

**Chicago, South Shore and South Bend Railroad Car #351**

***Builder:*** Pullman Car & Manufacturing Co.

***Date:*** 17 January 1927

***Lot #:*** 4939

***Group #:*** 4

***Type:*** Parlor – Observation – Buffet

***Modifications:*** Converted to a Coach by Chicago, South Shore and South Bend Railroad (South Shore Line); Converted to a Combination Coach-Baggage-Caboose by Canada & Gulf Terminal (C&GT); Trucks scrapped by Norbert Bouffard, Rebutts de Matane, Inc. (RdeM); Converted to a house by Louis Ouellet, St. Rene, PQ

***Condition:*** Stripped Car Converted to a Home

***Out-of-Service:*** South Shore Line – 1945; C&GT – circa 1978

***Provenance:*** South Shore Line; C&GT; RdeM; Louis Ouellet

***Purchased:*** 26 January 1987

***Price:*** \$31,500

***Removal:*** From St. Rene, PQ: 2 October 1992

First Arrived at Atlanta, Indiana, 10 November 1992; removed to 515 Sheridan, October 2011

***Status:*** On Hand

Replacement trucks purchased from Kettle Moraine Railway, North Lake, Wisconsin, 28 October 2001

Truck parts purchased from Southeastern Railway Museum, Duluth, Georgia, 1 November 2018

***Status:*** On Hand

***Intended Use:*** Restore as car #351, circa March 1931

**Justification:** The South Shore Line operated segregated limited trains from 1927 until 1933. The deluxe cars for white patrons were referred to as “special” cars. Car #351 is the last of the South Shore Line “special” cars.

### **A Brief History of Jim Crow Laws as Applied to Transportation – The First Causes of “Separate and Anything but Equal”**

Jim Crow laws, that body of law that segregated the races in the southern states, were first applied to transportation facilities. And the first attempts to overturn Jim Crow laws were directed at the railroads that offered accommodations that were certainly separate, but rarely if ever equal. *Plessy v. Ferguson* (163 U.S. 537, 1896)<sup>1</sup> is not the seminal case as two cases had come before, but separate but equal as found constitutional in *Plessy* was not overturned until nearly sixty years later in *Brown v. The Board of Education* (347 U.S. 483, 1954).<sup>2</sup>

The Louisiana statute at issue in *Plessy* stated “that all railroad companies carrying passengers in their coaches in this state, shall provide equal but separate accommodations for the white, and colored, races by providing two or more passenger coaches for each passenger train, or by dividing the passenger coaches by a partition to secure separate accommodations.... No person or persons shall be permitted to occupy seats, other than the ones assigned to them, on account of the race they belong to.”

In his dissent, Justice Harlan wrote, “the arbitrary separation of citizens, on the basis of race...is a badge of servitude wholly inconsistent with the civil freedom and the equality before the law established by the Constitution. It cannot be justified on any legal grounds. ...The thin disguise of ‘equal’ accommodations for passengers in railroad coaches will not mislead anyone, nor atone for the wrong this day done.”

An exception to the law was carved out for street railroads. But as similar statutes fanned out across the American South, the southern interurbans and street railroads were not exempt from Jim Crow. By statute, the motor coach successors to the electric railways famously moved African Americans to the back of the bus. Even at the time that Rosa Parks refused to give up her seat in Montgomery, Alabama, on 1 December 1955, segregation stubbornly persisted on public transit. Another year would pass before the Supreme Court summarily affirmed the district court ruling in *Browder v. Gayle* (142 F.Supp. 707, 1956) that found bus segregation to be unconstitutional.

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<sup>1</sup> Chemerinsky, p 772

<sup>2</sup> Chemerinsky, p 776

## Understanding Northern Jim Crow – The Difficulties Presented when There Were No Signs, but There Were Customs and Statutes

Northern Jim Crow was a real problem. In the South there were signs "White" and "Colored." It was explicit as to where you belonged and where you did not. In the North, there were no signs. The Red Summer in Chicago in 1919 was a result of northern bigotry and the lack of signs. The sad end to Eugene Williams's life on 27 July sparked a horrible riot just because the poor kid did not know where the "colored" beach ended and the "white" beach began.

