highway or street). This value is available for most roadways in the area. The sample study estimated this statistic based upon counts of autos, trucks, and buses that traversed an observed at grade crossing during each observation period.

Number of trains is the number of trains per day that traversed the intersection under study. A train may consist of anything from a single power unit (locomotive) to 200 or more cars being

pulled by three (3) or more power units. The sample study estimated this statistic based upon counts of trains that traversed an observed at-grade crossing during an observation period.

Length of a train is the straight line distance from the forward knuckle of the lead locomotive to the trailing (rear) knuckle of the trailing car (or locomotive) expressed in feet. The sample study estimated this statistic by counting the number of locomotives and the number of railroad cars that were on a train that traversed an observed at grade crossing. The estimated train length is then computed as:

$$\text{Train Length} = (\text{cars} \times 60 \text{ feet/car}) + (\text{locomotives} \times 90 \text{ feet/locomotives})$$

Train speeds are computed<sup>1/</sup> from observed data on cars, locomotives, width of intersection, and Train Blocked Time. These are implicit in the model in Exhibit \_\_GMA-6.

Gate Down Time is the length of time the crossing gate arm is down or, in the case of flashers only, the length of time between when the flashers start and when the flashers stop. In the sample this time is recorded by the observer.

Queue length is the number of vehicles that are delayed by a train. These were counted by the observer at each train even

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<sup>1/</sup> Radar computed speeds were available for six (6) Conrail through trains on the "Lake front corridor" in Whiting observed on September 10, 1997. These speeds ranged from 32 to 38 mph; averaged 34.33 mph; and were in the range of speeds computed on similar trains in this area using the sample.

Queue Clearing Time is the amount of time required before the traffic flow returned to "normal", where "normal" is defined as vehicle flow rate approximating the flow rate prior to the train's arrival. In the sample, the queue clearing times were measured by the observers.

Lanes of Traffic are the number of lanes of vehicular traffic in both directions that can simultaneously traverse the railroad crossing when no trains are present and the gates are up.

### C. SAMPLE SIZE AND SCHEDULE

The sample unit was the at-grade intersection of the railroad mainline with a street carrying vehicular traffic. The universe of interest contains all of the at-grade street crossings on the rail lines that are of principal concern to the Four Cities and used in current operations and/or will be used in either the Applicants' Proposal or The FCC Alternative Routing Plan. The intersections were selected such that: 1) the current routes of the involved operating railroads were included; 2) the streets with the larger traffic flows had a larger chance of being used; 3) consecutive streets were not selected; and, 4) within these parameters, streets that the city officials expressed concern about were generally chosen. Column (1) of Exhibit GMA-5 contains the twelve street crossings that were selected for observation.

The observations of the twelve selected intersections were taken over seven consecutive days. The seven day week was broken into the following six time blocks with observers as noted:



|         |                   |                       |              |
|---------|-------------------|-----------------------|--------------|
| Block 1 | 6:00 - 9:00 hrs   | Monday through Friday | Observers: 3 |
| Block 2 | 9:00 - 12:00 hrs  | Monday through Friday | Observers: 3 |
| Block 3 | 12:00 - 15:00 hrs | Monday through Friday | Observers: 3 |
| Block 4 | 15:00 - 18:00 hrs | Monday through Friday | Observers: 3 |
| Block 5 | 18:00 - 6:00 hrs  | Monday through Sunday | Observers: 1 |
| Block 6 | 6:00 - 18:00 hrs  | Saturday and Sunday   | Observers: 2 |

Blocks 1 and 4 were broken into two observation periods, each period containing one and one-half hours<sup>2/</sup>. All other blocks were broken into one hour observation periods.

The assignments of observers to intersections for a given time period were made to comply as nearly as possible with the following guidelines:

- Every intersection should be observed at least two periods per week day during 6:00 hrs to 18:00 hrs;
- Each time period should be observed an equal number of times;
- No given observers should observe a disproportionate amount of time at one location; and,
- The next observation assignment should be near the current assignment.

Exhibit \_\_GMA-2 contains the assignments of the locations and times for each observer.

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<sup>2/</sup> This reduced the time lost due to travelling to the next observation during rush hours.

**D. DATA COLLECTION  
FORMS AND INSTRUCTIONS**

Exhibit\_\_GMA-3 contains the data collection form ("Train Sheet") that was designed to be used by each observer for every observation period. A new page of this form was used for each train that was observed during the period. Exhibit\_\_GMA-4 contains the set of instructions that was given to each observer.

#### **IV. DATA COLLECTION AND ANALYSIS**

##### **A. DATA COLLECTION**

The management of the data collection and provision of personnel for observers was done by Cole Associates, Inc., a civil engineering company in Hammond, Indiana. Mr. Gregg L. Heinzman, a professional engineer with Cole Associates, was very familiar with the geographic area under study, managed the observers, provided the observers with detailed instructions and advice, and provided on-site quality control. Mr. Heinzman and I were in frequent telephone contact before and during the observation week to insure the quality of the data collected.

Mr. Heinzman assembled the train sheets and checked them for errors. If he had any questions regarding a train sheet, he contacted the involved observer and clarified the record. As a result of Mr. Heinzman's efforts and the use of professional personnel as observers, all train charts were usable and no observation periods were lost. He then forwarded the completed train sheets to our offices for data entry.

##### **B. ANALYSIS OF DATA**

Exhibit \_\_GMA-5<sup>3/</sup> summarizes the results of 162.5 hours of observations from 18:00 hrs Sunday evening, September 28, 1997, through 18:00 hrs Sunday evening, October 5, 1997. Columbia Street was the only intersection that appeared to deviate significantly from other data sources that were available. Upon investigation it was determined that Columbia Street was

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<sup>3/</sup> Expansion factors used to estimate total activity from the sample observation were the ratio of the total hours in a time period in the week to the observed hours for the time period. All formula, sample data and intermediate results are shown in the worksheet BLOCDATA.XLS in my workpapers.

undergoing construction during much of the observation week. This created no problem for the calibration of the model and there were other sources of Average Daily Traffic for the Columbia Street crossing under normal conditions. Therefore, this anomaly did not impact the study or the use of the results. The only unexpected finding was the large number of vehicles that crossed the railroad after the gates were down by going around the gates. This will be discussed below.

## V. MODEL SELECTION AND CALIBRATION

The evaluation of alternative railroad traffic volumes and operating plans requires a model for estimating vehicular delay time that can accommodate changes in train length, train speeds and the number of trains per day in addition to the average vehicles per day (arrival rate) and the number of lanes. Once the model was selected it had to be adjusted (calibrated) to achieve confidence that the model correctly estimates what we actually observed in the sample week.

### A. MODEL SELECTION

After examining various alternatives,<sup>4/</sup> the total delay equation for restricted traffic flow<sup>5/</sup> was chosen. This model was developed to evaluate the total hours of vehicle delay that would result from an event which caused a restricted traffic flow for a fixed length of time such as road construction, accidents or a train blocking an at-grade crossing. The model is shown in detail in Exhibit \_\_GMA-6.

The assumptions in the model are that both the arrival of traffic and the queue clearing rates (time for cars to clear the tracks after the gates go up) are uniform and independent throughout the time period under consideration. In actual practice, the sample data shows that these conditions are not met because of variation in traffic volume in the day such as rush hour, and from day to day such as Friday versus Sunday. However, this fact does not adversely affect the

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<sup>4/</sup> These included simulation models and models that accommodated different rail and vehicular traffic flow rates during the major time segments of the day and week.

<sup>5/</sup> Adolf D. May, Traffic Flow Fundamentals, Prentice Hall 1990, page 340ff (Specifically Table 12.1 at 348).



performance of the model because the sample observations also provided data that were used to calibrate the model to compensate for the non-uniform arrival rate.

## **B. MODEL CALIBRATION**

The model was calibrated and the flow rate computed using the following procedure. First, the sampled crossings were divided into groups that were homogeneous with respect to the railroad operating characteristics at the crossing. These characteristics were: speed limit; average speed; and number of railroads. Exhibit\_GMA-7 shows the four groups that resulted.

The second step was to compute the parameters needed by the model for each of these groups. The required parameters are: the average number of cars per train; the average number of locomotives per train; and the average speed of trains in the group. These parameters, along with the speed limit and average daily traffic at each intersection, are used in the model to estimate the total daily vehicle delay hours for each of the sampled streets. (Note: Each of these estimates remains to be adjusted by the flow rate.) The total of the computed daily vehicle delay hours for all the sample streets is shown in line column (11) of Exhibit\_GMA-7. The delay hours estimated from the observations at each intersection are totaled for all 12 intersections and are shown in column (8) of Exhibit\_GMA-7. The ratio of the total daily vehicle delay hours estimated from the observations to the total daily vehicle delay hours produced by the model is a ratio estimate of the combination of the flow rate and the effect of non-uniformity of vehicle arrivals throughout the 24 hour period.

The resulting adjustment is 1.39 and is shown at the bottom of Exhibit\_GMA-7. Finally, when the model is used to compute the total vehicle delay times for current routing and traffic and for future traffic with two alternative Routing Plans, each estimate must be multiplied by the flow rate (1.39).

**C. "AROUND THE GATE" PHENOMENON**

In the test run of the questionnaire and instructions the question was asked, "How should we report the vehicles that go around a down gate before the train arrives?" We decided to record these vehicles separately and not count them as delayed. However, these vehicles should be delayed, and the drivers take great risks of death or bodily injury to themselves and their passengers by these actions.

In many areas of the United States a barrier is placed in the center of the street between the traffic lanes ("Jersey barrier") that prevents drivers from going around a gate. If Jersey barriers were in place in the Four Cities the delay times would be longer. For example, the per day delay for the eight crossings observed, Hohman to US-12, went from 460 hours to 483 hours when the vehicles that went around the gates were included in the count of cars that were delayed. The effect of this would increase the calibration number from 1.39 to 1.47.

I chose not to include the vehicles that went around the gates in the count of vehicles delayed because the costs of this behavior should ultimately be reflected in the cost of death, injury and property damage.

## **VI. ESTIMATION OF TRAFFIC DELAY HOURS**

The traffic delay model was applied to all of the at grade street/railroad intersections for the designated rail segments involved in any of the following scenarios:

- Current Conditions
- Applicants' Proposal
- FCC's Alternate Routing Plan

The results of this application are summarized in Table 1 above and used to evaluate economic impacts by Mr. Philip Burris. The detailed calculations are contained in Mr. Burris' workpapers. I managed and personally checked the portion of these worksheets that estimated the hours of traffic delay.

**GARY M. ANDREW**  
SENIOR CONSULTANT

**PROFESSIONAL EXPERIENCE:**

*L. E. Peabody & Associates, Inc. (since 1967)* -- Dr. Andrew has more than thirty-five (35) years of professional experience associated with transportation. Dr. Andrew has worked with L. E. Peabody & Associates, Inc., as a consultant on a variety of transportation related projects since 1967. In 1988, he joined the staff of L. E. Peabody & Associates, Inc., as a Senior Consultant. Dr. Andrew's studies have resulted in testimony as an expert witness before the Interstate Commerce Commission and other Federal Commissions.

In Docket No. R90-1, Postal Rate And Fee Changes, 1990, Dr. Andrew critiqued and restated the direct testimony of the United States Postal Service as it related to the development of the proposed rate structure on behalf of third class business mailers.

*Previous Related Experience* -- Beginning in 1956, Dr. Andrew was involved in the interstate highway program as a construction field office manager. In 1961, he did research that resulted in the first successful computer simulation of a railroad. As a consultant in statistical and operations analyses he has served numerous railroads and airlines. His work has included cost analysis, productivity improvements and strategic planning. He has prepared testimony as an expert witness in the matters of mergers, acquisitions, rates and abandonments in transportation.

From 1962 to 1964, Dr. Andrew taught in the Management Science Department at Case Institute of Technology and, from 1964 to 1971, in the Graduate College of Business Administration at the University of Minnesota. He also held a joint appointment in the Department of Mathematical Statistics; presented many in-house training programs for various companies and organizations; and, conducted research in operations research and computer science. Dr. Andrew was one of the organizers of the Management Information Systems Research Center at the University of Minnesota.

Dr. Andrew was Director of Planning and Analysis from 1971 to 1974 and Vice Chancellor for Administration at the University of Colorado at Boulder from 1974 to 1978. During this time he served on committees to the Governor of Colorado, conducted studies for the legislatures of both Colorado and Minnesota and continued his work in transportation with the Department of Transportation of Boulder, Colorado and several merger and acquisition traffic diversion studies for railroads. In 1978, he started Infomap, Inc., a statistical mapping service bureau and software company which he sold to Rand McNally & Company in 1983. From 1983 to 1986, he worked for Rand McNally on new product developments in transportation.

**L. E. PEABODY & ASSOCIATES, INC.**

ECONOMIC CONSULTANTS

**EDUCATION:**

|      |                              |                           |
|------|------------------------------|---------------------------|
| 1961 | DePauw University            | A.B. Mathematics          |
| 1961 | Case Institute of Technology | B.S. Management Science   |
| 1966 | Case Institute of Technology | Ph.D. Operations Research |

**CONSULTING:**

Partial Client List:

- Adolph Coors Company
- AT&T
- Campbell Methun Advertising
- Canadian National Railroad
- Colorado Legislative Joint Budget Committee
- Control Data Corporation
- Data Processing Managers Association
- Grand Trunk Western Railroad
- Hammond Map Company
- H.R. Toll Company
- Investors Diversified Services
- L.E. Peabody & Associates, Inc.
- Louisville and Nashville Railroad
- Minnesota Northfield and Southern Railroad
- Minnesota State Legislature
- Nash-Finch Foods
- National Center for Atmospheric Research
- North Central Airlines
- Northwestern National Life Insurance
- Numerous colleges and universities
- Paper Calmenson Steel Company
- Rand McNally & Company
- Soo Line Railroad
- Thompson Ramo Wooldridge
- United Airlines

Developed and presented in house training programs for several businesses and professional groups: 1964-1971.

Mergers and Acquisitions:

- Railroad Studies (consultant and/or expert witness before ICC).
- Milwaukee/Chicago North Western I.C.C.F.D. 24182
- Louisville and Nashville Monon I.C.C.F.D. 25309
- Illinois Central/Gulf Mobile and Ohio I.C.C.F.D. 255103
- Chicago North Western/Rock Island I.C.C.F.D. 22688
- Grand Trunk/Detroit Toledo and Ironton
- C&O/Seaboard Coast Line

**L. E. PEABODY & ASSOCIATES, INC.**

ECONOMIC CONSULTANTS



**CONSULTING (Continued)**

Rates: Wheat - North Dakota and Minnesota (Soo Line)  
Barley - North Dakota and Minnesota (Soo Line)  
Woodpulp - Southeastern U.S. Shippers  
Passenger - AMTRAK  
Transcontinental Divisions Case (Soo Line)

Operations Analysis: Car Ferry Operations - Soo Line  
Scheduling Studies - Louisville and Nashville

Abandonment Studies: Car Ferry - Soo Line  
Car Ferry - Grand Trunk  
Greenville Sub - Grand Trunk

**SCHOLARSHIPS AND HONORS**

Nicolas Andry Award for outstanding contribution to Orthopedic Surgery.

Thompson Ramo Wooldridge Scholarship

Texaco Fellowship.

Carlton Prize in Economics at Case Institute of Technology.

High Honors, Case Institute of Technology.

Tau Beta Pi.

Sigma Xi.

Journal/Risk & Insurance award for 1968 paper.

**PROFESSIONAL SOCIETIES**

American Statistical Association; Operations Research Society of America; the Institute of Management Science (past President and Program Chairman of Upper Midwest Section)

**PUBLICATIONS (Partial List)**

"Abstracts of Statistical Computer Routines," Report No. 1056  
Statistical Laboratory, Case Institute of Technology, November 1961  
(with Leone, et. al.).

"Tables for Application of the Method of Parabolic Curves to a  
Certain Balanced Systematic Arrangement," Sankya 1964 (with  
R. Elandt).

"A Note on the Use of Statistics in Rate Determination," Journal of  
Risk Insurance 1968. (Received award as one of four best articles  
published in this Journal in 1968.

**L. E. PEABODY & ASSOCIATES, INC.**

ECONOMIC CONSULTANTS

PUBLICATIONS (Continued)

"Use of Decision Theory in Treatment Selection," (with Dr. Wilton Bunch), Clinical Orthopedics and Related Research, October 1971. (This paper received the Nicolas Andry Award for outstanding research related to orthopedics.)

"Matching Faculty to Courses," College and University, Winter 1971.

Information-Decision Systems in Education, (With Ronald Moir) Peacock Press, 1970.

"Campus-Minnesota User Information Manual," Minnesota Higher Education Coordinating Commission June 1971, St. Paul.

"Allocation of Buyers' Time to Functional Activities," (with Alden C. Lorents), Journal of Purchasing, November 1972.

"A Study to Determine the Need for the Valley Campus at Mankato State College," Minnesota Higher Education Coordinating Commission, St. Paul, Minnesota, January 1974.

"A Proposed Change in Pediatric Hospital Beds in Suburban Cook County-DuPage County," Loyola University Medical Center, 1979.

Atlas of Demographics, Infomap, Inc., Boulder, Colorado, 1982.

**FOUR CITY CONSORTIUM  
TRAIN DELAY STUDY****Key to the Schedule of Observations:**

| <u>Key</u><br>(1) | <u>Street Name</u><br>(2) | <u>Railroad(s)</u><br>(3) |
|-------------------|---------------------------|---------------------------|
| A                 | = Hohman                  | /CSX                      |
| B                 | = Calumet                 | /CSX                      |
| C                 | = Columbia                | /CSX                      |
| D                 | = Indianapolis            | /CSX                      |
| E                 | = Railroad Ave            | /CSX                      |
| F                 | = Kennedy/CSX             | /CSX                      |
| G                 | = Euclid                  | /CSX                      |
| H                 | = US 12                   | /CSX                      |
| I                 | = Clark                   | /CSX & /Conrail           |
| J                 | = Lake                    | /CSX                      |
| K                 | = County Line             | /CSX                      |
| L                 | = Whiting                 | /CSX & /Conrail           |

## OBSERVATION SCHEDULE

| DAY        | MONDAY  |        |         |
|------------|---------|--------|---------|
| TEAM       | M_ALPHA | M_BETA | M_GAMMA |
| TIME       |         |        |         |
| 6 - 7:30   | L       | K      | D       |
| 7:30 - 9   | A       | J      | E       |
| 9 - 10     | B       | I      | F       |
| 10-11      | C       | H      | G       |
| 11-12      | D       | T[     | H       |
| 12-13      | T[      | L      | I       |
| 13-14      | E       | L      | T[      |
| 14-15      | F       | A      | J       |
| 15 - 16:30 | G       | B      | J       |
| 16:30 - 18 | H       | C      | K       |

T[ = TRAVEL  
X = OFFDUTY

## OBSERVATION SCHEDULE

| DAY        | TUESDAY |        |         |
|------------|---------|--------|---------|
| TEAM       | T_ALPHA | T_BETA | T_GAMMA |
| TIME       |         |        |         |
| 6 - 7:30   | A       | C      | H       |
| 7:30 - 9   | B       | D      | I       |
| 9 - 10     | C       | E      | T[      |
| 10-11      | D       | F      | J       |
| 11-12      | T[      | G      | K       |
| 12-13      | E       | T[     | K       |
| 13-14      | F       | A      | D       |
| 14-15      | G       | B      | C       |
| 15 - 16:30 | H       | B      | C       |
| 16:30 - 18 | I       | D      | A       |

T[ = TRAVEL  
X = OFFDUTY



## OBSERVATION SCHEDULE

| DAY        | WEDNESDAY |        |         |
|------------|-----------|--------|---------|
| TEAM       | W_ALPHA   | W_BETA | W_GAMMA |
| TIME       |           |        |         |
| 6 - 7:30   | X         | B      | X       |
| 7:30 - 9   | X         | C      | K       |
| 9 - 10     | A         | D      | J       |
| 10-11      | B         | E      | I       |
| 11-12      | C         | F      | T[      |
| 12-13      | D         | T[     | G       |
| 13-14      | T[        | L      | H       |
| 14-15      | E         | L      | H       |
| 15 - 16:30 | F         | A      | I       |
| 16:30 - 18 | G         | B      | I       |

T[ = TRAVEL  
X = OFFDUTY

## OBSERVATION SCHEDULE

DAY

THURSDAY

TEAM TH\_ALPHA TH\_BETA TH\_GAMMA

TIME

6 - 7:30

E

X

I

7:30 - 9

F

L

H

9 - 10

G

L

H

10-11

T[

A

G

11-12

I

B

E

12-13

J

C

F

13-14

K

C

G

14-15

K

D

T[

15 - 16:30

K

E

L

16:30 - 18

J

F

L

T[ = TRAVEL  
X = OFFDUTY

## OBSERVATION SCHEDULE

| DAY        | FRIDAY  |        |         |
|------------|---------|--------|---------|
| TEAM       | F_ALPHA | F_BETA | F_GAMMA |
| TIME       |         |        |         |
| 6 - 7:30   | F       | J      | G       |
| 7:30 - 9   | E       | T[     | G       |
| 9 - 10     | D       | K      | T[      |
| 10-11      | C       | J      | L       |
| 11-12      | A       | J      | L       |
| 12-13      | A       | J      | T[      |
| 13-14      | H       | I      | B       |
| 14-15      | F       | I      | B       |
| 15 - 16:30 | F       | D      | C       |
| 16:30 - 18 | F       | E      | C       |

