The Chesapeake & Ohio Historical Magazine

September/October, 2022

THE CHESAPEAKE & OHIO HISTORICAL MAGAZINE
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In This Issue...

Cover: GP38 No. 3898 is eastbound at Valley Crossing, Ohio, with the Nelsonville Turn around 1980. The double-track Norfolk & Western is in the foreground. The train is pulling LS&I No. 33 to Hocking Valley Scenic Railway. (Dick Argo photo, C&OHS Collection, COHS 60756)

Editor's Note...

This magazine was **not** put together by the undersigned.

I turned the assembly/editing of this issue over to Cliff Clements, Karen Parker, Al Kresse, and Rick Gartrell as an *ad hoc* editorial committee. We asked them, headed by Cliff, to develop or find articles and place them in the magazine along the usual lines of interest and variety that we have always practiced. I stood by and gave advice, one article, and help in the administrative steps needed to produce this issue.

I will take over again for November/December, 2022, issue, and then I'm asking the committee to do it again for January/February, 2023.

The purpose is to broaden the understanding of how things work so that if I am not available to do the work, others will have some on-the-job training in the procedures and sequences/timeline needed to produce an issue and on schedule.

Cliff did most of the on-site work at Clifton Forge with Michael Dixon executing his instructions on the design, and the others helped with articles. As you see, most of the authors/committee are. . . still . . .the people who have been doing most of the articles in recent years. This now begins to involve them in the production.

But, the glaring problem remains: who writes the articles! These few cannot persist forever either. We need some others to step forward. If anyone has ideas and the willingness to discuss doing articles, please let me know at tdixon@cohs.org with info to cliffclements512@gmail.com.

My thanks to these folks for their increasing support!

Respectfully,

Tom Dixon

We in the C&OHS are saddened by the passing of Hays T. Watkins who was so instrumental in the creation of our organization. Please see page 4 of this magazine.

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312 E. Ridgeway Street,
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Research/Order Inquiries (540) 862-2210
Fax: (540) 863-9159 e-mail: cohs@cohs.org
ChessieShop.com ♦ cohs.org
AND
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H. Morris Truslow, III
Memories of the C&O Telegraph Office at Richmond

Operators typing in QQ office at Richmond, as described in this article. Photo taken in 1955 after extensive teletype installation here. (C&O Ry. photo, C&OHS Collection, CSPR 3606)

In 1970 as a new employee with the Chesapeake & Ohio Railway Company in Richmond, Va., opportunities for a good bulletin job could be slim. However, lower level jobs such as mail clerk, file clerk, messenger, elevator operator, and waybill sorter could be had once you reached about a year's seniority. After several months of working at a number of vacation relief and sick time fill-ins, I was lucky enough to land a messenger job in the QQ Telegraph Office. The office was on the 19th floor of the First and Merchants National Bank Building at the corner of 9th and Main Streets and was the General Office Building in Richmond, where the original headquarters of the C&O was located before the executive offices were moved to the Terminal Tower in Cleveland, Ohio.

This, the main telegraph office for the Southern Region of the C&O, housed about one dozen teletype machines and a communication counter where the old, mostly unused, telegraph keys had been connected. We had a Western Union communication desk, and on the back wall a bank of teletype, telephone, and telegraph relays. The head operator had a desk in the room also.

The telephone relays clicked continuously, making quite a racket. The teletype machines were constantly hammering, sounding like 50 typewriters going at once.

This office received much of the communication from all over the system. It went to directors, staff officers, operating staff, engineering, mechanical... well, every department on the railroad. Many of the day-to-day operations were transmitted over the teletype and we also received train manifest records as trains came into the yards. Accident reports, derailments, shop records; all kinds of information were continually being received, which made the noise level in this room very high. Today that level of noise probably would not be tolerated! As the messenger, I was sort of a "jack of all trades," handling the delivery of all the communications going to the various offices, sending and receiving messages on the Western Union desk machine, helping gather reports coming in on the teletype machines, plus redirecting the tapes to be forwarded by teletype. If there was some sort of communication breakdown, I could even man a telegraph key, since I had learned Morse Code as a Boy Scout!

The daily operation was a beehive of activity, with some brief periods where we could work on the crossword puzzle in the newspaper...but not have time to finish it! Working there was fairly interesting, since I had to deliver reports to the executive offices and all other departments.

The people in the office were all great to work with and we always had something interesting to share. Once, when checking a teletype while a train manifest list was coming through, I noticed that someone had put the lading in a box car as a "load of s_ _t." They never did find out who did that!

As mentioned before, this office was on the 19th floor, and from this vantage point we could look over a lot of the city. Seeing down to the James River and over the financial district of town, we had a bird's-eye view and a nice breeze coming through the windows.

Hays T. Watkins - 1926-2022

By Thomas W. Dixon, Jr.

One of the people who created the C&O Historical Society has passed away—Hays T. Watkins. He was also one of the key players in creating the modern system of American Railroading.

This is a summary of Hays Watkins' Career:

He was born in Fern Creek, Ky., Jan. 26, 1926 and graduated from Western Kentucky University with an MA Degree in Accounting in 1947. He received his CPA from Northwestern University in 1948 and went to work for C&O in 1949.

Mr. Watkins was hired into the Special Assistant to the President's office in Cleveland, where he worked with several others on special issues until 1950 when this office was eliminated. Afterward he moved to Richmond as an internal auditor in the C&O accounting office. From there he returned to Cleveland as staff assistant to the Comptroller and progressed through several steadily more responsible positions there. He was recognized for his thoughtful and intelligent approach to problems and was a very well-liked staff member. He held the following positions over time:

1956-1958: Senior Budget Analyst

1958-1960: General Auditor

1960-1964: Treasurer C&O and later Asst. Vice-president C&O/B&O

1964-1971: Vice-president, Finance, C&O/B&O

1971-1973: President & CEO C&O/B&O

1973-1975: Chairman and CEO Chessie System

1975-1980: Chairman, President, and CEO, Chessie System, Inc.

1980-1982: Chairman and co-CEO, CSX Corporation

1982-1989: Chairman and CEO, CSX Corporation

This photo was taken for use on the cover of Railway Age soon after Hays had become CEO of C&O/B&O in 1971. He is pictured looking forward with the iconic Van Sweringen Terminal Tower (in Cleveland) in the background. (C&O Ry. photo, C&OHS Collection, CSPR 12310-2)

1989-1991: Chairman, CSX Corp.

February, 1991-2022: Chairman Emeritus, CSX Corp.

Because of his recognized abilities in the financial arena and detailed understanding of how railroading was changing over the years he was a key person in the affiliation of C&O/B&O, its metamorphism into Chessie System, and leading up to the CSX merger. In fact, he began with detailed passenger train studies and covered most train-by-train. He foresaw the collapse of Penn Central and arranged to protect C&O/B&O financially during the collapse of eastern railroading.

As a financial leader during the C&O/B&O affiliation years he was positioned to help guide the company through some of the worst years in eastern railroading following the Penn Central debacle. Had he been able to accomplish his plan for the takeover of Conrail in partnership with Norfolk Southern later on, the whole complexion of modern railroading might have been different.

One of his first moves upon assuming position of CEO of C&O/B&O was to rename the company to Chessie System Railroads, and give it an entirely bright new livery on all its locomotives and cars. This was done in the face of declining fortunes for eastern railroads and did much to instill a new *esprit de 'corps* in the employees of the company and to give it an all new face to the people of the region of its service.

In his introduction of employees to the new Chessie System name (see page 6) Watkins mentioned the heritage of the kitten back to 1934, and then said "Now Chessie System says to the world that two great railroads are as one in their commitment too carefulness in handling freight and

This posed photo was used in publicity materials announcing the creation of Chessie System in 1972. (C&O Ry. photo, C&OHS Collection, CSPR 23422)

decent consideration in all human relationships." –- And he meant it!

He was and is still recognized as one of the most honest, ethical, even-handed, and thoughtful executives ever to sit behind a desk. He was simply in a league of his own in how he took the time to look at all sides, see things from others perspectives, and maintain an even hand in all dealings. This is reflected in the statement above where he says the company was to have "decent consideration in all human relationships." He lived this and through his evenhanded and straightforward dealings, made many important things happen.

Hays and Chairman Prime Osborne of Seaboard System Railroads posed with Virginia Governor Dalton announcing the creation of CSX in 1981 (C&OHS Collection, COHS 53303)

Hays took a liking to C&O Historical Society in the late 1970s and became our mentor. He had always liked trains and at our 1982 conference in Richmond, where he was the keynote speaker, he said "I am a dedicated railfan." No other high railroad executive had ever said this, anywhere. He followed it up by seeing to our support in many ways not just by the company but by him personally. At that meeting he became our first Honorary Life Member.

He ensured that we were given the most important surplus materials including over 250,000 original C&O mechanical and engineering drawings, over 1,000 linear feet of engineering records, over 200,000 official public relations photos, corporate minutes of 139 predecessor companies, and much other material no longer required as CSX was created. This material is now the backbone of the C&OHS archives and is used in everything we do: magazines, books, pamphlets, restoration, and memorabilia. The C&O Historical Society would not exist today in any way as it does without the guiding advice, the grants and the donations from Hays Watkins while he was head of Chessie System and CSX and in the years since his 1991 retirement right up to the present. Several cars in our museum collection were donated to the Society by his direction.

C&OHS was not his only historical interest. It was he who separated the B&O Railroad Museum from the company and endowed it so that it now stands alone as one of the premier railroad history institutions in the world. Both our organizations owe him an inestimable debt.

Please see my memories of Hays Watkins and his relationship with the C&O Historical Society that appears in the flyer of this issue. - *TWD.*

*Reprint

A Message From the President

Now we are Chessie System. And we have a brighter, more modern look.

Representative numbers of you at various points on the system recently voted in favor of the change. I hope those who are learning of it for the first time through this special advance announcement in Chessie News will be similarly enthusiastic.

Our salesmen said the popular, short-form system name for C&O and B&O would help them in their job of selling our services. Chessie, they said, "symbolizes the care with which the patron's freight is handled."

Our safety people, after field observations of our present locomotive paint scheme, said a brighter design would increase visibility.

Our operations and maintenance people said they were more than ready to place a new system designation and revised color scheme on our rolling stock. The lawyers gave their blessing, as did the tax, finance, purchasing and personnel people, and all the others concerned in one way or another.

With that, our public relations people, who had produced the original study recommending the short system name, went to work to create the new color applications, the "Ches-C" mark and the distinctive letter forms of the new signature.

I am pleased to say that the whole job, from concept to execution, was homegrown. Our people worked together, produced something good and saved us a lot of money.

Some of you may wonder why, since we have recently been using The C&O/B&O Railroads as our short name, we could not simply change it to The C&O/B&O System. The answer is that C&O/B&O combines two separate, distinct designations and, therefore, suggests duality. Chessie System describes a single unified system, though the separate corporate identities of the two companies continue.

Hays Watkins holds designer's sketch of caboose in revised color scheme.

Some may also wonder why a completely new popular name could not be devised, rather than drawing one from the heritage of one of our two railroads. The answer is that a completely new designation would require time and immense advertising expense to make it familiar to customers, shareowners and others.

As reported elsewhere in this issue, both B&O and C&O people have a fondness for Chessie. As one salesman said, "It is more than a cat, it is a personality. No other railroad has such an appealing and effective symbol. I strongly urge that it be adopted for the combined system."

All of us will undoubtedly be sorry in some degree to say goodbye to two old favorites, the B&O Capitol Dome and the C&O For Progress symbols. Times change, however, and those of you who participated in the study of the proposed new system designation readily concurred that the Dome is more suggestive of government than of transportation and the Progress symbol is now graphically out of date.

Chessie System can not, of course, bloom overnight on every locomotive, boxcar, sign, letterhead or printed form. That extensive task will be accomplished over a period of time. However, even when the system designation appears, as on the hundred new diesel locomotives that will start arriving soon, the B&O or C&O initials will continue to be displayed prominently. And there is no change, naturally, in our full corporate names of The Chesapeake and Ohio Railway Company and The Baltimore and Ohio Railroad Company.

But something important has changed with the adoption of this popular, short name for ourselves.

Firstly, it shows our readiness to welcome change, to adapt to the different in our technology, the way we do our job and the services we provide. We are ready to greet the unexpected and mold it to our goals.

Second, it reconfirms our dedication to safe, on-time rail transportation. While images, names and color schemes all are important, performance, as you and I both know, is the most important ingredient of all in a good reputation.

Years ago, before affiliation took place between our two railroads, a postcard was received at the B&O offices in Baltimore. On it the message read, "Please send me a calendar with your famous cat, Bessie of the B&O, on it." Linked as they were already in the public mind through their similarity of names, C&O and B&O seemed destined to get together.

Now Chessie System says to the world that two great railroads are as one in their commitment to carefulness in handling freight and decent consideration in all human relationships.

YOU'VE COME A LONG WAY, BABY—*In the beginning her message was "Sleep Like a Kitten." Now it's "Per-fect Transportation." Since 1933 — her birthday is September 1 — she has symbolized transportation.*

This was the introduction to the new Chessie System name and styling presented by Hays in the September, 1973 issue of *Chessie News*. (C&OHS Collection)

This was Hays' explanation of the new Chessie System name and image as he wrote it for Chessie News' issue of Sept. 1, 1972.

Wind Scatters N&W Confidential Merger Papers

The following unusual story was told by Hays T. Watkins, chairman emeritus of CSX at his office in Richmond during an interview in May, 1997. About a week before the merger briefing and vote by the companies' boards of directors on Aug. 31, 1965, C&O/B&O Chairman and CEO Walter J. Tuohy asked Hays T. Watkins, then vice-president, finance, to join him for a discussion on the balcony of the 34th floor of the Terminal Tower building in Cleveland. Hays often shared interesting stories with us. In Mr. Watkins words:

Mr. Tuohy liked to sit out there in the sun and fresh breeze. He wanted to go over all of the [merger] papers because he was an individual who just had to know every detail of every figure.

So, I took up a sheaf of papers, probably 20 or 30, put together with a paperclip. We were sitting out on the balcony going over the papers and I was telling him the financial details and he was asking questions. We would go through a page and then I turned over another page. We were about two-thirds through and the papers were in my hands with a lot of them turned over. All of a sudden, a breeze came up and lifted the papers out of my hand. To our horror, they floated up and then went over the edge 34 stories up. We both looked to see where the papers were going. Mr. Tuohy leaned over so far I thought he was going to fall to the pavement below. We both had a feeling of utter despair because the secret merger details were in those papers.

We hurriedly went down to the street and searched the area near Terminal Tower for about an hour and a half, but the papers weren't in sight. It was after six o'clock and the building was closed, but a security guard let us go to the roof to search.

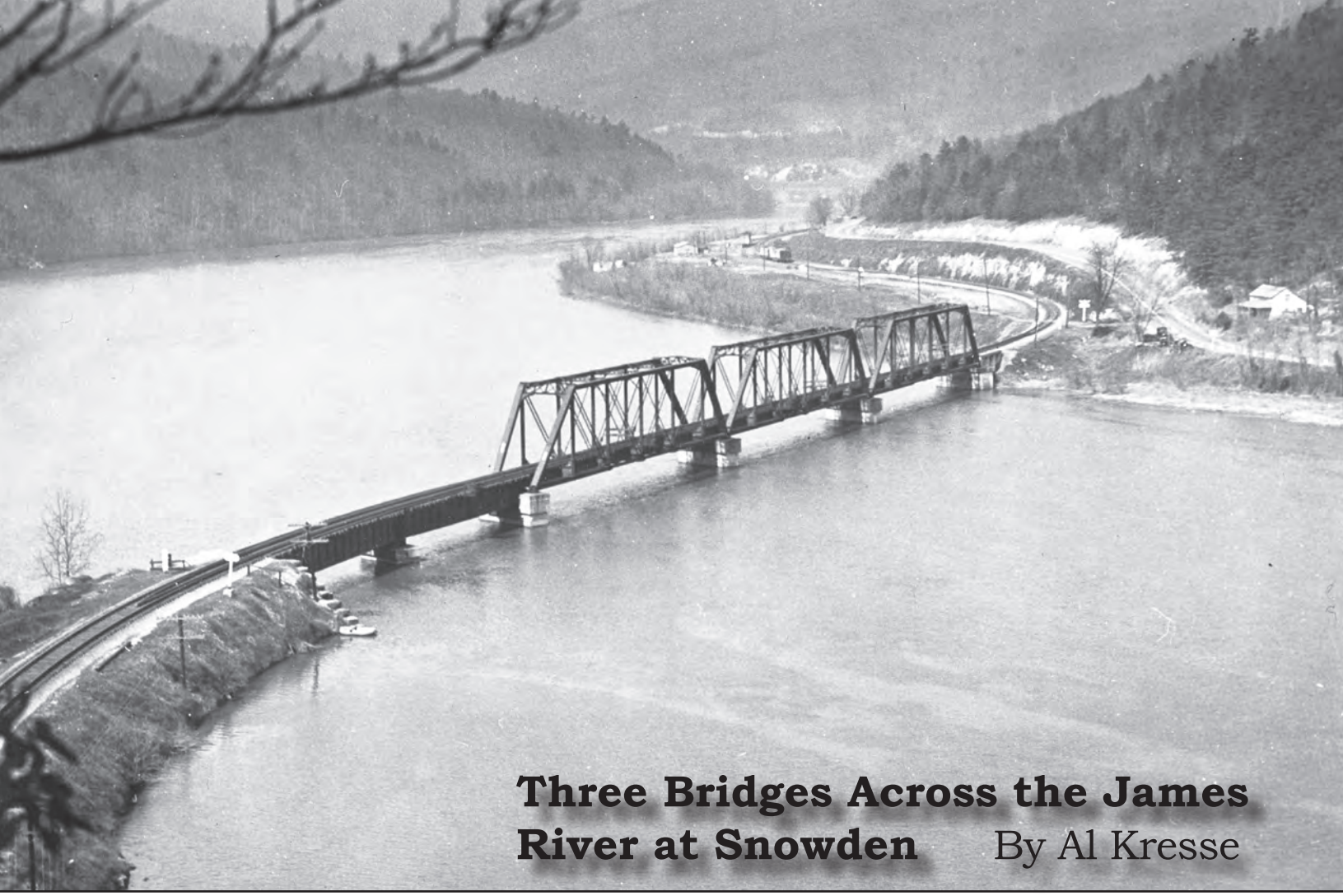
By this time, we were completely crestfallen and went back to Mr. Tuohy's office. I'll never forget what he said: 'Hays, we've done our best. We've looked for the papers, they seem to be gone. We won't bother telling anyone about this. We'll just hope and pray for the best and hope that nobody finds them, or if they do, that they won't know what they're about.'

So, Mr. Tuohy didn't tell anyone about the loss and neither did I, until some days later when we were on our way to New York for the merger announcement and press conference, when he told Greg DeVine (C&O/B&O President) and John Kusik (Chairman of the C&O/B&O Finance Committee). Later he informed the Norfolk & Western people about it.

That was the longest week I have ever spent in my life. Every time I turned on the television or radio, I could just see visions of announcers saying papers have been found which announce a major merger.

They were never found."

Hays T. Watkins. (C&OHS Collection, COHS 45093)



Three Bridges Across the James River at Snowden

By Al Kresse

Hillside view, looking north, of the second Snowden bridge and curved approach tracks circa-1950. The cut-stone pier caps have been encased in concrete. (C&OHS Collection, CSPR 3522)

In 1878, the Virginia General Assembly passed at act enabling the recently-chartered Richmond & Alleghany Railroad Company (R&A) to purchase the James River & Kanawha Company for the purpose of building a railroad along the canal right-of-way between Richmond and Clifton Forge. To accomplish this, the R&A had to acquire the deeds for the Buchanan & Clifton Forge Railway line and James River & Kanawha Canal line between Richmond & Buchanan. Both properties were transferred to R&A on March 5, 1880.

Snowden, formerly Snowden Plantation, is located on the James River 35 miles upstream, or west, of Lynchburg, just east of Balcony Falls at the confluence of the North (Maury) River. It was the home of Peter Jefferson's 2,000-acre estate/plantation. Thomas Jefferson was Peter's oldest, but upon Peter's death, Thomas chose instead to inherit his father's other estate on the Rivanna River: Monticello.