There were no signs at the 29th Street beach. When Williams drifted over the invisible line, he was stoned and drowned. The resulting rioting killed another 38 people – 23 Blacks and 15 Whites. Another 537 people were injured. Damage to property left about 2,000 homeless, most of them African Americans.<sup>3</sup>

Northern Jim Crow got statutes with the decision in *Corrigan v. Buckley* (271 U.S. 323, 1926).<sup>4</sup> *Corrigan* involved land covenants in Washington, D.C.. The Court found that the discriminatory racial deed covenants in the District of Columbia were not unconstitutional. And with that, racial covenants restricting the sale of real estate spread across the North. There were still no signs, but there were enforceable covenants separating the races. The new deed restrictions discriminated against African Americans to be sure, but often against Jews and Catholics as well.

In Indiana, where the Klan was powerful even after the murder conviction of Grand Dragon D.C. Stephenson in 1925, socially acceptable meant Northern Jim Crow. In keeping with social custom in Klan-controlled Porter County, Fred'k H. Bartlett Realty Co.'s subdivisions had racial covenants: you had to prove that you were a Caucasian to buy lots in Beverly Shores when it was subdivided in 1927, one year after *Corrigan*. "Catholics, Jews, and Negroes" were barred from purchasing lots at Bartlett's subdivisions along the Lake Michigan shoreline.

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<sup>3</sup> Packard, p 144-5

<sup>4</sup> Northern Jim Crow flourished after the US Supreme Court found racial covenants to be constitutional under the decision in *Corrigan v. Buckley*, (271 U.S. 323, 1926). One year later, Fred'k H. Bartlett Realty Co. plat of Lake Shore included covenants that required land buyers to prove that they were Caucasian.

BEVERLY SHORES, UNIT "D"  
(Blocks 81/94 inc.)

**This Indenture**, Made this 24th day of August A. D. 19 44  
between Frederick H. ~~ROBERT~~ BARTLETT of Chicago, Illinois, as trustee under the provisions of a trust agreement dated January 2, 1923  
and known as the ~~Robert~~ Bartlett Realty Company (not incorporated), Trust Agreement, party of the first part, and

party of the second part,

**Witnesseth**, That said party of the first part in consideration of the sum of TEN (\$10) DOLLARS and other good and valuable considerations, the receipt whereof is hereby acknowledged, does hereby grant, sell and convey unto said party of the second part, as joint tenants and not as tenants in common, the following real estate, (hereinafter called "the real estate") known and described as Lot Two (2) together with riparian rights, in Block Ninety-four (94)

in FREDERICK H. BARTLETT'S BEVERLY SHORES, UNIT "D," being a subdivision of Fractional Section Thirty-four (34), Township Thirty-eight (38) North, and part of Fractional Section Three (3), Township Thirty-seven (37) North, all in Range Five (5) West of the Second Principal Meridian, in Porter County, Indiana, (said subdivision being hereinafter sometimes called "the subdivision"), together with all and singular the tenements, hereditaments and appurtenances thereunto belonging to or in any wise appertaining.

A. General taxes for the year 1944 and thereafter and all unpaid special taxes, impositions and installments of special assessments, if any, now or hereafter levied against the real estate.

B. All zoning and building laws, ordinances and regulations.

C. All recorded restrictions, easements and conditions.

D. Such of the following restrictions, easements and covenants as refer to the real estate, which shall each be construed as a covenant running with the land:

(1) The real estate shall be subject to an easement, which is hereby reserved, in favor of the Public Service Company of Northern Indiana and the Indiana Bell Telephone Company, their successors and assigns, or of any public utility company designated by any of them, for placing and maintaining on the rear five (5) feet of the real estate, electric light and/or electric power and/or telephone poles, conduits and wires, and other facilities necessary for public or quasi-public service, together with right of access thereto.