T[ = TRAVEL  
X = OFFDUTY

## OBSERVATION SCHEDULE

### SATURDAY DAY

| TIME  | LOCATION |
|-------|----------|
| 6:00  | F        |
| 7:00  | G        |
| 8:00  | H        |
| 09:00 | I        |
| 10:00 | K        |
| 11:00 | T[       |
| 12:00 | L        |
| 13:00 | A        |
| 14:00 | B        |
| 16:00 | C        |
| 17:00 | D        |
| 18:00 | E        |

## OBSERVATION SCHEDULE

### SUNDAY DAY

| TIME  | LOCATION |
|-------|----------|
| 6:00  | L        |
| 7:00  | A        |
| 8:00  | B        |
| 09:00 | C        |
| 10:00 | D        |
| 11:00 | E        |
| 12:00 | F        |
| 13:00 | G        |
| 14:00 | H        |
| 16:00 | I        |
| 17:00 | J        |
| 18:00 | K        |



## OBSERVATION SCHEDULE

### SUNDAY NIGHT

| TIME        | LOCATION |
|-------------|----------|
| 18:00       | L        |
| 19:00       | A        |
| 20:00       | B        |
| 21:00       | C        |
| 22:00       | D        |
| 23:00       | E        |
| 24:00/00:00 | F        |
| 1:00        | G        |
| 2:00        | H        |
| 03:00       | I        |
| 4:00        | J        |
| 05:00       | K        |

## OBSERVATION SCHEDULE

### MONDAY NIGHT

| TIME        | LOCATION |
|-------------|----------|
| 18:00       | H        |
| 19:00       | I        |
| 20:00       | J        |
| 21:00       | K        |
| 22:00       | T[       |
| 23:00       | A        |
| 24:00/00:00 | B        |
| 1:00        | C        |
| 2:00        | D        |
| 03:00       | E        |
| 4:00        | F        |
| 05:00       | G        |

## OBSERVATION SCHEDULE

### THURSDAY NIGHT

| TIME        | LOCATION |
|-------------|----------|
| 18:00       | C        |
| 19:00       | D        |
| 20:00       | E        |
| 21:00       | F        |
| 22:00       | G        |
| 23:00       | H        |
| 24:00/00:00 | I        |
| 1:00        | J        |
| 2:00        | K        |
| 03:00       | T[       |
| 4:00        | A        |
| 05:00       | B        |

## OBSERVATION SCHEDULE

### FRIDAY NIGHT

| TIME        | LOCATION |
|-------------|----------|
| 18:00       | K        |
| 19:00       | J        |
| 20:00       | I        |
| 21:00       | H        |
| 22:00       | I        |
| 23:00       | K        |
| 24:00/00:00 | T[       |
| 1:00        | L        |
| 2:00        | A        |
| 03:00       | B        |
| 4:00        | C        |
| 05:00       | D        |

FOUR CITY CONSORTIUM  
TRAIN DELAY STUDY

Team: \_\_\_\_\_

Location Start Time: \_\_\_\_ : \_\_\_\_

Location: \_\_\_\_ . \_\_\_\_\_

Location End Time: \_\_\_\_ : \_\_\_\_

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Reset Vehicle Counter = 0

Train Delay Observation Form

Train Delay Event Begin Time: \_\_\_\_ : \_\_\_\_

Vehicle Counter \_\_\_\_\_

IF Train stops, record: <sup>1</sup>

Reset Vehicle Counter = 0

Train stop time: \_\_\_\_ : \_\_\_\_

Train start time: \_\_\_\_ : \_\_\_\_

Number of locomotives: <sup>2</sup> \_\_\_\_\_

Number of railcars: <sup>2</sup> \_\_\_\_\_

Train Delay Event End Time: \_\_\_\_ : \_\_\_\_

Number of vehicles in queue  
-- DO NOT reset counter --

Time queue clears crossing \_\_\_\_ : \_\_\_\_

Ending <sup>3</sup> Vehicle Count \_\_\_\_\_  
Reset Vehicle Counter = 0

<sup>1</sup> In any given event if the train stops more than once, record train stop time and train start time each time the train stops and starts

<sup>2</sup> If more than one train closes a crossing at the same time, to the extent possible, record the number of locomotives and railcars in both trains

<sup>3</sup> At end of observation period or when next train arrives



**FOUR CITY CONSORTIUM  
TRAIN DELAY STUDY**

**Observation Data to be Obtained at Each Delay Event**

- Record vehicular traffic on the street per "Sequence Instructions"
- Record the time the road crossing is first blocked
  - Assuming the crossing has gates, this time is when the gates are closed, regardless if vehicles go around the closed gates
  - Assuming the crossing has flashing lights and no gates, the time is when the lights begin flashing, or when a railroad employee or police officer stops traffic, whichever is earlier
  - Assuming the crossing has only cross buck signs and no flashing lights or gates, the time is when the train enters the crossing, or when a railroad employee or police officer stops traffic, whichever is earlier
- As the train moves through the crossing count and record the number of locomotives and the number of railcars in the train
- Record the time the crossing is opened
  - Assuming the crossing has gates, this time is when the gates are raised
  - Assuming the crossing has flashing lights, and no gates the time is when the lights stop flashing
  - Assuming the crossing has no gates or flashing lights, the time is when the train clears the crossing
- After the gates are opened, count the number of vehicles that are in the queue and cross the tracks. Count the vehicles crossing the tracks in both directions
- Record the time the last vehicle in the queue clears the crossing. If this is not possible, record the time when the traffic flow approximates the flow prior to the train delay

**FOUR CITY CONSORTIUM  
TRAIN DELAY STUDY**

**Guidelines for Recording Observations**

- Record all times in military time, e.g. 3:25 p.m. is recorded as 15:25.
- If you are in the process of collecting data and the time for observation at that crossing lapses, stay at the crossing and complete the observation before continuing to the next assigned crossing. If you then arrive at the next observation location later than scheduled, note the "Location start time" on the Observation form.
- If you arrive at a observation location early, begin the observation when you arrive and note the "Location start time". If you arrive late at an observation location late note the "Location start time".
- In the event more than one track, or railroad, operates at a given crossing, and more than one train closes the crossing at one time, record the begin and end time as the total time the crossing is closed. In this instance please record locomotive and car counts for both trains, if possible.
- At crossings F (Chicago Avenue and Kennedy Avenue in East Chicago), and L (117<sup>th</sup> and Front Street in Whiting) position yourself in order to be able to record events at both crossings.
- At Whiting a possible observation point to record events at both Front Street and 117<sup>th</sup> Street is from the bleachers at the Whiting High School just southwest of the crossings. If both crossings cannot be observed simultaneously, then the team should split its observation time equally between the two crossings.
- At crossing I (Clark Road in Gary) position yourself between the CSX and Conrail mainlines in order to be able to record events on both railroads
- When setting up at a crossing to observe events, if possible, face the direction needed to travel to the next observation location and with the railroad behind you in order that you will not be impeded enroute to the next observation location.

**FOUR CITY CONSORTIUM  
TRAIN DELAY STUDY**

**Sequence Instructions**

1. Drive to location.
2. Get in position with unobstructed view of the crossing that will not be later obstructed by vehicular traffic waiting for a train.
3. Fill in the top portion of the form (above the line "Train Delay Observation Form") except the line "Location End Time: \_\_\_\_: \_\_\_\_" which will be completed at the end of the observation period.
4. **RESET YOUR VEHICLE COUNTER.**
5. Count all vehicles that cross the tracks until the next train arrives. If your observation period ends; then
  - Record your vehicle counter.
  - Reset your vehicle counter.
  - Fill out the page count and "Location End Times" at the top of each page.
  - Go to next location.
6. When a train arrives:
  - Record the vehicle count when vehicles stop crossing the tracks.
  - **RESET THE VEHICLE COUNTER.**
  - Record the "Train Delay Event Begin Time".
  - Count and record the locomotives and railroad cars on the train.
  - If the train comes to a complete stop while in the intersection; then, record "Train stop time" and "Train start time".
  - Record the "Train Delay Event End Time".
  - **RESET COUNTER.**
  - Begin recording vehicles as they cross the track.

-2-

Sequence Instructions

- Record the number of vehicles in the queue.\*
  - Record the time queue\* clears crossing.
- \* For purposes of this study the end of the queue occurs when traffic movement approximates the flow rate that was occurring prior to the train's arrival.
7. Do NOT reset counter.
  8. Continue counting vehicles until the next train arrives [Go to step 6 above] or until the observation period ends.
  9. If the observation period ends during a train delay, extend the period until the train clears.
  10. If there is a train delay in process when you arrive at a location, begin a "Train Delay Observation Form". In this case, make sure the "Location Start Time" and the "Train Delay Event Begin Time" contain EXACTLY the same time.

**WILLOW CREEK TO CALUMET PARK PLUS WHITING  
SUMMARY RESULTS OF TRAIN DELAY STUDY 1/**

| <u>Location</u><br>(1) | <u>Vehicles</u><br>(2) | <u>Train<br/>Delay<br/>Incidents</u><br>(3) | <u>Train<br/>Blocked<br/>hours</u><br>(4) | <u>Elapsed<br/>Delay<br/>Time</u><br>(5) | <u>Total<br/>Locos</u><br>(6) | <u>Average<br/>Locos</u><br>(7) | <u>Average<br/>Railcars</u><br>(8) | <u>Vehicle<br/>Delay<br/>Hours</u><br>(9) | <u>Cars<br/>Around<br/>Gates</u><br>(10) |
|------------------------|------------------------|---------------------------------------------|-------------------------------------------|------------------------------------------|-------------------------------|---------------------------------|------------------------------------|-------------------------------------------|------------------------------------------|
| A. Hohman              | 70,356                 | 282                                         | 23.60                                     | 27.81                                    | 683                           | 2.42                            | 69.72                              | 395                                       | 360                                      |
| B. Calumet             | 146,591                | 185                                         | 18.42                                     | 24.05                                    | 418                           | 2.26                            | 72.84                              | 1,365                                     | 481                                      |
| C. Columbia            | 27,272                 | 285                                         | 23.19                                     | 25.78                                    | 517                           | 1.82                            | 54.62                              | 170                                       | 110                                      |
| D. Indianapolis        | 114,814                | 130                                         | 12.61                                     | 15.36                                    | 260                           | 2.00                            | 75.56                              | 528                                       | 2,972 1/2                                |
| E. Railroad            | 37,194                 | 261                                         | 16.42                                     | 18.62                                    | 550                           | 2.11                            | 63.96                              | 140                                       | 321                                      |
| F. Kennedy             | 44,851                 | 268                                         | 20.00                                     | 21.98                                    | 720                           | 2.68                            | 80.19                              | 212                                       | 1,044                                    |
| G. Euclid              | 62,308                 | 209                                         | 12.69                                     | 14.42                                    | 463                           | 2.22                            | 67.73                              | 132                                       | 131                                      |
| H. U.S. 12             | 79,873                 | 221                                         | 13.88                                     | 16.95                                    | 542                           | 2.46                            | 71.99                              | 279                                       | 242                                      |
| I. Clark               | 6,181                  | 603                                         | 33.62                                     | 36.00                                    | 1,405                         | 2.33                            | 76.23                              | 59                                        | 51                                       |
| J. Lake                | 71,045                 | 172                                         | 6.41                                      | 8.94                                     | 335                           | 1.95                            | 57.57                              | 68                                        | 66                                       |
| K. County Line         | 47,594                 | 77                                          | 2.18                                      | 2.94                                     | 166                           | 2.16                            | 60.02                              | 20                                        | 14                                       |
| L. Whiting             | 12,065                 | 1152                                        | 67.07                                     | 68.78                                    | 2,661                         | 2.31                            | 68.18                              | 58                                        | 195                                      |

1/ The data shown for vehicles, trains, delayed vehicles, delay hours and cars around gates are expanded from statistically valid sample observations to represent the entire seven day study period.

2/ Includes vehicles going around gates which remained closed after train had passed through crossing.



### TRAFFIC DELAY MODEL

The model used computes the total expected delay time of all cars delayed per train and multiplies this value by the number of trains per day. The expected total delay time per train can be computed using the following formulas from queuing theory and highway traffic engineering<sup>1/</sup>:

1. Total Vehicle Delay/Train = (Gate Down Time)<sup>2</sup> \*(Vehicle Arrival Rate)\*(Flow Factor)/2  
where:
2. Vehicle Arrival Rate = The Average Daily Traffic/24
3. Flow Factor = (Road Capacity)/(Road Capacity-Vehicle Arrival Rate)  
[Note: This factor is affected more by time of day, day of week variations than from one intersection to another.]
4. Gate Down Time = (Train Length + Safety Setback + Crossing Width)/(5280\*Train Speed)
5. Train Length = (60\*Cars on Train) + (90\*Locomotives)
6. Safety Set Back = (20\*Train Speed Limit\*5280)/3600  
= 29.333\*Train Speed Limit

[Note: The Safety Set Back is the distance the train is away from the crossing when the gate goes down such that the gates are down for 20 seconds prior to the train entering the crossing.]

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<sup>1/</sup> See Adolf D. May, Traffic Flow Fundamentals, p. 348 Table 12.1, Prentice Hall (1990) and James L. Powell, "Effects of Rail-Highway Grade Crossings on Highway Users", Transportation Research Record v. 841 p. 21-28 (1982).

**TRAFFIC DELAY MODEL**

Finally,

7. Total Vehicle Delay per Day

$$=(\text{Trains/Day}) * (\text{Total Vehicle Delay/Train})$$

$$=[(\text{Trains/Day}) * (\text{Gate Down Time}) / 2] * [\text{Vehicle Arrival Rate} * \text{Flow Factor}]$$

|            Train Statistics            |

|            Vehicle Statistics            |

From the above description of the model, it can be seen that the total delay time per day [equation 7] is a function of strictly railroad statistics multiplied by a function of strictly highway statistics. This fact is used in the calibration of the model.

**WILLOW CREEK TO CALUMET PARK AND WHITING  
SUMMARY RESULTS OF TRAIN DELAY STUDY 1/**

| Location<br>(1)                           | Speed<br>Limit<br>(2) | Railroads<br>(3) | Trains<br>/Day<br>(4) | Average<br>Locos<br>(5) | Average<br>Railcars<br>(6) | Delayed<br>Vehicles<br>(7) | Vehicle<br>Delay<br>Hours<br>(8) | No.<br>of<br>Lane<br>(9) | Average<br>Daily<br>Traffic<br>(10) | Delay Hours from Model<br>Using Observed averages |                   |
|-------------------------------------------|-----------------------|------------------|-----------------------|-------------------------|----------------------------|----------------------------|----------------------------------|--------------------------|-------------------------------------|---------------------------------------------------|-------------------|
|                                           |                       |                  |                       |                         |                            |                            |                                  |                          |                                     | 32.9<br>Trains/day                                | 25<br>Speed Limit |
|                                           |                       |                  |                       |                         |                            |                            |                                  |                          |                                     | 12.76<br>Avg. Speed                               | 68.86<br>No. Cars |
|                                           |                       |                  |                       |                         |                            |                            |                                  |                          |                                     | 2.25<br>No. Locomotives                           |                   |
| A. Hohman                                 | 25                    | CSX              | 40.3                  | 2.42                    | 69.72                      | 1,056                      | 56.4                             | 3                        | 10,051                              | 40.07                                             |                   |
| B. Calumet                                | 25                    | CSX              | 26.5                  | 2.26                    | 72.84                      | 2,439                      | 195.0                            | 4                        | 20,942                              | 83.94                                             |                   |
| C. Columbia                               | 25                    | CSX              | 40.7                  | 1.82                    | 54.62                      | 467                        | 24.2                             | 4                        | 3,896                               | 15.62                                             |                   |
| D. Indianapolis                           | 25                    | CSX              | 18.6                  | 2.00                    | 75.56                      | 825                        | 75.5                             | 4                        | 16,402                              | 65.74                                             |                   |
| E. Railroad                               | 25                    | CSX              | 37.3                  | 2.11                    | 63.96                      | 428                        | 19.9                             | 4                        | 5,313                               | 21.30                                             |                   |
| F. Kennedy                                | 25                    | CSX              | 38.3                  | 2.68                    | 80.19                      | 657                        | 30.3                             | 4                        | 6,407                               | 25.66                                             |                   |
| G. Euclid                                 | 25                    | CSX              | 29.9                  | 2.22                    | 67.73                      | 423                        | 18.8                             | 4                        | 8,901                               | 35.68                                             |                   |
| H. U.S. 12<br>Group I<br>A. thru H.       | 25                    | CSX              | 31.5                  | 2.46                    | 71.99                      | 882                        | 39.8                             | 4                        | 11,410                              | 45.74                                             |                   |
|                                           |                       |                  | 32.9                  | 2.25                    | 68.86                      |                            |                                  |                          |                                     |                                                   |                   |
| Group II                                  |                       |                  |                       |                         |                            |                            |                                  |                          |                                     |                                                   |                   |
| I. Clark                                  | 25                    | CSX/CR           | 86.2                  | 2.33                    | 76.23                      | 206                        | 8.4                              | 2                        | 883                                 | 3.82                                              |                   |
| J. Lake                                   | 60                    | CSX              |                       | 1.95                    | 57.57                      | 265                        | 9.8                              | 4                        | 10,149                              | 4.51                                              |                   |
| K. County Line<br>Group III<br>J. thru K. | 60                    | CSX              |                       | 2.16                    | 60.02                      | 116                        | 2.8                              | 2                        | 6,799                               | 2.99                                              |                   |
|                                           |                       |                  | 17.8                  | 2.01                    | 58.33                      |                            |                                  |                          |                                     |                                                   |                   |
| Group IV                                  |                       |                  |                       |                         |                            |                            |                                  |                          |                                     |                                                   |                   |
| L. Whiting                                | 40                    | CSX/CR           | 164.6                 | 2.31                    | 68.18                      | 250                        | 8.3                              | 2                        | 1,724                               | 5.27                                              |                   |

Calculated  
Train  
Speed  
12.767

18.95

30.21

35.08

|          |       |          |       |
|----------|-------|----------|-------|
| Observed | 489.3 | Computed | 350.3 |
|----------|-------|----------|-------|

Observed / Model = Flow Rate = 1.39


1/ The data shown for vehicles, trains, delayed vehicles, and delay hours are expanded from statistically valid sample observations to represent an average day.

**L. E. PEABODY & ASSOCIATES, INC.**  
ECONOMIC CONSULTANTS

## VERIFICATION

COMMONWEALTH OF VIRGINIA )  
 )  
CITY OF ALEXANDRIA )

GARY M. ANDREW, being duly sworn, deposes and says that he has read the foregoing statement, knows the contents thereof and that the same are true as stated.

  
Gary M. Andrew

Sworn to and subscribed  
before me this 20 day  
of October, 1997.

Witness my hand and official seal.

James M. Walter  
Expires 12/31/98

STB FD

33388

10-14-97

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182612

4/4





|                                |   |                          |
|--------------------------------|---|--------------------------|
|                                | ) |                          |
| CSX CORPORATION AND CSX        | ) |                          |
| TRANSPORTATION, INC., NORFOLK  | ) |                          |
| SOUTHERN CORPORATION AND       | ) |                          |
| NORFOLK SOUTHERN RAILWAY       | ) | Finance Docket No. 33388 |
| COMPANY -- CONTROL AND         | ) |                          |
| OPERATING LEASES/AGREEMENTS--  | ) |                          |
| CONRAIL, INC. AND CONSOLIDATED | ) |                          |
| RAIL CORPORATION               | ) |                          |
|                                | ) |                          |

My name is Gregg L. Heinzman. I am an engineer with Cole Associates Inc., a consulting engineering firm located at 7011 Indianapolis Boulevard, Hammond, Indiana 46324. I hold a bachelor's degree in Civil Engineering from Purdue University and a master's degree in Business Administration from Indiana University. I am a licensed Professional Engineer in the State of Indiana. I am a licensed Professional Engineer in the State of Indiana, a licensed Land Surveyor in the State of Indiana, and a licensed Structural Engineer in the State of Illinois. I have been employed with Cole Associates for nineteen years and have worked in design and supervisory positions on a variety of civil, structural, and survey projects for industrial, municipal, and commercial clients. A statement of my qualifications is attached as Exhibit GLH-1.

Cole Associates Inc. ("Cole") is a multi-disciplined consulting firm with a staff of more than 170 located in five offices in Indiana and Michigan. Cole has performed civil engineering services for more than 80 years and has served the industrial area of Northwest Indiana for more than 35 years. Cole's transportation division has performed many transportation and traffic studies, including studies that have monitored and counted both vehicular and rail traffic.

My name is Ronald H. Dunn. I am President of R.H. Dunn & Associates, Inc., a firm that specializes in railway construction engineering services. The firm's offices are located at 149 Hunting Cove, Williamsburg, Virginia 23185. I am a Registered Professional Engineer and a graduate of John Hopkins University, where I earned a Bachelor of Science degree in Engineering. I have been elected to the grade of FELLOW by the American Society of Civil Engineers, the National Academy of Forensic Engineers and also by the Institute of Transportation Engineers. I am a LIFE member of the American Railway Engineering Association and a Board Certified DIPLOMATE-FORENSIC ENGINEER.

I have more than 40 years of professional experience in railway engineering gained through active employment with a major railroad, with three of the largest engineering firms in the nation, and for the previous thirteen years, with my own firm. I have been personally involved in engineering projects of 18 railroads and 17 rail rapid transit systems in more than 40

states, the District of Columbia, and 6 Canadian provinces. My qualifications are attached as Exhibit RHD-1.