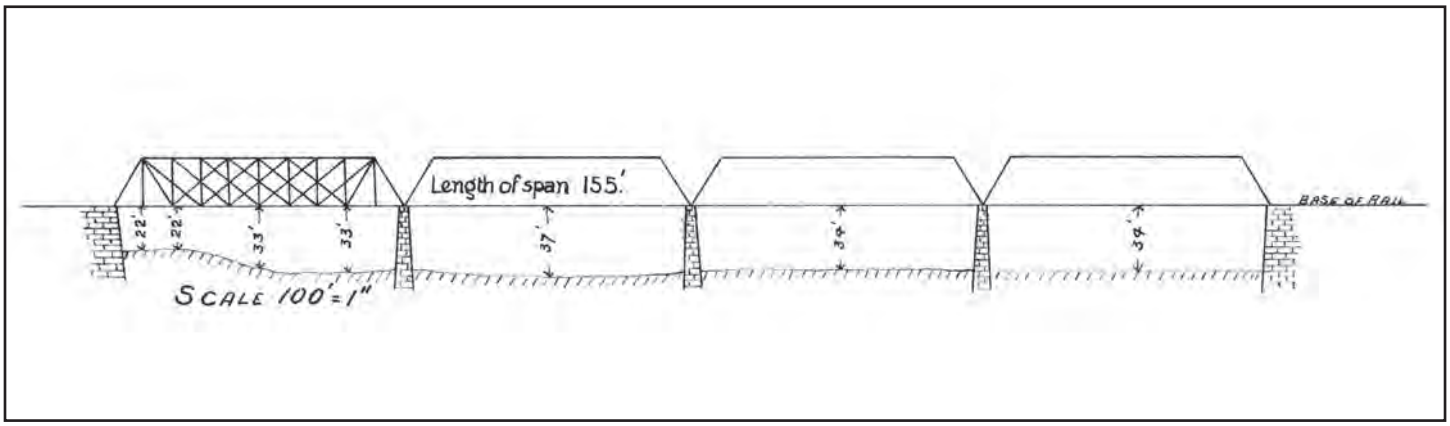
Bookkeeping-wise, we are discussing the second C&O crossing of the James River, on the James River District, Clifton Forge Division, as defined in the 1900 annual report. It is bridge No. 1700-A at Mile Post No. 170 from Mile Post No. 0.0-A in Richmond, a total of 85 miles from Fortress Monroe on the Peninsula. The Rivanna Junction switch for the Piedmont District is at MP 84.5, or a half-mile east of MP 0.0-A.

First Iron Bridge built in 1880

The first railroad crossing structure at Snowden was purchased from the Central Bridge Company, Buffalo, N. Y., (merged into the Union Bridge Company in 1884, Ref. 6), by the R&A. The Barboursville Bridge card (Ref. 4) shows that this bridge had four, single-track, through-pin-connected iron 154-foot spans. It was 596 feet in overall length. The C&O's 1890s bridge profile drawing implies the superstructure was a Whipple-type structure. It was known as a "Double-intersection Pratt" because the diagonal tension members crossed two panels, while those on the Pratt-type crossed one.

Second Bridge built in 1900

This bridge remained in service until 1900, when it was replaced with a newer steel single-track structure with three pin-connected through-truss and two shorter deck, plate-girder spans. It was built by the A.P. Roberts Company, Pencoyd Iron Works, the same company fabricating and assembling the Richmond Viaduct. The structure had two, 153.7-foot and one, 154.7-foot through spans; and a 78.7-foot and 86.5-foot pair of deck girder spans. All spans were skewed in the plan view. The two shorter, 20-foot-wide deck girder spans on the



Bridge profile for the R&A 1880-built bridge No. 1700, on the C&O Ry James River Division. Note the silt level is lower than in the 1950s sketches. Sketch is close to scale. (C&OHS Collection, MW 2691-18)

south end are slightly angled to allow for the chord-offset of eight degrees track curvature on the bridge before entering the through-trusses. It had an E47 load rating and had grown to 627.3 feet in overall length on the centerline, or 636.5 feet total allowing offsets between the skewed sides. The bridge was skewed to the waterflow direction, or shoreline, by 55 degrees, but its piers are aligned with the current.

The C&O's 23rd annual report, ending June 30, 1901, lists $12,404 [$432,353.82 in 2022 funds] spent for the "change of line at Snowden," on R&A line. The 22nd annual report indicates contract prices for future bridge structures were locked by weight in 1900 or earlier. This might explain why Pencoyd built so many bridges for C&O in the 1898-1901 era.

There are instruction drawings for repair and upgrade of this bridge's superstructure in 1945. The repairs were probably due to the extreme wartime traffic using the James River line heading to Tidewater. This work focused on adding top cover-plates on all the stringers, welding doubler-plates at wear points, and replacing bearing-pins. By 1951, studies turned to realigning the tracks and replacing the bridge. The new third bridge (present) was built in 1953-1954.

I suggest this is where you reread and focus in on the first three photos of Mark Delawyer's 1987 *C&O Historical Magazine* article on replacing the Snowden bridge. This was published before the Society had a formal file system for digitally archiving photographs.

Problems with old bridge?

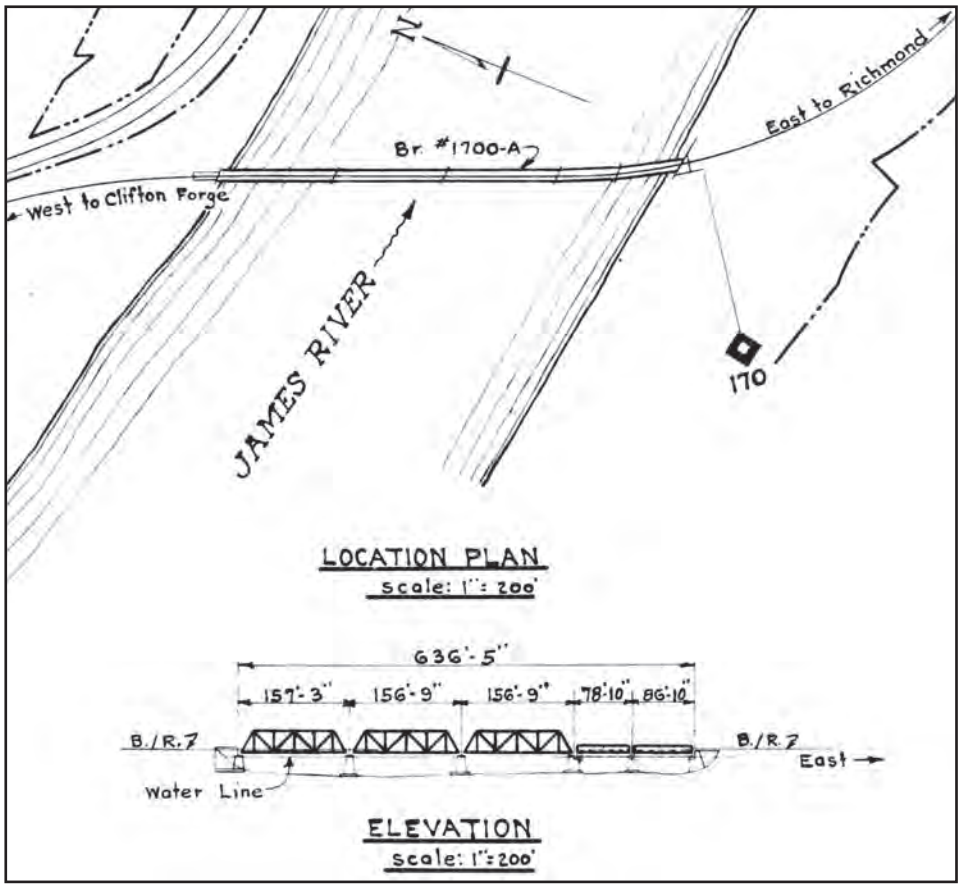
Karen Parker, who who recently finished a book on H-7 locomotives stated that they did try the H-7s a few times on the James River line in the 1930s but gave up because of curves and bridge limitations. She noted that the C&OHS has a manuscript written by Roy Anderson, machinist in the Clifton Forge shops in the 1950s, about pre-WWII operations that says:

> "The H-7s were tried on the (James) River but their great power, inexperienced engineers, and worst of all, the curves along the river between here (Clifton Forge) and Lynchburg thwarted that effort . . . At Snowden a long curved scenic bridge with overhead girder or truss type construction crossed the James River. It long held the slowest orders of any bridge, about 5 mph. . . . The H-7s, at 260 tons reduced even this slow order to a bare crawl. Old Dan Woolridge, a long-time river man [engineer on the James River line], said he told his boss, the Road Foreman of Engines, 'If I ever stop on "Snowdon" Bridge with one of them 1500s, I am crawling out of the cab and quitting railroading. Because, if I start and it begins slipping the whole train will go in the river and I don't want to end up that way. I am a land person, not a fish."

The first problems appeared after Bedford Pulp Paper Company constructed a dam next to the 1900-built bridge in 1928. This raised the water level to the bottom of deck plate-girders. It was expected that major masonry work would be needed in 10 years and the dam owner agreed to pay a portion of those costs. In 1934, the piers needed concrete pier caps applied. Cracks between the cut stones were beginning to appear. In March, 1952, a diver was employed to inspect the piers. He found he could stick his fingers between cut blocks in piers Nos. 1-3 and found a loose stone near the No. 3 foundation. Additionally, the No. 3 pier cap had broken loose and because of the rocking motion caused by unequal-length girders on the 85-foot span, would eventually break off.

Inspection reports from 1952 confirm the 1900-built piers, sitting loosely anchored on large, moving boulders, were gradually degrading. Additionally, 20-40 percent of the mortar was missing on the remaining piers. The general area speed limit was initially reduced to 25 mph and later 15 mph between the James River Subdivision bridge approach markers. C&O drawing (ced-)6409, revised in 1951, restricts H-7s with 23,000- or 25,000-gallon tenders to 15 mph while crossing over bridge No.1700-A. The 1952 employee timetable shows a steam locomotive restriction limiting power to nothing heavier than N-1/N-2 Berkshires.

There was also an issue of sharp reversing curves on the approaches. Were there other problems associated with the 50-year-old bridge? Why build a new, longer bridge? A previous



Plan and profile of the 1900-built Snowden bridge and approach curves. (C&OHS Collection, CED 16447 and more detailed in CED 16447-1)

1946 study of Hawks Nest (MacDougal) bridge (No. 4088) built in 1912, with an E56 load rating, showed it would benefit from a track realignment and a new bridge. The study suggested a possible increase in passenger train speeds from 10 mph to 50 mph. However, the request for funds was not approved. The Snowden area line primarily carried freights hauling coal, plus timed freights with refrigerated cars and LCL service. Unlike the Hawks Nest bridge, Snowden's masonry would need to be replaced, new bridge or not. (See the March/April, 2020, issue of this magazine for the complete story of the Hawks Nest Bridge).

Solution

The third bridge is a single-track, through plate-girder structure with 12, 100-foot-long spans built in 1953 by the American Bridge Company, contract No. Q3696-C&O, drawing No. 16466-COHS Collection. The design of the bridge was performed by the recently-retired C&O bridge engineer, and his replacement. It was essentially the same strategy as the most aggressive 1946 Hawk Nest upgrade. The district engineer and supervisor of track oversaw the field work. A contract for the steel work was let with the U.S. Steel Corporation, American Bridge Division, and its Roanoke works. Each side girder assembly weighed 35 tons and was 100 feet long and 10 feet deep.

A pair could be shipped in a 65-foot, 70-ton drop-end gondola car with idler flat cars at each end. Most likely, the fabricated sub-assemblies were shipped north via the N&W Shenandoah Division line to Glasgow. Here, on the joint C&O-N&W yard tracks, the loaded freight cars would be interchanged. C&O would take these cars down the Lexington Branch wye to the James River line and east to the Snowden with a 1,740-foot siding and a temporary spur track adjacent to the old bridge. The C&O also had a "tail track," or temporary spur, for the work cranes, unloading materials, etc., on the north side of the bridge heading east. Some of those cross ties were left in place after the construction project was finished and can be seen today.

C&O Vice President M. I. Dunn explained, "because of the large boulders in the river, its uneven bottom, and the almost complete absence of earth on which masonry could be attached" that the construction was very difficult. (Ref. 3)

Sand islands, or cells (60-foot diameter) with corrugate steel pilings, were used to construct caissons or cofferdams. The coffers established a dry space down 23 feet to exposed boulders to build pier foundations locked into the rocks. A tracked pile driver crane, capable of crawling the edges of the river, was proposed for constructing the abutment cofferdams. A floating pontoon hull vessel was used to support a crane for pile driving and material movement around the pier sites. (Dravo Construction proposal). The interior sand was then removed to allow for framing and adding reinforcement rods before pouring a total of 4,500 cubic yards of concrete for 11 piers and two abutments. That sand was reused for the next cofferdam island. The piers were nominally 29 feet tall, and 24 feet long at the cap. The piers tapered to out to 34 feet long at the base.(CED-16466-2-COHS Collection) They were built perpendicular to the bridge, not parallel to the stream flow. This allowed the pedestals to be under the end deck bulkheads and the bearing loads to be balanced. Masonry work was contracted out to Ralph E. Mills Company, Salem, Va. Foundations had to penetrate at least six inches into the boulder structure below. This work consumed the first three months of the project.

The assembly of the steel spans took approximately three weeks. Skilled C&O work force personnel, two cranes, and a floating pontoon barge with a jack, placed the sides girders and deck assemblies on the piers. These were then riveted together.

Mark Delawyer (Ref. 8) suggests that the spans were assembled at the plant, partially disassembled, and then delivered by rail as kits with fixturing, assembled side-girders, and separate deck structures. All subassemblies were gauge-pinable together. These subassemblies were riveted together on their pedestals placed on the piers. Knee braces, between the three-foot-tall deck and side-girders, were added after every third girder side-panels. The crane and lift pontoon craft could nudge the assemblies to insert interlocking gauge pins.

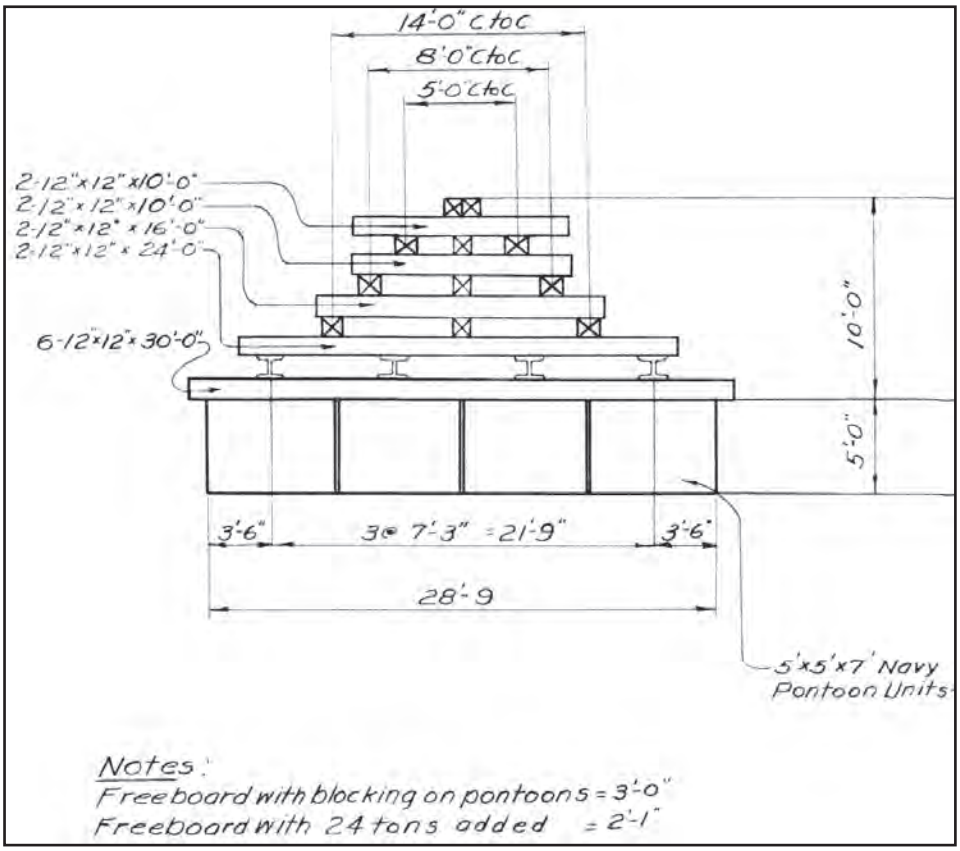
The onsite assembly took three weeks. Its masonry construction, field assembly, and old bridge disposal were completed between March-June, 1954. The overall length had grown to 1,200 feet, 5½ inches. This new superstructure had an E72 Coopers load rating and a 31-foot clearance to base-of-rails. The three, 54-year-old through-truss spans were then scrapped, and the two girder spans were trimmed, strengthened and moved to the Washington and Old Dominion Railroad's line bridge No. A-28.0 across Broad Run (Drawing No. CED-17687-COHS Collection).

The new track alignment and new bridge project cost $1.429 million total [$15.9 million in 2022 funds]. That was basically the same, barebones, 1900 cost to build the dual-track, 14,000-foot-long Richmond Viaduct.

What did the new bridge contribute to traffic flow? Running across the river almost in a straight alignment with the tracks, the new east end approach alignment was reduced from eight degrees to two degrees of curvature, and the west end eliminated the six-degree curve. A reversing S-curve was also eliminated.

Postscript

CSX still uses this bridge. Dominion Power operates the dam and powerhouse. The black paint on the girders has faded, and the protective coating is now down to its gray primer. CSX also has the general arrangement and detailed American Bridge drawings for the 1953-fabricated steel work. Thank you, Rick Van Horn for your suggestions, Chris Wiley for sharing your James River expertise, and Dave Ostrander for digging into the chief engineer's project folders and scanning enough C&O drawings to get a flavor of the work involved. These scanned drawings are archived for further research or modeling efforts. From correspondence including CELF folders, it was obvious that the engineering and operations folks were very proud of the finished product.



End view of 34-foot-long pontoon vessel used here for placing spans and initially for moving the pile driver for cofferdam construction. (C&OHS Collection, cropped from CED 16466-6)

References

1. C&O Chief Engineer's Letter Files (CELF), "Snowden, Va., Bridge No. 1700-A." No. 7356.

2. C&O Chief Engineer's Office, "The Chesapeake and Ohio Company uses Unique Methods in rebuilding James River Bridge No. 1700-A at Snowden, Virginia," Nov. 5, 1954 and subsequent stripped-down press release for Mr. Skidmore.

3. C&O Public Relations Department, "New Bridge at Snowden," *Tracks*, February, 1955.

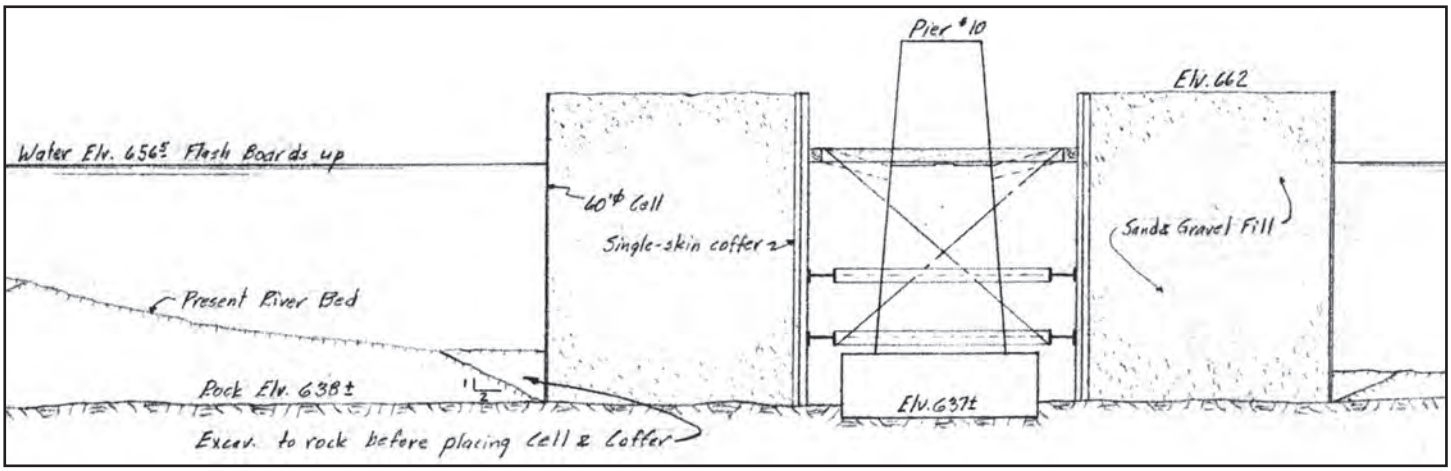
4. C&O Reclamation Plant, Barboursville, W. Va., bridge history index cards

5. C&O Valuation Section drawing, C&OHS collection, vm-co-v3-94

6. Darnell, Victor C., *Directory of American Bridge-Building Companies, 1840-1900*, Society for Industrial Archeology, Nov. 4, 1984.

7. Dunn, M. I., C&O vice president, letter to W.J. Touhy, C&O chairman, summarizing the Snowden project and trade journal interests, March 9, 1955.