(2) Before the real estate shall be occupied, a septic tank of brick, tile or concrete, or other satisfactory method of disposing of sewage shall be completely installed by the grantee or the grantees' successors in interest without expense to the grantor and the arrangements for sewage disposal shall be such as to prevent all nuisance and all possibility of contamination, and such as to be satisfactory to the grantor and to the public authorities.

(3) Until June 1, 1959.

(a) No part of the subdivision and no building erected thereon shall be used for manufacturing or industrial purposes.

(b) No lots in the subdivision except those on Lake Shore Drive shall be used for any other than residence purposes, and no building shall be erected or used on any of the following lots (except those on Lake Shore Drive) other than a single family residence costing \$5,000.00 or more: Lots 1 to 15 inclusive in Block 81; Lots 1 to 20 inclusive in Block 88 and Lots 1 to 28 inclusive in Block 94. No building shall be used or erected on any of Lots 16 to 32 inclusive in Block 81; lots in Blocks 87, 89 and 91; Lots 21 to 45 inclusive in Block 88; Lots 5 to 37 inclusive in Block 90 and Lots 13 to 18 inclusive in Block 92, other than a single family residence costing \$3,750.00 or more and no building shall be used or erected on any of lots in Blocks 82, 85 and 86 other than a single family residence costing \$5,000.00 or more. No building shall be used or erected on any of Lots 1 to 13 inclusive in Block 83 and Lots 1 to 14 inclusive in Block 84 other than a single family residence costing \$1,500.00 or more.

(c) The following lots may be used for apartment or hotel purposes, the buildings to be erected on said lots to cost \$5,000.00 or more: Lots 1 to 4 inclusive in Block 90; Lots 1 to 12 inclusive in Block 92 and all lots in Block 93.

(d) No building shall be erected on any lot on Lake Shore Drive unless it shall cost \$1,500.00, or more.

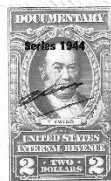
(e) If a principal building which complies with the foregoing restrictions shall be erected on the real estate, thereafter buildings accessory to such principal building may be erected thereon at a less cost, but until such a principal building has been so erected no building or structure whatever shall be erected or placed on any part of the real estate.

E. It is an express condition of this conveyance that no part of the real estate herein described shall ever be conveyed or leased to any person who is not a Caucasian, and shall never at any time be used or occupied by any person who is not a Caucasian. If said real estate or any part thereof shall at any time be conveyed or leased to any person who is not a Caucasian or shall at any time be used or occupied by any person who is not a Caucasian, then and in any such event all said real estate and all estate and interest therein shall forthwith revert to the grantor or his heirs and successors, who may thereafter re-enter upon and enjoy the same as before the making of this conveyance.

**To Have and to Hold** the same unto said party of the second part, and to the proper use, benefit, and behoof of said party of the second part.

This deed is executed pursuant to and in the exercise of every power and authority hereunto enabling, given to said trustee under the terms of any deed of conveyance or otherwise vested in him.

**In Witness Whereof**, said party of the first part has hereunto set his hand and seal the day and year first above written.



Frederick H. Bartlett [SEAL]  
As Trustee as aforesaid.  
By *North & Johnson*  
(His Attorney in fact. Power of Attorney recorded as document 56924)

The deed to the Armco-Ferro Steel House from Fred'k H. Bartlett Realty Company, 24 August 1944. The racial covenants are at paragraph E.

The impact of the decision in *Corrigan* was less about absolute separation of the races and more about creating wealthy white enclaves in the manner that Beverly Shores was envisioned. Northern Jim Crow on the South Shore Line had the same effect – clientele who could afford a parlor car chair were ensured that they would not have to sit by an African American. The White folk whose economic standing in life did not allow the small luxury of privacy on board the parlor cars had to suffer the indignity of sitting with whomever chose to do so.