The Cities of East Chicago, Hammond, Gary and Whiting, Indiana (the "Four City Consortium" or "FCC") and its economic consulting firm, L.E. Peabody & Associates, Inc., have requested Mr. Heinzman to perform certain studies involving the gathering of vehicular and train movement data at certain designated rail/highway grade crossings in the FCC region. Both of us have been requested by the FCC and L.E. Peabody & Associates to perform a study of the work required (and associated costs) to rehabilitate certain out-of-service railroad trackage and to construct certain connections between rail lines in this region. The purpose of our testimony is to describe these studies and their results.

## II. DATA COLLECTION FOR L.E. PEABODY & ASSOCIATES

### By Mr. Heinzman

Between September 28 and October 5, 1997, Cole performed services consisting of gathering vehicular and train movement and delay data as specified by L.E. Peabody & Associates. The design of the data collection system was prepared by Dr. Gary M. Andrew and is described in his verified statement. The data gathering took place at twelve railroad crossings within the Cities of Gary, Hammond, East Chicago, and Whiting, Indiana and involved the CSX, Conrail, and Indiana Harbor Belt railroad lines. Exhibit GLH-2 contains the data collection form ("Train



Sheet") used by each observer for every observation period. A new page of this form was used for each train observed at each observation site. Instructions prepared by Dr. Andrew were given to each observer. I personally managed the observers, provided them with detailed instructions, and provided on-site quality control. I was in frequent telephone contact with Dr. Andrew before and during the observation week to insure the quality of the data collected. I collected and assembled the train sheets, checked them for errors of omission or commission, and forwarded them to L. E. Peabody & Associates for data entry and analysis.

Our observers were extremely concerned at the pattern they observed of numerous vehicles ignoring activated crossing gates, running around them to get across the rail lines before a train arrived. The observers were fearful that they might witness a serious accident as a result of this frequent practice. In fact, although not captured by the data collection form, several pedestrians were also observed disregarding gates and walking across grade crossings.

### III. RAIL CONSTRUCTION PROJECTS

By Mr. Heinzman and Mr. Dunn

#### A. General

We were requested by the FCC and L.E. Peabody & Associates to examine existing rail conditions at three distinct locations to determine the engineering and operational feasibility of implementing specific alternatives to the Applicants' proposed



rail operations in the FCC area. We have also been requested to estimate the cost of construction of the necessary rail line rehabilitation and connections required to implement the FCC's Alternative Routing Plan, which is fully described in the verified statement of Philip H. Burris of the Peabody firm.

We examined three specific locations which are identified below.

1. The Indiana Harbor Belt Railroad ("IHB") line which extends from Calumet Park in an easterly direction, through Hammond, Indiana past IHB's Gibson Yard and continuing east via Tolleston to the grade separated crossing at Virginia Street in Gary.
2. The former Pennsylvania Railroad ("PRR") line between Hobart and Clarke Junction, via Tolleston and Pine Junction, where the CSA line from Willow Creek splits into a line running northwest along the Lake Michigan Waterfront and a line running west through East Chicago and Hammond, Indiana. The east/west line runs parallel to Chicago Avenue in both East Chicago and Hammond. Pine Junction is just east of the point where the PRR line crosses the CSX (BOCT) Pine Junction to Calumet Park line.
3. Van Loon Junction, located at the intersection of the Norfolk Southern Corporation ("NS") line running from Hobart to Hammond and the Elgin, Joliet and

Eastern Railroad ("EJ&E") line running north/south between Griffith and Ivanhoe Junction in Gary.

B. IHB line from Calumet Park to Virginia Street

The IHB line from Calumet Park to Virginia Street in Gary is approximately 11 miles in length. The majority of the crossings from Calumet Park to Virginia Street are grade separated. The line crosses 16 streets and only three of these crossings are at grade, with the remaining 13 crossings being grade separated.

From Calumet Park, the IHB line runs in a southeasterly direction through Hammond past the Gibson Yard and continues east through Gary to a point between the Holy Rosary School Park and Chase Elementary School where it serves several local industries on Chase Street, including Excell Logistics, Chicago Steel, and Tin Plate Partners International. The portion of this line east of Chase Street has been out of service for several years. At one time this line extended further east, then north, crossing the Chicago SouthShore & South Bend Railroad ("CSS&SB"), the CSX Willow Creek to Pine Junction line, and the Conrail Lakefront line. The line then continued west to Burns Harbor, Indiana and to National Steel Company located adjacent to the Port of Indiana.

The IHB line is out of service from Chase Street east to the point where it crosses the CSS&SB. We understand the line has been abandoned east of the CSS&SB and is now owned by the

United States Park Service. We have confirmed IHB's continued ownership of the line segment from the point where it is out of service to Virginia Street by examining the Lake County, Indiana property tax records.

At a location named Ivanhoe, the IHB Calumet Park to Virginia Street line connects with Conrail's Porter Branch line, which is part of the former Michigan Central main line between Chicago and Detroit. From Calumet Park to Ivanhoe the line is in good condition and is generally comprised of 127 pound rail with approximately 3,300 ties per mile. This IHB line is currently used to move Conrail trains between Calumet Park and Ivanhoe, where the trains then move across an existing connection to the Conrail Porter Branch.<sup>1</sup> According to the Federal Railroad Administration ("FRA"), the maximum authorized train speed on this line is 40 miles per hour.

The IHB line from Ivanhoe to the out-of-service portion of the line from Chase Street to Massachusetts Street is also in good condition and with 127 pound rail and approximately 3300 ties per mile. The out-of-service portion of the line continues to have rail in place; however, the existing rail, ties, rail fastening materials and ballast are inadequate to handle any significant volumes of rail traffic.

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<sup>1</sup> Based on Document numbers CSX 44 CO 000 101 thru 126 provided by Applicants in response to FCC's second set of interrogatories and document production requests, CSX also plans to use this the IHB line from Calumet to Ivanhoe where the existing connection to the Conrail Porter Branch will be used.

As described in Mr. Burris' verified statement, the FCC proposes that CSX reduce the traffic it projects to move on the Willow Creek to Pine Junction and Pine Junction to Barr Yard lines by using these lines in conjunction with the IHB Calumet Park to Virginia Street line and the Conrail Porter Branch back to Willow Creek as paired main tracks each with traffic generally moving in a single and opposite direction.<sup>2</sup> Exhibit PHB-2, attached to the accompanying verified statement of Philip H. Burris, includes a graphical depiction of the CSX Willow Creek to Calumet Park line via Pine Junction and the IHB/Conrail Porter Branch from Calumet Park to Willow Creek. Exhibit GLH/RHD-1 shows the location of the out-of-service track between Chase and Virginia Streets, and the location of the proposed connection between the IHB and Conrail lines.

The CSX line between Willow Creek and Calumet Park via Pine Junction, has 27 at-grade crossings, with 20 of these crossings located between Pine Junction and Calumet Park. By contrast, the IHB/Conrail Porter Branch from Calumet Park to Willow Creek has 13 at-grade crossings. In addition, the IHB/Conrail line has 13 grade separated crossings. The FCC alternative will significantly reduce the volume of traffic on the Willow Creek to Pine Junction and Pine Junction to Barr Yard lines, thereby mitigating some of the most significant negative

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<sup>2</sup> The CSX Pine Junction to Barr Yard line connects with the IHB Calumet Park to Virginia Street line at Calumet Park.



impacts on the Four Cities as a result of the Applicants' proposed operating plan.

Rather than using the existing connection between the IHB line and the Conrail Porter Branch at Ivanhoe, the FCC suggests placing the IHB line back into service to a point approximately adjacent to Virginia Street in Gary and constructing a connection with the Porter Branch at that point. Doing so will permit continued use of the grade separated IHB line, thereby avoiding 9 at-grade crossings between Ivanhoe and Virginia Street.

The FCC alternative will increase the rail traffic on the IHB/Porter Branch from 11.4 trains per day post acquisition, as proposed by the Applicants, to 28.1 trains per day. The FCC alternative assumes the additional 16.7 trains proposed to be moved via this line will move in an easterly direction.

We have examined the Conrail Porter Branch from Virginia Street to Willow Creek. This line has 127 pound rail with approximately 3300 ties per mile. According to the FRA, the authorized speed limit on this section of track is 40 miles per hour. We understand that this line is equipped with Centralized Traffic Control.

Based on our examination of the IHB/Conrail line from Calumet Park to Willow Creek, we have concluded that this line is in adequate condition and has sufficient capacity to handle 28 trains per day with an average gross weight of 5,400 tons. This is especially true as the vast majority of the trains will be



moving in a single direction. Even in the absence of directional traffic flow, however, the line is adequate to sustain this level of traffic.

We have also examined the out-of-service portion of the IHB line and the grade separation bridges. Based on this examination, we have estimated the cost of replacing the necessary track and constructing the required connection between the grade elevated IHB line and the at-grade Conrail line, as proposed under the FCC alternative. Accomplishing this requires replacing approximately 2.1 miles of out-of-service IHB track and construction of a connection between the elevated IHB roadbed and the at-grade Conrail Porter Branch line in the vicinity of Virginia Street. We estimate the cost of replacing the out-of-service track and constructing the connection to equal \$1,116,776 and \$445,986, respectively. Our estimate of the cost of the connection between the IHB line and the Porter Branch does not include any signaling cost because no traffic will move on the Conrail line from Ivanhoe to Virginia Street. Exhibit GLH/RHD-2 provides our calculation of these construction estimates.

C. Hobart to Clarke Junction via Tolleston

As fully described in the verified statement of Mr. Burris, CSX proposes to place back into service the PRR rail line between Hobart and Clarke Junction via Tolleston and to connect this line to both the Conrail Porter Branch at Tolleston and to the CSX line that runs northwest from Pine Junction along the

Lake Michigan waterfront.<sup>3</sup> This out-of-service line is approximately 11.75 miles in length.

We have examined this line and found that it has been out-of-service for a significant period of time. The line is covered with vegetation (some trees are actually growing between the rails), and many of the at-grade crossings have been paved over. The line cannot be used to provide service in its current condition, and at a minimum requires vegetation control, resurfacing, undercutting, substantial tie replacement, restoration of the track through grade crossings, and replacement of warning devices. We have estimated that the cost to rehabilitate this line to FRA Class 2 serviceable condition will equal \$7,017,167. This cost includes the construction of a connection with the Conrail Porter Branch at Tolleston, the cost of the connection NS proposes to construct between its former Wabash line and the out-of-service PRR line, and the cost of a connection with EJ&E at Dune. NS proposes to construct the connection with the Wabash spur to facilitate operations in serving Gary Sugar's facility located on the Wabash spur. Exhibit GLH/RHD-3 displays our estimate of the cost of the rehabilitation of the Hobart to Clarke Junction line and the construction of the described turnouts.

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<sup>3</sup> The portion of this line from Hobart to Tolleston is currently owned by NS, and the portion of the line from Tolleston to Clarke Junction is owned by Conrail. Post-acquisition, both of these line segments are proposed to be owned and operated by CSX.

The FCC opposes the reactivation of the out-of-service PRR line, and proposes an alternative which will permit NS to achieve its objective of serving industry on the Wabash spur and to connect with the Conrail Lakefront line moving in an easterly direction. This alternative requires the use of the existing turnouts at Pine Junction on the CSX lines and the construction of a connection between the CSX line at Pine Junction and the Conrail Lakefront line. Exhibit GLH/RHD-4 is a graphical depiction of the proposed construction of this connection. This connection, including signaling, is estimated to cost \$277,933. The calculations underlying this estimate are found in Exhibit GLH/RHD-5.

D. Van Loon Junction

Based on CSX's responses to the FCC's September 29, 1997 questions in lieu of deposition and CSX's responses to the FCC's Second Set of Interrogatories and Request for Production of Documents, it appears that CSX desires to reactivate the PRR line to move coal and coke to the steel mills located on the Lake Michigan waterfront. CSX's responses to the FCC's questions indicate this coal and coke will be moved to the U.S. Steel Mill in Gary via the Hobart to Tolleston line, then over the EJ&E by CSX crews.

As indicated previously, the FCC opposes the reactivation of the out-of-service PRR line between Hobart and Clarke Junction. To accommodate the five trains per day, that CSX

projects to move over these lines, the FCC proposes that these CSX trains be routed from Hobart to Van Loon over the NS (former Nickel Plate ("NKP")) line via a trackage rights agreement between the Applicants. From Van Loon, the FCC proposes that the CSX trains move over the EJ&E via trackage rights to the same lakefront steel mills. This alternative requires the construction of a connection between the NS/NKP line and the EJ&E line at Van Loon.

We have inspected the tracks at Van Loon and have determined that it is feasible to build the required connection to accommodate the movement of five trains per day from the NS line to the EJ&E line. We have preliminarily estimated the cost of this connection to equal \$277,933. Exhibit GLH/RHD-6 displays our calculations of this construction cost. Exhibit GLH/RHD-7 is a graphical depiction of the connection between the NKP and EJ&E lines at Van Loon.

A potential alternative to the NS/EJE routing via Van Loon also exists. This alternative would use the NS/NKP line further westward to Osborn Junction. At Osborn, the trains would use an existing connection with a north-south IHB line, and would operate over the IHB to connections with the CSX Lakefront line and the EJ&E at the Lakefront yard lines in the Indiana Harbor area. This alternative is more circuitous than the Van Loon/EJ&E route, and it is less desirable from the FCC viewpoint because the IHB line has more grade crossings than the EJ&E line.



**GREGG L. HEINZMAN, P.E., S.E., L.S.**

*Project Manager*

**EDUCATION**

*M.S. Business Administration  
Indiana University, 1988*

*B.S. Civil Engineering  
Purdue University - West Lafayette,  
Indiana, 1972*

**REGISTRATIONS**

*Professional Engineer: Indiana, 1977,  
#17288*

*Structural Engineer: Illinois, 1983,  
#81004504*

*Land Surveyor: Indiana  
LS29700020*

**MEMBERSHIPS**

*Association of Iron and Steel  
Engineers*

**EXPERIENCE**

Mr. Heinzman's experience includes over 24 years of project management and engineering design services for municipal projects, private commercial developments and heavy industry, particularly the steel and petrochemical industries. Mr. Heinzman also has experience in structural inspection, civil engineering and surveying. Mr. Heinzman's project experience includes the following:

*Civil/Structural Projects*

- Trump/Barden Riverboat Gaming Development, Civil/Site Design Including Sewer and Water Service - Gary, Indiana
- Showboat Gaming Development, Civil and Structural Design - East Chicago, Indiana
- Steel and Concrete Design, Municipal Airport Terminal - Gary, Indiana
- Streets Reconstruction, City of Hammond - Hammond, Indiana
- Indiana University Northwest - Gary, Indiana
- Structural Inspection of 21 Buildings - Fort Benjamin Harrison, Indiana - U.S. Army Corps of Engineers

*Survey Projects*

- Lehigh Portland Cement Co., Gary
- U.S. Steel Property Surveys
- Midwest Steel Property Surveys
- Little Calumet River Basin Development Commission, Land Acquisition and Easement Surveys

*Industrial Projects*

- U.S. Steel - Gary Works
  - Roadway Modifications for CTEK Slab Carriers
  - Railroad Track Inventory
  - Construction Supervision - "E" Vessel Reline, #1 BOP
- Numerous Projects for the following industries:
  - Bethlehem Steel
  - Inland Steel
  - Midwest Steel
  - LTV Steel
  - Swenson Process Equipment Inc.



**FOUR CITY CONSORTIUM  
TRAIN DELAY STUDY**

Team: \_\_\_\_\_

Location Start Time: \_\_\_\_ : \_\_\_\_

Location: \_\_\_\_ . \_\_\_\_\_

Location End Time: \_\_\_\_ : \_\_\_\_

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Reset Vehicle Counter = 0

**Train Delay Observation Form**

Train Delay Event Begin Time: \_\_\_\_ : \_\_\_\_

Vehicle Counter \_\_\_\_\_

IF Train stops, record: <sup>1</sup>

Reset Vehicle Counter = 0

Train stop time: \_\_\_\_ : \_\_\_\_

Train start time: \_\_\_\_ : \_\_\_\_

Number of locomotives: <sup>2</sup> \_\_\_\_\_

Number of railcars: <sup>2</sup> \_\_\_\_\_

Train Delay Event End Time: \_\_\_\_ : \_\_\_\_

Number of vehicles in queue  
-- DO NOT reset counter --

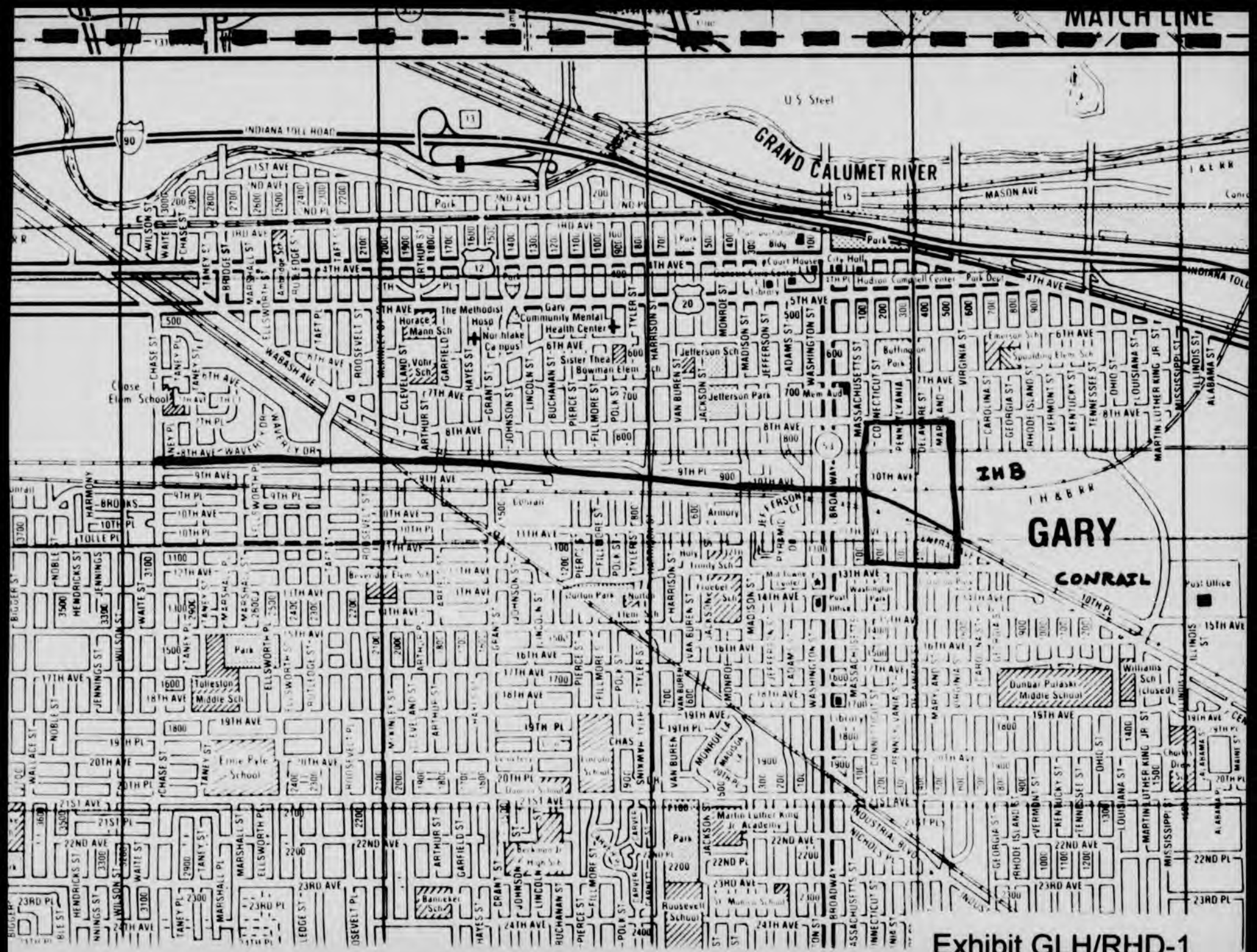
Time queue clears crossing \_\_\_\_ : \_\_\_\_

Ending <sup>3</sup> Vehicle Count \_\_\_\_\_  
Reset Vehicle Counter = 0

<sup>1</sup> In any given event if the train stops more than once, record train stop time and train start time each time the train stops and starts

<sup>2</sup> If more than one train closes a crossing at the same time, to the extent possible, record the number of locomotives and railcars in both trains

<sup>3</sup> At end of observation period or when next train arrives



**FCC's Alternative Routing Plan  
Summary of Investment Costs for  
Abandoned IHB Line To Virginia Street**

|                                       | <u>IHB Line</u>           |
|---------------------------------------|---------------------------|
| 8 Ties                                | 172,632                   |
| 9 Rail & OTM                          | 449,262                   |
| 11 Ballast                            | 99,304                    |
| 12 Track Labor                        | 182,700                   |
| Total Track                           | <u>\$903,898</u>          |
| 3 Grading                             | 53,886                    |
| Connection with Conrail Porter Branch | <u>405,442</u>            |
| Subtotal                              | <u>\$1,363,225</u>        |
| Engineering                           | 57,467                    |
| Contingency                           | 142,069                   |
| Total                                 | <u><u>\$1,562,762</u></u> |