8. Delawyer, Mark W., "Replacement of the Snowden Bridge," *C&O Historical Magazine*, September,

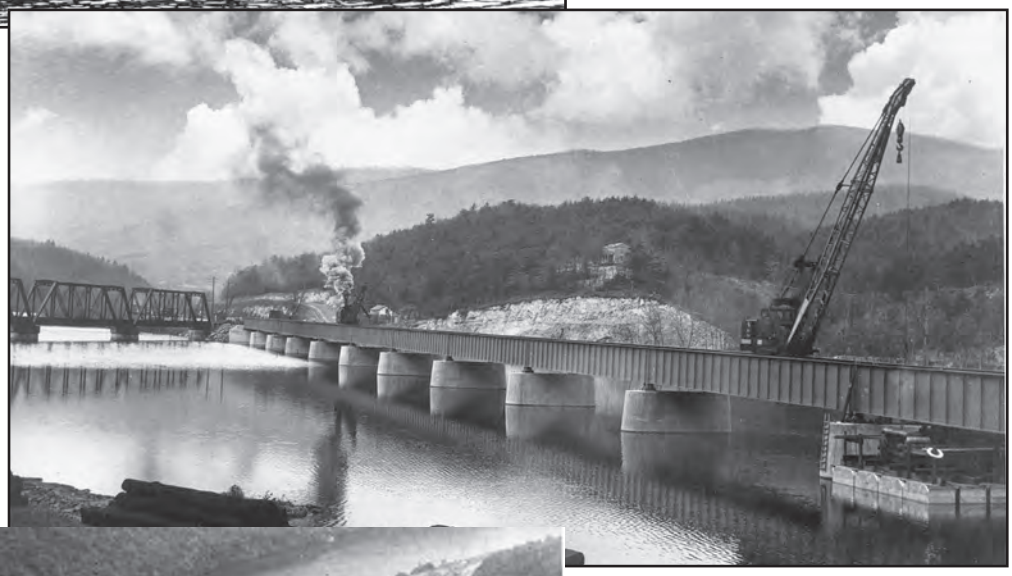


Above: Proposed cofferdam down to rock in a 60-foot-diameter sand and gravel island cell. Cropped from Dravo Corp. proposal for construction methods and plans. (C&OHS Collection, NCOA 379)

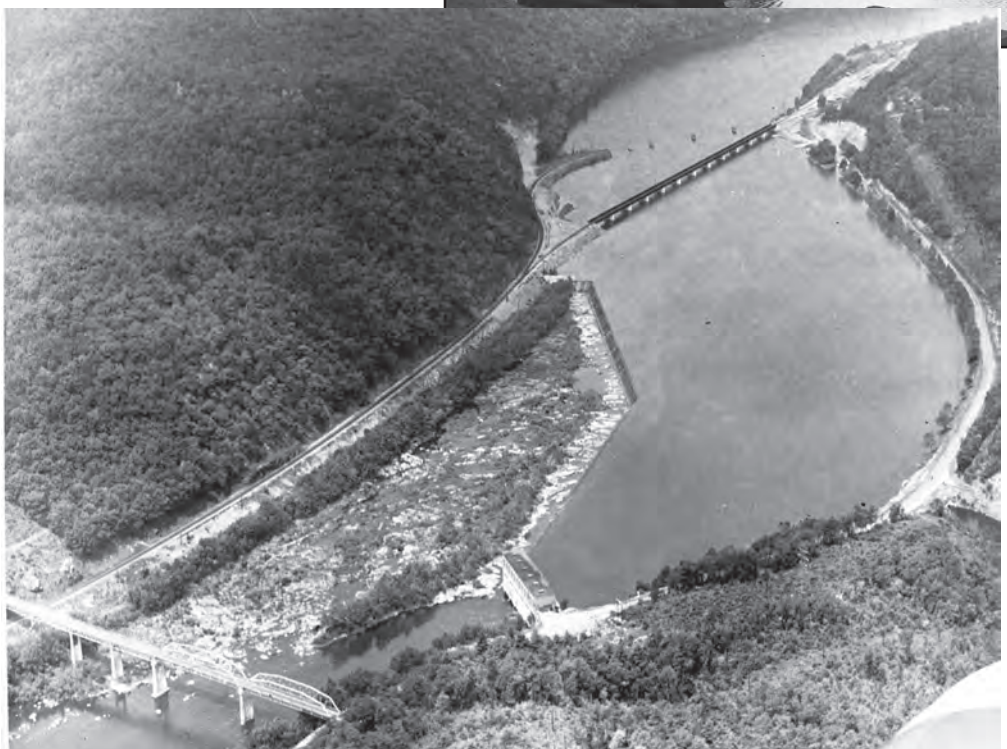
Right: C&O crane RC-9 and another crane unload 100-foot-long American Bridge fabricated side plate-girder assemblies off a drop-end gondola car. The right hand panel shows the pre-drilled rivet holes for the deck crossbeams and knee braces. Chief Engineer's Office Designer W. F. Drumeller was the photographer for 10117-series of photos. (C&OHS Collection, CSPR 10117-1)

Side plate-girder assembly sitting on a pedestal with pin-bearing in the foreground, and a four-wheel dolly or cart in the back, controlled by a crane. You can see the pre-drilled holes above the bottom angle-channel for attaching the deck assemblies. (C&OHS Collection, CSPR 10117-6)

Gray primed side-plate-girder being passed through a complete span riding on pontoon falsework for attachment to the next pier, to be set on the pier's cap fixtures. (C&OHS Collection, CSPR 10117-3)



Two cranes are either placing deck structure or knee braces (RC-26 on the right) or laying cross ties and rails in March, 1954. There are still fixture brackets on the right hand pier near the lift pontoon barge that is applying vertical pressure to the last span. The old bridge is still operational. (C&OHS Collection, CSPR 10117-9)



A 1955 aerial view showing both the old S-shaped curved approach and piers, and the newly-completed through plate-girder bridge No. 1700-A sitting on massive piers and nearly straight approaches. On the right hand shore line, you can see the temporary spur track splitting off the old alignment. (C&OHS Collection, CSPR 3524)

C&O G-7 Consolidation (2-8-0) No. 992 moves its work train with a Jordan spreader and a side-dump car loaded with ballast or riffraff over the newly-painted-black James River bridge at Snowden, Va., on Sept. 8, 1955. It was one of the last active steam locomotives working east of Alleghany. Notice how the depressed deck on the 10-foot-tall girders is swallowing the drivers on the locomotive. Roy B. Anderson photo. (C&OHS collection, cohs-51612)

A 2022 end view showing diagonal bracing, offset tracks and walkway, and curvature of the track. (Courtesy Chloe Marie)

C&O's EMD SW9 Switchers Nos. 5080-5093; 5240-5265

By Thomas W. Dixon, Jr.

No. 5256, in original paint, switching passenger cars at Chicago's Grand Central Station in the mid-1960s. (C&OHS Collection, COHS 46226)

This article is about C&O's 40 SW9 model EMD switchers, in service at many locations 1951-1970s. They were the most modern purpose-built switchers purchased by the railway.

Switchers were the first diesels acquired when C&O began its dieselization in 1949. C&O broke its "all steam" stance that year and decided to buy switch engines to dieselize most of its yard work. Up until that time C&O staunchly refused to consider diesels. However, it allowed numerous tests by the major diesel locomotive builders, and those proved conclusively that diesels were much more efficient than steam. This was especially true in yard work.

C&O's loud (stated publicly time and again 1945-1949) adherence to steam may have been influenced largely by the fact that it was engaged in a major advertising campaign after WWII to convince industries, businesses, and homeowners not to convert from coal to oil, natural gas, or electricity. C&O's management seems to have believed that the railway would be seen as disingenuous if it preached adherence to coal, but used oil for its own engine fuel. And coal was the *raison d'etre* for the C&O.

However, the evidence was simply too strong, and management relented, ordering dieselization of yard work. This began with the arrival of the first S-2 switchers from American Locomotive Company (Alco) in April, 1949. Within a year, 58 of these were at work.

Several EMD (Electro-Motive Division of GM) switchers had been at work on the Pere Marquette Railway (Pere Marquette District of C&O after the June, 1947 merger) for several years. C&O mechanical officials probably had some good data from the PM experience with these units.

C&O finally dropped all pretense about dieselizing after the failed attempt to introduce steam-turbine-electric technology with the M-1 class passenger engines of 1947-1949. It was still interested in finding a coal-fired locomotive and invested some money and a lot of hope in the proposed coal-fired gas-turbine research carried on by the Bituminous Coal Research Institute. However, it became clear soon enough that this would never happen, and by the fall of 1956 the last steam was retired.

As a long-time customer of Alco, it was natural that its diesel products would be considered favorably by C&O mechanical officials. But, EMD had done several extensive studies on C&O operations to illustrate to management the efficacy of diesels

over steam as both switchers and road engines. This, coupled with Pere Marquette experience, gave mechanical officers some knowledge of EMD engines. Therefore, EMD NW2 switchers, as well as the Alcos, were ordered for the "famous" 1949 yard dieselization program as well as the EMD SW7s.

During the next three years, C&O ordered a total of 40 of EMD's latest model, the SW9s, for additional yard work. At 1,200 HP, they were the most powerful of the switchers yet.

In general, these units weighed 246,000 lbs. more or less. They had about 61,000 lbs. of tractive effort, carried 600 gallons of fuel, and 28 cubic feet of sand. The horns were Nathan 3M (three-chime) type, and they had no multiple unit connections. They had the EMD 567B prime movers except the last two that had the 567BC engines. Exact specifications varied slightly among the lots.

EMD built the SW9 model between November, 1950, and December, 1953, so the C&O's last units were among the last built. A total of 786 units were built in the U. S. and 29 in Canada. C&O had 35 of the U. S. engines and five of the Canadian units. Its fleet was fifth in size, with ACL, UP, IC, and NYC having more.

Photographic evidence indicates that these units were used widely in various yards across the system, though they tended to congregate west of Hinton and especially in Michigan. Many were transferred to B&O in the 1970s.

Appearance

The units had an Enchantment Blue body with Federal yellow lettering (C&O's standard colors) in the first paint scheme. The hood had a yellow stripe running along its side near the top, while a short stripe ran from the front grill a short distance back on the hood. The frame around the front grill was also in yellow. The edges of the steps were yellow as were the grab irons on both the front and back, and the footboards. A stripe ran in a downward sweep on the back of the cab.

The underframe was also yellow, as were the footboards. A plain C&O "donut" herald was placed in a yellow disc below the cab, along with a number. The number and spelled-out road name along the hood side were in Roman font. This was changed with the units in the 5080-5093 series to a C&O "For Progress" herald, without the yellow background.

There were no handrails around the sides of the hood. Two tall exhaust stacks protruded from the hood. Over time, these were given caps by C&O shops. The major changes visible on some of the units are:

1. Addition of hand rails along the footboards at the side of the hood;

2. Addition of a cage or "safety screen" on the rear, behind the cab.

Both of these were for safety. The side handrails were an obvious safety addition. The cage-like screen behind the cab was a more noticeable addition, intended to keep brakemen from precipitating over the handrail in case of a sudden stop. For modeling this appurtenance, see the February, 2001, issue of this magazine for an article by Russ Hass, as well as the COHS quarterly history book *C&O Diesel Switchers*, BK-22-502.

Many seem to have received a version of what we have been calling the "Big C&O" scheme if they were repainted. This consisted of an all-blue body with only a large Futura Demi Bold lettering "C&O" on the hood. See the Sept./Oct. 2016 issue of this magazine for an explanation of this styling. However, it was not applied uniformly. Sometimes the lettering was large and at the top of the hood side, and in others it was smaller and more centered. Some of the units transferred to B&O were relettered with the "Big B&O." Some received Chessie System styling in the 1970s. See the accompanying photos in this article for some of the painting/lettering variations over the years.

Conclusion

In summary, the SW9s were the last of the purpose-built switch engines bought by C&O. They gradually migrated to B&O by the 1970s, except for a few that were scrapped. Most saw service west of Hinton after the early years because GP7/9s began to be used for most switching duties east of Hinton. They were often in service on Michigan lines where frequent switching was needed for the largely "merchandise" type traffic to, from, and at the automotive plants, as opposed to the mainly coal traffic of the southern lines.

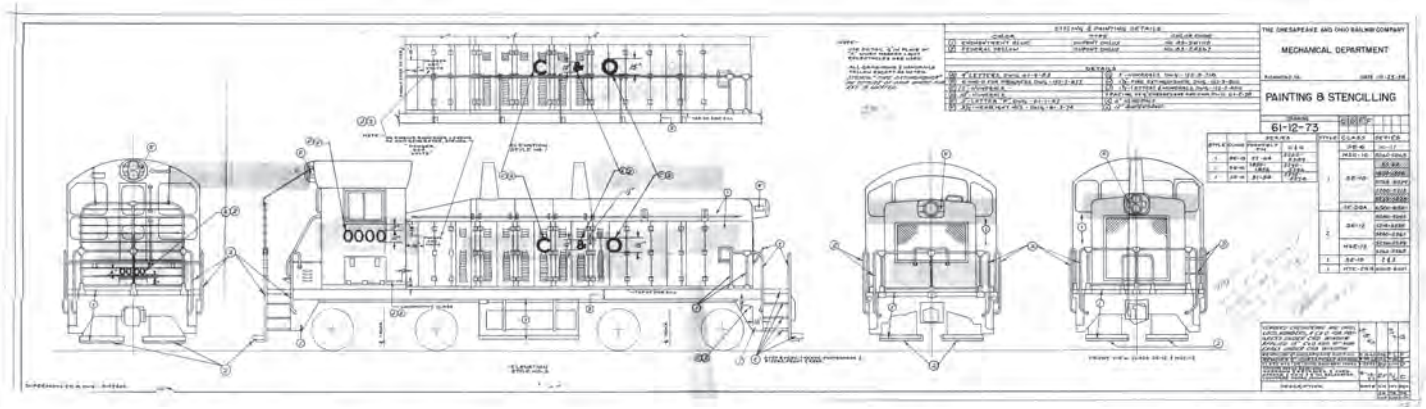
Road Nos.	Delivery Date	Notes
5240-5244	January, 1951	Built by GMD for Canadian operations.
5245-5261	October/November, 1951	
5262-5265	November, 1951	
5080-5089	April, 1952	
5090-5091	January, 1953	
5092-5093	December, 1953	Had 567BC model prime mover

Table 1: SW9 delivery details.

For a complete history of C&O diesel switcher locomotives, refer to C&OHS quarterly history book No. 38, *Chesapeake & Ohio Diesel Switchers*, available as C&OHS catalog No. BK-22-502. Go to ChessieShop.com or telephone 540-862-2210, weekdays 9 a.m.-5 p.m.

No. 5086 at Ensel yard, Lansing, Mich., in Feb., 1972. It has the "safety screen" installed to prevent brakeman falling off in case of a sudden stop. (Gene Huddleston photo, C&OHS Collection, COHS 54386)

No. 5253 at the Wyoming yard engine terminal, Grand Rapids, Mich., in 1969, still wearing its original paint scheme. (Gene Huddleston photo, C&OHS Collection, COGH 1291)



C&O painting and lettering drawing for the simplified Big C&O scheme on EMD switchers, including SW9s. (C&O Drawing No. MED 61-12-73-G revised to May 5, 1967) High resolution digital download on this drawing available by calling 540-862-2210 (weekdays 9 a.m. - 4 p.m.) and asking for this number (include prefix). Cost is $8.95, or same price plus shipping if you want a full-size paper print.

This is an example of one of the SW9s (No 5083) in the Big C&O scheme, on the B&O at Baltimore on April 7, 1973. (T. W. Dixon, Jr. photo, C&OHS Collection, COHS 44287)

This photo, though not very sharp, shows a variant of the Big C&O styling, at Peru, Ind. June, 1979. The lettering is a good deal smaller than that in the previous picture. (Adrian Hahn photo, C&OHS Collection, COHS 34180)

Below: This is one of the Canadian GMD-built units at the Sarnia, Ontario yard in June, 1972, in the Big C&O scheme. Note also the yellow pilot. (Gene Huddleston photo, C&OHS Collection, COHS 20611)

No. 5080 powering a four-car Craig Valley Branch local freight in 1957. See also back cover of this magazine. (C&OHS Collection, COHS 33546)

This is what is probably a unique variant of the simplified scheme with a small number forward on the hood. Note the winterized cab window. The photo was taken at Saginaw, Mich., in May, 1986. (Dennis Schmidt photo, C&OHS Collection, COHS 4509)

No. 5092 in Chessie System styling in October, 1980 at Detroit, Mich. (J. David Ingle photo, C&OHS Collection, COHS 57897)

C&O's 50-ton, 48-foot, 6-inch, Low-Sided, Drop-End, Gondola Cars

By Al Kresse

Builder's photo of 3/4 view of gondola No. 29900. (C&OHS Collection, COHS 8281)

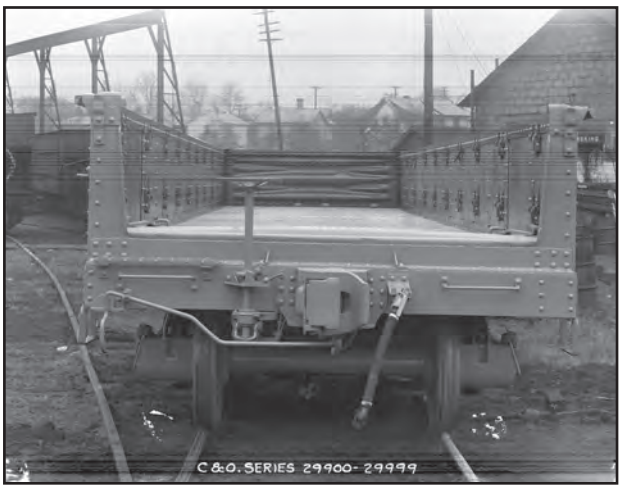
In the 1930s, the C&O made four purchases of 50-ton, 48-foot, 6-inch, low-sided, drop-end, solid wood floor, gondola cars built to the Van Sweringen's joint Advisory Mechanical Committee's (AMC) specifications. They were A.A.R. mechanical designation Class GM: An open-top car, having low fixed sides, drop ends, and solid bottoms, suitable for mill trade. Their AMC specification was 12-CFBG (car, flat bottom, gondola)

These cars were built for handling general purpose cargos, suitable for mill trade, rather than the C&O's "standard" 50-ton, 40-foot, high-sided gondola car built primarily for hauling coal. 550 cars had steel floors versus only 200 had wooden flooring. All had side, tie-down anchors. The improved dreadnaught-style ends were probably fabricated by Union Metal Products and shipped as kits. Photos of the embarkation at the Newport News piers had ¼-ton Jeeps in wooden boxes and ¾-ton trucks on pallets with lifting eyes for crane loading into the hulls of Liberty Ships for shipment overseas. The War Department pooled flat and flat-bottom gondola cars to move war materials.

The A.AR. did not have standard design for 50-ton low-sided gondola cars in this era. The 48-foot, six-inch inside length design meant that the overall length was the same as 50-foot, six-inch inside length box cars. The WWII Emergency Board would come out in 1941 with a 70-ton, 52-foot, six-inch approved standard design low-sided mill gondola car.

Drop ends, when folded down and coupled with idler flat cars, gave the railway the capability to handle oversized loads.

These car series were numbers: 29900-29999 by Greenville Steel Car, Greenville, Pa., in 1939 (wood floor); 30000-30099 in 1936 by Ralston Steel Car, Columbus, Ohio (square edge oak floor); 31000-31149 in 1936 by Bethlehem Steel, Johnstown, Pa., (steel floor); and 31150-31549 in 1939 by American Car & Foundry, Huntington, W. Va.,



Builder's photo of B-end of gondola No. 29900. (C&OHS Collection, COHS 8282)

(steel floor) . . . for a total of 750 cars.

Cars with wooden floors were designed for nailing timber bracing down to floor boards. The idea was to block or restrain palletized or boxed cargos from shifting. Cars with steel floors could be unloaded by hand shoveling and/or by a crane with a bucket. The drop-ends would allow wheelbarrow or dolly access. Cars and pickup trucks were delivered in gondola cars also.

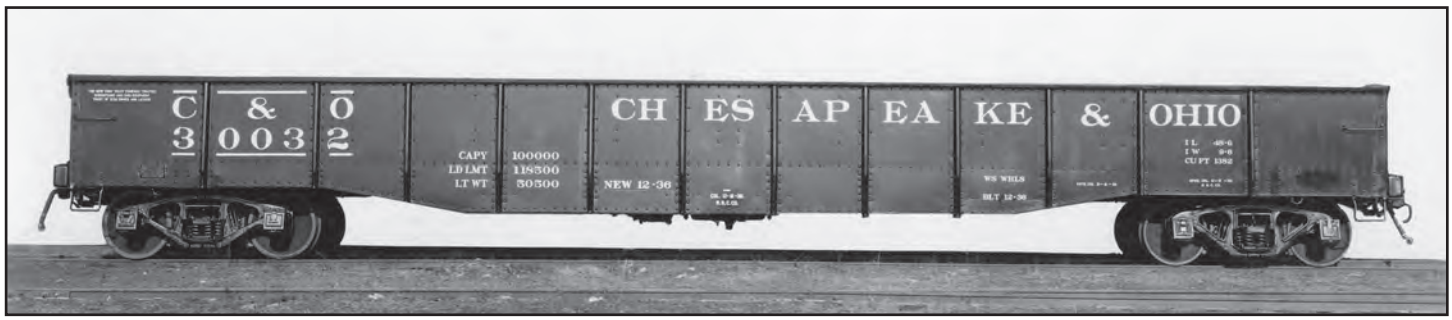
Like the C&O's high-sided gondola cars, these cars had heap ratings. With three-foot-high sides, they had a level rating of 1,382 cubic feet. A typical five-foot-tall, high-sided gondola car, many with heap shields on the ends, had 1,834-1,980-cubic-foot level capacities . . . third more. The heap rating meant these cars could supplement the dedicated coal gondolas as needed. We've seen photos of low-sided cars hand-stacked with large lumped stoker coal. Small communities on the line, with or without a coal trestle, would use these for smaller deliveries and empty them by shoveling the coal into conveyors. These cars were also used for shipping corrugated steel pipes, segregated scrap automotive components, castings, or stamped metal back to reprocessing plants.