*Racial divisions and Klan-control in Indiana on display at the Porter County Fair, Valparaiso. Klansmen are seen directing traffic there, circa 1926. Although waning in stature after the murder trial of Indiana Grand Dragon D.C. Stephenson at Noblesville in 1925, the Ku Klux Klan was powerful in Indiana politics for decades.*

The Insull Group aided Bartlett in the sale of lots at Beverly Shores by providing stations at Bartlett's subdivisions and free promotions in the South Shore Lines riders' newsletters. On board the South Shore Line trains, the Insull Group advertised their parlor and dining car services as "...an environment like that of one's favorite club or hotel." Yes, to a black man in the 1920s, that language is a sign of Northern Jim Crow. Club memberships and overnight hotel accommodations for Blacks in the United States were not available until the passage of the civil rights acts of the 1960s.

Racial discrimination by private actors was not unconstitutional in America until the Supreme Court decision in *Heart of Atlanta Motel v. United States* (379 U.S.

241, 1964). In *Heart of Atlanta Motel*, the court found that under the authority of the Commerce Clause, Congress has ample power to regulate private behavior by legislating against moral wrongs, and that the passage of Title II of the Civil Rights Act of 1964 was constitutional.<sup>5</sup> No such protections existed in the brief period that the South Shore Line operated segregated services. From 1927 until 1933, the only way an African American could be on a South Shore Line parlor car was if he worked there.

The parlor-observation-buffet cars were staffed by light-skinned black men. But while African Americans could work the parlor cars, they could not ride in them. Imagine the awkward moment when a light-skinned black porter denied a black customer a chair in the parlor car. Although the segregation of transportation in the South was defined by Jim Crow laws, in the North, segregation was enforced by social custom.

This discussion is not an attempt to posit Samuel Insull as a bigot; none of Insull's biographers tar him with that label. But Insull's biographers do paint him as a shrewd businessman who stuck with what was socially acceptable, here, Northern Jim Crow and the separation of the races.

### **The Current Status of Museum Interpretation of Jim Crow Accommodations on the Railroads**

Although the first Jim Crow statutes were related to railroad transportation facilities, few Jim Crow railroad cars are preserved and interpreted in the United States. Segregated railroad cars were known in the railroad field as Plessy Cars.

Notable examples of Plessy Cars are on exhibit at the Smithsonian's National Museum of African American History and Culture; another is at the North Carolina Railroad Museum, a state-owned historic site in Spencer operated by the North Carolina Department of Natural and Cultural Resources; a third is at the Georgia State Railroad Museum, a city-owned site listed on the National Register of Historic Places; and a fourth car is at the nonprofit Baltimore and Ohio Railroad Museum in Baltimore, Maryland. At Virginia City, Montana, a Western Plessy car segregating Native Americans from Whites is rotting away with little local knowledge of its significance. All these cars are separate compartment cars having white and colored seating in a single car. There are no known government or private railroad museums interpreting train service with separate cars for whites and African Americans.

As the story of Jim Crow is of national historical significance, and the interpretation of racism on transportation in the North has not been done by any agency, public or private, preserving parlor-observation-buffet car #351 as part of a Northern Jim

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<sup>5</sup> Chemerinsky, p 176-7

Crow train would add to the significant story of racism in the North. A description of the South Shore Line segregated parlor car service and how it can be recreated for interpretation is discussed below.