# REHABILITATION OF ABANDONED IHB LINE

## ROAD PROPERTY INVESTMENT

| Item Description               | Costing Unit | IHB      |           |                  |
|--------------------------------|--------------|----------|-----------|------------------|
|                                |              | QUANTITY | UNIT COST | Estimated Cost   |
| 8 Ties - Grade 5               | Each         | 6,823    | 25.30     | 172,632          |
| 9 Rail - New 132 Lb.           | Ton          | 488      | 660.00    | 321,996          |
| 9 Rail Welds - Field           | Each         | 17       | 150.00    | 2,520            |
| 9 Rail Welds - Shop            | Each         | 270      | 80.00     | 21,577           |
| 9 Rail Anchors                 | Each         | 13,647   | 1.00      | 13,647           |
| 9 Tie Plates - New             | Each         | 13,647   | 6.00      | 81,881           |
| 9 Track Spikes                 | Each         | 27,294   | 0.28      | 7,642            |
|                                |              |          |           | <b>449,262</b>   |
| 11 Ballast                     | Cubic Yd.    | 8,870    | 8.00      | 70,963           |
| 11 Subballast                  | Cubic Yd.    | 4,723    | 6.00      | 28,341           |
|                                |              |          |           | <b>99,304</b>    |
| 12 TL & S WTRR - Labor         | Track Mile   | 2.10     | 77,000.00 | 161,700          |
| Track Removal                  | Track Mile   | 2.10     | 10,000.00 | 21,000           |
|                                |              |          |           | <b>182,700</b>   |
| 3 Grading                      |              |          |           |                  |
| Earthwork Excavation - Soil    | Cubic Yd.    | 21,000   | 2.50      | 52,500           |
| Brush Cutting                  | Mile         | 2.10     | 160.00    | 336              |
| Herbicide Application          | Mile         | 2.10     | 500.00    | 1,050            |
|                                |              |          |           | <b>53,886</b>    |
| <b>Total Raw Road Property</b> |              |          |           | <b>957,784</b>   |
| Engineering                    | 6%           |          |           | 57,467           |
| Contingencies                  | 10%          |          |           | 101,525          |
| <b>Grand Total</b>             |              |          |           | <b>1,116,776</b> |



**CONSTRUCTION OF CONNECTION .****Between IHB and Conrail Porter Branch at Virginia Street**

| Item Description             | Costing Unit |          |             |                |
|------------------------------|--------------|----------|-------------|----------------|
|                              |              | QUANTITY | UNIT COST   | Estimated Cost |
| Land                         | Acres        | 2.2      | \$500.00    | \$1,100        |
| Earthwork Excavation         | Cubic Yd.    | 15,000   | \$10.97 1/  | \$164,550      |
| Ballast                      | Cubic Yd.    | 1,744    | \$8.00      | \$13,952       |
| Subballast                   | Cubic Yd.    | 929      | \$6.00      | \$5,572        |
| Ties - Grade 5               | Each         | 1,342    | \$25.30     | \$33,941       |
| Rail - New 132 Lb.           | Ton          | 96       | \$660.00    | \$63,307       |
| Rail Welds - Field           | Each         | 112      | \$90.00     | \$10,062       |
| Rail Anchors                 | Each         | 2,683    | \$1.00      | \$2,683        |
| Tie Plates - New             | Each         | 2,683    | \$6.00      | \$16,098       |
| Track Spikes                 | Each         | 5,366    | \$0.28      | \$1,503        |
| Turnouts: 132#, #15 Complete | Each         | 2        | \$31,000.00 | \$62,000       |
| Labor & Equipment            | Miles        | 0.41     | \$70,000.00 | \$28,902       |
| Brush Cutting                | Miles        | 0.41     | \$160.00    | \$66           |
| Herbicide Application        | Miles        | 0.41     | \$500.00    | \$206          |
| Curve Lubricator installed   | Each         | 1        | \$1,500.00  | \$1,500        |
| Total                        |              |          |             | \$405,442      |
| Contingencies                |              |          | 10%         | \$40,544       |
| Grand Total                  |              |          |             | \$445,986      |

1/ From 1997 RS Means - Site Work &amp; Landscape Cost Data

Includes borrow, track mounted front end loader, 5 mile haul and spreading and compacting



**Applicants' Operating Plan  
Summary of Investment Costs for  
Abandoned Pennsylvania Railroad From  
Hobart to Clarke Jct.**

|                                                   | <u>PRR Line</u>    |
|---------------------------------------------------|--------------------|
| 8 Ties                                            | 965,915            |
| 9 Rail & OTM                                      | 2,513,726          |
| 11 Ballast                                        | 555,630            |
| 12 Track Labor                                    | 1,022,250          |
| Total Track                                       | <u>\$5,057,522</u> |
| 3 Grading                                         | 301,505            |
| Connection with Conrail Porter Branch             | 258,428            |
| Connection with EJE at Dunes                      | 258,428            |
| Subtotal                                          | <u>\$5,875,883</u> |
| Engineering                                       | 321,542            |
| Contingency                                       | 619,742            |
| NS connection between Wabash<br>line and PRR line | 200,000 1/         |
| Total                                             | <u>\$7,017,167</u> |

1/ Finance Docket No. 33388 - Railroad Control Application, Volume 3B of 8, page 283

# **ABANDONED PENNSYLVANIA RR LINE - Hobart to Clarke Jct.** **ROAD PROPERTY INVESTMENT**

| Item Description               | Costing Unit | PRR      |           |                  |
|--------------------------------|--------------|----------|-----------|------------------|
|                                |              | QUANTITY | UNIT COST | Estimated Cost   |
| 8 Ties - Grade 5               | Each         | 38,178   | 25.30     | 965,915          |
| 9 Rail - New 132 Lb.           | Ton          | 2,730    | 660.00    | 1,801,642        |
| 9 Rail Welds - Field           | Each         | 94       | 150.00    | 14,100           |
| 9 Rail Welds - Shop            | Each         | 1,509    | 80.00     | 120,726          |
| 9 Rail Anchors                 | Each         | 76,357   | 1.00      | 76,357           |
| 9 Tie Plates - New             | Each         | 76,357   | 6.00      | 458,142          |
| 9 Track Spikes                 | Each         | 152,714  | 0.28      | 42,760           |
|                                |              |          |           | <b>2,513,726</b> |
| 11 Ballast                     | Cubic Yd.    | 49,632   | 8.00      | 397,056          |
| 11 Subballast                  | Cubic Yd.    | 26,429   | 6.00      | 158,574          |
|                                |              |          |           | <b>555,630</b>   |
| 12 TL & S WTRR - Labor         | Track Mile   | 11.75    | 77,000.00 | 904,750          |
| Track Removal                  | Track Mile   | 11.75    | 10,000.00 | 117,500          |
|                                |              |          |           | <b>1,022,250</b> |
| 3 Grading                      |              |          |           |                  |
| Earthwork Excavation - Soil    | Cubic Yd.    | 117,500  | 2.50      | 293,750          |
| Brush Cutting                  | Mile         | 11.75    | 160.00    | 1,880            |
| Herbicide Application          | Mile         | 11.75    | 500.00    | 5,875            |
|                                |              |          |           | <b>301,505</b>   |
| <b>Total Raw Road Property</b> |              |          |           | <b>5,359,027</b> |
| Engineering                    | 6%           |          |           | 321,542          |
| Contingencies                  | 10%          |          |           | 568,057          |
| <b>Grand Total</b>             |              |          |           | <b>6,248,625</b> |

**CONSTRUCTION OF CONNECTION .  
Between PRR and Conrail Porter Branch**

| Item Description             | Costing Unit |          |             | Estimated Cost |
|------------------------------|--------------|----------|-------------|----------------|
|                              |              | QUANTITY | UNIT COST   |                |
| Land                         | Acres        | 2.2      | \$500.00    | \$1,100        |
| Earthwork Excavation         | Cubic Yd.    | 1,698    | \$10.97 1/  | \$18,627       |
| Ballast                      | Cubic Yd.    | 763      | \$8.00      | \$6,106        |
| Subballast                   | Cubic Yd.    | 406      | \$6.00      | \$2,438        |
| Ties - Grade 5               | Each         | 587      | \$25.30     | \$14,853       |
| Rail - New 132 Lb.           | Ton          | 42       | \$660.00    | \$27,704       |
| Rail Welds - Field           | Each         | 4        | \$150.00    | \$600          |
| Rail Welds - Shop            | Each         | 23       | \$80.00     | \$1,856        |
| Rail Anchors                 | Each         | 1,174    | \$1.00      | \$1,174        |
| Tie Plates - New             | Each         | 1,174    | \$6.00      | \$7,045        |
| Track Spikes                 | Each         | 2,348    | \$0.28      | \$658          |
| Turnouts: 132#, #15 Complete | Each         | 2        | \$31,000.00 | \$62,000       |
| Signals                      | Each         | 2        | \$50,000.00 | \$100,000      |
| Labor & Equipment            | Miles        | 0.18     | \$70,000.00 | \$12,648       |
| Brush Cutting                | Miles        | 0.18     | \$160.00    | \$29           |
| Herbicide Application        | Miles        | 0.18     | \$500.00    | \$90           |
| Curve Lubricator installed   | Each         | 1        | \$1,500.00  | \$1,500        |
| Total                        |              |          |             | \$258,428      |
| Contingencies                |              |          | 10%         | \$25,843       |
| Grand Total                  |              |          |             | \$284,271      |

1/ From 1997 RS Means - Site Work & Landscape Cost Data  
Includes borrow, track mounted front end loader, 5 mile haul and spreading and compacting

**CONSTRUCTION OF CONNECTION .**  
**Between PRR and EJE at Dunes**

| Item Description             | Costing Unit |          |             |                |
|------------------------------|--------------|----------|-------------|----------------|
|                              |              | QUANTITY | UNIT COST   | Estimated Cost |
| Land                         | Acres        | 2.2      | \$500.00    | \$1,100        |
| Earthwork Excavation         | Cubic Yd.    | 1,698    | \$10.97 1/  | \$18,627       |
| Ballast                      | Cubic Yd.    | 763      | \$8.00      | \$6,106        |
| Subballast                   | Cubic Yd.    | 406      | \$6.00      | \$2,438        |
| Ties - Grade 5               | Each         | 587      | \$25.30     | \$14,853       |
| Rail - New 132 Lb.           | Ton          | 42       | \$660.00    | \$27,704       |
| Rail Welds - Field           | Each         | 4        | \$150.00    | \$600          |
| Rail Welds - Shop            | Each         | 23       | \$80.00     | \$1,856        |
| Rail Anchors                 | Each         | 1,174    | \$1.00      | \$1,174        |
| Tie Plates - New             | Each         | 1,174    | \$6.00      | \$7,045        |
| Track Spikes                 | Each         | 2,348    | \$0.28      | \$658          |
| Turnouts: 132#, #15 Complete | Each         | 2        | \$31,000.00 | \$62,000       |
| Signals                      | Each         | 2        | \$50,000.00 | \$100,000      |
| Labor & Equipment            | Miles        | 0.18     | \$70,000.00 | \$12,648       |
| Brush Cutting                | Miles        | 0.18     | \$160.00    | \$29           |
| Herbicide Application        | Miles        | 0.18     | \$500.00    | \$90           |
| Curve Lubricator installed   | Each         | 1        | \$1,500.00  | \$1,500        |
| Total                        |              |          |             | \$258,428      |
| Contingencies                |              |          | 10%         | \$25,843       |
| Grand Total                  |              |          |             | \$284,271      |

1/ From 1997 RS Means - Site Work & Landscape Cost Data  
 Includes borrow, track mounted front end loader, 5 mile haul and spreading and compacting

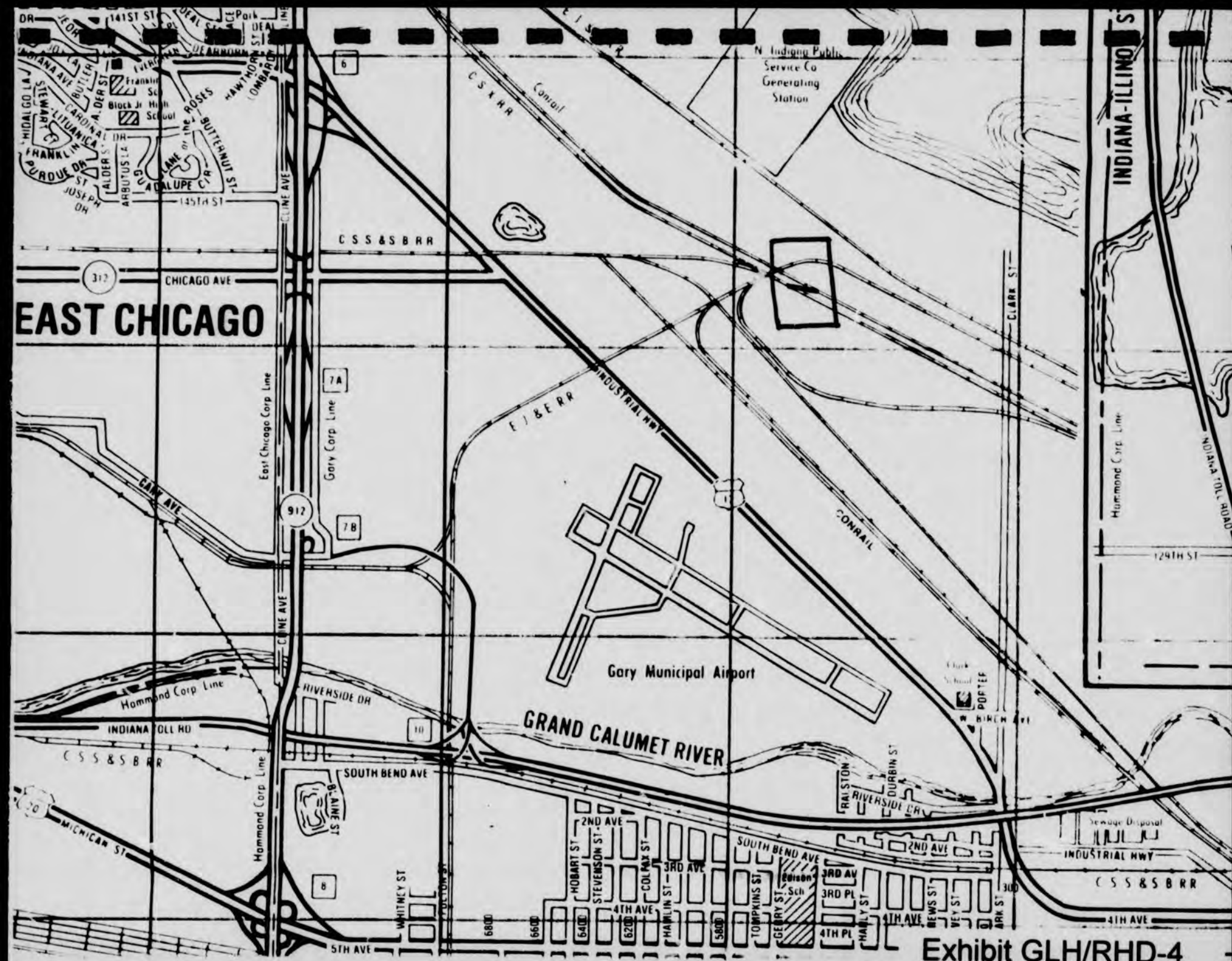


Exhibit GLH/RHD-4



**FCC's Alternative Routing Plan**  
**CONSTRUCTION OF CONNECTION**  
**between CSX and CR Lakefront Line**

| Item Description             | Costing Unit |          |             | Estimated Cost |
|------------------------------|--------------|----------|-------------|----------------|
|                              |              | QUANTITY | UNIT COST   |                |
| Land                         | Acres        | 2.2      | \$500.00    | \$1,100        |
| Earthwork Excavation         | Cubic Yd.    | 1,698    | \$10.97 1/  | \$18,627       |
| Ballast                      | Cubic Yd.    | 763      | \$8.00      | \$6,106        |
| Subballast                   | Cubic Yd.    | 406      | \$6.00      | \$2,436        |
| Ties - Grade 5               | Each         | 587      | \$25.30     | \$14,853       |
| Rail - New 115 Lb.           | Ton          | 37       | \$600.00    | \$21,942       |
| Rail Welds - Field           | Each         | 4        | \$150.00    | \$600          |
| Rail Welds - Shop            | Each         | 23       | \$80.00     | \$1,856        |
| Rail Anchors                 | Each         | 1,174    | \$1.00      | \$1,174        |
| Tie Plates - New             | Each         | 1,174    | \$6.00      | \$7,045        |
| Track Spikes                 | Each         | 2,348    | \$0.28      | \$658          |
| Turnouts: 115#, #15 Complete | Each         | 2        | \$31,000.00 | \$62,000       |
| Signals                      | Each         | 2        | \$50,000.00 | \$100,000      |
| Labor & Equipment            | Miles        | 0.18     | \$70,000.00 | \$12,648       |
| Brush Cutting                | Miles        | 0.18     | \$160.00    | \$29           |
| Herbicide Application        | Miles        | 0.18     | \$500.00    | \$90           |
| Curve Lubricator installed   | Each         | 1        | \$1,500.00  | \$1,500        |
| Total                        |              |          |             | \$252,666      |
| Contingencies                |              |          | 10%         | \$25,267       |
| Grand Total                  |              |          |             | \$277,933      |

1/ From 1997 RS Means - Site Work & Landscape Cost Data

Includes borrow, track mounted front end loader, 5 mile haul and spreading and compacting

FCC's Alternative Routing Plan  
CONSTRUCTION OF CONNECTION  
between EJE and NS at Van Loon

| Item Description             | Costing Unit |          |             | Estimated Cost |
|------------------------------|--------------|----------|-------------|----------------|
|                              |              | QUANTITY | UNIT COST   |                |
| Land                         | Acres        | 2.2      | \$500.00    | \$1,100        |
| Earthwork Excavation         | Cubic Yd.    | 1,698    | \$10.97 1/  | \$18,627       |
| Ballast                      | Cubic Yd.    | 763      | \$8.00      | \$6,106        |
| Subballast                   | Cubic Yd.    | 406      | \$6.00      | \$2,438        |
| Ties - Grade 5               | Each         | 587      | \$25.30     | \$14,853       |
| Rail - New 115 Lb.           | Ton          | 37       | \$600.00    | \$21,942       |
| Rail Welds - Field           | Each         | 4        | \$150.00    | \$600          |
| Rail Welds - Shop            | Each         | 23       | \$80.00     | \$1,856        |
| Rail Ar chors                | Each         | 1,174    | \$1.00      | \$1,174        |
| Tie Plates - New             | Each         | 1,174    | \$6.00      | \$7,045        |
| Track Spikes                 | Each         | 2,348    | \$0.28      | \$658          |
| Turnouts: 115#, #15 Complete | Each         | 2        | \$31,000.00 | \$62,000       |
| Signals                      | Each         | 2        | \$50,000.00 | \$100,000      |
| Labor & Equipment            | Miles        | 0.18     | \$70,000.00 | \$12,648       |
| Brush Cutting                | Miles        | 0.18     | \$160.00    | \$29           |
| Herbicide Application        | Miles        | 0.18     | \$500.00    | \$90           |
| Curve Lubricator installed   | Each         | 1        | \$1,500.00  | \$1,500        |
| Total                        |              |          |             | \$252,666      |
| Contingencies                |              |          | 10%         | \$25,267       |
| Grand Total                  |              |          |             | \$277,933      |

1/ From 1997 RS Means - Site Work & Landscape Cost Data

Includes borrow, track mounted front end loader, 5 mile haul and spreading and compacting







**R.H. DUNN & ASSOCIATES, INC.**  
 RAILWAY CONSULTING SERVICES  
 149 HUNTING COVE  
 P.O. BOX 3106  
 WILLIAMSBURG, VIRGINIA 23187-3106

RONALD H. DUNN, P.E.  
 PRESIDENT

OFFICE: (757) 253-1453  
 DATAFAX: (757) 253-1162

**FORENSIC ENGINEERING QUALIFICATIONS**

Mr. Dunn is a Licensed Professional Engineer with more than 40 years of experience in the design, construction, maintenance, and operation of railroads and rail rapid transit systems; including ten years with the Baltimore & Ohio Railroad and personal involvement in major engineering projects of 18 railroads and 17 rail rapid transit properties throughout North America (In more than 40 states, D.C. and 6 provinces). He is knowledgeable of European and Asian railway standards and practices through professional involvement there. His railway and rail transit consulting services include: forensic railway engineering, track failure/derailment investigations, railroad and crossing accident investigations, construction audits/overviews, construction claims investigations, track construction/maintenance inspections, laboratory tests monitoring, track material procurement inspection, and technical input/expert witness testimony for plaintiffs or defendants in litigation and arbitration cases, including construction claims, wrongful death, personal injury and FELA claims.

In addition to forensic testimony based upon his professional engineering background, Mr. Dunn, relying upon his extensive experience, training and knowledge of railroad industry practices, including operations, rules, statutes, training, and maintenance, has also testified to: main line and yard operations, switching and kicking of cars (including placarded cars), radio communications, couplers and coupling/uncoupling of cars, event recorders, handholds and sill steps, railroad operating and safety rules, employee training, derailment and accident investigations, clearances, function and operation of switches and derails, maintenance tools/equipment, maintenance standards/practices, walkways/walking conditions, vegetation, lighting, blue flags, air hoses and hand brakes, yard layout, track and train inspections, turntables, and human factors.