Post-WWII, these 50-ton cars became non-competitive with similar 70-ton cars. The C&O would modify them for specialized services.

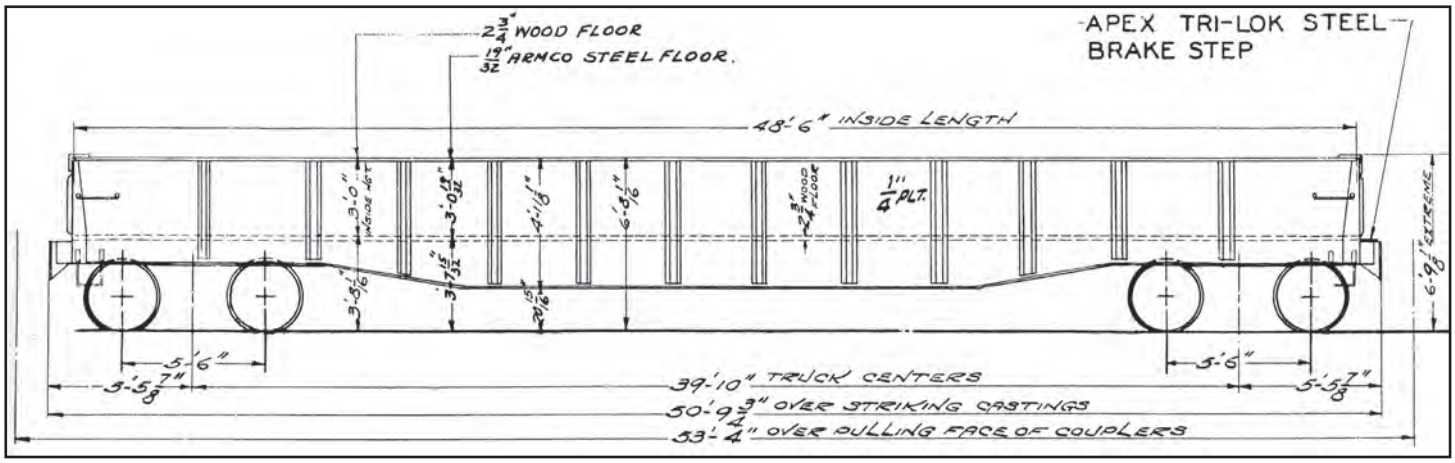
Four 29900-series cars were rebuilt at Raceland Shops with ARMCO nail-able composite steel and wood floors in May 1949 and 50 more by the Wyoming (Grand Rapids) shops August, 1950.

In 1950 and 1951, the Russell Shops rebuilt 250 31000-series cars into pulpwood flat cars renumbered into 80000-80249, and in 1953, 23 more into 80250-80272 series. Sixty of these 80000-80272 series were rebuilt into crosstie-rack cars in 1978 and 1983 numbered into CT100-CT159 series.

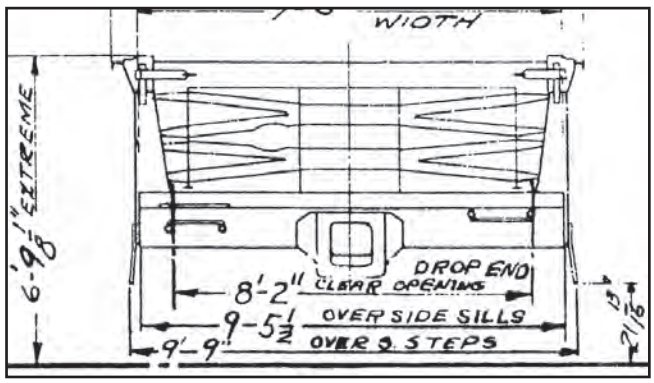
Carl Shaver noted in the *Chesapeake & Ohio Freight Cars, 1937 – 1946* book, that in March 1969, cars number 30003 and 30091 were converted to wheel cars numbers WH-179 and WH-180.

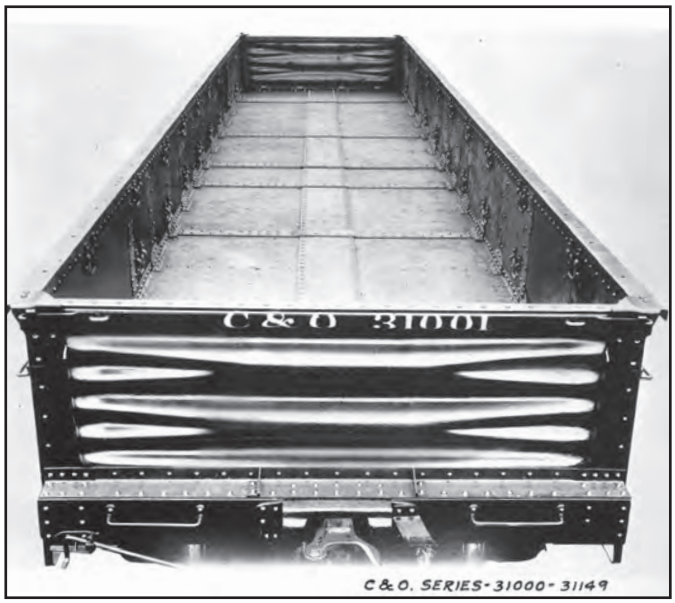


Builder's broadside view of C&O 30032. (C&O HS Collection, COHS 51622)

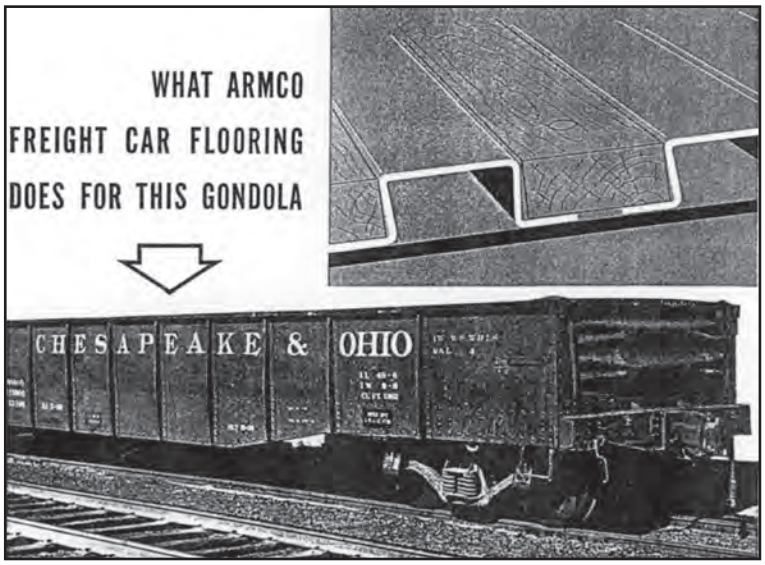


Side and end views from 29900-series diagram sheet.

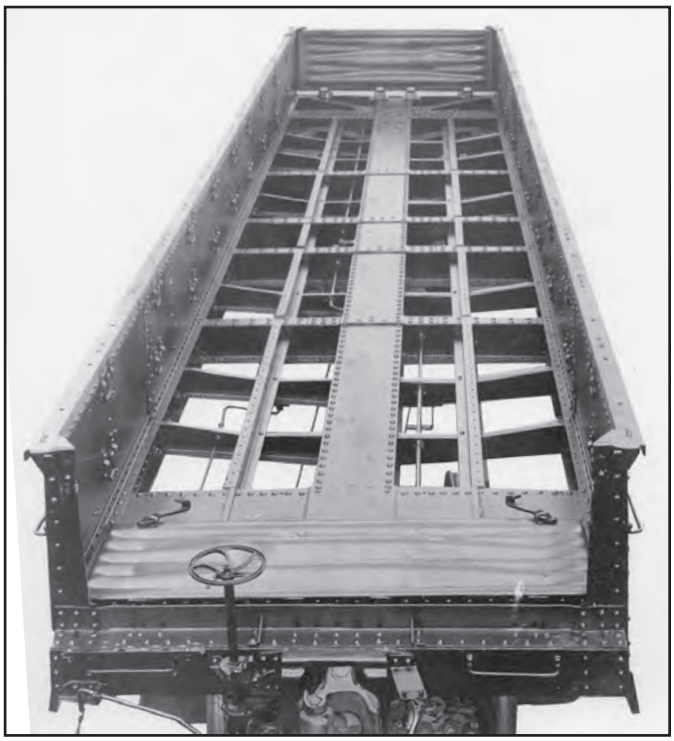




Builder's overhead, end view of steel floored C&O 31001. (C&OHS Collection, COHS 8808)



Railway Age *advertisement for Armco's interlocked composite steel-oak plank flooring providing the wear and impact characteristics of steel and nail-ability of wooden floors.*



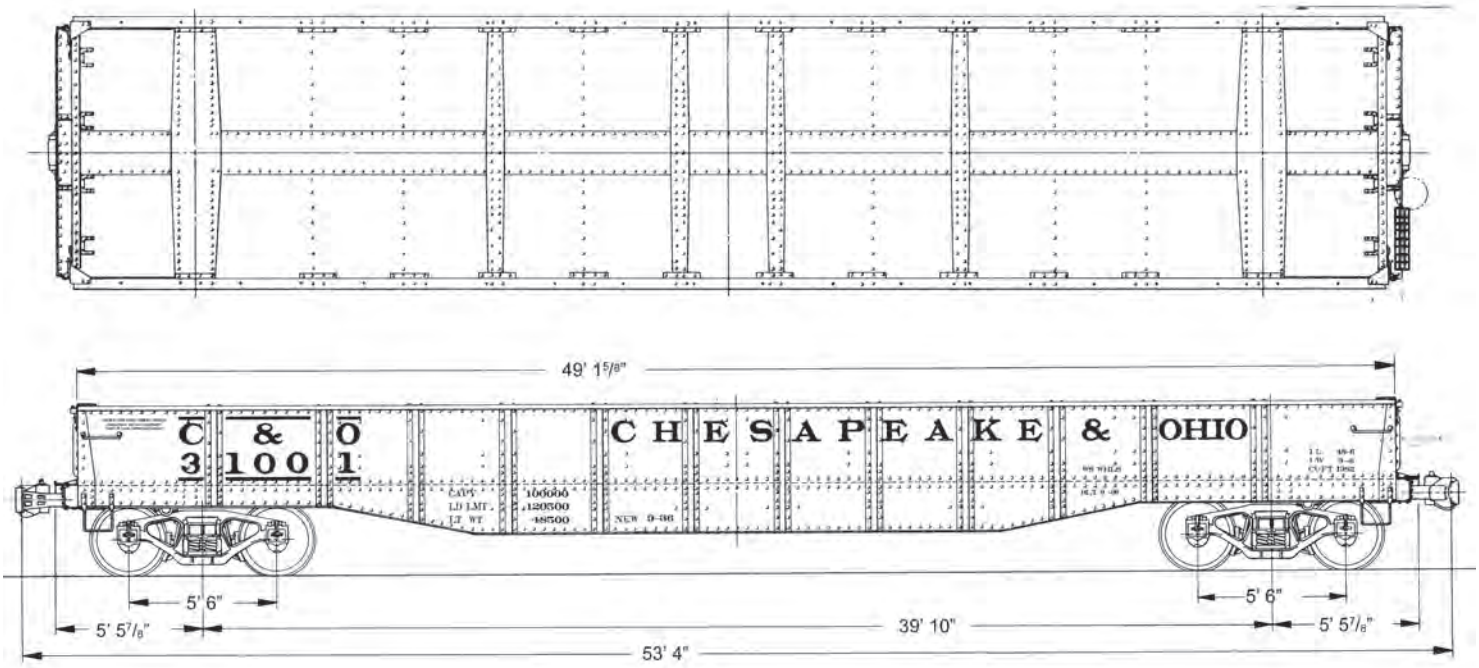
Floor construction, less wooden flooring, with brake up and end down. (C&OHS Collection, COHS 51626)

Steel floors and ends attached, with hand brake folded down. (C&OHS Collection, COHS 51625)

C&O pulpwood car No. 80186 at Charlottesville, Va., July 15, 1979. This car was rebuilt from one of the gondola cars described in this section.

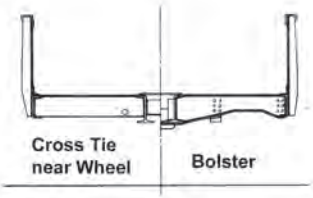
Tarped and wooden-boxed military equipment being transported to Newport News for overseas shipment. Buick-built Hellcat "tank killers" are on flat cars on the near left. (C&OHS Collection, COHS 50750)

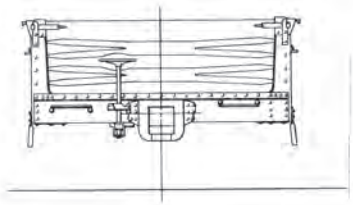
Wheel car No. WH-179 at Hinton, W. Va., car shops, May 24, 1969. (T. W. Dixon, Jr. photo, C&OHS Collection, COHS 20853)

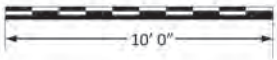


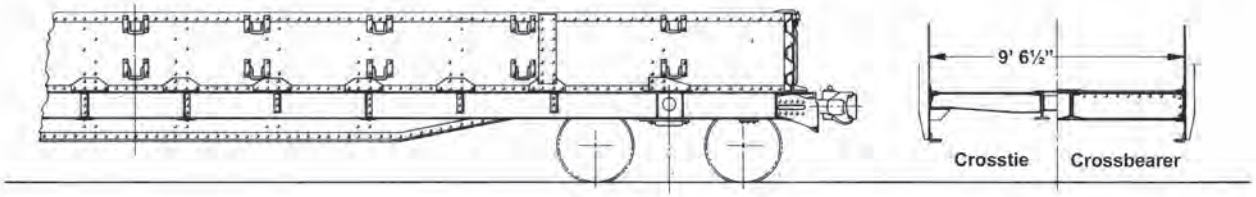
Drawing by
Robert Hundman
Prepared Especially
for the C&O HS

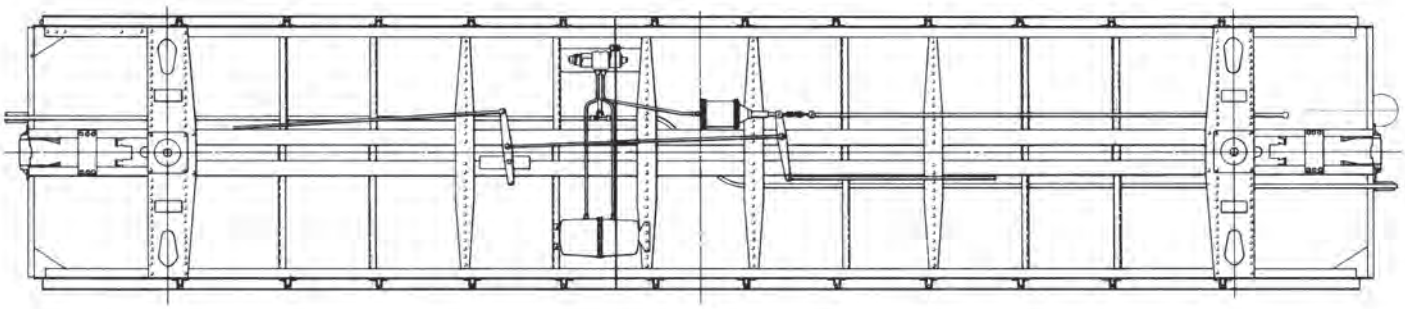
HO Scale (1:87)
COHD-16







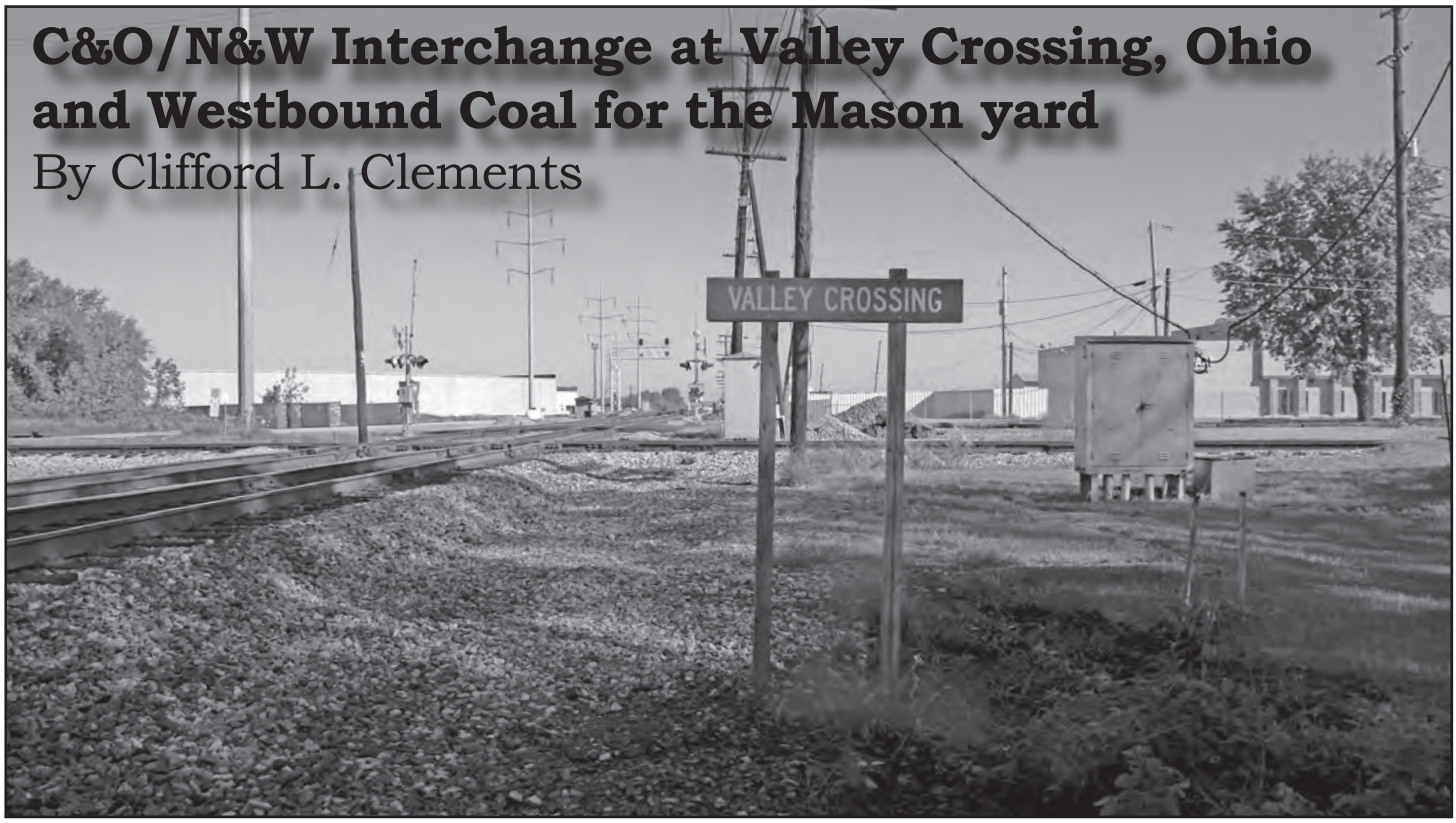




(C&OHS Collection, COHD 16) High-resolution digital download on this drawing available by calling 540-862-2210 (weekdays 9 a.m. - 4 p.m.) and asking for this number (include prefix). Cost is $8.95, or same price plus shipping if you want a full-size paper print.

C&O/N&W Interchange at Valley Crossing, Ohio and Westbound Coal for the Mason yard

By Clifford L. Clements



Looking compass direction north, double-track Norfolk Southern (N&W) crosses single-track CSX (HV/C&O) at Valley Crossing. NS Watkins yard lies just beyond the home signal cantilever bridge. SK Tower sat under the pole line wires on this side of the C&O and the passenger station sat on the other side of C&O where the gravel is piled. (Clifford L. Clements photo on 9/28/2007).

In 2022, double-track Norfolk Southern (NS) and single-track CSX cross each other at NS Milepost 696.6 (from Norfolk) and CSX Milepost 7.5 (from the center of High Street in Columbus, Ohio) on grade level diamonds. Since its construction, the crossing has always been known as Valley Crossing. The name was derived from the crossing of the Scioto Valley Railway (SV) and the Columbus & Hocking Valley Railway (C&HV). Williams Road is the public street that crosses the two railroads at this location. In conjunction with other railroad facilities located nearby, Valley Crossing has played an important role for both railroads since the time construction began in late 1875. Over the nearly 147 years since then, the role of Valley Crossing greatly increased, but in the last 35-40 years, changes occurred that have markedly decreased its prominence as a point of interchange.

The railroads that would evolve into the Chesapeake & Ohio Railway (C&O) and Norfolk & Western Railway (N&W), interchanged an enormous amount of freight at Valley Crossing and their history and operations were closely related. That is why you will see both C&O and a good bit of N&W history in this article. Both railroads provided passenger service to Valley Crossing.