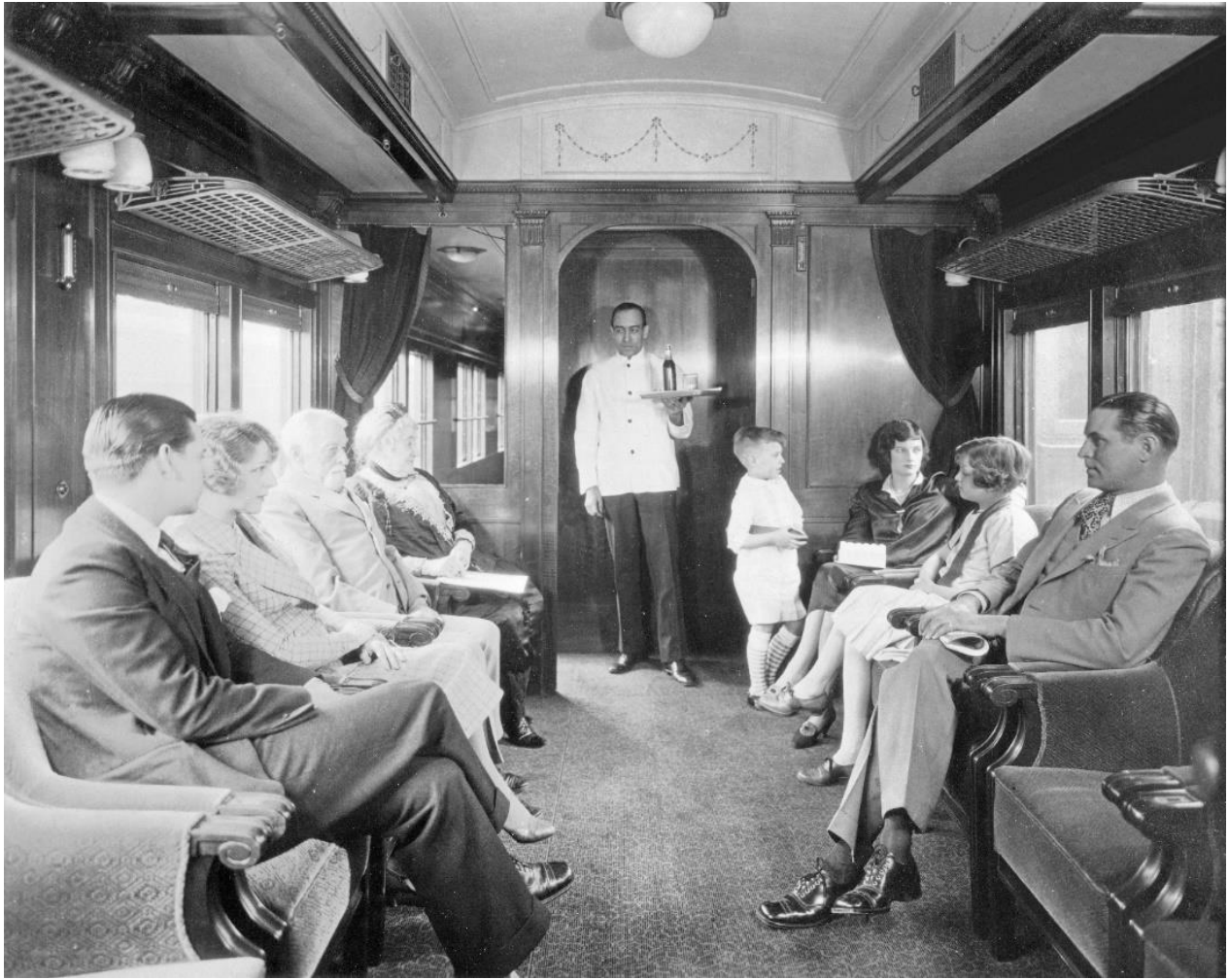
### **South Shore Line Segregated Parlor Car Services**

There were two variations of parlor car segregated services on the South Shore Line – parlor-observation-buffet car service and parlor-observation car service operated in conjunction with the dining car service. There were four parlor cars owned by the South Shore Line – two parlor-observation-buffet cars, #351 & 352, and two “short” parlor-observation cars that were used with the dining cars, #353 & 354.

From photographic evidence, a typical eastbound train with a parlor-observation-buffet car would have included two coaches as the train departed Randolph Street Station in Chicago. Most often, the coaches were box smokers either with bucket or walk-over seats. One coach was normally cut at Michigan City, and one coach and the parlor-observation-buffet car continued to South Bend. The process would normally reverse for westbound trains with one coach and the parlor-observation-buffet departing South Bend and a second coach added at Michigan City.

A notable exception to this operating pattern were found in the timetables from April 1927 until September of 1928 and again in 1929 from April until June – one eastbound morning departure had a coach-baggage car. In the spring and summer of 1927, it was the 11:59 am departure from Randolph Street Station in Chicago. After that, the 10:00 am departure of the Duneland Limited carried the coach-baggage car. Curiously, there were no westbound parlor car trains scheduled to carry a coach-baggage car.