He earned a B.S. Engineering at Johns Hopkins University and is: a Board Certified DIPLOMATE-FORENSIC ENGINEER; a FELLOW in ASCE, NAFE and ITE; a LIFE MEMBER of AREA; a MEMBER of APTA, CSCE, CSI, NARSCI, NSPE, SAME, TRB and VSPE; an active member of 6 technical committees in those organizations, and of a select panel of THE NATIONAL ACADEMY OF SCIENCES-NRC/TRB; and an ARBITRATOR in the American Arbitration Association.

**COURT EXPERIENCE:** Federal, State, Local, Interstate Commerce Commission, Surface Transportation Board, Army Corps of Engineers-Board of Contract Appeals, American Arbitration Association, and The Queen's Bench, Canada.



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**RONALD H. DUNN, P.E., F.ASCE**  
President

OFFICE: (757) 253-1453  
DATAFAX: (757) 253-1162

**EDUCATION:**

Johns Hopkins University, B.S. Engineering

**MANAGEMENT TRAINING:**

Dimensional Management Training Program; Dimensional Sales Training Program; Design Professionals Liability Course; Liability: Prevention and Protection; The Engineer As An Expert Witness; Virginia Construction Law; Construction Claims Arbitration Training (AA $\lambda$ ); and The Role of Expert Witnesses.

**PROFESSIONAL SOCIETY MEMBERSHIPS AND AFFILIATIONS:**

American Arbitration Association - Arbitrator, Construction Industry

American Public Transit Association:

Member of "Ways and Structures" Committee; "Track Construction and Maintenance" Subcommittee; "Operations" Committee; "Light Rail Transit" Subcommittee-Design Subgroup; "Elevated Structures" Task Force; "Girder Rail" Task Force

American Railway Bridge and Building Association

American Railway Engineering Association - Life Member:

Member "Economics of Plant, Equipment and Operations" Committee, 1966-85; "Track" Committee, "Track Design", "Turnout and Crossing Design" and "Highway-Railway Grade Crossings" Sub-Committees, 1985-present; "Rapid Transit" Committee, 1986-Present

American Society of Civil Engineers - Fellow

Canadian Society For Civil Engineering

Construction Specifications Institute

Institute of Transportation Engineers - Fellow

National Academy of Forensic Engineers - Fellow and Board Certified Diplomate

National Academy of Sciences - NRC/TRB/FTA/TDC:

Member select panel investigating "Derailment of Transit Vehicles in Special Trackwork", 1993 - 1997

National Association of Railroad Safety Consultants and Investigators

National Institute for Engineering Ethics

National Society of Professional Engineers

Roadmasters and Maintenance-of-Way Association of America

Society of American Military Engineers

Transportation Research Board, National Research Council

Member "Railway Maintenance" Committee, 1984-1990; "Rail Transit System Design" Committee, 1985-Present; "Railroad Track Structure System Design" Committee, 1990-Present

U.S. Department of Transportation, 1968-1971

Member of committee which advised DOT in developing its test track

Virginia Society of Professional Engineers

**PROFESSIONAL EXPERIENCE:**

Mr. Dunn is a Licensed Professional Engineer with more than 40 years of diversified experience in railroad and rail transit engineering. He has been personally involved in engineering of major yard, shop and trackwork projects of 18 railroads and 17 rail rapid transit properties throughout North America.



December, 1983 - Present:

R.H. Dunn & Associates, Inc., Fairfax, VA, and Williamsburg, VA, President.

o Current and recent assignments include design criteria preparation and review for yards and trackwork, construction overview, construction inspection, track inspection, inspection training, maintenance manual preparation, maintenance planning, derailment investigation, cost estimating, claim investigation, material procurement inspection, laboratory tests monitoring, staff and organization planning, supplemental technical staff, proposal assistance, and expert forensic engineering testimony. Clients for which these services have been provided include: Massachusetts Bay Transportation Authority (MBTA); Metro Canada Limited (MCL); Urban Transportation Development Corp. (UTDC); UTDC (USA), Inc.; Teledyne Engineering Services, Inc.; City of Calgary, Alberta; Port Authority (Transit) of Allegheny County (PAT); British Columbia Transit (BCT); Ontario Ministry of Transportation and Communications; City and County of Honolulu, HI; County of Maui, HI; Union Pacific Railroad; U.S. Department of Interior; Santa Clara County (CA) Transportation Agency; Metro Dade Transit Agency (Miami); City of Chicago; Consolidated Rail Corp.; U.S. Naval Facilities Engineering Command (Pacific Division); U.S. Department of Justice/EPA; and many major law firms throughout the United States.

May, 1978 - April, 1984:

Parsons Brinckerhoff Quade & Douglas, Inc., McLean, VA and Pittsburgh, PA.  
Vice President, Technical Director-Railway Engineering, Professional Associate.

o As Technical Director, responsible for quality of technical production and for staffing and training of personnel resources of firm's railway engineering projects; managed projects and actively involved in business development, management and administration of firm's Railway Division.

o Developed and conducted a formal training program on the principles of track design, fabrication, construction, and inspection. Program included 26 hours of classroom and field instruction for staff of 25 engineers responsible for monitoring and inspecting Work of all trackwork material suppliers and installation contractors on a major transit project.

o Area Manager responsible for overall management and operation of firm's McLean, VA office in addition to management of the Railway Division.

o Principal-in-Charge and Project Director for preliminary and final design of trackwork and material procurement documents for advanced light rail transit (ALRT) system of Metro Canada Limited in Vancouver, B.C., a fully automated, 14-mile linear induction rail transit system.

o Principal-in-Charge and Project Director for preliminary and final design of trackwork for Detroit Central Automated Transit System (CATS), a fully automated, linear induction rail transit system for the Southeastern Michigan Transportation Authority (SEMTA).

o Principal-in-Charge of final design of a 60 mile coal haul railroad for unit train operation in Utah for a major coal company. This major branch line will comprise part of the D&RGW Railroad system.

o Principal-in-Charge and Project Director for forensic investigation of track failure, preparation of bid documents for material procurement and reconstruction of direct fixation track and resident engineering services during reconstruction under revenue traffic for City of Calgary, Alberta, light rail transit (LRT) system. Engineering consultant for extension to LRT system for City of Calgary.

- o Technical Consultant on "Project Yellow", a vital \$460 million joint venture engineering and construction project of the Union Pacific Railroad and the Chicago and North Western Railroad.
- o Project Director for development of trackwork design criteria and directive drawings for governing final design of Guadalupe Corridor light rail transit project, San Jose, CA.
- o Principal-in-Charge and Project Director for final design of trackwork, (including yards trackage), material procurement documents and floating slabs, and for provision of material procurement inspection services for light rail rapid transit system of Niagara Frontier Transportation Authority (NFTA), Buffalo, NY.
- o Chief Trackwork Engineer for the Frankford Elevated Structure Rehabilitation Project for the City of Philadelphia/Southeastern Pennsylvania Transportation Authority (SEPTA). This rehabilitation project was planned for being accomplished under revenue traffic.
- o Principal-in-Charge for trackwork material procurement and final design documents required on the Newark City Subway Rehabilitation Project for New Jersey Transit (NJT), a major track rehabilitation project performed under revenue traffic.
- o Trackwork Project Manager for Commuter Rail Improvement Program of MBTA in Boston. Project involved track inspection of all track, formulation of recommendations and engineering for rehabilitating seven commuter rail lines. Program work included track undercutting, drainage improvements, grade crossing improvements, cross tie renewal, turnout renewal, surfacing and lining, and laying of continuous welded rail under commuter traffic conditions, and coordination with operating department of MBTA.
- o Responsible for preparation of trackwork design criteria and technical specifications for material procurement for LRT track rehabilitation of PAT, Pittsburgh, PA.

February, 1976 - May, 1978:

Morrison-Knudsen Co., Inc., Boise, ID, Director-Railroad Engineering.

- o In this position, Mr. Dunn had overall responsibility for creation and management of a railroad engineering organization performing conceptual and detail design of rail car maintenance shops; preliminary and detail design of railroad branch lines to serve new coal mines; and studies comparing economics of alternative modes of coal transportation.

February, 1973 - February, 1976:

PBTB, Atlanta, GA, Manager of Engineering Support.

- o In this position, Mr. Dunn, for the Parsons Brinckerhoff joint venture engaged as the General Engineering Consultant of the Metropolitan Atlanta Rapid Transit Authority (MARTA) Project, developed and managed a large multidisciplinary department comprised of Railroad, Rail Facilities, Survey, Acoustics, and Utility Sections. He was responsible for the technical review and coordination of all design work with the 29 railroads, agencies and utilities affected by the Project. Was also responsible for conceptual, preliminary and final design of rail transit yards, shops and trackwork; writing the design review procedures and the surveying and mapping specifications; contract administration and technical management of surveying and photogrammetric mapping; and was the technical manager of the noise and vibration consultant's Work.

June, 1966 - February, 1973:

De Leuw, Cather & Co., Washington, DC, Chief Engineer-Yards, Shops & Trackwork.

o His major responsibilities on Washington, DC Metro Project included: development of design criteria and directive drawings: final design, cost estimates of major repair yard, all trackwork (including state-of-the-art direct fixation rail fastener specifications), 3 service and inspection yards; engineering of noise and vibration control features, including floating slabs for special trackwork; direction of staff engaged in comprehensive study of track design, construction and maintenance practices of North American and European rail transit systems; and an in-depth analytical investigation of track design principles, including an economic study of track structure components. Was Project Engineer for final design of Major Repair Shop, procurement of shop equipment and for conceptual design of Service & Inspection Shops.

November, 1958 - June, 1966:

Baltimore and Ohio Railroad (Chessie System) Baltimore, MD.

Mr. Dunn's various assignments included:

o Resident engineer for construction of a power plant and facilities to expand railroad's coal-handling capacity. Responsibilities included route location and preparation of plans and cost estimates for alignment changes, relocation of main tracks, and construction of new branch lines, sidings and yards. Was also involved in all facets of track maintenance, on-site studies into causes of major train derailments, train movements of continuous welded rail (CWR), laying of CWR in-track, and engineering design and surveying of the railroad's TOFCEE facility in Baltimore.

#### PUBLICATIONS AND PAPERS:

While working on the Washington, D.C. Metro project, Mr. Dunn wrote the report, Recommended Trackwork Standards, a text in trackwork design which set forth formulas and step-by-step procedures to be followed by track design engineers. Technical papers presented include: "Modern Railroad Concepts for Transporting Western Coal", April, 1976, "Railroad Transportation with Unit Trains-Key to Western Coal Development", July, 1976, and "Availability of Girder Rail for Light Rail Rapid Transit", April, 1980; Direct Fixation Rail Fasteners - Engineering, Procurement and Construction Experience, April, 1989; Effect of Track Stiffness on Dynamic Loading of Direct Fixation Rail Fasteners, August, 1989; North American Trackwork Design, Construction and Maintenance Standards and Practices, December, 1989.

#### HONORS:

At invitation of Japan Railway Civil Engineering Association, Mr. Dunn toured Japan in 1972 to inspect/observe/discuss railroad and rail transit facilities there. He has also toured railroad and rail transit facilities of several European countries in 1980, 1982 and 1984, and in Hong Kong and China in 1985. In 1988, at invitation of French National Railroads and Paris Transport Authority, he toured France to inspect/observe/discuss railroad and rail transit facilities there. Selected for inclusion in 16th edition (1978-1979) Who's Who in the West; 21st-30th editions (1979-1999) Who's Who in Finance and Industry; 17th-25th editions (1980-1998) Who's Who in the South and Southwest; 5th-15th editions (1980-1998) Who's Who in the World; 20th-22nd editions (1985-1990) Who's Who in the East; 1st-4th editions (1992-1999) Who's Who in Science and Engineering; 19th-20th editions Who's Who in Railroading and Rail Transit; and 1989-1997 editions Directory of Railroad Safety Consultants.



Verification

State of Indiana     )  
                              ) ss:  
County of Lake        )

Gregg L. Heinzman, being duly sworn, deposes and says that he has read the foregoing Verified Statement, knows the contents thereof, and that the same are true as stated except as to those statements made on information and belief, and as to those, that he believes them to be true.

Gregg L Heinzman

Subscribed and sworn to before me

this 17<sup>th</sup> day of October, 1997.

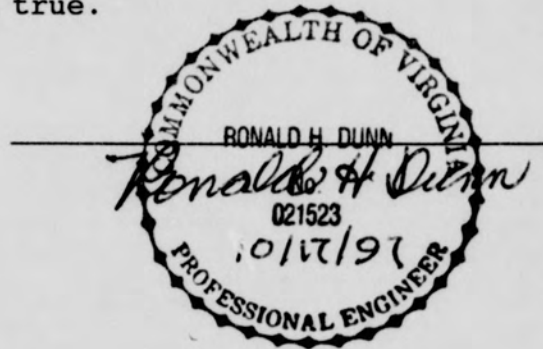
Judith L Scott  
Notary Public for Lake County, Indiana.

My commission expires 5-24-01.

Verification

State of Virginia            )  
                                  ) ss:  
County of James City        )

Ronald H. Dunn, P.E., being duly sworn, deposes and says that he has read the foregoing Verified Statement, knows the contents thereof, and that the same are true as stated except as to those statements made on information and belief, and as to those, that he believes them to be true.



Subscribed and sworn to before me  
this 17th day of October, 1997.

Carol W. Adams  
Notary Public for James City County, Virginia

My commission expires 12-31-2000.



STB

FD

33388

10-14-97

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Stephen L. Watson  
Regional Vice President - State Relations

700 Harrison Building  
143 West Market Street  
Indianapolis, IN 46204  
(317) 267-3003  
FAX (317) 267-3005

August 25, 1997

VIA FAX: 219-391-8223

Mr. Russell G. Taylor  
City Planner  
City of East Chicago  
Planning Department  
4525 Indianapolis Blvd.  
East Chicago, IN 46312

Dear Mr. Taylor:

Thank you for meeting with Bob Garner, Greg Schenkel and me on Wednesday, August 20, 1997, to discuss our B&O Capacity Improvement Project and our acquisition of Conrail.

East Chicago identified three main areas of interest. They are:

- (1) The prospect of establishing a grade separation at Railroad Avenue to allow Railroad Avenue to be used as a hazardous materials truck route and to access the proposed Chicago Enterprise Center and reduce crossing delays from switching activities.
- (2) CSX and NS willingness to work with East Chicago on the development of a new rail-to-water and water-to-truck intermodal terminal on the U.S. Waterway channels.
- (3) Railroad's willingness to work with East Chicago to develop the lake front area to attract investment and tourists, including an agreement to grant certain "air rights" over the railroad from the Cline Avenue overpass at Inland Street east to the new overpass being constructed into the Showboat Casino.

As you indicated, East Chicago is a member of the Four Cities Consortium along with Gary, Hammond and Whiting. On August 8, 1997, Gary Mayor Scott King forwarded a list of concerns the City of Gary has regarding the acquisition. On August 14, 1997, the Four Cities Consortium filed a Notice of substitution of counsel with the STB and on the following day, filed a First Discovery request.

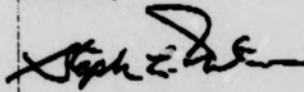
We have received a copy of the First Discovery request and it includes many of the issues raised in our August 20, 1997 meeting and in Mayor King's letter to me of August 8, 1997. Based on these developments, we will defer to our STB attorneys concerning the appropriateness of further discussions regarding this matter.

Russell G. Taylor  
August 25, 1997  
Page 2

Meanwhile, please be assured that we are continuing to work toward a resolution of as many of these issues as possible.

Thank you for the opportunity to meet with you and we look forward to working with you in the future.

Sincerely,



Stephen L. Watson

cc: Mayor Robert Bercik, Whiting  
Mayor Linda Buzine, Hobart  
Mayor Duane Dedlow, Jr., Hammond  
Mayor Scott King, Gary  
Mayor Sammie Maletta, Portage  
Mayor Robert Pastrick, East Chicago  
Mr. Micheal Cervay, Gary  
Mr. Dennis Terry, Hammond  
Ms. Gwendolyn Adams, Gary

Verification

State of Indiana     )  
                              ) ss:  
County of Lake        )

Kimberly L. Gordon, being duly sworn, deposes and says that she has read the foregoing Verified Statement, knows the contents thereof, and that the same are true as stated except as to those statements made on information and belief, and as to those, that she believes them to be true.

Kimberly L. Gordon

Subscribed and sworn to before me

this 17<sup>th</sup> day of October, 1997.

Constance L. Leland  
Notary Public for Lake County, Indiana.

My commission expires 9-17-99.

HAMMOND



CSX CORPORATION AND CSX  
TRANSPORTATION, INC. AND NORFOLK  
SOUTHERN CORPORATION AND  
NORFOLK SOUTHERN RAILWAY  
COMPANY -- CONTROL AND OPERATING  
LEASES/AGREEMENTS -- CONRAIL INC.  
AND CONSOLIDATED RAIL  
CORPORATION.

Finance Docket No. 33388

My name is Duane W. Dedelow, Jr. I am the elected Mayor of the City of Hammond, Indiana. My business address is 5925 Calumet Avenue, Hammond, Indiana 46320.

Hammond is a member of the Four City Consortium, a group of four municipalities in northwestern Indiana formed for purposes of evaluating the regional impacts of the proposed acquisition of Consolidated Rail Corporation ("Conrail") by

CSX Transportation, Inc. ("CSX") and Norfolk Southern Railway Company ("NS"), and recommending a regional solution to the infrastructure, health and safety problems resulting from the proposed division of Conrail. I am proud of the fact that these four cities have been able to develop a coordinated approach to this rail merger and to recommend a solution that fits the need of all members of the Consortium.

As Mr. Thomas relates in his Verified Statement, Hammond is the western anchor of the Four Cities Consortium. Due to their strategic location on the eastern border of Chicago, these cities (and Hammond in particular) are traversed by a large number of rail lines. Several of these lines, in particular the CSX Chicago Avenue line which passes just north of downtown Hammond as well as through East Chicago's downtown, have a large number of at-grade highway crossings.

Rail operations in Hammond result in significant public safety concerns. They also disrupt the lives of its citizens and commerce due to lengthy queues and delays at blocked railroad crossings. The high volume of vehicular traffic at the crossings of the CSX Chicago Avenue line in particular (as detailed by Mr. Thomas), combined with frequent train movements, has resulted in a particularly hazardous situation. Emergency service, private and commercial vehicles as well as school buses are constantly backed up at these grade crossings. Rail crossing delays are so endemic that many of our residents routinely ignore the crossing protection devices and attempt to cross the tracks in the path of

approaching trains. The crossing delays also contribute to air pollution in an area that has been designated by the Environmental Protection Agency as a non-attainment area under federal air quality standards.

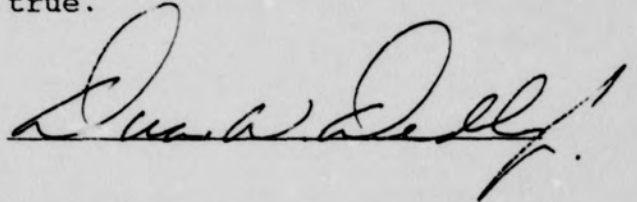
This situation will only be made worse if rail traffic using the CSX Chicago Avenue line increases. To remedy the problem while still preserving the operational benefits desired by CSX and NS, the Four City Consortium has developed an Alternative Routing Plan which will reroute some of the traffic using the most congested lines (in terms of both rail traffic and rail/highway grade crossings) to less congested lines with more rail/highway grade separations.

The details of the Alternative Routing Plan are set forth in Mr. Philip H. Burris's testimony for the Four City Consortium. It is a well-thought-out regional solution to the public health and safety problems that would otherwise result from the proposed realignment of rail operations in northwest Indiana. On behalf of the City of Hammond, I urge the Board to require CSX and NS to adhere to this Plan as a condition to its approval of their acquisition of Conrail.

Verification

State of Indiana     )  
                              ) ss:  
County of Lake        )

Duane W. Dedelow, Jr., being duly sworn, deposes and says that he has read the foregoing Verified Statement, knows the contents thereof, and that the same are true as stated except as to those statements made on information and belief, and as to those, that he believes them to be true.



Subscribed and sworn to before me  
this 17<sup>th</sup> day of October, 1997.

Sean M. Beverage-Stark  
Notary Public for Lake County, Indiana.

My commission expires 4-25-99.

CSX CORPORATION AND CSX  
TRANSPORTATION, INC. AND NORFOLK  
SOUTHERN CORPORATION AND  
NORFOLK SOUTHERN RAILWAY  
COMPANY -- CONTROL AND OPERATING  
LEASES/AGREEMENTS -- CONRAIL INC.  
AND CONSOLIDATED RAIL  
CORPORATION

As City Planner for the City of Hammond, I am responsible for the City's planning (including transportation planning), zoning, and historic preservation activities. I work in concert



with the City's Community Development and Economic Development Departments, and residential and business community leaders. I also work with the planners from other Indiana cities in the region, the Northwest Indiana Regional Planning Commission, and the State of Indiana to resolve planning issues of regional concern. I report directly to the Mayor of Hammond, and I supervise a staff of two professionals, summer interns, and clerical support personnel.

The purpose of this verified Statement is to provide the Surface Transportation Board ("STB") with information concerning the railroad lines that traverse the City of Hammond, the infrastructure problems caused by several of these lines, and the potential adverse impacts that are likely to result from the proposed acquisition of Consolidated Rail Corporation ("Conrail") by CSX Transportation, Inc. ("CSX") and Norfolk Southern Railway Company ("NS"). I am submitting this testimony on behalf not only of the City of Hammond, but also the Cities of East Chicago, Gary and Whiting, Indiana. In the interest of presenting the STB with a unified, regional overview of the Conrail transaction from the perspective of several political and planning entities in northwestern Indiana who share common interests, these cities have formed a group known as the "Four City Consortium" which is submitting a single set of Comments in this proceeding. My testimony will focus specifically on the City of Hammond, but Hammond's concerns should be viewed in the context of the Four City region as a whole.