In addition to the normal interchange of freight, from 1917 to 1927, prior to the opening of C&O's Northern Subdivision, C&O had trackage rights between Greggs, Ohio and Valley Crossing as a way of connecting to the Hocking Valley Railway (HV) and moving westbound coal to the Great Lakes. In the early days before N&W owned SV, agricultural products were the commodities that were most commonly interchanged, but eventually, coal became king and reigned supreme. In this article, I will provide the historical background and context of the two railroads and their facilities in the Valley Crossing area, train and yard operations, and how interchange traffic was handled. At times, it may appear that I am writing a history of the N&W, but the history and operations of N&W and C&O were so intertwined in Ohio and in Columbus, that it is necessary to understand both railroads.

Historical Background

Columbus & Hocking Valley Railroad

In the spring of 1868, Columbus & Hocking Valley Railroad (C&HV) completed construction of its new single-track main line through Milepost 7.5, the point where Valley Crossing would be located eight years later. This meant that Valley Crossing was 7.5 miles from Milepost 0, which was located in the center of North High Street at Columbus Union Station. As construction progressed, Lancaster was reached in the fall of 1868 and both freight and passenger service began. It would be another two years before track construction was

N&W home signals on NS for westbound trains over Valley Crossing. The access road to the right is the right-of-way of the former connection track from N&W to HV that was used from 1917-1927 for C&O trackage rights trains from Greggs, Ohio to Valley Crossing. (Clifford L. Clements photo, 9/28/2007).

Hocking Valley and then C&O shared N&W's passenger station at Valley Crossing. At the time of this photo, both railroads were double-tracked. N&W ran along the short side of the station and HV on the long side. The station closed in 1932.
(N&W railway Collection, photo from Virginia Tech University Library)

Looking west on C&O at Williams Road and Valley Crossing towards Parsons yard. The C&O/NS interchange track is by the billboard at the center of the photo. Note C&O phone box to the left of the crossing by the relay box.
(Clifford L. Clements photo, 9/28/2007).

Looking east on C&O Athens Subdivision at Valley Crossing. The passenger station used to be where the closest car is parked on the left and SK Tower was on the right under the pole line.
(Clifford L. Clements photo, 9/28/2007).

A westbound N&W coal drag with a Class A locomotive passes over Valley Crossing and C&O in the 1950's. SK Tower can be seen behind the engine about eight cars back. This coal will be interchanged to PRR at Pennor Yard in Columbus. The switches in the foreground lead to a center siding and Watkins Yard.

completed to Athens. On August 20, 1881, C&HV became part of the Columbus, Hocking Valley & Toledo Railway (CHV&T) and on March 1, 1899, became part of the Hocking Valley Railway (HV). As mentioned earlier, from 1917 until 1927, C&O trains had trackage rights over N&W from Greggs to Valley Crossing. This amounted to about 10 trains a day, all of which exited N&W track at Valley Crossing, passed through the southeast quadrant interchange track behind SK Tower, pulled onto the Hocking Valley, and then proceeded to Parsons yard. Because trains would be pointed toward Athens once they pulled through the interchange track, it is likely that they either backed into the yard or were pulled by a yard engine into Parsons. It is also possible that the road power could have run around the train and pulled it backwards into Parsons. When the C&O Northern Subdivision was completed in 1927, C&O relinquished its trackage rights contract and trains moved off N&W onto C&O. On April 30, 1930, C&O merged HV into its system.

Scioto Valley Railway

The Scioto Valley Railway was chartered on Feb. 23, 1875, to build a railroad south from Columbus, Ohio to Portsmouth, Ohio. After reaching Portsmouth, the goal was to then head east towards Huntington, W. Va., and build a connection with C&O. The City of Portsmouth was sold on the viability and promise of the new railway, especially for the facilities and jobs that would result, so it subscribed a lot of money to start construction and keep it going. The first 56-pound rails were laid in Columbus on Oct. 26, 1875, near a connection with the Baltimore & Ohio (B&O) and the Pittsburgh, Cincinnati & St. Louis Railroads (PRR), called Caldwell, about eight miles north of where Valley Crossing would be located. SV passenger trains would run on B&O trackage rights from Caldwell into Columbus Union Station for about 2.3 miles.

Since C&HV had already been in operation for seven years prior to SV starting to build track, a contract had to be negotiated to allow SV to cross C&HV at grade. In 1875, this was accomplished and both railroads would call the location Valley Crossing. With agreement reached, track construction proceeded, which allowed SV to open its new line to Circleville on May 1, 1876, to Chillicothe on July 3, 1876, and all the way to Portsmouth on Jan. 10, 1878.

In the early days of its existence, SV was not a very profitable railroad and was in a deteriorating condition. It passed through mainly agricultural areas and couldn't generate enough tonnage to make a lot of money. In addition, the City of Portsmouth was pressuring SV to build east to connect with a major trunk line, like the C&O. A new investor in the person of Collis P. Huntington, some changes in management, and the need to go farther east to reach the C&O, caused SV to purchase the Ohio River Railway in 1880. This purchase extended its line to Petersburg, Ohio which was on the north side of the Ohio River opposite Ashland, Ky. Petersburg, which was later changed to Coal Grove, offered an easy cross river train ferry connection to the Ashland Coal & Coke Railroad, with which C&O had a connection. Collis P. Huntington had invested a large amount of money into SV and in 1890, proposed extending the line to connect with C&O at Huntington, W. Va.

Even with Huntington's investments, SV had been in receivership since 1885 and in 1890, went into bankruptcy. For several years, Huntington's interests had been represented by a man who also served on the SV board of directors. Huntington recovered a court judgment of over $800,000 when SV went into receivership in 1885. With all of its financial turmoil, SV was reorganized into the Scioto Valley & New England Railroad (SV&NE) on Feb. 1, 1890. Several local newspapers theorized that C&O would buy and operate SV&NE, because it had already signed a traffic agreement with C&O. But a C&O purchase was not to be. On the very same day SV&NE was reorganized, Norfolk & Western (N&W) immediately stepped forward and bought it. This gave N&W what it needed: Interchange points with railroads to the north of the Ohio River. PRR, B&O, DT&I, and HV would all have direct connections to N&W in Ohio.

Because of the close relationship that SV had with C&O, it would have made sense for C&O to have purchased the reorganized SV&NE when it became available. A contributing

Scioto Valley Railway Passenger Trains
July 27, 1892 Timetable
Valley Crossing, Ohio

Eastbound			Westbound		
Train 6	Train 4	Train 2	Train 1	Train 3	Train 5
5:54 p.m.	12:29 p.m.	7:53 a.m.	8:25 a.m.	2:09 p.m.	9:04 p.m.

Hocking Valley Railway Passenger Trains
October, 1912 Timetable
Valley Crossing, Ohio

Southbound				Northbound			
Train 30/130	Train 32	Train 34/134	Train 38	Train 133/33	Train 135/35	Train 39	Train 13/37
7:51 a.m.	12:24 p.m.	3:22 p.m.	6:43 p.m.	8:23 a.m.	1:48 p.m.	3:55 p.m.	7:27 p.m.

factor in C&O's delay in moving to purchase SV&NE could easily have been that, at the time, Huntington had begun to sell his railroad holdings east of the Mississippi River to focus his efforts on building a new shipyard at Newport News. C&O was heavily involved financially with different projects, so it may not have had sufficient cash reserves at the time to make a purchase. For whatever reason, C&O didn't buy SV&NE. One can still theorize that had C&O purchased the line, it would not have needed to build the Northern Subdivision in 1927 to connect to Hocking Valley. It could have easily upgraded the SV&NE line and connected to CHV&T at Valley Crossing.

Now that N&W had purchased SV&NE, it owned and operated a railroad that had no connection to the rest of its system. To make full use of SV&NE and to tap interchanges with other railroads to access Midwestern markets, connecting the gap between N&W and SV&NE had to be completed. This was accomplished on Dec. 13, 1891, when a new bridge across the Ohio River at Kenova, W. Va., was officially opened for traffic. N&W now had its own track of over 700 miles from Norfolk, Va., to its end point at Columbus, Ohio. Thus, the stage was set for N&W to move a lot of westbound coal traffic to interchange to the Sandusky & Columbus Short Line Railroad (later Pennsylvania Railroad's Sandusky Branch) at Columbus and to CHV&T at Valley Crossing. Ten years later in 1901, N&W acquired the Cincinnati, Portsmouth & Virginia Railroad, along with Cincinnati Connecting Belt Railroad (Cincinnati Belt Line), giving it another major western terminal end point north of the Ohio River at Cincinnati, Ohio.

Valley Crossing Physical Plant

On Dec. 3, 1875, an agreement was reached between the single-track Scioto Valley Railway and the single-track Columbus & Hocking Valley Railway to allow SV to cross C&HV at grade in a new location to be called "Valley Crossing." Because N&W would not complete the construction of its new Watkins yard until 1930, Valley Crossing became the major interchange site between SV and C&HV. Construction of the crossing was completed in 1876. Eventually, both N&W in 1906 and HV in 1911 installed double-track over the crossing. C&O removed one of its tracks in 1943 and the NS still has double-track over the crossing.

Since C&HV had already been in place for eight years, it was the senior railroad, so SV had to build a tower for crossing protection. SK Tower was constructed in the southeast quadrant of the crossing and, in 1906, a new, two-story replacement N&W "signal tower" and power house were built to guard the crossing. The N&W operator at SK Tower controlled all movements over the crossing, including HV's line to Athens. Ownership of the tower was 68.85 percent N&W and 31.15 percent HV, with N&W responsible for tower maintenance. In 1962, C&O built a new cabin in Parsons yard called HX Cabin. HX controlled the switches and crossovers for Northern Subdivision trains at the former CH Cabin, Northern Sub trains entering and leaving Parsons yard, and Valley Crossing when N&W closed SK Tower. HX Cabin was later combined with Parsons Telegraph Office in January, 1981.

Other structures at Valley Crossing included a five-room section foreman's house that is still standing, a section bunk house, switchmen's building, 100-ton scale with scale house,

Looking east on N&W towards Valley Crossing and Portsmouth, Ohio from Watkins yard. C&O interchange track curves off to the right at the center of the photo. (Clifford L. Clements photo 9/28/2007)

multiple car repair buildings, blacksmith shop, wheel rack, tool houses, parts storage buildings, inspector's headquarters, and a car repairer's office. There were also four, old box cars, one used as a yard office and the other three as storage buildings. As part of the original construction, three interchange tracks in the northwest quadrant of the crossing were built with one-half the length of each being owned by N&W and the other half by HV. Four shop repair and team tracks owned by HV were added in 1917 in the northwest quadrant of the crossing.

In the southeast quadrant, there were two interchange tracks. One was owned by HV and the other by N&W. This was the typical arrangement for interchange track ownership. In 1917, these two tracks would take on greater importance when C&O acquired trackage rights over the N&W from Greggs to Valley Crossing. The trackage rights were negotiated to support greatly expanded coal traffic that C&O wanted to take to HV for movement to interchanges at Marion, Fostoria, Toledo, and HV's Lake Erie docks. Entire trains would be run around this interchange and then moved into Parsons yard. HV's double-track main line across Valley Crossing narrowed to single-track at Milepost 8.6 at the station called "Edwards," just over a mile east of Valley Crossing.

Passenger Service

In the northeast quadrant of Valley Crossing, directly across from SK Tower, there was a joint N&W-owned and HV-leased combination freight and passenger station that was built in 1891 to replace an older and smaller structure. It had an extension added in 1901, and was closed in April, 1932. Both N&W and HV passenger trains stopped at the L-shaped wooden station. The station and property were owned by N&W, with N&W and HV each paying one-half of the annual operating expenses. In addition, HV paid six percent of one half the value of the station building each year as rent.

At the height of N&W passenger service, it had six trains per day that all had regular stops at Valley Crossing. HV had eight trains a day that could stop at Valley Crossing, but they were always in the timetables as flag stops, so trains didn't stop unless there were passengers to board or discharge. As an example of the passenger count at Valley Crossing, in 1890, passenger traffic on N&W accounted for 773 passengers boarding and 779 passengers getting off one of its trains at Valley Crossing station. That passenger count is only for N&W trains and does not include CHV&T trains, for which we do not have passenger counts.

HV passenger timetables in 1923 still show Valley Crossing listed as a station stop, but 1924 timetables indicate the stop as having been eliminated.

The Valley Crossing Interchange

Once the crossing and interchange at Valley Crossing were completed in 1876, Scioto Valley traffic started off fairly small, but over the years, would eventually develop into a flood of coal going from N&W to C&O. The SV route from Columbus to Portsmouth passed through areas that mostly produced agricultural and animal products. In the early days, these farm-type shipments were most common with a limited amount of other general merchandise, mostly in box cars. As an example, in 1890, N&W delivered 410 cars to CHV&T at Valley Crossing and received 319

C&O's interchange track to N&W's Watkins yard near Valley Crossing. This track is still used for CSX/NS intechange. (Clifford L. Clements photo 9/28/2007)

Looking west into N&W Watkins yard from C&O interchange track. The left set of tracks is the light side and the set of tracks in the center of the photo is the heavy side. The two N&W main lines are at far right. (Clifford L. Clements photo, 9/28/2007)

C&O double-headed K-3 No. 1227 and K-3a No. 2335 pull an eastbound train of empty gondolas crossing Williams Road and then Valley Crossing on their way to Logan or Nelsonville for loading in 1950. SK Tower is visible at the right.
(W. G. Francher photo, C&OHS Collection, COHS 1962)

N&W's SK Tower sat in the southeast quadrant of Valley Crossing. To the right on the double-track N&W was east towards Portsmouth. To the left on the single-track C&O was east towards Athens. Parsons Yard is about one mile to the right. Note the C&O train order platform on the left.

Looking west on C&O at SK Tower at Valley Crossing in the 1950's. Autos are on the Williams Road crossing.

An eastbound N&W empty train crosses C&O at SK Tower at Valley Crossing in the 1950's.

cars, for a total freight interchange tonnage of about 104,000 tons.

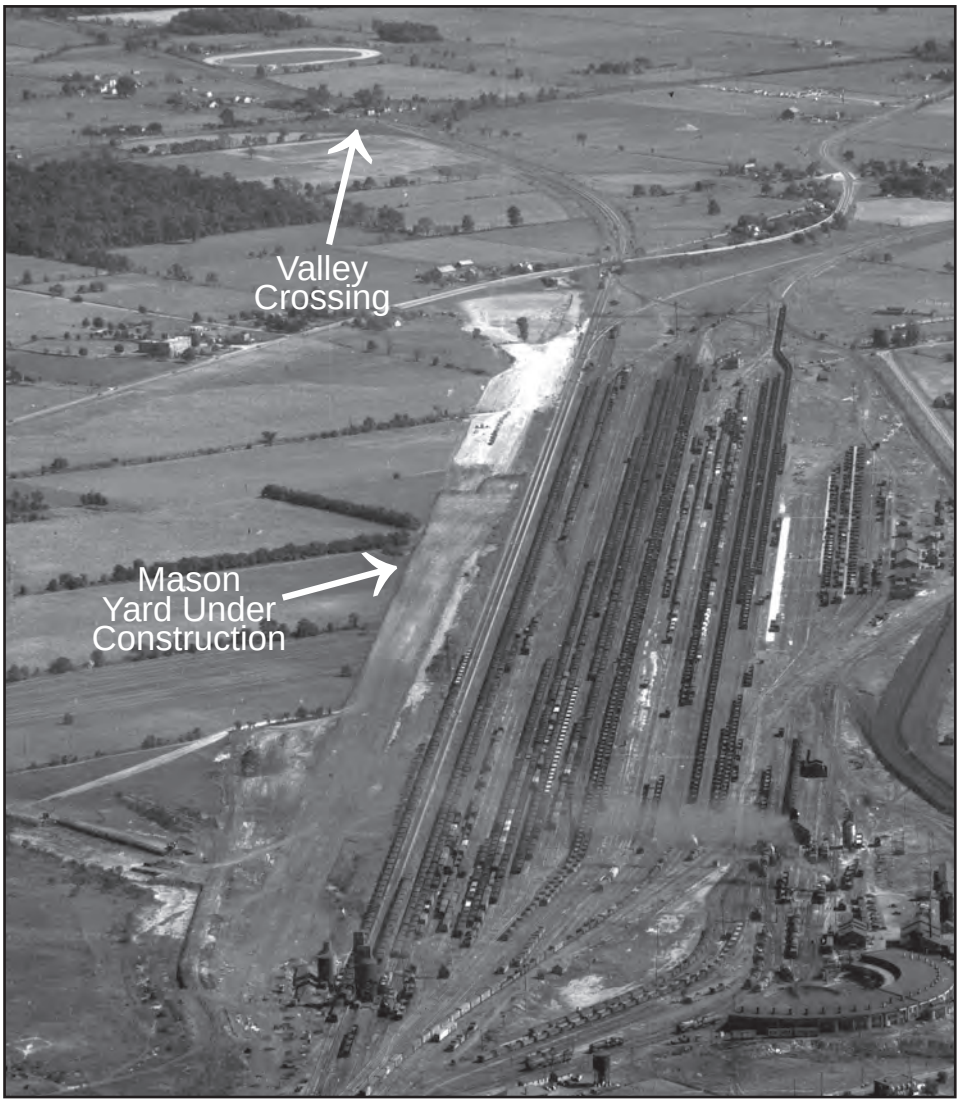
One major reason for N&W building its Ohio extension was to provide a route for moving coal and coke from the Pocahontas Coalfield to Chicago. N&W weighed the coal at Kenova and hauled it to Valley Crossing where it was interchanged to CHV&T for movement to the Erie at Marion. The cost was $2.50 per ton in 12-ton minimums. This business grew and greatly increased the amount of interchange traffic at Valley Crossing.

As the coal and coke business grew on N&W, it needed new facilities in Columbus to handle the traffic. During 1892-1893, N&W built its Joyce Avenue yard in Columbus to provide a much needed and larger end-of-the-line terminal to handle interchange and industrial traffic in Columbus, especially with PRR. In 1918, Bannon yard was built to provide more storage tracks. Bannon yard was two miles north of Valley Crossing and just north of where Toledo & Ohio Central (T&OC) crossed N&W at Bannon Tower. Bannon was named after N&W attorney and representative to the Portsmouth Board of Trade, Judge J. W. Bannon, who negotiated the establishment of engine terminal facilities in Portsmouth in 1902. About 1928 in Columbus, PRR installed 10 tracks in its Pennor yard, which was adjacent to N&W's Joyce Avenue yard, to receive full trains of interchange coal from N&W that would be moved up PRR's Sandusky Branch to its Lake Erie coal docks at Sandusky, Ohio.

In 1929-1930, N&W built Watkins yard that stretched about two miles from Valley Crossing to Bannon Tower. This yard became the designated point of interchange between N&W and C&O. Its "light side" had nine tracks for manifest cars and empties and its "heavy side" had seven tracks for coal loads, all 16 of which could be reached from the C&O interchange tracks. The two former interchange tracks became simply a way for C&O crews to pull interchange cars to Watkins yard and pull cars back from there to Parsons. Cars going both to and from N&W were handled by C&O crews working out of Parsons yard. N&W crews did not go to Parsons.