To interpret how a “Northern Jim Crow” train with segregated equipment would function, two coaches with box smokers should be trained with the parlor-observation-buffet car. This arrangement would show the differences in car accommodations that were exclusive for “whites only” and those cars where all races would be accommodated. Demonstration train operations will require a third coach with a box smoker as an operating spare car to maintain good service. Adding a coach-baggage car would simulate the limited trains that carried scheduled coach-baggage cars eastbound.



*Promotional image of “special” South Shore Line services in the parlor-observation-buffet cars. An all-white clientele served by a light-skinned black man played into typical 1920s racial stereotyping to be sure. But on the South Shore Line this image also played into the racial divisions prevalent in Indiana.*





*"...An environment like that of one's favorite club or hotel." Parlor-Observation-Buffer car #351, January 1927.<sup>6</sup>*

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<sup>6</sup> South Shore Line public timetables, 1927-1931.

## Conclusion

The interpretation of the history of the South Shore Line is incomplete without a discussion of the systemic racism of the north, how Jim Crow worked when there were no signs that said “Whites Only,” and how Jim Crow played out on the South Shore Line. The preservation of car #351, as the last “special” car from the South Shore Line, is a critical tool for interpreting the racial history of Indiana.

### Required Cars for Interpreting South Shore Line Parlor Car Trains

- ***Parlor Car Train:*** Coaches #5, 31, and parlor-observation-buffet #351
- ***Spare Operating Car:*** Coach #3

All these cars are on hand in Indiana.

FRA and ADA legal considerations are covered below.



*Grant Park Limited, a typical parlor car train at Forsythe (now Dune Park), Porter County, circa 1927. Two coaches and a parlor-observation-buffet car were all that were required to meet the service needs of these mid-morning and mid-afternoon limited-stop trains.*

**Law Regarding Body Structures for MU Locomotives**  
**Will Restrict Train Lengths**

The issue is whether the vintage South Shore Line interurban cars can be operated on a railroad connected to the general railroad network.

Under the Code of Federal Regulations (CFRs), the Federal Railroad Administration (FRA) regulates the safety requirements for train operations in the United States. The FRA has waived regulations for the operation of historic equipment by railroads, most often for the operation of steam locomotives. The Northern Indiana Commuter Transportation District (NICTD) has expressed its disdain for historic operations in the past most often citing the requirement of 49 CFR § 229.141(a)(1).

Under 49 CFR § 229.141(a)(1), trains having an empty train weight of 600,000 pounds or more must resist a minimum static end load of 800,000 pounds at the rear draft stops ahead of the bolster on the center line of draft, without developing any permanent deformation of the body structure. The vintage South Shore Line interurban cars will not meet this standard.

However, 49 CFR § 229.141(a)(1) is not dispositive. The requirements for collision strength vary with train weight. Under 49 CFR § 229.141(b)(1), trains having an empty train weight of less than 600,000 pounds must resist a minimum static end load of 400,000 pounds at the rear draft stops ahead of the bolster on the center line of draft, without developing any permanent deformation of the body structure. The South Shore Line cars as built were calculated to resist a minimum static end load of 465,000 pounds.

Because the South Shore Line cars are not able to resist a minimum static end load of 800,000 pounds, but can resist 465,000 pounds, therefore the empty train weight of the vintage South Shore Line cars operated on a mainline railroad shall not exceed 599,999 pounds.

The weights of the proposed trains are as follows:

- Three car train with two coaches and parlor-observation-buffet car – 373,200
- Four car train with two coaches, coach-baggage car and  
parlor-observation-buffet car – 506,600
- Four car train with two coaches, dining car, and coach-baggage car – 585,200

To meet other requirements under the CFRs, the vintage South Shore Line interurban cars will necessarily have to be modified or the requirements waived.

The FRA has jurisdiction over the following requirements:

- The collision post shear strength at the bottom connection to the underframe,
- The anti-climb capacity, and
- The truck to carbody attachment shear strength in the horizontal plane.