Hammond is a culturally-diverse industrial and residential community occupying an area of 27 square miles in Lake County, Indiana, with a population of 84,000. Hammond is located in Northwest Indiana, and is bounded by the City of Chicago, Illinois on the west, Lake Michigan and the City of Whiting on the north, and the Cities of East Chicago and Gary on the east. After a decades-long period of economic and population decline, the City is in the process of revitalizing itself. Home values are rising, and Hammond now has available within its environs approximately 33,000 jobs -- approximately 10,000 of which have been created since 1990. In addition, the area's new lake-front casinos at the Hammond Marina, Pastrick Marina in East Chicago and Buffington Harbor in Gary, all of which opened in the last two years, have created nearly 5,000 new jobs which draw from all over the Four Cities area.

Hammond's ability to continue to grow is inhibited by several infrastructure problems that we are working hard to overcome. In particular, Hammond is criss-crossed by railroad lines which have a large number of at-grade rail/highway crossings. This is largely as a result of Hammond's strategic location; all of the major rail corridors extending from Chicago eastward to Detroit and the East Coast via Toledo, Fort Wayne, Cleveland and Pittsburgh pass through Hammond. These include main lines of the three major eastern rail carriers, Conrail, CSX and NS, as well as lines of the major Chicago area switching carriers including the Indiana Harbor Belt ("IHB"), the Elgin,

Joliet & Eastern ("EJE"), and the Baltimore & Ohio Chicago Terminal Railway ("BOCT"). The latter carrier is a wholly-owned subsidiary of CSX.

The major east-west rail lines that pass through Hammond, from north to south, include CSX's Lakefront line between Pittsburgh and Chicago via Willow Creek, Gary and Pine Junction, Indiana; Conrail's Lakefront line extending from Elkhart and Porter, Indiana to Chicago; Conrail's "Porter branch" extending from Michigan City and points in Michigan to Chicago via Porter, Tolleston and Ivanhoe, Indiana; CSX's main line between Pittsburgh and Chicago via Willow Creek, the CSX line extending from Pine Junction (Gary) to Calumet Park and Barr Yard, Illinois via the Chicago Avenue corridor;<sup>1</sup> the IHB line extending from Gary to various points in the Chicago area via Tolleston, Ivanhoe and Gibson Yard; and the NS line extending from Fort Wayne to Chicago via Hobart and Osborn, Indiana. In addition, the former Pennsylvania Railroad main line between Pittsburgh and Chicago also passes through Hammond. Parts of this line between Hobart, Tolleston and Clarke Junction are not presently in service. This line between Hobart and Tolleston is presently owned by NS, and between Tolleston and Clarke Junction is presently owned by Conrail. I understand that this line will be acquired by CSX, which plans to restore it to service. In

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<sup>1</sup> This line is actually owned by the BOCT, a wholly-owned CSX subsidiary. I will henceforth refer to this line, which connects with the CSX main line from Pittsburgh at Pine Junction, as the "CSX/BOCT line."

addition to these lines, the IHB, Chicago South Shore and South Bend Railroad, and EJE all have lines that traverse Hammond in various directions.

As one can imagine, there are many rail/highway grade crossings in Hammond. The CSX/BOCT line, which is of major concern to the City, passes just north of downtown Hammond parallel to busy Chicago Avenue and has nine grade crossings. This line has no rail/highway grade separations in Hammond.

Several of these highway grade crossings of the CSX/BOCT line involve heavily-traveled arterial streets, with very high daily vehicular counts. These include, in particular, Hohman Avenue (10,500 daily vehicular crossings), Calumet Avenue (17,000 daily vehicular crossings), and Columbia Avenue (15,000 daily vehicular crossings). These are major north-south streets providing access to and through the Hammond Central Business District and access to and from Lake Michigan for residents who live in the southern part of Hammond. Calumet Avenue, which is a major arterial federal-aid highway (U.S. 41), also provides access to the Indiana Toll Road (Interstate 90) and the Tri-State Highway (Interstate 80/94).

The difficulties entailed by the heavy vehicular traffic using these crossings are compounded by the fact that the rail line closely parallels Hammond's main east-west street, Chicago Avenue. Vehicles using Chicago Avenue itself are often delayed by vehicles waiting making right and left turns to cross the tracks.



I understand that, following consummation of the Conrail control transaction, CSX plans to raise the speed limit for trains using the CSX/BOCT line from 25 to 40 miles per hour, and to increase the volume of freight traffic moving over this line from 27.6 trains per day to 33.3 trains per day, or an increase of nearly six trains per day. Further, I understand that the projected post-acquisition trains will be consistently longer than the trains presently moving over this line. This line is already a major cause for concern to the City of Hammond. It is a double-track line, used by frequent, slow-moving freight trains. Although most of the highway grade crossings are protected by gates and automatic flashers, several have flashers only. The vehicular delays at these crossings are severe, and have resulted in an endemic problem of vehicles (and pedestrians) ignoring the crossing protection and crossing the tracks if no train is actually present. This problem will be exacerbated by CSX's proposal to increase both the frequency and speed of train movements using this line.

Hammond residents and workers who cross the CSX/BOCT line regularly have, unfortunately, become used to slow-moving and stopped trains. The City is greatly concerned that ingrained habits will die slowly, and that people who routinely ignore activated grade-crossing protection devices will continue to do so in the future, unaware of the greater hazard presented by faster-moving trains.



The CSX/BOCT line also presents problems in terms of emergency services. The division of Hammond by the CSX/BOCT line (and the other rail lines further south) makes it very difficult for emergency vehicles to respond to calls without having to wait for occupied rail/highway grade crossings to clear. This is particularly true with respect to access to St. Margaret's Hospital from the north. To help cope with this problem, the City of Hammond has a total of seven fire stations. We have only four EMS (ambulance) bases, however. This means that, periodically, the City has to use fire equipment to respond to emergency medical calls. Without this duplication of emergency-response capability, the City would have great difficulty responding adequately to the 8,000-plus EMS calls it receives annually.

Some of these issues and concerns are addressed in the City of Hammond's comprehensive Land Use Plan, which was adopted in 1992 to help it prepare for future development. This document contains a Transportation Thoroughfare Plan, relevant portions of which are appended to my testimony as Exhibit DFT-1. Among the problems identified in this portion of the Plan is the need for the vertical separation of vehicular traffic from rail traffic at several existing railroad grade crossings, including two on the CSX/BOCT line. The discussion of this issue indicates that development of these grade separations:

will become more crucial as traffic volumes increase and additional laneage is provided on major thoroughfares. It may be possible to avoid the expense of a grade separation structure by limiting train movements or

having them occur during non-peak traffic hours.

See Exhibit DFT-1, at the page numbered 71. The City's ability to avoid the necessity of constructing new grade separations will be lost with respect to the CSX/BOCT line through Hammond if CSX's planned rail traffic increases on that line are allowed to proceed.

The primary interest of the City of Hammond in this proceeding involves the potential shifting of rail traffic from the CSX/BOCT line to other east-west rail lines, and in particular the IHB line that parallels the CSX/BOCT line approximately one mile to the south. The IHB line occupies Conrail right-of-way, and it is largely grade-separated across both Hammond and Gary. In Hammond alone, the IHB line has six rail-highway grade separations, and only one at grade crossing. I understand that this line has eight grade separations in Gary, and only three grade crossings in that city. The federal, state and city governments have invested over \$25 million in the last ten years for grade separations on the IHB corridor. It is imperative that the benefits of this investment be maximized for the safety of our citizens and to assist in the improvement of the air quality in a non-attainment area.

The Four City Consortium has developed an Alternative Routing Plan which would reduce the number of train movements over the CSX/BOCT line and over the former Pennsylvania Railroad line between Clarke Junction and Tolleston, by shifting some of the rail traffic that would use these lines under the CSX and NS

operating plans to the parallel IHB line. This plan, which is described in more detail in the Verified Statement of Philip Burris on behalf of the Four City Consortium, would reduce the number of daily train movements over the CSX/BOCT line from 33.3 (the number projected by CSX for the third year after the transaction is consummated) to a more manageable 16.7. It would also eliminate the need to re-instate the line that is presently out of service between Hobart and Clarke Junction -- a project that would create 20 new at-grade crossings.

The Alternative Routing Plan was developed to best fit the needs of all of the members of the Four City Consortium. It will reduce congestion at rail/highway grade crossings by concentrating more traffic on grade-separated lines. On the other hand, the Plan should not interfere with CSX's and NS's ability to maximize the efficiency of their own operations in moving rail traffic between Chicago and eastern points. From my perspective as an urban planner, the Alternative Routing Plan is an excellent example of cooperative regional transportation planning. I commend it to the STB as a plan that will minimize the Conrail transaction's impacts on the northwest Indiana region, while enabling the rail carriers to achieve the efficiencies and alternative routing capabilities they seek.

**CITY OF HAMMOND  
COMPREHENSIVE/LAND USE PLAN**

Prepared For:

The City of Hammond  
Indiana

Prepared By:

Baxmeyer Associates, Inc.  
South Bend, Indiana

1992



### III. TRANSPORTATION/THOROUGHFARE PLAN

The Transportation/Thoroughfare Plan, is designed to support the continuing development anticipated in the Hammond area during the next several years. This will place increasing demands upon the community's transportation system. The Thoroughfare Plan proposes an inter-related system of highways, roads and streets serving the area which will meet the increased transportation demands within the City.

It is the intent of this study to define the best possible vehicular circulation system for the present and long-range needs of the City. Thus, the initial concern is development of a plan which achieves the following general goals:

- Easy and direct access to the major traffic generators within and adjacent to the Hammond planning area;
- Efficient through movements within the community; and,
- Protection of the existing and potential residential areas by discouraging through traffic movements within residential areas.

The streets which comprise this network are classified according to the functions they are to perform within the overall system. They are arranged so as to move vehicular traffic smoothly and efficiently in, out and through the area.

#### A. The Existing Thoroughfare System

In Hammond, as in most established communities, the street system is one of its most permanent features. Once the street system has become well established, it is difficult and costly to make major alterations in the pattern; consequently, this thoroughfare plan relies heavily on the existing street system. Various state and federal highways which enter the City perform the arterial functions of moving people and goods from one urban center to another. Many of the local streets, because of their location, alignment and surface condition, are used by local residents as collector routes. These roads gather traffic from residential areas and local streets and carry the traffic to nearby urban centers. The remainder of the streets within the City perform local access functions. They carry traffic through and between residential neighborhoods and from residential neighborhoods to collector streets or roads.

#### B. Thoroughfare Concepts

The following discussion briefly outlines the planning framework about which the Thoroughfare Plan is developed.



A circulation system must be designed to accommodate two basic types of traffic flow - local and through. Due to the variations in existing and anticipated vehicular movements within the confines of these types, roadways of several degrees of efficiency become necessary. These may be categorized as follows:

Local Access Streets are the residential streets, the industrial service drives and the like that serve a particular type of local traffic. Generally, local access streets are low speed, narrow and not used for through circulation. Destinations are located on local streets.

Through Streets are wider and are intended to handle higher traffic demands. In an urban area, it is necessary that these interconnect with each other to allow movement in all directions, either internally or into and out of the area. Through streets take the following forms:

Collector Streets - These are the least important through streets which collect vehicles from local streets and distribute them to either local destinations or to higher type arteries.

Arterials - These streets are the principal traffic carriers in the street network. They connect points of major traffic generations and should be wide enough to handle the particular traffic load they are called to carry. Because of the longer trips involved with major thoroughfares, they should be designed to handle higher speed traffic, have fewer curb cuts and generally be of a higher design standard (gradients, curves, etc.).

Regional Arterials - Regional arterials or freeways are designed for through traffic between urbanized places and (depending on size) for inter-urban circulation. They are constructed to the highest design standards, have separated laneage and profiles, controlled access and permit high speed and efficient long-range circulation.

### C. Land Use Relationship

In addition to outlining the types of thoroughfares which together constitute a circulation system, there are also definite planning principles involved in terms of road locations with reference to various land uses. Both the functional and land use relationships are shown schematically on the following page and briefly described below:

- Only local streets should be within residential neighborhoods with through streets forming the boundaries. Street layouts should serve to discourage through movements with both origin and destination outside of the residential neighborhood unit. Single-family development within the neighborhood, however, can be located adjacent to through streets with such provisions as "backlotting" or "sidelotting" or frontage roads. Also, in some cases, single-family development can front on a through street where the thoroughfare is so developed that the fast moving lanes are not

directly adjacent to the curb. Multiple residential uses may be located adjacent to major thoroughfares providing curb cuts are controlled and/or service roads are provided.

- Neighborhood recreation facilities, such as elementary school sites, should be near the center of the neighborhood and thus, not on through streets. Large community or area-wide recreational facilities, however, should be adjacent to or have access to one or more through streets.
- Shopping centers should be located on, but not bisected by, through streets. Commercial frontage generates a large number of turning and parking movements which, if left uncontrolled, can cripple the efficiency of a through route. To prevent this condition from occurring, ingress and egress points for commercial properties should be at specific locations so that the location of turning movements may be reduced. On-street parking in commercial areas is another major cause of congestion and hazardous conditions. The removal of this parking in such an area will not only increase the degree of safety afforded but increase the capacity of through movement.
- Through streets can be within an industrial area, or in some cases, might be better located as a buffer between residences and industry. Special consideration should be given to the design of local streets which are intended to serve industrial uses so that large trucks and sudden peak hour traffic loads may be adequately provided for.

One important step in the Thoroughfare Planning Process is a classification of the existing street and highway system according to a set of functional criteria. For the purposes of this report, a system, as advanced in The National Highway Functional Classification and Needs Study - Manual B, which establishes a hierarchy of functional road systems, was used.

#### **D. Federal Classification System**

Since, on a national scale, streets and highways display a wide variety of functional characteristics, the Federal study generally defines three types of systems - those for rural areas, for small urban areas and, the one that relates to Hammond, urbanized areas.

Four functional subsystems are identified under the Urbanized Areas System: Urban Principal Arterials, Urban Minor Arterial Streets, Urban Collector Streets and Urban Local Streets. These subsystems are defined as follows:

Urban Principal Arterials - include the urban portion of the Interstate System, other freeways and expressways and other principal arterials without access control. These routes should serve the projected major centers of activity in a metropolitan areas and should carry a high proportion of the total

projected urban area travel on a minimum of mileage. The concept of service to abutting land should be subordinate to the provision of travel service between trip interchanges. Only facilities within the unlimited access Principal Arterials Subsystem should provide direct access to adjacent land.

Urban Minor Arterial Streets - should interconnect with and augment the Urban Principal Arterial Subsystem and provide service at a somewhat lower level of travel mobility than major arterials. This subsystem also distributes travel to geographic areas smaller than those identified with the higher subsystem.

The Urban Minor Arterial Street Subsystem includes all arterials not classified as principal, provides greater access to land than the principal subsystem and offers a lower level of traffic mobility.

Urban Collector Streets - may penetrate neighborhoods distributing trips from the arterials through the area to their ultimate destination which may be on a local or collector street. Conversely, this subsystem can also be expected to collect traffic from local streets and channel it into the arterial system. Furthermore, this subsystem should provide for both land access service and local traffic movements within residential, commercial and industrial areas.

Urban Local Streets - comprise all streets not included in the higher subsystems. They serve primarily to provide direct access to abutting land and access to the other street subsystems. It offers the lowest level of mobility and should provide for residential traffic only. Through traffic movements should be specifically discouraged.

The following map represents the classification of roads and streets in the City of Hammond. Each route is classified according to the preceding standards.

#### **E. Design Standards for Future Thoroughfares**

As previously discussed, the Thoroughfare Plan classifies all existing and proposed highways, roads and streets in the City of Hammond as either regional, arterial, local arterial, local collector or local access thoroughfares. To properly perform their intended functions, these traffic arteries should meet certain design standards governing such factors as alignments, intersection intervals, site distances, gradients, surface types, right-of-way widths, pavement widths and traffic controls. The subdivision control ordinance of the City of Hammond contains detailed specifications for all new or improved thoroughfares in the community. In addition, the Indiana State Highway Department maintains extensive standards for the construction of regional, arterial and local arterial roads.

- The relatively high traffic counts on 129th Street indicate that it functions as a local arterial street in the Robertsdale/North Hammond area.

Clearly, from the traffic volumes shown, there is less traffic movement in an east-west direction across the region than in a general north-south direction. Again, this is in part dictated by geography where movements are originating in the more residential areas to the south moving north to the more industrial areas of northern Lake County.

## **I. Street Problem Areas**

The following map illustrates some of the more notable thoroughfare problem areas in the City of Hammond. The map is not intended to depict every instance of a given problem. Rather, it is designed to call attention to instances that should receive consideration as the City's Thoroughfare Plan is developed.

Problem areas illustrated on the map include:

1. Poor Intersections - It is recognized that the majority of the intersections noted under this symbol were not truly designed as such. Rather, they are an outgrowth of a road system laid out some time ago - a system not prepared for the demands of today's auto-oriented society. Many of the problems at these intersections hinder turning movements and restrict horizontal sight distance, hence creating a hazard to safe traffic movements. Generally, the intersections noted have one or more of the following problems:

- Roads intersecting together at angles less than ninety degrees (i.e. intersections of Indianapolis and Calumet, Calumet and Sheffield and others)
- Street intersections directly adjacent to railroad rights-of-way (i.e. intersections of Calumet with Gostlin and others)
- Intersections with poor sight distance due to abrupt changes in grade; and,
- Intersections with poor street alignment generally involve those with center line off-sets of 125 feet or less (Conkey and Calumet and others).

2. Areas of Significant Accident Frequency - Table 14 summarizes the accident rate at select intersections for the years 1987 through 1989. Several points should be noted. For purposes of this report, only those intersections where police reports indicate



more than five accidents occurred in each of at least two of the last three years on either street are shown. Accident reports are usually related to the nearest intersection. Hence, rates are indicated for each street of an intersection.

To a large extent, these accident rates reflect the current volumes of traffic and their patterns of movement. It is important to note, however, that accident rates on streets and roads with high traffic volumes can be minimized with adequate traffic controls such as proper signalization, adequate laneage widths, right and left turning lanes at intersections, adequate sight distances, controlled access onto major thoroughfares and on-street parking restrictions where necessary.

3. Other Street Problem Areas - These include needs for grade separations at railroad crossings, improved access to freeways and a reduction in vehicular congestion along certain portions of the existing thoroughfare network:

- Grade Separations - The map indicates a need for the vertical separation of vehicular traffic from rail traffic at several existing railroad crossings. These crossings are designated on the map by a open circle. While not all of them are necessary at the present time, their development will become more crucial as traffic volumes increase and additional laneage is provided on major thoroughfares. It may be possible to avoid the expense of a grade separation structure by limiting train movements or having them occur during non-peak traffic hours. This would require coordination between the City and the train companies.
- Improved Access - All existing access points to the Indiana Toll Road and the Borman Expressway are not of a standard adequate to accommodate the traffic volumes on major thoroughfares which may be expected to be generated at full urban development of the area. Hence, a need has been indicated for the improvement of existing access to these regional arterials. As with the grade separations, not all of these access improvements are necessary at the present time.
- Vehicular Congestion - In the areas indicated on the map, this problem is primarily the result of two factors. One is the laneage width of the existing thoroughfare which is inadequate to handle the columns of traffic generated. The other factor which results in congestion in certain areas is the pattern of existing development which has occurred in a relatively unrestricted fashion. The result has been a multitude of access points to adjacent properties and the creation of hazardous traffic situations due to an excessive number of turning movements.



The Preliminary Thoroughfare Plan is directly related to previously prepared studies of the Master Plan which deal with residential, commercial and industrial development within the planning area. This study is intended to propose a circulation system which will adequately serve the heavy demands of existing and proposed commercial and industrial land use and, at the same time, discourage through traffic in residential areas.

This section is divided into two parts; one which deals with major and secondary thoroughfares and the second which presents a set of local street proposals. Furthermore, this Plan, when adopted by the appropriate governing bodies, will provide a legal guide for the dedication of adequate rights-of-way along proposed thoroughfares and collector streets.

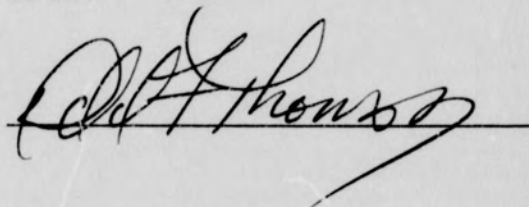
#### **J. Future Thoroughfare Proposals**

1. Robertsdale/North Hammond Corridor - As discussed in the Comprehensive/Land Use Plan, the changing land use character of South Robertsdale and the northern section of North Hammond represent a unique opportunity for an urban community. With loss of some industry, the opportunity exists to develop some large tracts of undeveloped land surrounded by a heavily urbanized area. As such, it will be necessary to improve the transportation linkage between Robertsdale and North Hammond. This could be accomplished in one or two ways. First, Calumet Avenue can be improved as a major thoroughfare between 122nd Street and 141st Street. A second proposal would be to develop a new route, essentially a parallel alignment to Calumet Avenue, to serve some of the available areas. This route would most likely take the form of a local collector street rather than a local arterial.
2. Marina Access - With the development of the marina on the shore of Lake Michigan, adjacent to the Hammond Water Filtration Plant, it is anticipated that a high level of traffic movements will be generated to and from this facility. At the present, the railroad crossing on Calumet Avenue north of the Lever Brothers will be inadequate to serve the new marina. Therefore, a grade separation structure should be built to connect the marina to Indianapolis Boulevard.