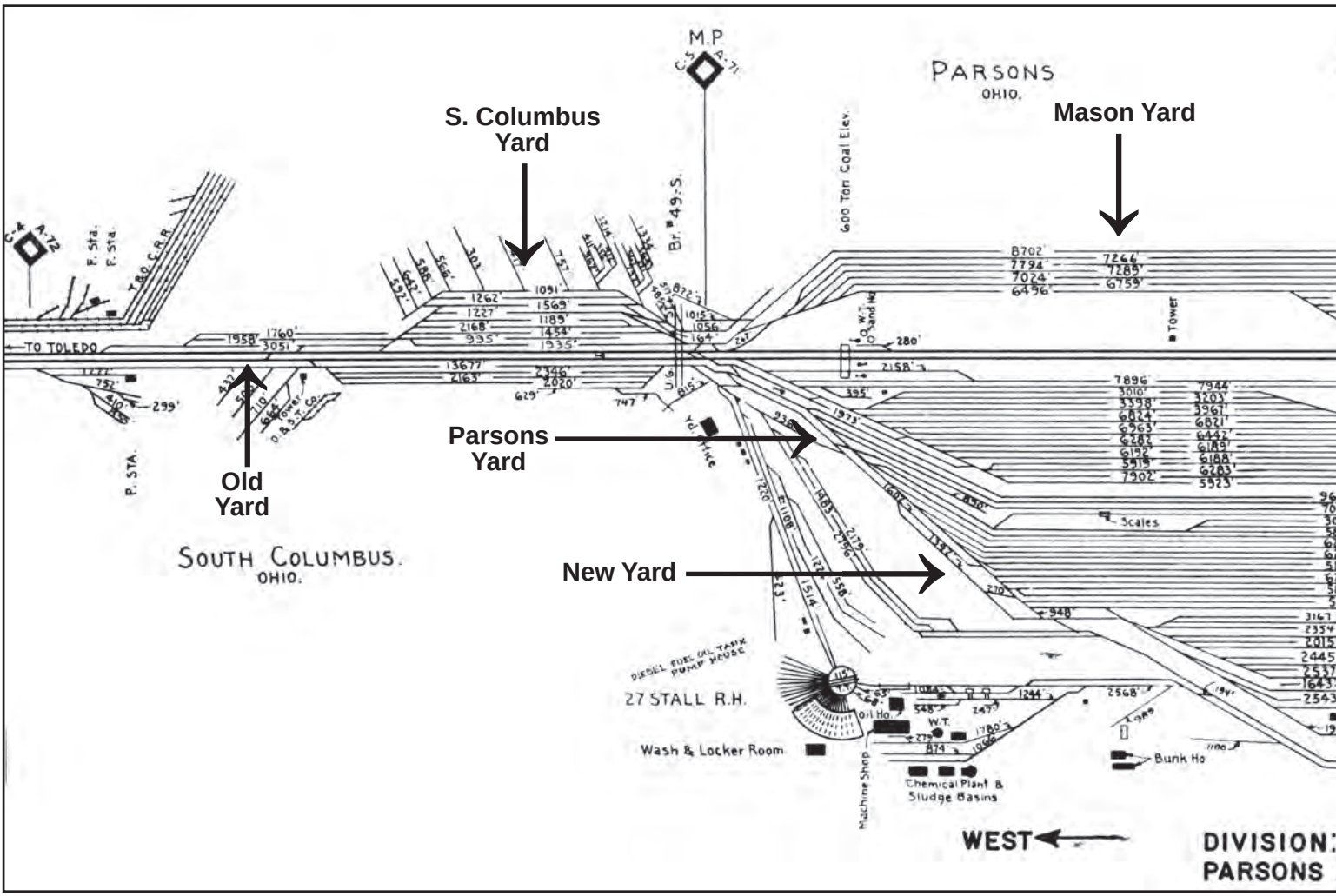
Taking Interchange Cars to N&W

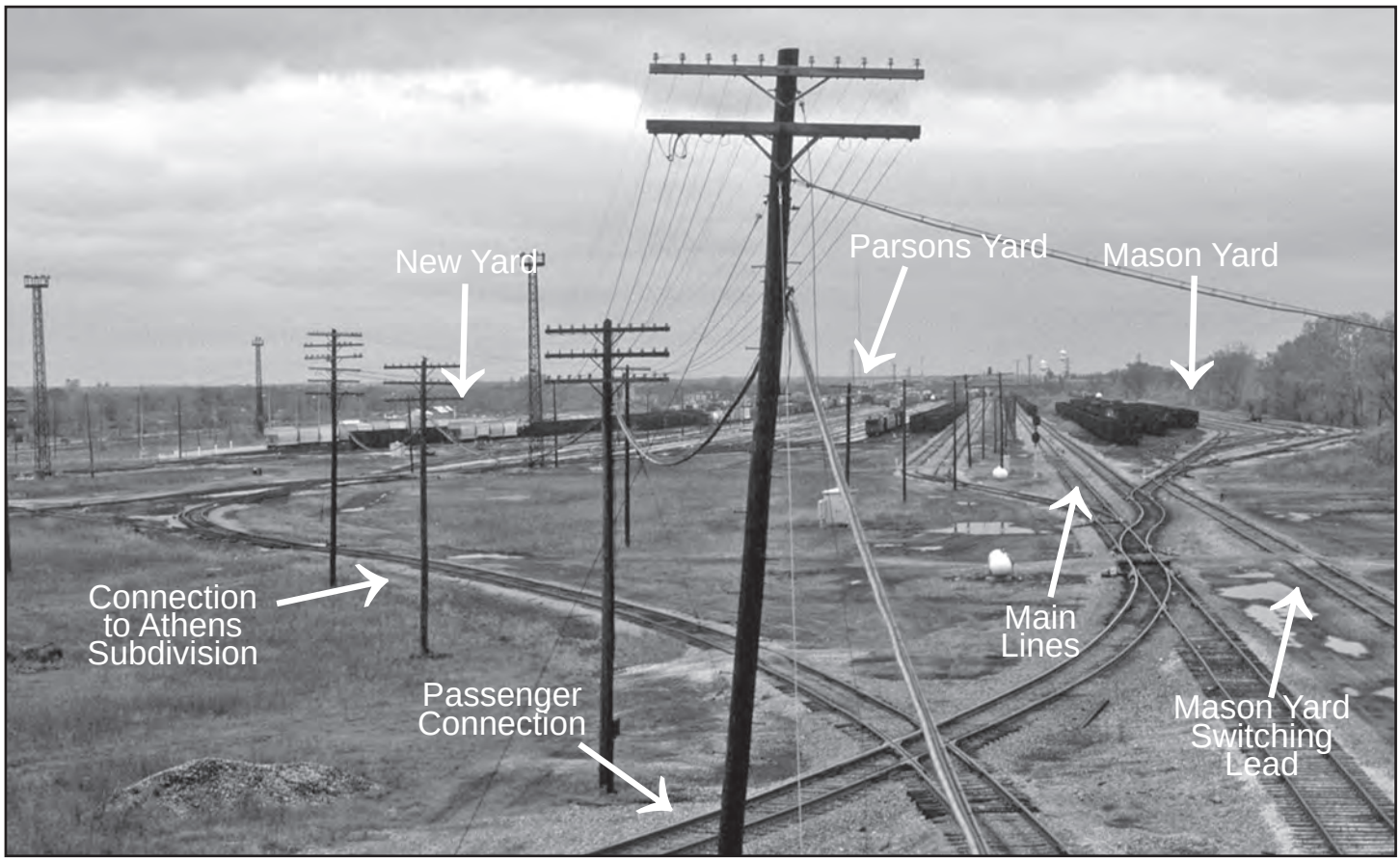
In early SV and C&HV days, the two railroads interchanged their cars on two curved tracks at Valley Crossing. C&HV interchange cars for SV came from its North yard (later yard A) and South yard (later Mound Street yard) and after 1911, when Parsons yard was built, cars also came from there. When Mound Street yard closed in 1932, all cars for Valley Crossing came from Parsons yard. Later, after Watkins yard was built, cars that needed to be interchanged to N&W from Parsons yard, generally went there from two different locations; industrial cars from No. 13 New yard at Mosel and full or partial trains of empty N&W hoppers coming from Walbridge, Marion, or Fostoria. Road trains would bring the empty trains down one of the main lines or into No. 2, 3, or 4 New yard long tracks. A yard crew would then take them into the light side of Watkins yard using the road power. Once the train was yarded, the power would run around their train and pick up the C&O road cab to return to Parsons. The yard crew would put the cab away and turn their road power over to the hostlers. If there was still time left in their shift, the yard crew would then return to their yard power and continue with their work.



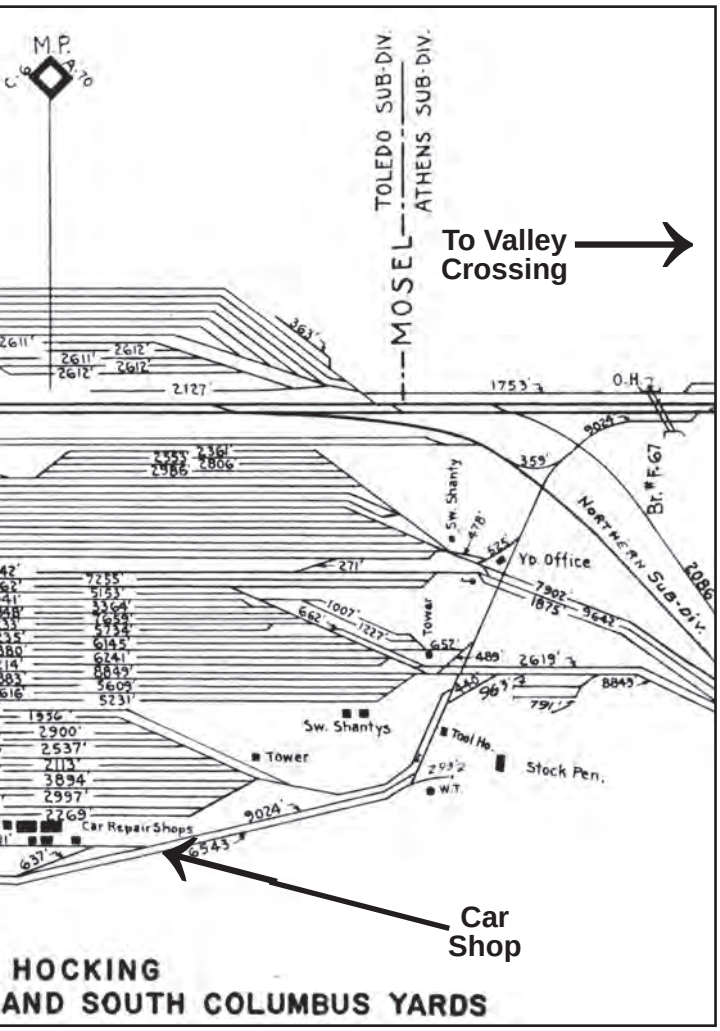
This aerial view of Parsons yard in 1948 is looking railroad east. The Mason yard is under construction to the left of the main lines. The yard has been graded, but no track has yet been installed. The location of Valley Crossing is noted by the arrow and shows its relationship to Parsons yard. (C&OHS Collection, CSPR 57-350)

A two-unit yard job with its cab forward pull a full train of coal and manifest cars from N&W's Watkins yard into C&O's Mason yard in the 1970s.
(Dick Argo photo, C&OHS Collection, COHS 48442)





Above: Parsons yard looking west from its east end at Mosel. (Clifford L. Clements photo, C&OHS Collection, COHS XXXXX)



Indiana & Ohio westbound freight with nine covered hoppers is going over Valley Crossing on May 31, 2017, headed for Parsons yard in Columbus. The train is led by GP40 No. CSCD 6637. The track curving off to the left is the CSX/NS interchange track. (Courtesy Mike Stupar)

Left: Extract from Hocking Valley Valuation Map section V-4/2&3.

Individual cars for the N&W, or "valleys" as they were called, accumulated during the day as various cuts and trains were switched at Mosel and as industrial switching jobs returned to Parsons and were switched. Valleys were switched into the east end of No. 13 New yard at Mosel and kept there until about 11:00 p. m. when a yard crew would take them to Watkins yard. The crossover job, Mason yard job, and top end empties jobs were often the crews that took interchange cars to the N&W. It was important to get interchange cars to where they were going before midnight so that C&O wouldn't incur another day of per diem charges from the car's owner. Today, CSX crews still take a greatly-reduced number of interchange cars to NS at Watkins yard and return with any interchange cars from there for CSX.

The Mason Yard is Built

When the Northern Subdivision opened in 1927, huge amounts of coal began moving up its tracks from Russell to Parsons yard. Westbound coal loads interchanged from N&W to C&O at Valley Crossing also increased substantially, which added to the overcrowding. As time passed, the amount of coal continued to increase and Parsons yard regularly began to see backups and overcrowding. Recommendations were made to expand Parsons to handle the coal, but were not acted upon. Finally, W.E. (Bill) Mason, assistant trainmaster for the Pomeroy Subdivision and the other Hocking Division coal subdivisions, offered formal plans for building a new, 12-track yard north of the main lines to be used exclusively for the switching of coal. His plan was approved and construction began in 1948 on the new yard that would be named after him. The Mason yard had 12 tracks, the first five of which were on the east end of the yard, closest to the main lines. These tracks, Nos. 1-5, were only half the length of the yard, and at their west end in the middle of the yard were connected to the full-length No. 6 through a ladder track for switching. Track Nos. 1-5 were used to build car blocks for specific interchange destinations, specific lake boats, and could be switched from both their east and west ends using Mason No. 6 as a switching lead. When switching was completed, the car blocks were doubled over to the long tracks to build full trains. While No. 6 ran the full length of the yard and had a switch in its middle to access track Nos. 1-5, track Nos. 7-12 ran the full length of the yard, without any switches between their ends. These long tracks were used to build "made up" trains and to hold inbound through coal trains from Russell when there was no room on the main lines.

The Mason yard was built on a slight grade running east to west, which allowed cars being switched to be pushed ahead slightly to take out the coupler slack, uncoupled, and then use gravity to roll onto the proper track. By being on a grade, all tracks of cars had to be secured with several handbrakes so they wouldn't roll out the west end of the yard, which kept the field man busy. The Mason yard also had a caboose storage track running off the east end switching lead, so cabs could be stored there and placed on outbound coal drags instead of having to bring them from the Mosel cab tracks.

Pulling Interchange Cars From N&W

Before Watkins yard was built, cars for C&O were pulled from the curved interchange tracks at Valley Crossing by C&O yard crews. After

C&O GP38 No. 3860 is eastbound with the Nelsonville Turn on the former Athens Subdivision at Valley Crossing on July 1, 1980. (T. W. Dixon, Jr. photo, C&OHS Collection, COHS 36619)

Watkins yard opened in 1932, all interchange cars for C&O, both manifest and coal, were taken to Parsons yard from Watkins yard by C&O crews. C&O took cars from Parsons yard to Watkins yard around the interchange track. The number of cars interchanged could range from a handful to whole trains of 160 cars.

When N&W had interchange cars for C&O, the two yardmasters would talk to each other and make arrangements for C&O to pull the cars. A Parsons yard crew would be tasked to go to Watkins yard heavy side and pick up the cars. Generally speaking, one yard engine could handle a full track of cars from Watkins to Parsons, but sometimes two were used. The C&O yardmaster assigned a crew to pull the cars. Depending on which trick the cars needed pulling, it was often the Crossover Job (1st and 2nd trick), Mason Job (1st, 2nd, or 3rd trick), Top End Empties (3rd trick), or yard A (3rd trick) who were assigned. Of course, when cars needed pulling, the work could be assigned to any job that was available at the time.

On one occasion, I was working the third trick yard A job and we had brought our yard A cars to Parsons and finished our caboose work there. The yardmaster told us to go to the N&W and pick up 150 loads of interchange coal that would go to the Mason yard for inspection and then switching. We had a wood caboose for the train crew and SW9 No. 5081 as our power. We left Mosel and went out towards the Athens Subdivision and then through the switches onto the interchange track connection. On the N&W end of it, we got a yellow dwarf to proceed into the yard and onto our cars. When we tied on, I cut in the air and since I was the field man that night, started walking the cars to check that all angle cocks were properly turned and all air hoses connected. Keep in mind that this was before the days when every crew member had a radio, so everything was done with hand signals. There was no way the engineer could see a tiny little hand signal from my lantern 150 cars back, so there were informal established procedures, that everyone understood, for how to handle every operation we did. We all knew what to do. While I began walking the cars, the other crewmen "took a break."

As I walked by each coupler, I checked that the air hoses were all coupled and all angle cocks were properly turned. If they were not, I connected the hoses and turned the angle cocks to their proper position. When I got to the rear car, the angle cock was open and air was blowing out, so I knew I had air through the whole train. I closed the angle cock and waited for the air to pump up, which took a good bit of time, probably 20-30 minutes. When the brake valves quit "singing," I knew the cars were properly charged for an air test. I gave it a few more minutes, held the brake hose, and opened the angle cock to "dump the air." This set the brakes on the whole train of cars. When the air dumped, the engineer put the automatic brake valve in "lap" position and left it there while I walked back to the engine making sure that each brake cylinder piston was out. The entire brake check took about one to one and one-half hours to complete.

When I got back to the engine, I told the engineer that the air was OK. He acknowledged what I told him and moved the brake valve to release the brakes and to recharge the air brake reservoirs. I went into our caboose and told the conductor that the air was OK and that as soon as the air released, we would be ready to go back. When the air released, he went up onto the engine and called the yardmaster on the radio for N&W to line up our switches, to get the track where the cars would go, and for us to return to the yard. We were going into No. 10 Mason yard. Once the switches were lined, we pulled out of Watkins yard, pulled through the interchange track, and pulled into No. 10 Mason. At the west end, we set five to six handbrakes, cut off, and pulled out of the track to begin our next assignment. The carmen "blue lighted" the track and began their inspections. Once the inspection was over, the blue light would be taken down and the track turned over to the yardmaster for switching.

Working the Mason Yard

The Mason job was a yard job that switched loads of coal coming off the N&W from their Watkins yard at Valley Crossing. It had a seven-man crew with an engineer, fireman, conductor, pin puller brakeman, short switches brakeman, field man, and bleeder. The bleeder was a brakeman who released, or "bled," the air out of the brake systems of the cars so they could be switched.

If both mains and Nos. 3 and 4 Parsons were all blocked, through C&O coal trains from Russell would also come into the Nos 11 and 12 Mason yard long tracks and pull up Buckeye No. 6 track to clear. Coal coming off the N&W was switched into destination blocks in the Mason yard and then built into trains for Toledo. These blocks were coal for specific interchange destinations, such as Fostoria, or Great Lakes colliers that would be loaded at C&O's Presque Isle docks.

The entire Mason yard ran downgrade from its east end to its west end. No flat switching was done; it was a "cut off the cars and let them roll into their tracks by gravity" switching operation. Because the entire yard was on a downgrade and coal is so heavy, you had to be very careful about setting enough handbrakes on the west end of all cuts so they would not get loose and roll out the west end of the yard. At least four to six handbrakes were needed to hold a track in place, with more being set as the track filled up.

Switching cars in the Mason yard was not especially difficult for the conductor, pin puller, or short switches man, but was quite physical for the field man who had to keep enough handbrakes set so tracks wouldn't roll out. It was also a physically dirty job for everyone because clouds of coal dust flew off the cars when they coupled and the cars had coal dust all over them. So they were dirty

to climb on while setting brakes or riding on their sides. At the end of a shift, you could always tell which trainmen had worked the Mason Job by simply looking at their clothes and seeing who had coal dust all over them.

Pulling cars out of the east end of the Mason yard for switching was done differently over the years. Up until the late 1950s or early 1960s, cuts of cars were pulled upgrade out of the Mason yard, through two main line crossovers, onto the passenger connection track, and then towards CH Cabin. Because this switching method blocked main line access to and from the Northern Subdivision and Athens Subdivision, a new Mason yard switching lead was built next to the main line to include a long lead and a color light switching signal, like the one used at Mosel. The switching signal was needed because the Mason yard switching lead went under a highway overpass (Groveport Pike) that restricted the view of the engineer to see hand or lantern signals. If the cut of cars was long enough that the engine went beyond the highway overpass, the switching signal had to be used. The new switching lead and switching signal also made it easier for engines to pull cuts of cars out of the Mason yard for switching as they no longer had to contend with the added wheel flange friction of going through crossovers and around curves.

At the start of each trick, and before beginning to switch, the conductor read off the yard "turnover" and the trainmen copied it down, along with the first switch list. A turnover showed how many cars were in each track and their general destination. After he had his turnover, the field man took our Geep and made room in any of the tracks where it was needed. As he made room to switch, he stretched the cuts of cars to keep them all coupled, as the cars would eventually be made into trains. It was easier and less time consuming, especially at night, to keep all tracks coupled so when you were doubling them over later to make up a train, you could just "hook and drag" on them. When the field man made room prior to switching, he kept in mind that tracks in the Mason yard often made some of their own room, because when cuts of loaded open top cars went into tracks and tied onto cars already there, the momentum of the heavy cars would often shove the tracks farther in. Once all the room had been made, the engine would be tied onto the first cut of cars and pull it out of the track for switching. Because of the grade and the weight of the loaded cars, we generally limited our cuts to a maximum of 50-60 cars. Even so, it was a hard pull out of the tracks, so the engineer always laid down sand on the rails as the engine moved in to tie onto the cut. Once the slack was out, it was wide open in Run 8 all the way out of the track and up the switching lead. When engines were running at full throttle in the yard, it was best to move away from them as the traction motor blowers would create a huge dust cloud as the engine went by. The function of the traction motor blowers is to blow air through the traction motors to cool them off so they didn't get too hot under high amperage loads, like when pulling heavy cuts of cars out of the Mason yard.

When switching was ready to begin, the conductor would use either hand signals or the switching signal to signal the engineer to move ahead, and when the slack ran in, to stop. The pin puller cut off the right number of cars and they rolled towards the track into which they were going. Using his switch list, the short switches man kept the switches lined so cars would go into the correct track. This would continue until all cars in the cut had been switched. At that point, the pin puller would take the engine to another cut to hook and drag on it for switching. When all cars had been switched, the blocks of cars would be doubled over from one track to another to build a train.

Sometimes, cars from one track would have to be doubled over to another track where the cars to be coupled to were deep in the yard. Usually, this was because the cars had been shoved into the track from the west end of the yard by another crew. To make those long ties required two or three brakemen, as there was a curve involved and, of course, the distance. The long ties would usually be made by having the field man climb on top of the loaded open top that was farthest from the engine with a folded-up newspaper during the day and a yellow fusee at night, so he could be easily seen over that distance. Another brakeman would climb on top of one of the cars about halfway back from the lead car so the engineer could see him. If the cut was long enough, a third brakeman might be needed to relay signals. The field man would stand in the center of the car, ankle-deep in coal, so the movement of the car or slack action would not knock him off. When the cars being shoved approached the coupling, the field man would give a "steady" signal (slow to coupling speed) and then a stop signal to complete the long tie (coupling). He would then give a backup signal to stretch the cars to be sure the coupling made, and if it did, he would give a "cut off" signal. If he were using a fusee, he would extinguish it on the car side or the ground so the load of coal didn't catch fire by just leaving it on the top of the load. As the field man walked back toward the engine, the other brakemen would take the engine and pull out the next cut to double into the track. The field man would wait on top of the end of the cut that had just been shoved in to make the next joint (coupling). This process continued until the track was full. If there were more cars to go on the train than one track would hold, a second track was used for the overflow. When completed, that second track would be spotted to air on the west end of the yard. Eventually, when the road engines tied onto it, they would double it over to the longer section of their train.