It is difficult to predict whether the vintage South Shore Line interurban cars can be modified without additional engineering analysis, or whether the FRA would waive their requirements absent a specific request to do so. FRA waivers have been routinely granted for the frequent operation of historic steam locomotives on Class I railroads including Norfolk Southern, CSX, Canadian Pacific, and Union Pacific. A final determination as to whether the vintage South Shore Line interurban cars can be operated would have to be made by the host railroad in either case. If the railroad operating the vintage South Shore Line interurban cars is owned by a nonprofit that is hosting their operation as a museum endeavor, the FRA requirements are not at issue.

## **The Americans With Disability Act Does Not Apply to Historic Train and Trolley Operations, But Every Effort Should Be Made to be in Compliance**

The issue is whether the vintage South Shore Line cars will have to be modified, and to what extent, to meet the requirements of the Americans With Disabilities Act (ADA). Because 26% of Americans are classified as disabled under the ADA, it is in our best interest to make the operation of the vintage South Shore Line cars in compliance with the ADA.

The purpose of the ADA is to protect the dignity of the those who have disabilities by improving their “independence, safety, and avoided stigma and humiliation.”<sup>7</sup> The ADA is applied to public and private transportation entities under 49 CFR § 37.21(a)(1-3). However, when historic rail cars or trolleys are operated for the public primarily for recreational purposes rather than for transportation in a museum setting, such historic operations are exempt under 49 CFR § 37.37(c).

If historic operations cannot be categorized as museum operations, ADA will apply to vintage historic transportation vehicles that are altered. Alterations include historic restorations (28 CFR § 36.402(b)(1)). However, alterations to historic restorations are required only to the maximum extent feasible (28 CFR § 36.402(c)) recognizing that not all persons with disabilities can be accommodated in altered vehicles including those persons in wheelchairs.

The intent under 28 CFR § 36.402(c) is that all feasible alterations shall be made that will accommodate all the disabilities that are feasibly accommodated. By way of example, if those in wheelchairs cannot be accommodated, can folks on crutches be accommodated? When the answer is affirmative, then those alterations favoring people on crutches shall be made. Properties that meet the criteria for listing on the National Register of Historic Places (NRHP) are not exempt; under 28 CFR § 36.405, the statutes apply to eligible properties.

Under 28 CFR § 35.151(b)(3)(ii), if it is not feasible to provide physical access to an historic property in a manner that will not threaten or destroy the historic significance of the building or facility, alternative methods of access shall be provided pursuant to 28 CFR § 35.150. Under ADA Chapter 2 § 202.5, the determination as to feasibility is to be made by the State Historic Preservation Officer (SHPO) or the Advisory Council on Historic Preservation (ACHP). Here, it is not known whether the steel structure of the vintage South Shore Line cars can be altered to accommodate wheelchairs when the as-designed side structure of these cars has to bear the consequences of the buffing forces encountered in train service. Assuming that the vintage South Shore Line cars cannot be modified, other means of access must be identified.

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<sup>7</sup> Department of Justice, Supplementary Information, at 13.

A reasonable means of accommodating disabled passengers in wheelchairs is to use the large spaces in baggage compartments for wheelchair lockdowns and an accessible restroom. Visibility out of the side of a baggage compartment will be impaired, but forward visibility need not be if the wheelchair lockdowns are on the left side (non-cab side) of the compartment as there is a forward-facing window there. A portion of the right side (cab side) of the baggage compartment can be the location of an accessible restroom. As this space is above the truck assembly, it may be that a cassette toilet, rather than a Microphor toilet will be required. Depending on space requirements, it may be feasible to set aside some space in the baggage compartment for bicycle lockdowns as well.

It is feasible to accommodate disabled passengers in wheelchairs on the observation platforms of car #351. Without modification, the end observation platforms have adequate door openings for wheelchair access as required under ADA Chapter 4 § 404.2.3, and adequate dimensions to accommodate the T-shaped turning space required under ADA Chapter 3 § 304. However, without considerable modifications of the interior spaces, car #351 cannot accommodate wheelchair passengers in the car interior beyond the end observation platforms. Therefore, passengers in wheelchairs riding in car #351 would not be able to access the saloons (the archaic railroad term for restrooms).