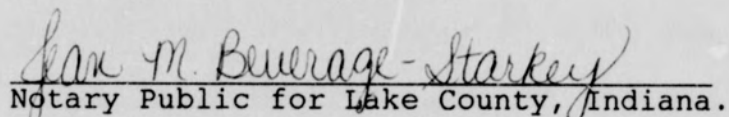
Verification

State of Indiana     )  
                              ) ss:  
County of Lake        )

Donald F. Thomas, being duly sworn, deposes and says that he has read the foregoing Verified Statement, knows the contents thereof, and that the same are true as stated except as to those statements made on information and belief, and as to those, that he believes them to be true.

A handwritten signature in cursive script, appearing to read "Donald F. Thomas", is written over a horizontal line.

Subscribed and sworn to before me  
this 17<sup>th</sup> day of October, 1997.

A handwritten signature in cursive script, appearing to read "Jan M. Beverage-Stark", is written over a horizontal line.  
Notary Public for Lake County, Indiana.

My commission expires 4-25-99.

GARY

CSX CORPORATION AND CSX )  
TRANSPORTATION, INC. AND NORFOLK )  
SOUTHERN CORPORATION AND )  
NORFOLK SOUTHERN RAILWAY ) Finance Docket No. 33388  
COMPANY -- CONTROL AND OPERATING )  
LEASES/AGREEMENTS -- CONRAIL INC. )  
AND CONSOLIDATED RAIL )  
CORPORATION )  
)  
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)

Having grown up in nearby Chicago, Illinois, having attended law school at Valparaiso University School of Law located in northwestern Indiana, and having spent my entire professional career working in the northwest part of the State, I am well aware of the importance of the area's transportation corridor to the efficient movement of goods and passengers east

and west. Local industries and businesses depend on the maintenance of effective local transportation links to railroad lines, highways, waterways, and airports in order to obtain and to ship raw materials and end products, and to effectively conduct their day-to-day business. The area's vast transportation network provides vital connection points for our citizens to Chicago, Detroit, Indianapolis and the rest of the country.

The City of Gary is extremely interested in CSX Corporation and Norfolk Southern Corporation's plans to acquire Conrail in the present proceeding. Along with Gary, the Cities of East Chicago, Hammond, and Whiting have joined efforts in this proceeding to pursue the common goal of maintaining safe and effective transportation programs in northwest Indiana. Gary is participating jointly with these other communities as the Four Cities Consortium.

The Four Cities have worked together over the past several months to review the Applicants' plan, and to determine how that plan would change existing local rail operations and affect city programs. While each of the Four Cities has an individual interest in maintaining and supporting their own transportation infrastructure programs, I am pleased that we were able to collectively work with one another to develop a unified plan that will minimize the adverse impacts of the proposed acquisition on the Four Cities.



Michael L. Cervay, Director of the Department of Planning and Community Development for the City of Gary, sets forth in detail in his Verified Statement in this proceeding transportation congestion related problems that the City of Gary is experiencing. He also explains why the Alternative Routing Plan submitted by the Four Cities is a critical means of mitigating the serious adverse impacts that the Applicants' proposal would have on the City.

The Applicants have proposed to increase rail traffic volumes over certain Gary lines to unacceptable levels. Rail operations through Gary have reached a critical point under existing traffic patterns and levels. The effective operation of emergency services and school and public transportation programs, the implementation of various city development projects and programs, the achievement of air quality pollution standards, and the maintenance of safe highway/rail grade crossings are already in jeopardy. For the reasons set forth in detail by Mr. Cervay, the impact of rail operations on the City of Gary would become much more severe under the Applicants' plan than at present.

It is clear that without an adjustment to the Applicants' proposal, basic government operations and our citizens' safety and quality of life will suffer considerably. The City of Gary and the Four Cities strongly believe that not only the Applicants, but all local railroad operators must take a closer look at how existing rail traffic and future increases can best be accommodated within the existing rail transportation infra-

structure in northwest Indiana. The Four Cities plan does this. The Applicants' plan unfortunately does not.

The Four Cities' alternative proposal is a well-developed operations plan that would accommodate the Applicants' need to move rail traffic through the Four Cities region, and in particular over Gary line segments, while helping to mitigate vehicular congestion at highway/rail grade crossings and associated adverse impacts on the safety of our citizens, the operation of our emergency services, and air quality. Additionally, implementation of the Four Cities plan would require only minimal system adjustments by the Applicants. The Four Cities requested relief is an effective way to meet the transportation infrastructure needs of the Applicants, the City of Gary, and northwestern Indiana. I urge the Surface Transportation Board to adopt the Consortium's Alternative Routing Plan.

**VERIFICATION**

State of Indiana )

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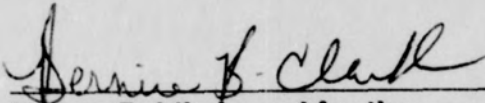
County of Lake )

)

Scott L. King, being duly sworn, deposes and says that he has read the foregoing Statement, knows the contents thereof, and that the same are true as stated to the best of his knowledge, information and belief.



Subscribed and sworn to before  
me this 16th day of October,  
1997:

  
\_\_\_\_\_  
Notary Public in and for the  
State of Indiana

CSX CORPORATION AND CSX )  
TRANSPORTATION, INC. AND NORFOLK )  
SOUTHERN CORPORATION AND )  
NORFOLK SOUTHERN RAILWAY ) Finance Docket No. 33388  
COMPANY -- CONTROL AND OPERATING )  
LEASES/AGREEMENTS -- CONRAIL INC. )  
AND CONSOLIDATED RAIL )  
CORPORATION )  
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My name is Michael L. Cervay and I am Director of the Department of Planning and Community Development for the City of Gary, Indiana. I have held this position since January, 1996. Prior to this position, for 13 years I worked for the City of Cleveland, Ohio, where I held several positions, including Assistant Director for the Department of Finance, Capital Budget Manager for the Office of Budget and Management, and Assistant Director for the Department of Economic Development. Prior to that, from 1980 to 1982, I was Director of Community Development for the City of Xenia, Ohio, and from 1974 through 1980 I worked in the Office of City Manager and in the Department of City Planning for the City of Cincinnati, Ohio.

Among other things, my responsibilities for the City of Gary include directing economic development initiatives; coordinating tourism, recreation and cultural activities; managing City

housing programs; and overseeing and planning the City's transportation networks. As City Planner, I wear several different hats; at various times during the day, I am economic developer, tourism promoter, civic and recreational planner, and transportation director. My responsibilities for City transportation programs include consulting with state, county, and local government officials, as well as community and regional officials, and coordinating with them the development of programs that together can help achieve local and regional transportation objectives. As City Planner, I am very familiar with Gary's vast local transportation infrastructure, and with the City's present and future planning goals. I also serve on the Board of Commissioners of the Northwestern Indiana Regional Planning Commission as a citizen appointee, and, as a result, I have become well-acquainted with regional transportation programs and transportation systems.

In response to the announced plans of the acquisition of Conrail by CSX Corporation (CSX) and Norfolk Southern Corporation (NS), (collectively referred to as Applicants) the City of Gary, and our neighboring cities including East Chicago, Hammond, and Whiting came together to review the planned acquisition. Together our cities are referred to as the Four Cities Consortium (or FCC) in this proceeding. The Four Cities individually and collectively have spent the last several months reviewing the Applicants' proposal to determine the plan's impact on our communities, and to discuss the many challenges that are present-



ed by the proposed acquisition. The City of Gary is participating in this proceeding through the Four Cities Consortium, and we are supportive of the FCC's position for the reasons outlined below.

I. Gary's Transportation Infrastructure

Gary is located in a 51 square mile area situated at the crossroads of the Midwest, positioned between the nearby State of Illinois boundary and the City of Chicago to the west, the southern tip of Lake Michigan to the north, and Detroit, Michigan, approximately 325 miles to the east. In part because of its strategic geographic location, Gary possesses a vast transportation network that connects Gary to the rest of the country, and which serves as a central corridor for east-west through traffic.

Along with approximately 500 miles of local streets in Gary, Interstate Highways 80, 90, 94, and 65 as well as various State Highways traverse through the City and connect Gary to cities nationwide. Gary also has a major midwestern airport facility, the Gary/Chicago Airport, which is becoming a major regional airport hub for cargo and passenger business. Burns International Harbor and the Port of Indiana are located in nearby Portage, Indiana, and link Gary to various Lake Michigan ports, the Atlantic Ocean, and the world. In addition to all of this, Gary possesses some of the most complex and well-traveled rail facilities in the Midwest.

Eight freight lines and three passenger and commuter lines connect through Gary, and the region serves as a central gateway point for CSX, Norfolk Southern, and Conrail through rail freight movements, and the South Shore & South Bend Railroad (commuter) and Amtrak (passenger) local and through passenger movements. Gary is plagued by approximately 104 highway/rail crossings, most which are located at grade. On a daily basis, there are a total of approximately 1,600 train movements citywide over highway/rail grade crossings. Some of these trains can travel upwards of 80 miles per hour. The impact of the hundreds of daily train movements in Gary have raised considerable city planning, environmental, public safety, and quality of life concerns.

## II. The Applicant's Plan for Rail Operations in Gary

As City Planner, I have had an opportunity to review the Applicants' proposed plans in this proceeding for operations over Gary line segments specifically, and over Four Cities lines generally. The major line segment through Gary (in terms of density and train per day) is the Conrail lakefront line (Porter to CP 501), which is scheduled to be controlled by NS and over which CSX will have trackage rights. Under the Applicants' plan, the segment will experience a slight decrease from approximately 83 to 77 trains per day, but a slight increase in gross ton movement from 129 to 132 million tons per day. While this line segment spanning over the northern part of Gary will entail a slight decrease in the number (but apparently not the length) of

trains, other Gary line segments will experience significant operational increases, and in one instance, a currently unused Conrail line that extends through the heart of the City will be restored into service.

Among the Applicants' proposed changes for operations over line segments that affect Gary are the following:

| <u>Segment Name</u>              | <u>Current</u> | <u>Post Merger</u> |
|----------------------------------|----------------|--------------------|
| <b>Willow Creek to Pine Jct.</b> |                |                    |
| Railroad                         | CSX            | CSX                |
| Density/Million Gross Tons       | 34.0           | 70.0               |
| Trains/Day                       | 22.1           | 38.6               |
| Crossings at Grade               | 7              |                    |
| Separated Crossings              | 7              |                    |
| <b>Willow Creek to Ivanhoe</b>   |                |                    |
| Railroad                         | CR             | CSX                |
| Density/Million Gross Tons       | 21.0           | 23.0               |
| Trains/Day                       | 9.6            | 11.4               |
| Crossings at Grade               | 23             |                    |
| Separated Crossings              | 4              |                    |
| <b>Pine Jct. to Calumet Park</b> |                |                    |
| Railroad                         | CSX            | CSX                |
| Density/Million Gross Tons       | 41.0           | 65.0               |
| Trains/Day                       | 27.6           | 33.3               |
| Crossings at Grade               | 21             |                    |
| Separated Crossings              | 5              |                    |
| <b>Wheeler to Tolleston</b>      |                |                    |
| Railroad                         | CR/NS          | CSX                |
| Density/Million Gross Tons       | 0.0            | 12.0               |
| Trains/Day                       | 0.0            | 5.0                |
| Crossings at Grade               | 25             |                    |
| Separated Crossings              | 1              |                    |

For a variety of reasons, the Applicants' scheduled increases in incremental train movements over Gary line segments is unacceptable. The vast majority of Gary's 104 highway/rail crossings are located at grade. Thousands of vehicles and pedestrians pass over these crossings on a daily basis. Unfortunately, present carrier operations over city rail lines have caused substantial motorist delays at highway/grade crossings, unfavorable air quality impacts, and have put the safety of Gary citizens in jeopardy.<sup>1</sup> The Applicants' proposed operations would intensify these problems. Under the Applicants' plan, an extremely serious but manageable congestion situation would quickly become critical.

Grade crossing studies prepared for the Four Cities reveal that substantial congestion problems are caused by railroad operations. Included with the Four Cities' comments in this proceeding are the results of a traffic congestion study performed by L.E. Peabody & Associates, Inc. The study measured vehicle traffic volumes at specified highway/rail grade crossings over a recent week period. Results of this study show that, over the sampling period, hundreds of hours of vehicle delays are experienced at Four Cities grade crossings. For example, for the CSX's Baltimore & Ohio Chicago Terminal line segment from Pine Junction to Barr Yard that crosses at grade over U.S. 12 north of the Gary/Chicago Airport there were 79,873 reported vehicle

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<sup>1</sup> The railroads enjoy the right-of-way over highway/rail grade crossings and possess control over gate openings and closings in instances where there are crossing gates.



crossings resulting in 279 hours of delay over a seven day period. Applicants plan major increases in traffic over this already congested highway/rail grade crossing. Additionally, several hundred vehicles and numerous pedestrians were observed going around closed gates and over line crossings throughout the study period. These illegal crossings are of significant concern to the City and they demonstrate considerable citizen frustration over rail crossing delays and congestion.

In this proceeding, Gary is particularly concerned that the increases in traffic proposed by the Applicants' over certain lines would unfavorably impact the efficient operation of critical government services, including emergency service and school and public transportation programs. Gary has 14 fire stations that respond to over 25,000 fire and emergency medical service calls each year, and City police officers respond to approximately 110,000 calls yearly. The City has 41 public elementary, middle, and high schools and 5 parochial schools with a total enrollment of over 25,000 children. Because of vehicular traffic congestion problems caused, in part, by local rail operations, emergency service and school bus vehicles are constantly backed up. Because of its concern about highway/rail crossing delays, the Gary Public Transportation Corporation, which provides public mass transit for the City, keeps track of average bus delays caused by railroad crossings. This data reveals that Gary public buses are routinely delayed 15 minutes or more at highway/rail grade crossings. The Applicants' proposed operations would



elevate these considerable congestion problems

Over the past several years, numerous industry, recreational, housing, and tourism development projects throughout the City have been impeded, delayed, or set aside as unfeasible because of conflicting rail operations. For example, the Gary/Chicago Airport presently has a 7,000 foot east-to-west runway that will soon need to be expanded to at least 9,000 feet. It cannot do so at present because expansion would interfere with the Elgin, Joliet, and Eastern Railroad's (EJE) line operations near the northwest part of the facility.<sup>2</sup> While this EJE line matter is outside the scope of the present proceeding, it is important to mention that, as part of this proceeding, the Applicants' proposed reinstatement of the Conrail line between Clark Junction and Hobart (which we seek to avoid) could interfere with the City's long range plans to expand the airport's north-south runway.

Reinstatement of the Conrail line also would directly impede plans to construct vitally needed affordable housing. The City recently received a \$250,000 federal grant from the Department of Housing and Urban Development to develop single family housing at State Route 53, and the unused Conrail line slated for reinstatement forms the northern boundary of the development. I have attached to this statement a letter written by the Broadway Area Community Development Corporation, describing this project

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<sup>2</sup> Preliminary negotiations over the movement of the EJE line near the airport have occurred, and the City expects that the negotiations will ultimately be successful.

in further detail. (See Attachment No. 1). An extensive amount of City time and resources has been spent on the development of this important project. The Applicants' proposal if accepted could significantly impact the construction of this critically needed housing development.

The entire Four Cities area, including Gary, is designated a non-attainment area under federal air quality pollution standards. Vehicle congestion delays caused by local rail operations have elevated the City's already significant pollution problems. The Applicants proposal would intensify Gary and the region's present pollution problems.<sup>3</sup>

Finally, dozens of highway/rail grade crossing accidents have occurred in Gary over the past several years, and such accidents continue to be a major concern. Last year, the State of Indiana had the nation's fourth highest number of rail-crossing accidents, and the State has recorded over 38 railroad crossing accidents in the City of Gary over the past five years. The City, together with the State and Federal government, is doing all that it can to prevent citizens from illegally traversing traffic crossing gates, but without major investments in facility improvements/grade separations, and/or traffic pattern shifts, it will be difficult to reduce rail-crossing accidents. Again, the Applicants' proposed incremental traffic increases

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<sup>3</sup> The Four Cities will be commenting on air pollution and other environmental matters in greater detail later on in this proceeding as part of the Surface Transportation Board's environmental review process.

over line segments containing numerous at grade highway/rail crossings would only elevate these safety problems.

Of particular concern to the City are the Applicants' proposed operations between Clarke Junction and Hobart and between Clark Junction and Willow Creek, lines which traverse through the heart of Gary. Unfortunately, the Applicants' Clarke Junction to Hobart operations would entail train movements over the currently unused Tolleston to Hobart line segment, over which there are approximately 20 highway/rail grade crossings. This line has been out-of-service for some time, and the Applicants will need to make significant investments to return the line to service. Applicants project five trains per day over these lines which would entail approximately 100 new train movements over highway/rail grade crossings on segments where there are currently none. Additionally, as noted above, Applicants' project 38.6 trains per day between Pine Junction and Willow Creek -- 16.5 more train movements than there are over the segment today. Both of these developments would produce intolerable congestion problems for the City of Gary.

### III. The Four Cities' Alternative Routing Plan

I have reviewed and am familiar with the Alternative Routing Plan being proposed by the FCC in the present proceeding. It is a plan that the Surface Transportation Board should adopt. In contrast to the Applicants' plans, the Four Cities' Alternative Routing Plan would not require reinstatement of the out-of-service Conrail Clark Junction to Hobart line (and would elimi-

nate the need to reinstate 20 highway/rail grade crossing movements over the segment). It also would reduce from 38.6 to 19.3 the Applicants' projected number of trains per day operating between Pine Junction and Willow Creek.

Over the past 20 years, the state, local, and federal governments have invested millions of dollars to construct a grade separated IHB rail line corridor. The IHB's Gary to State Line line segment has 16 highway/rail crossings, 13 of which are grade separated. From a transportation planning perspective, it is a matter of common-sense that, all things being equal, railroads should maximize the use of lines which are located within grade separated corridors. Unfortunately, the Applicants' plan fails to do so; their plan would increase volume on the IHB grade separated corridor only by approximately 10 percent, a level significantly below capacity, while increasing traffic by almost 75 percent over the Pine Junction to Willow Creek line with its more numerous crossings of heavily travelled roads.

It is important to note that as part of their requested relief, the Four Cities is not advocating dramatic reductions in local rail operations or the construction of hundreds of new railroad grade separation projects to eliminate rail congestion problems. Instead, the FCC requests only a relatively simple shift in the Applicants' traffic operation plans. For all of the above reasons, the Four Cities' Alternative Routing Plan should be approved by the Surface Transportation Board as a condition to approval of the Applicants' merger petition.



**B. A. C. D. C.**

**Broadway Area Community Development Corporation**

**"Taking Charge of the Future"**

October 16, 1997

Vernon A. Williams, Secretary  
Surface Transportation Board  
STB Finance Docket No. 33388  
1925 K Street, N. W.  
Washington, D. C. 20423-0001

Re: **STB Finance Docket No. 33388, CSX Corporation, et al. - - Control and Operating Leases/Agreements - - Conrail Inc., et al.**

Dear Mr. Secretary:

Through this letter, the Broadway Area Community Development Corporation (BACDC) hereby expresses its support for the relief being requested by the Cities of East Chicago, Indiana; Hammond, Indiana; Gary, Indiana; and Whiting, Indiana, (known as the Four Cities Consortium or FCC).

BACDC is a neighborhood-based 503-C3 corporation formed to promote redevelopment and community revitalization within the Midtown area of the City of Gary, Indiana, generally bounded by Ninth Avenue on the north, Virginia Street on the east, Interstate Highway - 80/94 (the Borman Freeway) on the south and Madison Street on the west. As such, BACDC is very familiar with the delays, congestion and safety hazards created by the great proliferation of at-grade highway/railroad crossings in the Four Cities area in general, and our service area in particular. Of specific concern is the portion of the Application which proposes the reinstatement of an out-of service line between Hobart and Clarke Junction which would result an additional twenty (20) highway/rail at-grade crossings within the City of Gary, and in our service area approximately six (6) at-grade crossings.

Furthermore, since 1996 we have been engaged in a planning process with the City of Gary concerning the redevelopment of a ten (10) acre site of vacant land, generally bounded by Nineteenth, Madison, Twenty-first and Washington, into 40 to 50 new single-family homes for low and moderate income families. We have retained an architect to design a site plan and infrastructure improvements, as well as secured a funding commitment from the U. S. Department of Housing and Urban Development (acting through the City of Gary) for \$250,000 of down payment assistance for prospective home buyers. The above referenced inactive rail line forms the northern boundary of this site. Planning has proceeded under the assumption that the line would continue to be inactive. If this



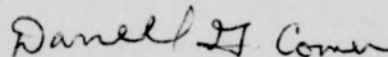
Vernon A. Williams  
October 16, 1997  
Page 2

proves to be an erroneous assumption, obviously costs will increase to barrier the development from the adverse impacts of the proposed train traffic.