For the rest of our shift, we continued switching and doubling over blocks of cars to make up westbound coal trains. Since the

Mason yard had a cab track to store westbound cabs, we changed the cabs on three inbound trains that had come in from Russell. It was a full shift and hard work switching coal.

Mason Yard "Rollout"

On one occasion, I was working the west end of Parsons yard on the Top End Heavies job, when the yardmaster came on the yellow speaker pole and told all of the brakemen to quickly go over to the Mason yard. An entire train the Mason Job had been building had gotten away from them and was rolling out. We hurried over there and a track of about 125 cars came towards us moving at a pretty good clip. The cars ran through the switch and out onto the lead where we all climbed on and began setting handbrakes to get it stopped. Three brakemen and the conductor set hand brakes one after another and the cars still got almost all the way to the Buckeye 6 dwarf signal where the track entered the westbound main. We ended up setting about 30 hand brakes to get the cars stopped. As a "practical learning experience" and a "hands-on" reminder to always secure your track, we left all 30 hand brakes set so the Mason job crew that let the track get away from them would have to walk the train and knock them all off to move the train of cars. Having to knock off 30 handbrakes was a far more effective teaching technique than simply reading the rule about securing your tracks.

Decline of NS Interchange and Valley Crossing

Since it opened 146 years ago, Valley Crossing and its interchange traffic have seen substantial changes. NS and CSX still cross at Valley Crossing with NS having double-track and CSX a single track. The crossing is signaled. SK Tower and the passenger station have been gone for around 60 years. In 1876, Valley Crossing started out with about 1,000 cars a year being interchanged, grew into tens of thousands of cars per year, mostly coal, and even though it is still in active service, is now back to a much-reduced number of cars being interchanged each year.

CSX traffic across the diamonds is sparse, since only a yard engine from Parsons yard crosses it to serve an industrial spur at Milepost 9, about two miles east of the crossing. The Indiana & Ohio Railway (I&O) purchased the track from Milepost 9 to 52.5 in 1987. It is now owned by Genesee and Wyoming Railroad (G&W). For interchange purposes, I&O has trackage rights over CSX from Milepost 9, across Valley Crossing, and into Parsons yard. Farther down the old Athens Subdivision, Hocking Valley Scenic Railway owns from Diamond to Glen Ebon, just east of Nelsonville. Beyond that point, the rest of the line to Athens is abandoned.

The biggest reason that Valley Crossing declined in interchange traffic was the merger of N&W and Nickel Plate (NKP) in 1964. To connect between N&W, that terminated in Columbus, with NKP at Bellevue, part of the merger agreement saw PRR sell N&W its Sandusky Branch that connected to N&W in Columbus and crossed NKP in Bellevue where NKP had a major yard. The Sandusky Branch also led past Bellevue to the former PRR coal docks in Sandusky that N&W was going to use to load coal on lake boats. It was a perfect link between the two merging railroads, but needed extensive upgrading and rebuilding after many years of neglect by PRR.

After the merger, N&W began replacing all of the old and worn jointed rail on the entire branch with new welded rail They replaced all of the ties, upgraded the yard and coal docks at Sandusky, and did substantial signal upgrades. It also started a major upgrade to its newly-acquired Bellevue yard. That rebuilding was completed in 1967 along with the upgrading of the Sandusky Branch. Today, Bellevue is the second-largest classification yard in North America, trailing only Union Pacific's Bailey yard in North Platte, Neb. It has been renamed "Moorman yard" in honor of Wick Moorman who retired in 2015 after 45 years of service for Southern and Norfolk Southern.

Once Bellevue yard and the Sandusky Branch were rebuilt, N&W no longer needed PRR to take its coal from Columbus to Sandusky. Operating routes could be changed to optimize the benefits of the merger. Over a period of several years, N&W began interchanging less of its own coal traffic and began hauling its own. This completely cut out the PRR coal interchange in Columbus and also drastically reduced the amount of coal interchanged to C&O at Valley Crossing. N&W closed and removed all of the yard tracks in its Joyce Avenue yard in 1985. All of its Columbus operations were moved to Watkins yard, which became its center of operations.

With N&W now hauling its own coal to Lake Erie and having NKP access at Bellevue, it no longer needed to interchange coal to C&O at Valley Crossing for movement to Fostoria where C&O interchanged with NKP. Coal interchange to C&O drastically declined from tens of thousands of cars each year to where it is today, virtually none. The Mason yard crews were cut off and no more coal switching is done there. Some of the tracks were removed, with the rest being used for storage and some other minor yard work. While Valley Crossing still operates and interchange still occurs between CSX and NS, it is only a shadow of its former volume.

References

Miller, Edward H. *The Hocking Valley Railway*. Ohio University, Athens, 2007.

Prince, Richard E. *Norfolk & Western Railway/Pocahontas Coal Carrier.* Salt Lake City, 1980.

Schust, Alex. *Norfolk & Western in Ohio/Scioto Division 1890-1930*. N&W Historical Society, Roanoke, Va., 2015.

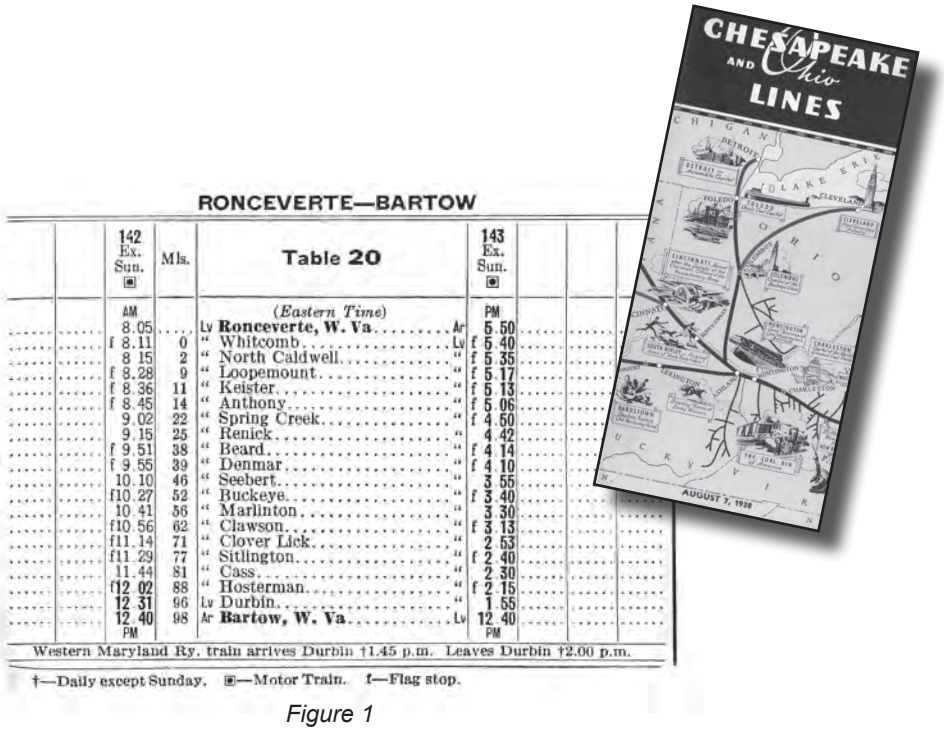
How to Read a Timetable (it may be harder than you think)

Karen Parker

In the process of writing my recent book on local passenger service (BK-20-504), I had to read and understand timetables – many timetables. In the process I discovered that this can be harder than it seems. Because of that, I thought I'd put together a few notes, with examples, to illustrate what you can run into and what it means. The first couple of examples are taken from a 1938 timetable.

The Basics

Lets start with a simple example, this timetable for Trains 142/143, running between Ronceverte and Bartow, on the Greenbrier Subdivision, Figure 1, on the right.



RONCEVERTE—BARTOW

Table 20

142 Ex. Sun. ▣	Mls.	(Eastern Time)	143 Ex. Sun. ▣
AM			PM
8.05	....	Lv **Ronceverte, W. Va.** Ar	5.50
f 8.11	0	" Whitcomb Lv	f 5.40
8.15	2	" North Caldwell "	f 5.35
f 8.28	9	" Loopemount "	f 5.17
f 8.36	11	" Keister "	f 5.13
f 8.45	14	" Anthony "	f 5.06
9.02	22	" Spring Creek "	f 4.50
9.15	25	" Renick "	4.42
f 9.51	38	" Beard "	f 4.14
f 9.55	39	" Denmar "	f 4.10
10.10	46	" Seebert "	3.55
f10.27	52	" Buckeye "	f 3.40
10.41	56	" Marlinton "	3.30
f10.56	62	" Clawson "	f 3.13
f11.14	71	" Clover Lick "	f 2.53
f11.29	77	" Sitlington "	f 2.40
11.44	81	" Cass "	2.30
f12.02	88	" Hosterman "	f 2.15
12.31	96	Lv Durbin Ar	1.55
12.40	98	Ar **Bartow, W. Va.** Lv	12.40
PM			PM

Western Maryland Ry. train arrives Durbin †1.45 p.m. Leaves Durbin †2.00 p.m.

†—Daily except Sunday. ▣—Motor Train. f—Flag stop.

Figure 1

First, a few of the basics. The list of stations runs down the middle of the table, with mileages shown in the column to the left, under the heading "Mls." By convention, columns to the left of that are for westbound trains, and columns to the right of the station list are for eastbound trains. For branch lines, trains going away from the main line are generally regarded as westbound, and trains coming toward the main line are regarded as eastbound.By convention, on the C&O at least, all railroad trains are eastbound or westbound, even if, in reality, they run north-south, as the line from Ronceverte to Durbin and Bartow does. Also, westbound trains generally have odd numbers and eastbound trains even numbers. (I know, I know, we have a contradiction here, in that the train going away from the main line at Ronceverte has an even number. Sometimes even the railroads can be inconsistent; it's one of the mysteries of life.). Just below the train number is a notation indicating how often the train runs. It's usually either "Daily" or, as seen here, "Ex. Sun." meaning it runs six days a week, excepting Sunday. Just below that is a funny symbol, a dot inside a box. If you look at the list of notations at the bottom of the table, you'll see that this indicates that this train is a "Motor Train," meaning that it is a motor car, possibly with a trailer.

Running down the column are the times the train will arrive at each station in turn. For the westbound trains (left side of the table) you read this top to bottom. For eastbound trains (right side of the table) you read it bottom to top. The little AM and PM markers at the top and bottom of the column tell you which side of noon you're on, and so does the weight of the type, with regular type, like this, indicating times before noon, and **bold type, like this**, indicating times after noon. This sums up what you need to know to read most ordinary timetables.

Beside the times, at some stations you will note the letter "f." This indicates that this station is a flag stop, and that the train will only stop there if there are passengers on the train who need to get off there or if there are passengers waiting at that location to board the train.

A Note on Maps

From this point, it's often very useful to have a map of the area covered by the timetable you're trying to figure out. Sometimes, maps from the railroad will suffice, but other times you'll need to get something better. One source for something better is the C&O Valuation Section maps, sold by the COHS as DS-07-048. The only potential problem with these maps is that each subdivision is on a separate page, so you can end up flipping pages quite a lot. Also, they are not all drawn to the same scale, so piecing them together can be a problem. An excellent source of very accurate maps is the United States Geological Survey topoView web site at https://ngmdb.usgs.gov/topoview/viewer/. Here you can find digital copies of all the topographic maps the USGS has ever made. Just enter the location you want and it will give you a list of the maps that contain that location, sorted by date. If you know the quadrangle[1] name , you can search for that as well. While I was writing the book, I used these maps a lot, mostly those from the 1930s and 40s.

1. Topographic maps, in the United States at least, are organized into quadrangles. Quadrangles are areas of consistent size used for maps. The most common in the USGS collection are 7.5' and 15', meaning they are 7.5 or 15 minutes of longitude wide and 7.5 or 15 minutes of latitude high. All quadrangles of a specific size are also drawn to the same scale, so they are all the same size. States are divided into sets of quadrangles, and each one has a unique name. For example, Maps showing Clifton Forge include "Clifton Forge VA" 15' quad, at a scale of 1:62,500, the printed map is about 36 inches by 44 inches. The corresponding 7.5' map is also called "Clifton Forge VA,", the scale is 1:24,000, and when printed will be about 46 inches by 56 inches. These maps are highly detailed, showing roads, railroad tracks, buildings, and land contours, among other things. To find these maps on-line, open a web browser and search for the term "topoView" (yes, the funny case is important.)

It's June, 1945 and Brill motorcar No. 9055, with a trailer car, is making its regular station stop at Marlinton, W.Va. On the platform side passengers are getting on or off the train while express shipments, including a number of cream cans, are taken care of. On the opposite side, a pickup truck has pulled up along the car so that incoming mail can be unloaded and outgoing mail loaded.
(Both, C. A. Brown photo, C&O Historical Society Collection, COHS 39374 and COHS 39375)

Beware the Notes

Now let's look at a more complicated example, the trains running in the Coal River district out of St. Albans, W.Va., as shown in Figure 2. Ignore the second timetable, Sproul-Whitesville, for the moment. Looking at the St. Albans-Sharples table, we see that there are two trains in each direction, one pair running St. Albans-Sproul and the other, a motor train, running St. Albans-Sharples. But, take a look at the notes just below the table. "Leave Madison † 10:11 A.M., for Gordon and Barrett" and so on. What does this mean? It means that the train is going to additional places that aren't shown on the timetable. In this case, from Madison to Gordon and Barrett and then back to Madison. If we look at a map on the next page (figure 3), these added routings are shown as dashed lines. The little dagger symbol, according to the legend at the bottom of the timetable, indicates that this happens daily except Sunday. Finally, there's another footnote, labeled by ♁, that tells us the train leaves Madison at 12:21 P.M. It's quite evident that the timetable itself doesn't show us the whole story.

ST. ALBANS—SHARPLES

214 Ex. Sun. ▣	218 Daily	Mls.	Table 36	215 Ex. Sun. ▣	219 Daily
AM	AM		(Eastern Time)	PM	PM
8.45	8.25	0	Lv **St. Albans, W. Va.** Ar	4.30	3.56
9.00	f 8.40	6	Lv Upper Falls Lv	f 4.11	f 3.40
f 9.11	f 8.51	12	" Alum Creek "	f 3.56	.....
9.19	8.59	15	" **Sproul** "	3.48	3.24
9.33	AM	22	Lv MacCorkle "	3.32	PM
9.42	.....	27	Ar **Altman** Lv	3.22	.....
.....	.....	34	Ar Cameo Lv	3.01	.....
9.42	.....	27	Lv **Altman** Ar	2.32	.....
10.06	.....	35	" Danville Lv	2.10	.....
♁10.11	.....	37	Ar Madison "	2.05	.....
12.58	.....	49	Lv Clothier "	1.33	.....
1.08	.....	52	Ar **Sharples, W. Va.** Lv	1.27	.....
PM				PM	

Leave **Sharples** †1.08 P.M., for Monclo.
Leave **Monclo** †1.25 P. M., for Sharples.
Leave **Madison** †10.11 A. M., for Gordon and Barrett.
Leave **Barrett** †11.30 A. M., for Madison.

SPROUL—WHITESVILLE

218 Daily	Mls.	Table 37 Continued from Table 36	219 Daily
AM		(Eastern Time)	PM
8.59	0	Lv **Sproul, W. Va.** Ar	3.24
9.05	2	Ar Brounland Lv	3.18
f 9.25	10	" Brushton "	2.53
10.02	14	" Peytona "	2.14
10.20	21	Ar **Seth** Lv	1.54
10.47	30	Ar Prenter Lv	10.48
11.25	21	Lv **Seth** Ar	1.54
12.15	35	Ar **Whitesville, W. Va.** Lv	12.50

Leave **Brushton** *9.25 A. M., and *2.25 P. M., for Nellis and Ridgeview.
Leave **Ridgeview** *9.38 A. M., and *2.39 P. M.; Nellis *9.41 A. M. and *2.41 P. M., for Brushton.
Leave **Elk Run Jct.** *12.53 P. M., for Blue Pennant.
Leave **Blue Pennant** *1.10 P. M., for Elk Run Jct.

*—Daily. †—Daily except Sunday. §—Sunday only. ▣—Motor Train.
♁—Leave Madison 12.21 p.m. f—Flag Stop.

Figure 2

What, Two Timetables for the Same Train?

Now, lets consider Trains 218/219. It seems improbable that they'd run trains up to Sproul and back, and what's with this second timetable, Sproul-Whitesville? If you look at the train times at Sproul, you see they're the same on both timetables. This means that Table 37, Sproul-Whitesville, is just an extension of Table 36, to accommodate Trains 218/219, which originate at St. Albans, but go down a different branch from Sproul to Whitesville. Why the separate timetable? It appears that up until the late 1940s each subdivision got its own timetable, so if a train crossed onto a different sub, it jumped onto a different timetable. Sort of understandable, from the railroad's perspective, but hardly user-friendly. The attached map shows both halves of the Coal River District, with the "non-timetable" parts of the run in dashes.

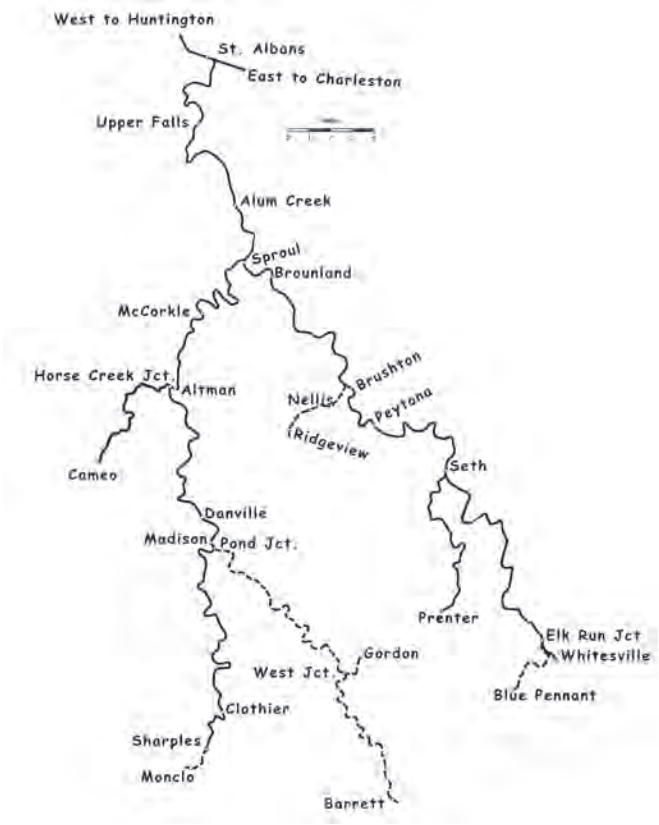


Figure 3

Figure 3: Map showing the routes of passenger train Nos. 214/215 and 218/219, running out of St. Albans, W.Va. The dashed lines are not shown explicitly in the timetable, only in the notes. The line from Sproul to Whitesville (Train Nos. 218/219) is shown in a separate timetable.

Train No. 215, powered by an F-15 Pacific on its return trip down the Little Coal River, has just passed through a tunnel and is on the bridge over the Big Coal River at Sproul, W. Va. in August, 1949. This is the train that ran from Sharples to Monclo and back and from Madison to Barrett and back, both trips shown only as footnotes at the bottom of the timetable. (Gene Huddleston photo, C&O Historical Society Collection, COHS-1291)

One of the steam powered Coal River trains, with A-16 No. 277, a M&E car, and a coach, at the St. Albans station on July 2, 1947. (C. A. Brown photo, C&O Historical Society Collection, COHS-49656)

Motorcar No. 9051, running as Train No. 218, at Whitesville on the Big Coal Subdivision on July 14, 1948. This train originated at St. Albans and Whitesville is its terminus. (C&O Historical Society Collection, COHS-43885)

One Train is Two Trains

Consider Table 14 in Figure 4, shown at the right. Note Train 51 – it leaves Craneco at 11:33 AM, and the timetable says it arrives at Man at 12:01 PM, but then doesn't depart until 2:12 PM. Almost two hours and 10 minutes just sitting at Man? Something else must be happening here. We find the answer by looking at Table 38. On it, Train 54 departs Man at 12:03 PM, runs down to West Gilbert, and then returns as Train 55 at 2:09 PM. So, it appears that the crew and equipment for Train 51 makes the run between Man and West Gilbert as Trains 54/55. Since it is likely that the same crew and equipment came down from Huntington as Train 50, the railroad is certainly getting its money's worth here. The map, Figure 5 on the facing page, helps clarify this.