### **Conclusion**

To be dismissive of 26% of the potential market for customers must viewed as a business folly. Because it is feasible to accommodate recreational riders with disabilities on the vintage South Shore Line rail cars, every effort should be made to do so both in a combination coach-baggage car and in the parlor-observation-buffet car #351.

## **There are More Than Adequate Spare Parts to Operate a Vintage Fleet of South Shore Line Cars in Perpetuity**

The issue is whether there is an adequate spare parts supply for the continued long-term operation of the vintage South Shore Line interurban cars.

The East Troy Electric Railroad operates the largest fleet of vintage South Shore Line equipment that exists at this writing in 2021. The ten cars in their fleet include four of the original short cars and three stretched and air-conditioned cars that have been converted to dining cars that operate a popular dinner train service. A fourth converted vintage South Shore Line car is expected to join the dinner train fleet in 2021.

Paul Averdung was the operator of the East Troy Electric Railroad in the 1980s when the decision was made to purchase a substantial fleet of vintage South Shore Line cars and to convert them to dining cars as a means of offering premium fare services. Heavyweight dining cars from the golden age of steam railroading are the most elusive car type in all of railroad preservation. Mr. Averdung's decision to use the converted heavyweight vintage South Shore Line cars as an alternative to steam railroad dining cars has been wise in his estimation.

Operating vintage railroad equipment can leave the operator at a disadvantage when there is an inadequate supply of spare equipment. Here, the party who dismantled the fourteen unwanted vintage South Shore Line cars for scrap salvaged all usable spare parts. Further, the South Shore Line kept spare parts for the vintage cars at their stores department until the end of service in August 1983. Those spare parts are now warehoused in Michigan City with the parts salvaged from the fourteen cars scrapped since 1984. Because a vast supply of spare parts remains, using the vintage South Shore Line cars is advantageous.

In his retirement, Mr. Averdung is still involved in maintaining the vintage South Shore Line fleet at the East Troy Electric Railroad. From his nearly forty years of experience, Mr. Averdung reports that the age of the vintage South Shore Line cars does not diminish their performance; car failures are nearly non-existent as so much of the mechanical and electrical equipment was over-engineered and is still robust. However, there are two components that have had a relatively high failure rate: 1) traction motors, and 2) motor-generator sets.

Mr. Averdung has had to have traction motors rewound. In the industrial Midwest, this has not been problematic as there are many series-wound DC motors in service to industry; one of the best sources for motor maintenance is Harrison Electric of Michigan City, Indiana. Motor-generators require a similar level of maintenance as the traction motors. Air-compressors, unit switch groups, and contactors have not failed since the vintage South Shore Line cars entered service at East Troy in 1985.

Mr. Averdung was asked what level of spare parts would be appropriate for a ten-car fleet of vintage South Shore Line cars given his lengthy experience with them. He recommends the following capital spares be kept on hand:

- One operating spare car,
- One spare truck with rewind motors for quick change-outs,
- Four additional spare motors,
- Two spare motor-generator sets, and
- One spare air-compressor

All the items listed above are on hand at Michigan City, Indiana.

Mr. Averdung's recommendation is a cushion of a 20% ratio of spare equipment to operating cars based on his experience. Because of the high number of cars scrapped for parts, as well as the spare parts made available from the South Shore Line from the stores department, we have a ratio of better than 40% spare equipment to the number of restorable cars, giving us a cushion of two spare car sets of equipment above the recommendations of Mr. Averdung.

With a ratio of better than 40% spare equipment to the number of restorable cars, the vintage South Shore Line cars on hand at Michigan City should be maintainable into perpetuity as the National Historic Site vintage operations at New Orleans and San Francisco are expected to do.

### **Conclusion**

There is an adequate spare parts supply to operate the vintage South Shore Line cars into perpetuity as is being done at vintage operations across North America.