We understand that the Four Cities' Alternative Routing Plan provides a very viable option to what the Applicants' plan. As we understand it, the Alternative Routing Plan eliminates the need to reactivate this rail corridor, prevents the need for additional at-grade highway/rail crossings (and the associated congestion, delays and safety problems), saves the Applicants the capital costs associated with re-tracking and otherwise re-activating this line, as well as minimizes disruption to our site planning process and the resulting adverse impacts on the site from being next to an active rail line. For these reasons we support the Alternative Routing Plan of the FCC.

We encourage the Surface Transportation Board, as a condition to the approval of the proposed Conrail acquisition by CSX and Norfolk Southern, to accept and implement the FCC's Alternative Routing Plan. We appreciate your consideration of this letter of support on behalf of the FCC proposal

Sincerely,

A handwritten signature in cursive script that reads "Darrell H. Comer".

Darrell Comer  
Executive Director

DC/bh

File:

**VERIFICATION**

State of Indiana )

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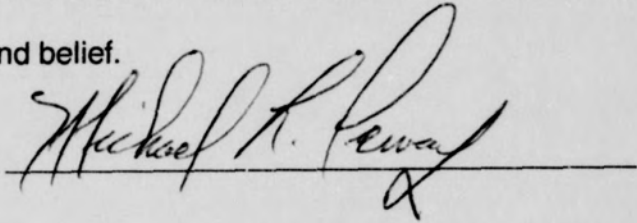
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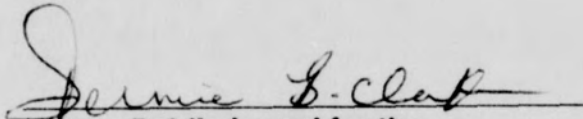
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County of Lake )

Michael L. Cervay, being duly sworn, deposes and says that he has read the foregoing Statement, knows the contents thereof, and that the same are true as stated to the best of his knowledge, information and belief.

A handwritten signature in cursive script, appearing to read "Michael L. Cervay", is written over a horizontal line.

Subscribed and sworn to before  
me this 16th day of October,  
1997:

A handwritten signature in cursive script, appearing to read "Dermie B. Clark", is written over a horizontal line.

Notary Public in and for the  
State of Indiana

WHITTING

|                                   |   |                          |
|-----------------------------------|---|--------------------------|
| CSX CORPORATION AND CSX           | ) |                          |
| TRANSPORTATION, INC. AND NORFOLK  | ) |                          |
| SOUTHERN CORPORATION AND          | ) |                          |
| NORFOLK SOUTHERN RAILWAY          | ) | Finance Docket No. 33368 |
| COMPANY -- CONTROL AND OPERATING  | ) |                          |
| LEASES/AGREEMENTS -- CONRAIL INC. | ) |                          |
| AND CONSOLIDATED RAIL             | ) |                          |
| CORPORATION                       | ) |                          |

My name is Robert J. Bercik, and I serve as the elected Mayor for the City of Whiting, Indiana. I was born and raised in Whiting and I have served as Mayor from 1988 to the present. Among the area-wide organizations to which I belong, I am a member of the Lake Michigan Marina Development Commission. I am also a member of the Lake County Solid Waste Management District. Prior to becoming Mayor, I served as Whiting's Street Commissioner for an eight year period from 1968 to 1974.

Whiting, known as "The Little City on the Lake" is located on the far northwest corner of the State, directly on Lake Michigan's lakeshore, in an area that is commonly referred to the Calumet Region. The City was first incorporated as a town 106 years ago, and there currently are approximately 5,100 Whiting residents. Daniel A. Botich, who serves as Whiting's City Planner, has submitted a Verified Statement in this proceed-

ing provided detailed information on the City of Whiting, our local infrastructure, and some of our planning programs and goals. As Mr. Botich has largely explained, the City of Whiting consists of a blue-collar, working-class population, many of whom are employed by the Amoco Whiting Refinery which employs approximately 1,400 people. Over the past several years, our City has worked hard to update and develop infrastructure and community development programs that will enhance the quality of life for Whiting citizens.

Ever since Whiting and our neighboring communities were first established, the railroads have assumed a prominent presence. In fact, a railroad engineer named Herbert "Pop" Whiting ran his freight train down, more or less, a non-existent siding to avoid a collision with an oncoming passenger train in the 1860's. The location became known as Pop Whiting's siding, and later the townspeople named the community in its shortened form, Whiting. One of Whiting's greatest resources is Whiting Park, an approximately one and one-quarter mile park stretching along Lake Michigan. In recent years, the City has planned to invest a large amount of resources into restoring and improving Lake Park's facilities and landscaping. For as long as Whiting has been incorporated, however, this park has been separated from the rest of the community by the presence of several carriers' railroad tracks, over which numerous freight and passenger trains pass daily, most from cities far away east and west. To enjoy this wonderful city resource, visitors must first reach the park



by negotiating their way over at-grade rail lines at crossings. Once at the park, the noise, vibrations, and pollution from the lakefront railroads' constant movements continue to be a nuisance for park visitors. This is just a small indication of what northwestern Indiana communities face on a daily basis as a result of the presence of constant areawide railroad operations.

CSX and NS have proposed the division of Conrail assets, and have outlined a plan under which they plan to operate. As the Surface Transportation Board is aware, along with Whiting, the Cities of Gary, Indiana, East Chicago, Indiana, and Hammond, Indiana have joined together as the Four Cities Consortium to review the Applicants' proposal, and to submit to the Board their views on this plan. Overall, the Four Cities and the City of Whiting believe that the plan would not improve northwestern Indiana's significant vehicular congestion problems at highway/rail grade crossings, but also would further intensify vehicular delays, and pollution and safety problems.

The Four Cities has submitted an Alternative Routing Plan in this proceeding that makes much sense because it would mitigate congestion problems that would be caused by the Applicants' plan by requiring the Applicants to utilize alternative routing segments through the Four Cities that present less significant vehicular congestion problems. As Mayor of Whiting, I realize that the Alternative Routing Plan would do little to mitigate the City of Whiting's existing congestion problems caused by lakefront railroad corridor line operations. Neverthe-

less, as we go about our daily business, all of us who live in the Calumet Region are adversely affected by the high number of railroad movements that traverse through our communities and over highway grade crossings. In addition, although the traffic levels reflected in the Applicants' plan don't appear to increase over Whiting line segments, we fear that this traffic will grow significantly in the future.

I support the Alternative Routing Plan as a common-sense solution toward improving the quality of life for all northwestern Indiana citizens and I urge the Surface Transportation Board to approve the Four Cities' plan.

Verification

State of Indiana )  
County of Lake ) ss:

Robert J. Bercik, being duly sworn, deposes and says that he has read the foregoing Verified Statement, knows the contents thereof, and that the same are true as stated except as to those statements made on information and belief, and as to those, that he believes them to be true.

Robert J. Bercik

Subscribed and sworn to before me  
this 20 day of October, 1997.

Jennifer M. Mancini  
Notary Public for Lake County, Indiana.

My commission expires 02-17-01.

CSX CORPORATION AND CSX  
TRANSPORTATION, INC. AND NORFOLK  
SOUTHERN CORPORATION AND  
NORFOLK SOUTHERN RAILWAY  
COMPANY -- CONTROL AND OPERATING  
LEASES/AGREEMENTS -- CONRAIL INC.  
AND CONSOLIDATED RAIL  
CORPORATION

As City Planner, I am primarily responsible for developing the City's short- and long-term planning goals, including land use, transportation, community facilities, and neighborhood planning, and for the implementation of individual projects and programs that support these goals. Some of the programs and improvement projects that Whiting has been working on in recent years are outlined in this statement. As well as coordinating city projects and programs, a significant amount of my time as City Planner is devoted to coordinating and integrating with

other northwestern Indiana based government and community-based organizations' regional strategies and plans. For example, I represent Whiting on the Northwest Indiana Regional Planning Commission, on the Lake Michigan Marina Development Commission's Technical Advisory Committee, and on the Lake County Historic Preservation Coalition, as well as several other regional planning boards. I also represent Whiting in its participation with the Four City Consortium, which was formed last summer to evaluate and respond to the CSX Corporation (CSX) and the Norfolk Southern Corporation's (NS) proposed plans to acquire Conrail.

The purpose of this statement is to describe for the Board the City of Whiting, to outline some of the City's planning projects and objectives, and to offer my support for the Four Cities Alternative Routing Plan that has been proposed in this proceeding as a means of mitigating the substantial congestion related problems that are being caused by extensive railroad operations throughout northwest Indiana. These problems would be intensified if the Applicants' acquisition proposal were approved by the Surface Transportation Board without the conditions being requested by the Four Cities.

Whiting is a relatively small community located on the shores of Lake Michigan at the northwestern tip of Indiana. The Illinois/Indiana border is a few miles to our west. Whiting is situated to the east of Hammond, to the north of East Chicago, and to the west of Gary. Whiting has a population of approximately 5,100 residents, and is located on approximately 1.73



square miles of land. A large portion of Whiting is dedicated to industrial uses. Approximately two-thirds of the eastern part of Whiting is a zoned industrial area. AMOCO Oil Company (formerly Standard Oil Company) has been our city's largest employer since the refinery was first built in the late 1880s. AMOCO presently employs approximately 1,400 workers from throughout the metropolitan area.

The western part of Whiting consists primarily of single- and two-family residences, and a Main Street-style downtown shopping district along 119th Street. Whiting boasts its beautiful Lake Michigan shoreline recreation area known as Whiting Park as well as the Lake County owned Whihala Beach Park. Whiting Park and the Lake County Whihala Beach Park are separated from the rest of the community by five sets of crossing railroad tracks. Two of these sets are owned by Conrail, two are owned by CSX, and the other is owned by the Elgin, Joliet and Eastern Railroad (EJE). There are currently two at-grade rail crossings that separate Whiting Park and the Lake County Whihala Beach Park from the rest of the city. They are located at 117th Street and White Oak Avenue and 119th Street and Front Street.

While a relatively small community, Whiting has undertaken the planning and development of several important long-term and large-scale community development projects. Among other things, in the past several years, the City has invested in major infrastructure and design improvements to our downtown district on 119th Street. Combined state and local resources have been used

to improve downtown streets, sidewalks, signs, lighting units, and landscaping. Whiting is also preparing to implement the Whiting Park Shoreline Improvement Project, which will make numerous infrastructure and landscaping improvements at Whiting Park, including the development of a boardwalk, pier improvements, and lighting and parking facility improvements. The City also has invested in several improvements to our Whiting Memorial Community House, a community center listed on the National Register of Historic Places. Most recently, the City has begun and is preparing to complete Phase III of a three Phase project to reconstruct and replace the sewer infrastructure in the City of Whiting.

The rail transportation infrastructure present in Whiting consists of active rail freight lines owned by CSX, Conrail, and the EJE. Amtrak also provides through passenger service and the Chicago Southshore and South Bend Railroad provides nearby commuter service to Chicago and other localities. Whiting currently has eight highway/rail grade crossings. Seven of these are at-grade while only one is grade separated.

The City of Whiting participates in this proceeding through its affiliation with the Four Cities Consortium. Besides the City of Whiting, the other Four Cities Consortium participants are the Cities of Gary, East Chicago, and Hammond. Together with my city planner counterparts, we have reviewed the Applicants' plan for the division of Conrail, and have engaged in extensive

consultations concerning how that plan would affect our individual cities and northwest Indiana as a whole.

My review of the proposed division of Conrail indicates that the impact of the Conrail Merger as projected by the Applicants would not have a major impact on present rail operations through the City. The line with the highest amount of traffic levels through Whiting is the Conrail lakefront line which would be acquired by NS. The high existing level of traffic on this line has been a major concern to us as we have pursued improvements to our Whiting Park. This concern extends to Lake County Park officials with regard to their interests in the Whihala Beach Park. The only access to both parks in Whiting is at an at-grade crossing that runs across all five of the lakeshore rail lines. Particularly on weekends, large numbers of people and boaters driving to the parks are delayed at this crossing. According to the Applicants' plan, the NS line segment from Indiana Harbor to South Chicago passing through Whiting would experience a slight decline in trains per day from 57.1 to 51.2, while the average train size would apparently get longer, with daily train density increasing from 81.3 to 99.5 million tons per day, meaning fewer, but longer trains.

A recent survey conducted by the Whiting Police Department reviewed the number of daily vehicle crossings at Whiting's seven at-grade highway/rail crossings. This survey and Indiana Department of Transportation Average Daily Traffic numbers show that two of Whiting's seven highway/rail grade crossings currently

experience the most significant amount of traffic congestion. These crossings both occur along the east side of Schrage Avenue.

| <u>Crossing Location</u>     | <u>Carrier</u> | <u>Average<br/>Daily Traffic</u> |
|------------------------------|----------------|----------------------------------|
| U.S. 12/20 and Schrage Av.   | CSX            | 15,390                           |
| 129th Street and Schrage Av. | CSX            | 12,900                           |

The U.S. 12/20 crossing and the 129th Street crossing referenced above are located on the CSX line segment between East Chicago and Whiting. Neither of these line segments has heavy railroad traffic at present, and the Applicants apparently have not announced plans to increase current traffic levels over these Whiting vehicular railroad crossing "hot spots."

Although the Applicants' projections do not indicate increases in rail traffic through the City of Whiting, it is our understanding that these "projections" do not actually reflect growth in traffic that the Applicants' expect to occur, but merely show how existing traffic levels will be routed after the acquisition. For this reason, Whiting remains very concerned about potential rail traffic increases in both number of trains and total tonnage per day.

Despite the plan's apparently negligible direct impact on the City of Whiting proper, we strongly feel that the Applicants' proposal will result in serious regional congestion related problems that can only be solved through the implementation of a region-wide plan. The Verified Statements submitted by the Cities of Gary, East Chicago, and Hammond describe in detail the considerable traffic delays, pollution, and safety problems that



are present in northwest Indiana and that are caused by the hundreds of at-grade highway/rail crossings located in the area. Regrettably, the Applicants' proposed traffic patterns through northwest Indiana would only intensify these problems.

In large part, the Applicants' plan concentrates incremental increases in rail traffic over local lines with a high incidence of highway/rail grade crossings. Meanwhile, little of this traffic is scheduled to move over other lines with a lower incidence of at-grade crossings or that are grade separated. From a transportation planning perspective, the Applicants' plan does not make logical sense.

The Four Cities are submitting to the Board an Alternative Routing Plan in this proceeding. The Alternative Routing Plan would move some of the Applicants' east to west traffic that is scheduled to travel over CSXT's existing BOCT line from Calumet Park to Clarke Junction, south to Conrail's existing Indiana Harbor Belt Railroad line between Calumet Park and Tolleston. This traffic would then travel across Conrail's existing Porter Branch line to Willow Creek and Porter, where it would connect up with individual CSX and NS lines.

The Four Cities Alternative Routing Plan would shift traffic to less congested highway/rail crossing segments than under the Applicants' current proposal. In addition, the Plan would eliminate the need to reinstate to service an out-of-service line from Clarke Junction to Hobart - thus avoiding the addition of 20 rail/highway grade crossings that would occur under the Applica-



nts' proposal. The Alternative Routing Plan also would cause minimal disruption to the Applicants' planned operations and require an insignificant amount of line improvements.

As explained above, the City of Whiting supports the Four Cities Alternative Routing Plan. We strongly feel that the Alternative Routing Plan will benefit not only Whiting citizens, but also the residents of the Cities of Hammond, East Chicago, and Gary who regularly are delayed at hundreds of congested highway/rail grade crossings located throughout northwest Indiana. We urge the Board to adopt the Four Cities' Alternative Routing Plan. We also urge the Board to exercise continuing jurisdiction over CSX and NS after the Conrail acquisition as we understand it has done in the recent Union Pacific-Southern Pacific merger so that we can seek relief from the Board if the traffic levels we experience after the acquisition are in fact greater than projected and have more than just a negligible direct impact so as to adversely affect Whiting or the other cities of the Four City Consortium.

## VERIFICATION

State of Indiana       )  
                              ) ss:  
County of Lake        )

Daniel A. Botich, being sworn, deposes and says that he has read the foregoing Verified Statement, knows the contents thereof, and that the same are true as stated except as to those statements made on information and belief, and as to those, that he believes them to be true.

Daniel A. Botich

Daniel A. Botich  
City Planner

Subscribed as sworn to before me  
this 20 day of October, 1997.

Joseph M. Hancock

Notary Public for Lake County, Indiana.

My commission expires 2/17/01.



RICHARD G. LUGAR  
INDIANA

306 HART SENATE OFFICE BUILDING  
WASHINGTON, DC 20510  
202-224-4814

COMMITTEES:  
AGRICULTURE, NUTRITION, AND FORESTRY  
CHAIRMAN  
FOREIGN RELATIONS  
SELECT COMMITTEE  
ON INTELLIGENCE

# United States Senate

WASHINGTON, DC 20510-1401

October 21, 1997

The Honorable Linda J. Morgan  
Chairman  
Surface Transportation Board (STB)  
1925 K Street, N.W.  
Washington, D.C. 20423-0001

Dear Chairman Morgan:

We are writing to share with you our interest in the pending application filed by CSX Transportation and the Norfolk Southern Railroad relating to the acquisition of Conrail. The Indiana Cities of Gary, Hammond, East Chicago and Whiting (the "Four Cities") have joined together to express their concerns about a number of potential public safety issues relating to the acquisition proposal. The Four Cities Consortium has developed an alternative routing plan for the STB to consider. We hope the STB will carefully review the merits of the Four Cities' proposal.

Located near Chicago and along the southern end of Lake Michigan, Northwest Indiana serves as a vital economic center for manufacturing, trade and transportation of the nation's commerce. Virtually all of the rail traffic moving between Chicago and the east coast travels through Northwest Indiana. A sophisticated intermodal network of highway, rail, air and waterway transportation systems has been developed to move people, goods and materials to their destinations in a safe and efficient manner.

Competitive and efficient rail transportation is critical to the nation's continued economic strength and is a primary goal of the acquisition plan proposed by CSX and Norfolk Southern. At the same time -- as elected officials -- we are interested in balancing economic efficiency with public safety for Indiana motorists, residents and citizens who live and work in Northwest Indiana.

The Four Cities Consortium recently commissioned a review of the proposed acquisition to determine the potential impact the proposed route and track usage could have on public safety and transportation efficiency for the region. We understand the review highlighted a number of areas where train traffic would increase along routes with high numbers of at-grade highway-rail

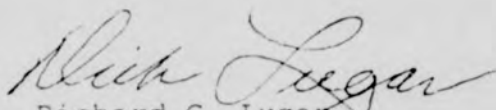
crossings. The review also identified a number of grade-separated tracks that would be underutilized as a result of this merger.

Indiana is one of the most rail-intensive states in the nation, with the Northwest region having the highest concentration of highway-rail grade crossings in the State. Every year, Indiana ranks among the top five states for numbers of motorists killed or injured as a result of vehicle-train crashes at highway-rail grade crossings. We have led an effort in Congress in recent years to address this pressing safety issue. We are working in Congress to focus more resources and more federal highway construction funds to rail intensive states. Working together, we hope to assist local governments in their efforts to make infrastructure and other safety improvements that will help eliminate accidents at highway-rail grade crossings.

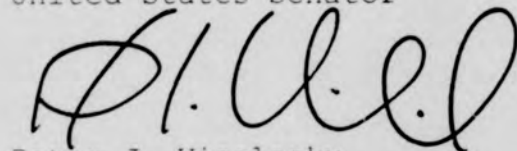
As in many U.S. communities, state and local governments in Indiana have made substantial investments in recent years to improve the safety and economic efficiency of its transportation systems. The Four Cities Consortium has identified a number of issues of importance to Northwest Indiana, and has included a number of alternatives that could mutually benefit the railroads and the Northwest Indiana region. As the STB continues its important work to review the CSX/Norfolk Southern acquisition proposal, we hope every consideration will be given to the merits of the Four Cities' alternative routing plan.

Thank you for your assistance with this matter.

Sincerely,

  
Richard G. Lugar  
United States Senator

  
Dan Coats  
United States Senator

  
Peter J. Visclosky  
Member of Congress



**BEFORE THE  
SURFACE TRANSPORTATION BOARD**

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|                                   |   |                          |
|-----------------------------------|---|--------------------------|
| CSX CORPORATION AND CSX           | ) |                          |
| TRANSPORTATION, INC. AND NORFOLK  | ) |                          |
| SOUTHERN CORPORATION AND          | ) |                          |
| NORFOLK SOUTHERN RAILWAY          | ) | Finance Docket No. 33388 |
| COMPANY -- CONTROL AND OPERATING  | ) |                          |
| LEASES/AGREEMENTS -- CONRAIL INC. | ) |                          |
| AND CONSOLIDATED RAIL             | ) |                          |
| CORPORATION                       | ) |                          |

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**VERIFIED STATEMENT  
OF  
THE HONORABLE LONNIE RANDOLPH,  
ROSE ANN ANTICH, EARL HARRIS, AND JESSE M. VILLALPANDO  
THE STATE OF INDIANA, 110TH GENERAL ASSEMBLY**

This statement is submitted to the Surface Transportation Board (STB) on behalf of the following elected officials of the State of Indiana's 110th General Assembly:

- Lonnie Randolph, State Senator (2nd District);
- Rose Ann Antich, State Senator (4th District);
- Earl Harris, State Representative (2nd District); and
- Jesse M. Villalpando, State Representative (12 District).

Collectively, we represent the citizens of northwest Indiana in the General Assembly of the State of Indiana. We are pleased to present our views to the Board on the CSX Corporation and Norfolk Southern Corporation's proposed acquisition of Conrail, and the impact of the Application on our individual Assembly Districts and the region.