HUNTINGTON—LORADO

48 Daily	★ 52 Daily	★ 50 Daily	Mls.	Table 14	★ 49 Daily	★ 51 Daily	53 Daily	
AM	PM	AM		(Eastern Time)	AM	PM	PM	
.....	3.40	7.15	0	Lv **Huntington, W. Va.** ..... Ar	10.30	5.25	.....	.....
.....	3.56	7.36	10	Lv Barboursville ..... Ar	10.12	5.09	.....	.....
.....	f 4.13	f 7.53	19	" Inez Lv	f 9.54	f 4.52	.....	.....
.....	f 4.20	f 8.00	24	" Salt Rock ..... "	f 9.42	f 4.40	.....	.....
.....	4.28	8.09	27	" West Hamlin ..... "	9.37	4.35	.....	.....
.....	4.37	8.21	32	" Branchland ..... "	9.28	4.24	.....	.....
.....	4.46	8.30	36	" Midkiff ..... "	9.20	4.17	.....	.....
.....	4.56	8.42	41	" Ranger ..... "	9.10	4.07	.....	.....
.....	5.32	9.18	60	" Big Creek ..... "	8.33	3.32	.....	.....
.....	5.40	9.27	64	" Chapmanville ..... "	8.24	3.23	.....	.....
.....	6.18	10.05	75	" **Logan** ..... "	7.55	2.55	.....	.....
.....	f 6.23	f10.10	77	" Stollings ..... "	7.44	f 2.43	.....	.....
.....	6.30	10.19	80	" Rum Jct ..... "	7.35	2.35	.....	.....
.....	6.50	10.40	88	" **Man** ..... "	7.15	A 2.12	.....	.....
6.30	7.24	11.16	99	Lv Craneco ..... "	6.45	11.33	7.43	.....
6.37	7.33	11.25	100	Ar **Lorado, W. Va.** Lv	6.38	11.26	7.34	.....
AM	PM	AM			AM	AM	PM	

A—Arrive Man 12.01 p.m. ★—Air conditioned.

MAN—WEST GILBERT

54 Daily	Mls.	Table 38	55 Daily
PM		(Eastern Time)	PM
12.03	0	Lv **Man, W. Va.** ..... Ar	2.09
12.16	3	Ar Huffville Lv	12.17
12.33	3	Ar Landville Lv	2.02
12.51	7	Ar Emmett Lv	12.52
1.25	12	Ar **WestGilbert, W.Va.** Lv	1.35
PM			PM

Figure 4

A-16 Atlantic No. 293 with a westbound (compass north) local passenger train at the large brick station at Logan, W. Va. The M&E (mail and express) car is being worked. Since the date is sometime before 1942 (there are no illuminated number boards on the top of the smokebox) this train originated at Colcord, ran to Man, then south (railroad east) to West Gilbert and back, and then on to Logan. (C&O Historical Society Collection, COHS-32163)

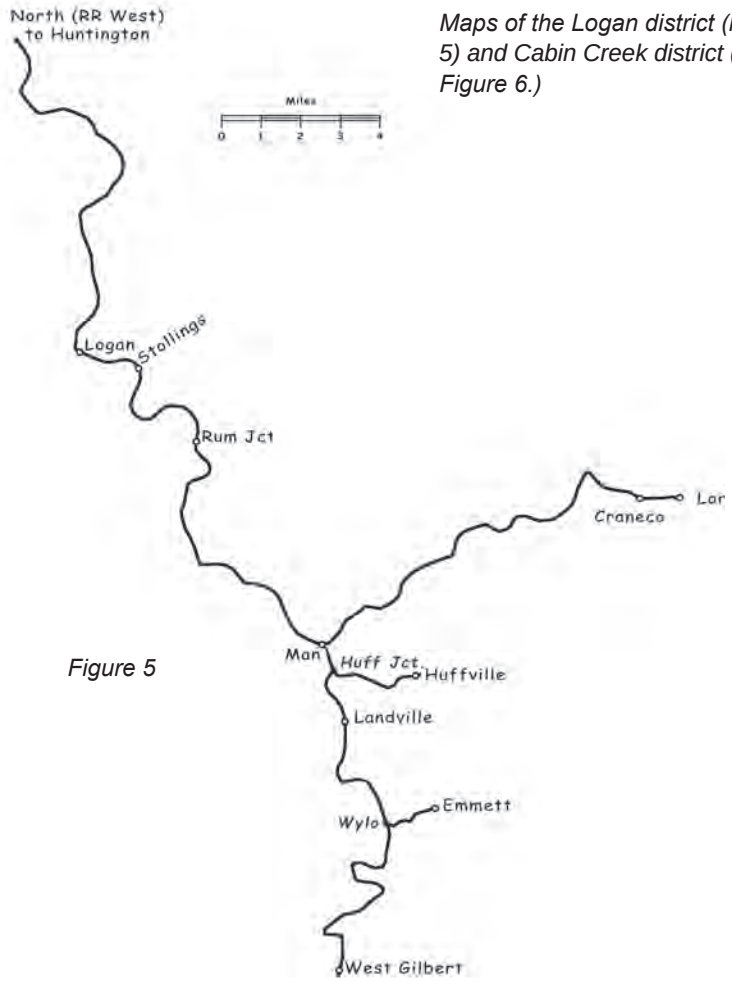


Figure 5

Figure 6

Maps of the Logan district (left, Figure 5) and Cabin Creek district (right, Figure 6.)

The Cabin Creek Rats Nest

This leads us to the most extreme example of obfuscated timetabling (please excuse me for coining a word) that I encountered. This example is taken from the 1932 timetable. Beginning the following year, the railroad began to simplify how these trains were listed. The timetable we're interested in and a map are Figures 7 and 6, respectively.

If you take a few minutes to look at these timetables, you'll see that it's not at all clear how these trains make their way around. Let's see if we can figure it out. It may well be another instance of a single crew and train set running as different trains on different timetables. We begin by finding the earliest departure. This appears to be Train 119 on Table 33, departing Colcord at 5:10 AM. Table 31 shows it arriving at Jarrolds Valley at 6:22 AM, an hour and 10 minutes later. This seems improbable for a run of six miles. Looking at the other tables, we see on Table 34 that Train 114 is scheduled to depart Jarrolds Valley at 5:27 AM, 17 minutes later

Table 31 — CABIN CREEK BRANCH

No.128	No.118	No.114	Mls.	(Eastern Time)	No.113	No.119	No.115	No.117
PM	PM	AM			AM	PM	PM	PM
.....	* 5 10	† 9 30	0	Lv...Cabin Creek Jct...Ar	8 40	.....	4 00	.....
.....	5 45	10 03	10	Lv.....Cane Fork.....Ar	8 10	.....	3 27	.....
.....	5 55	10 10	11	Ar.....Leewood.....Lv	7 55	.....	3 15	.....
.....	5 55	10 10	11	Lv.....Leewood.....Ar	7 55	.....	3 15	.....
.....	6 36	11 28	12	Ar.....Cherokee.....Lv	7 15	.....	f 2 37	.....
† 2 09	.....	.....	13	" ...Red Warrior Jct..."	* 7 11	12 01	.....	7 09
2 22	6 52	11 45	16	Ar.....Kayford.....Lv	.....	†11 47	† 2 25	* 6 55

Table 32 — (Leewood Extension)

* 5 56	.....	†10 11	.....	0	Lv.....Leewood.....Ar	7 55	.....	3 14	.....
.....	† 2 37	.....	* 7 15	1	" .....Cherokee.....Lv	.....	11 27	.....	6 35
6 12	2 55	10 27	7 35	5	Ar.....Decota....."	* 7 38	11 12	† 2 57	* 6 17
.....	.....	.....	.....	7	Ar.....Republic.....Lv	.....	11 03	.....	.....
.....	.....	10 27	.....	5	Ar.....Decota.....Lv	.....	11 12	.....	.....
.....	.....	10 38	.....	7	Ar....W. Va. No. 2....Lv	.....	†10 39	.....	.....

Table 33 — (Coal River Extension)

.....	* 7 10	†12 01	.....	0	Lv...Red Warrior Jct...Ar	.....	7 10	2 08	.....
.....	7 55	12 45	.....	10	Ar.....Whitesville.....Lv	.....	6 25	1 25	.....
.....	f 7 59	f12 49	.....	12	Ar....Jarrolds Valley....Lv	.....	f 6 22	12 34	.....
.....	9 35	2 48	†12 05	18	Ar.....Colcord.....Lv	3 03	* 5 10	12 18	.....
.....	.....	2 56	12 12	19	Ar.....Ameagle.....Lv	† 2 57	.....	†12 13	.....

Table 34 — (Marsh Fork Extension)

.....	* 8 01	†12 50	* 5 27	0	Lv....Jarrolds Valley....Ar	2 24	9 14	6 22	.....
.....	.....	1 04	.....	2	Ar.....Marfork.....Lv	.....	.....	.....	.....
.....	8 18	f 1 31	f 5 48	5	Ar.....Montcoal.....Ar	f 2 03	f 8 49	f 6 04	.....
.....	8 27	1 41	5 56	7	Ar.....Edwight.....Lv	1 55	8 41	* 5 57	.....
.....	8 34	1 48	.....	9	Ar.....Hazy.....Lv	† 1 49	* 8 35	.....	.....

Figure 7

than when Train 119 left Colcord, and a reasonable time to travel six miles. From there, it runs down to Edwight, and then returns to Jarrolds Valley as Train 115 at 6:22 AM, just in time to depart as Train 119 at 6:25 AM.

From there it goes to Red Warrior Jct. as Train 119, arriving at 7:10 AM, and then proceeding to Cherokee as Train 113, arriving at 7:15 AM. Since the next departure as Train 119 isn't till 7:55 AM, 40 minutes away, perhaps the train goes somewhere else in the meantime. Train 114 on Table 32 looks like a match, it departs Cherokee at 7:15 AM, arriving at Decota at 7:35 AM, and then returning to Leewood at Train 113 at 7:55 AM, just in time to resume running at Train 113 on Table 31, arriving at Cabin Creek Jct. at 8:40 AM.

So, our train departed Colcord at 5:10 this morning and has finally made it to Cabin Creek Jct. at 8:40, a 3½ hour run. It's got to get back to Colcord somehow, see if you can figure it out. Go ahead, I'll wait.

OK, did you get it? Briefly, it runs as Train 114 Cabin Creek Jct. to Leewood, Train 118 Leewood to W.Va. No. 2, returns to Cherokee at Train 119, then runs to Kayford as Train 114. From Kayford it runs as Train 119 to Red Warrior Jct., then as Train 118 through Jarrolds Valley to Pettus, up the Little Marsh Fork subdivision to Marfork and back and then on to Hazy. From Hazy it runs as Train 113 to Jarrolds Valley, then as Train 118 through Colcord to Ameagle, and then as Train 113 back to Colcord, where its run terminates. Whew!

On the next page, this timetable is annotated (Figure 8) to show the routing of this train:

I think you can see why, when I working on my *Local Passenger Trains* book, I started calling the Cabin Creek District the "Cabin Creek Rats Nest."

You probably noticed that the lines and arrows don't cover all the trains on the timetables. That's because there was another train set that departed Colcord at 12:05 PM and ran a slightly different route up to Cabin Creek Junction and back. I've figured it all out, but decided not to burden you with that. If you're so inclined, try figuring it out yourself – think of it as an exercise for the reader.

This brings our adventures with timetables to an end. I hope you enjoyed the ride.

The material in this article is derived from the research I did while writing *Chesapeake & Ohio Local Passenger Trains*. Written about two years ago, this book covers all of the local passenger trains that the C&O operated from the mid-1930s until the end of local passenger service in 1970, on the eve of Amtrak. Part of the History Series of books, the book is still available from the C&O Historical Society as item BK-20-504. The price for society members if $22.46.

A genuine Cabin Creek Rats Nest train, E-6 Mogul (2-6-0) No. 425 with an M&E combine and a coach poses at Colcord circa. 1920. (C&O Historical Society Collection, COHS-45274)

Table 31 CABIN CREEK BRANCH

No.128	No.118	No.114	Mls.	(Eastern Time)	No.113	No.119	No.115	No.117
PM	PM	AM			AM	PM	PM	PM
.....	* 5 10	† 9 30	0	Lv...Cabin Creek Jct...Ar	8 [illegible]	.....	4 00	.....
.....	5 45	10 03	10	Lv.....Cane Fork.....Ar	8 [illegible]	.....	3 27	.....
.....	5 55	10 10	11	Ar.....Leewood.....Lv	7 [illegible]	.....	3 15	.....
.....	5 55	10 10	11	Lv.....Leewood.....Ar	7 [illegible]	.....	3 15	.....
.....	6 36	11 28	12	Ar.....Cherokee.....Lv	7 [illegible]	.....	f 2 37	.....
.....	.....	.....	13	" ...Red Warrior Jct... "	* 7 [illegible]	12 01	.....	7 09
.....	6 52	11 45	16	Ar.....Kayford.....Lv	[illegible]	[illegible]	† 2 25	* 6 55

Table 32 (Leewood Extension)

* 5 56	.....	†10 11	.....	0	Lv.....Leewood.....Ar	7 [illegible]	.....	3 14	.....
.....	† 2 37	.....	* 7 15	1	" .....Cherokee.....Lv	.....	11 27	.....	6 35
6 12	2 55	10 27	7 35	5	Ar.....Decota....."	* 7 [illegible]	1 12	† 2 57	* 6 17
.....	.....	.....	.....	7	Ar.....Republic.....Lv	.....	11 03	.....	.....
.....	.....	10 27	.....	5	Ar.....Decota.....Lv	.....	11 12	.....	.....
.....	.....	10 38	.....	7	Ar....W. Va. No. 2....Lv	.....	†10 39	.....	.....

Table 33 (Coal River Extension)

.....	* 7 10	†12 01	.....	0	Lv...Red Warrior Jct...Ar	.....	7 [illegible]	2 08	.....
.....	7 55	12 45	.....	10	Ar.....Whitesville.....Lv	.....	6 [illegible]	1 25	.....
.....	f 7 59	f12 49	.....	12	Ar....Jarrolds Valley....Lv	.....	f [illegible]	12 34	.....
.....	9 35	2 [illegible]	†12 05	18	Ar.....Colcord.....Lv	3 [illegible]	* 5 10	12 18	.....
.....	.....	2 [illegible]	12 12	19	Ar.....Amcagle.....Lv	† 2 57	.....	†12 13	.....

Table 34 (Marsh Fork Extension)

.....	* 8 01	†12 50	* 5 27	0	Lv....Jarrolds Valley....Ar	2 [illegible]	9 14	6 [illegible]	.....
.....	.....	1 04	.....	2	Ar.....Marfork.....Lv	.....	.....	.....	.....
.....	8 18	f 1 31	f 5 48	5	Ar.....Montcoal.....Ar	f 2 [illegible]	f 8 49	f 6 [illegible]	.....
.....	8 27	1 41	5 56	7	Ar.....Edwight.....Lv	1 [illegible]	8 41	* 5 [illegible]	.....
.....	8 34	1 48	.....	9	Ar.....Hazy.....Lv	† 1 [illegible]	* 8 35	.....	.....

Figure 8

A-16 Atlantic No. 278 waits at Cabin Creek Junction to take another local passenger train up the branch. It will run on four different branch lines, making as many as 24 station stops, before terminating at Colcord. (A. R. Hoffman photo, C&O Historical Society Collection, COHS-16016)

N-Scale C&O T-Trak Module: Nuttall, West Virginia

By Doug Andre

Figure 4. Nuttall Station. (Source: C&O Historical Society, cohs-3038)

What is T-Trak?

T-TRAK is an N-scale modular model railroad system based on standards for module size, track placement, track interface, and electrical connections. The standards allow for a wide range of flexibility in design yet still maintain interoperability with all modules built per the standards. The modules are dioramas with Kato Unitrack that snap together to create layouts from a simple circle to large complex layouts. The modules are designed to fit on common tables and are easy to assemble and disassemble. More information sources are listed in the References.

Nuttall, W. Va.

With the expanding popularity of N-scale and T-Trak module construction, I selected Nuttalburg, W. Va., as my subject. Hoping to recreate the feel of the New River Gorge in the mid- to late-1950s, my module spans only 24 inches by 13 inches and captures the depot scene sometime after the octagonal tower was removed. My intention was to create a very portable C&O-flavored model that would be easy to take to any gathering and connect with other modules.

The scene is centered around the magnificent Blair Line, laser cut C&O Depot kit (Figure 1). I also incorporated Blair Line C&O prototype 10-ton coal house and generic company house (Figure 2), all available through Chessieshop. Structures were painted in the later C&O gray-green scheme to match our buildings at the Heritage Center in Clifton Forge, Va. All structures are lighted by battery-powered micro LEDs. Trackage is manufactured by Kato, per T-Trak design specifications. I visited Nuttalburg several times collecting rock and sand samples, some of which were actually included in my scenery texture. Most rock formations were cast from Hydrocal plaster in Woodland Scenics brand rubber rock molds. They are somewhat embellished to portray the rough terrain of this portion of the New River Subdivision (Figure 3).

I have found most model railroad exhibit venues do not provide enough light to realistically illuminate our models. For this reason, I installed a 115v LED light fixture along the top of my backdrop, concealed by a valance. The warm light this provides, helps to accentuate the roughness of the gorge.

AFE records indicate that the Nuttall depot (Figure 4) was torn

down about 1960 and today little remains to suggest the structure was ever there. Remnants of the wagon road still lead down to the depot site, where a historical marker bears a COHS-provided photo of the building. Visitors to Nuttalburg today will enjoy seeing the restored coal tipple and conveyor, once owned by Henry Ford.

I hope my module demonstrates the potential for reasonably accurate C&O modeling in an economical and compact footprint. Presently, several COHS members are constructing their own prototype T-Trak modules and intend to gather at our Heritage Center on occasion to set up and run trains.

References

T-Trak Modular model railroad system, https://www.ntrak.org/T-TRAK

T-Trak Standards and Recommended Practices, February, 2020, https://www.ntrak.org/resources/Documents/T-TRAK%20Standards.pdf

"The Ghosts of Keeney's Creek," *Chesapeake & Ohio History Magazine*, April, 1998

Figure 1. Nuttall station model. (Doug Andre photo)

Figure 3. T-TRAK module overview. (Doug Andre photo)

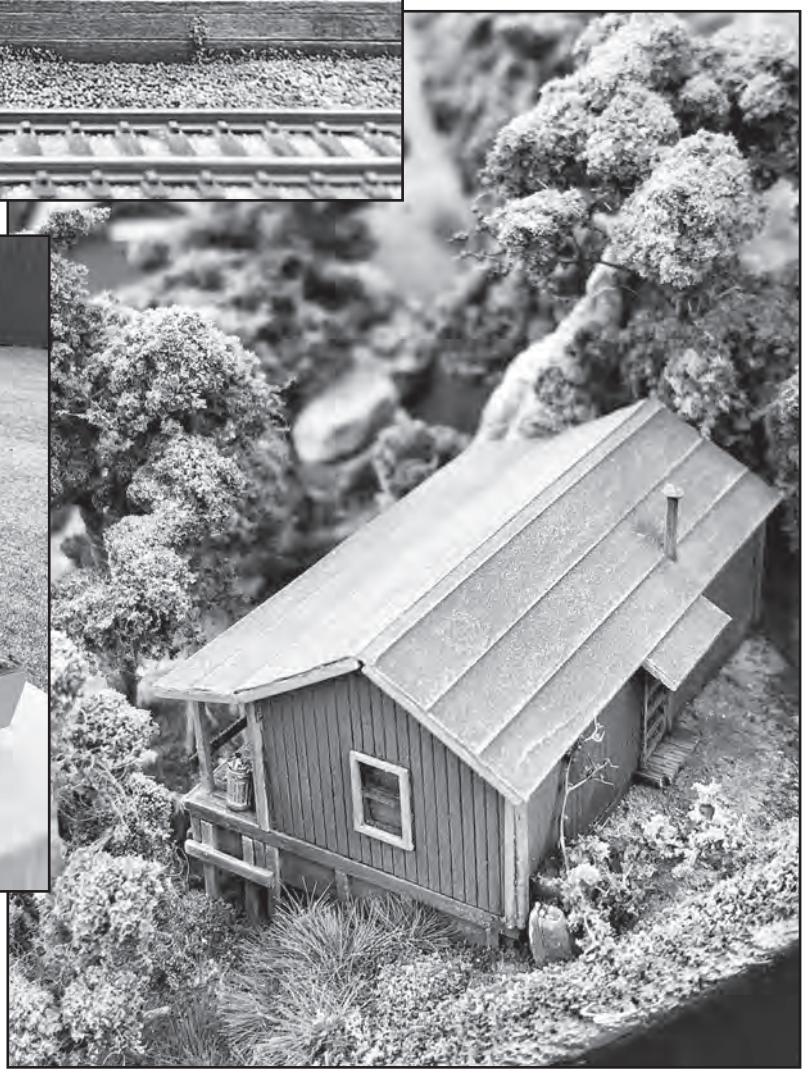


Figure 2. Company house. (Doug Andre photo)

EMD SW9 No. 5080 is heading the Craig Valley Branch local in 1957 at Marshalltown, Va. Diesels replaced steam locomotives such as No. 377 on this branch. See page 15 for an article on SW9 switchers. (C&OHS Collection, COHS 33541)